

impression[&]

X5 Bar 1000

DMX Channel Index



Document revision: 20230727-01

Fixture software v.1.1.3



Document revisions

Revision number	Notes	Date released
20230727-01	Added DMX Mode 6. Updated various DMX commands. Covers firmware v. 1.1.3	July 2023
20230526-01	First public release of the DMX Channel Index for the impression X5 Bar 1000 Covers firmware v. 1.1.0	May 2023

GLP® impression X5 Bar 1000 DMX Channel Index

© 2023 German Light Products GmbH. All rights reserved.

The marks 'GLP' and 'German Light Products' are trademarks registered as the property of German Light Products GmbH in Germany, in the United States of America and in other countries.

The information contained in this document is subject to change without notice. German Light Products GmbH and all affiliated companies disclaim liability for any injury, damage, direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document.

Manufacturer's head office:

German Light Products GmbH (GLP), Industriestrasse 2, 76307 Karlsbad, Germany
Tel (Germany): +49 7248 92719 - 0

Service & Support EMEA:

GLP, Industriestrasse 2, 76307 Karlsbad, Germany
Tel. (Germany): +49 7248 9271955
Email: support@glp.de
www.glp.de

Service & Support USA:

GLP USA, 16170 Stagg St., Van Nuys, CA 91406
Tel (USA): +1 818 767 8899
Support (US): info@germanlightproducts.com
www.germanlightproducts.com

Table of Contents

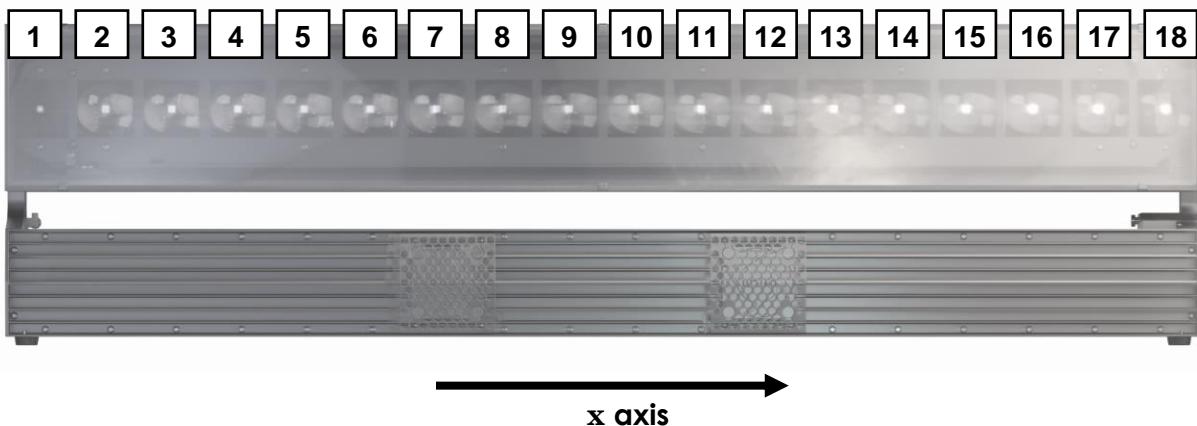
1.	Main Fixture and Subfixture.....	4
2.	Pixel layout	4
3.	DMX control modes overview	5
4.	DMX control channel layout.....	11
	DMX Mode 1: Basic.....	12
	DMX Mode 2: Normal (default DMX mode).....	15
	DMX Mode 3: Segments	23
	DMX Mode 4: MultiPix Advanced.....	32
	DMX Mode 5: MultiPix Compressed RGB	41
	DMX Mode 6: MultiPix Compressed RGBL	43
5.	Key to conversion of x and y coordinates	47
6.	Color wheel specifications	48

1. Main Fixture and Subfixture

Some control modes divide the fixture into two layers: a Main Fixture (or Main Module) and a Subfixture (or Sub Module). Professional controllers will handle this setup in a smart multi-fixture profile.

If Subfixture Mode is set to **Normal** (the default setting), the Subfixture channels are subordinate to the Main Fixture. This means that the intensity and shutter control channels of the Main Fixture act as global intensity and global shutter. However, if the Subfixture Mode is set to **Independent**, all the control channels of the Subfixture are completely independent of the Main Fixture, and the Subfixture acts as an independent fixture.

2. Pixel layout



The X5 Bar 1000 pixels are located as shown above, seen from the front of the fixture with tilt at >50% and **Pixel mirror → x-mirror** set to **Off**.

You can invert the order of the pixels if you set **Pixel mirror** to **x-mirror** in the **Fixture Settings** options available in the fixture's control panel, on the Control/Settings DMX channel or via RDM.

3. DMX control modes overview

The following DMX control modes are available in the X5 Bar 1000.

DMX channels from 1 to 7 have the same functionality in all the DMX control modes.

DMX Mode 1: Basic

20 DMX Channels

Basic DMX Mode gives control of the fixture's main functions. Tilt, dimming and the color mixing channels are available with 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The color control channels offer color mixing using either [1] RGB, [2] RGBL or [3] x;y color gamut coordinates, depending on which of these three methods is active. You can select the color mixing method via DMX on the Control/Settings channel, via RDM or using the fixture's control panel. Additional color options channels include a color wheel with a wide range of color presets, a CTC channel, magenta/green shift adjustment and a tungsten simulation channel. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

Mode 1 Basic	
Main module	1
Tilt	2
Intensity	3
Shutter	4
Zoom	5
Control / Settings	6
[1] RGB – Red	7
[2] RGBL – Red	8
[3] x;y – x	9
[1] RGB – Green	10
[2] RGBL – Green	11
[3] x;y – y	
[1] RGB – Blue	12
[2] RGBL – Blue	13
[3] x;y – not used	
[1] RGB – not used	14
[2] RGBL – Lime	15
[3] x;y – not used	
Color wheel	16
CTC (Color temperature control)	17
CQC (Color quality control)	18
M/G shift	19
Tungsten simulation	20

DMX Mode 2: Normal (default)

33 DMX channels

Normal DMX Mode is split into a **Main Module** and a **Sub Module**.

The **Main Module** gives control of the main functions, as in **Basic** DMX Mode. Tilt, dimming and the color mixing channels have 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The color control channels in the Main Module offer color mixing using either [1] RGB, [2] RGBL or [3] x;y color gamut coordinates, depending on which of these three methods is active. You can select the color mixing method via DMX on the Control/Settings channel, via RDM or using the fixture's control panel. Additional color options channels include a color wheel with a wide range of color presets, a CTC channel, magenta/green shift adjustment and a tungsten simulation channel. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

The Mix Priority channel defines how the output of the Main and Sub Module is merged or overlaid.

The **Sub Module** forms a second layer. The Sub Module channels provide intensity and shutter control, a powerful static and dynamic pattern effects engine with step crossfading and pattern transition options, plus RGB color control of all 18 pixels as one group.

Mode 2	
Normal	

Main module	Tilt	1
		2
	Intensity	3
		4
	Shutter	5
	Zoom	6
	Control / Settings	7
	[1] RGB – Red	8
	[2] RGBL – Red	9
	[3] x;y – x	
	[1] RGB – Green	10
	[2] RGBL – Green	11
	[3] x;y – y	
	[1] RGB – Blue	12
	[2] RGBL – Blue	13
	[3] x;y – not used	
	[1] RGB – not used	14
	[2] RGBL – Lime	15
	[3] x;y – not used	
	Color wheel	16
	CTC (Color temperature control)	17
	CQC (Color quality control)	18
	M/G shift	19
	Tungsten simulation	20
	Mix priority	21

Sub module (Layer 2)	Intensity	22
		23
	Shutter	24
	Pattern selection	25
	Pattern step / speed	26
	Pattern step crossfading	27
	Pattern transition	28
	Fixture quantity	29
	Fixture number	30
	Red	31
	Green	32
	Blue	33

DMX Mode 3: Segment

48 DMX channels

Segment DMX Mode is split into a Main Module and a Sub Module.

The **Main Module** gives control of the main functions, as in **Basic** DMX Mode. Tilt, dimming and the color mixing channels have 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The color control channels in the Main Module offer color mixing using either [1] RGB, [2] RGBL or [3] x;y color gamut coordinates, depending on which of these three methods is active. You can select the color mixing method via DMX on the Control/Settings channel, via RDM or using the fixture's control panel.

Additional color options channels include a color wheel with a wide range of color presets, a CTC channel, magenta/green shift adjustment and a tungsten simulation channel. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

The Mix Priority channel defines how the output of the Main and Sub Module is merged or overlaid.

The **Sub Module** forms a second layer. The Sub Module channels provide intensity and shutter control, a powerful static and dynamic pattern effects engine with step crossfading and pattern transition options, plus RGB color control of six pixel groups as segments.

Mode 3 Segment

		Tilt	1
			2
	1.1	Intensity	3
			4
	1.1	Shutter	5
			6
	1.1	Zoom	7
			8
	1.1	Control / Settings	9
		[1] RGB – Red	10
	1.1	[2] RGBL – Red	11
		[3] x;y – x	
	1.1	[1] RGB – Green	12
		[2] RGBL – Green	13
	1.1	[3] x;y – y	
		[1] RGB – Blue	14
	1.1	[2] RGBL – Blue	15
		[3] x;y – not used	
	1.1	Color wheel	16
		CTC (Color temperature control)	17
	1.1	CQC (Color quality control)	18
		M/G shift	19
	1.1	Tungsten simulation	20
		Mix priority	21

		Intensity	22
			23
	1.2	Shutter	24
			25
	1.2	Pattern selection	26
			27
	1.2	Pattern step / speed	28
			29
	1.2	Pattern step crossfading	30
			31
	1.3	Pattern transition	32
			33
	1.3	Fixture quantity	34
			35
	1.3	Fixture number	36
			37
	1.4	Red, segment 1 (pixels 01-03)	38
			39
	1.4	Green, segment 1 (pixels 01-03)	40
			41
	1.4	Blue, segment 1 (pixels 01-03)	42
			43
	1.5	Red, segment 2 (pixels 04-06)	44
			45
	1.5	Green, segment 2 (pixels 04-06)	46
			47
	1.5	Blue, segment 2 (pixels 04-06)	48
	1.6	Red, segment 3 (pixels 07-09)	
	1.6	Green, segment 3 (pixels 07-09)	
	1.6	Blue, segment 3 (pixels 07-09)	
	1.7	Red, segment 4 (pixels 10-12)	
	1.7	Green, segment 4 (pixels 10-12)	
	1.7	Blue, segment 4 (pixels 10-12)	
	1.8	Red, segment 5 (pixels 13-15)	
	1.8	Green, segment 5 (pixels 13-15)	
	1.8	Blue, segment 5 (pixels 13-15)	
	1.8	Red, segment 6 (pixels 16-18)	
	1.8	Green, segment 6 (pixels 16-18)	
	1.8	Blue, segment 6 (pixels 16-18)	

DMX Mode 4: Multipix Advanced

84 DMX Channels

Multipix Advanced DMX Mode is split into a Main Module and a Sub Module.

The **Main Module** gives control of the main functions, as in **Basic** DMX Mode. Tilt, dimming and the color mixing channels have 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The color control channels in the Main Module offer color mixing using either [1] RGB, [2] RGBL or [3] x;y color gamut coordinates, depending on which of these three methods is active. You can select the color mixing method via DMX on the Control/Settings channel, via RDM or using the fixture's control panel. Additional color options channels include a color wheel with a wide range of color presets, a CTC channel, magenta/green shift adjustment and a tungsten simulation channel. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

The Mix Priority channel defines how the output of the Main and Sub Module is merged or overlaid.

The **Sub Module** forms a second layer. The Sub Module channels provide intensity and shutter control, a powerful static and dynamic pattern effects engine with step crossfading and pattern transition options, plus RGB color control of each individual pixel.

**Mode 4
Multipix Advanced**

Main module	1.1	Tilt	1
		Intensity	2
		Shutter	3
		Zoom	4
		Control / Settings	5
		[1] RGB – Red	6
		[2] RGBL – Red	7
		[3] x;y – x	8
		[1] RGB – Green	9
		[2] RGBL – Green	10
		[3] x;y – y	11
		[1] RGB – Blue	12
		[2] RGBL – Blue	13
		[3] x;y – not used	14
		[1] RGB – not used	15
		[2] RGBL – Lime	16
		[3] x;y – not used	17
		Color wheel	18
		CTC (Color temperature control)	19
		CQC (Color quality control)	20
		M/G shift	21
		Tungsten simulation	
		Mix priority	

Sub module (Layer 2)	1.2	Intensity	22
		Shutter	23
		Pattern selection	24
		Pattern step / speed	25
		Pattern step crossfading	26
		Pattern transition	27
		Fixture quantity	28
		Fixture number	29
		Red, pixel 01	30
		Green, pixel 01	31
	1.3	Blue, pixel 01	32
		RGB, pixels 02-17	33
	1.4 ... 1.19		34
			...
			81
		Red, pixel 18	82
		Green, pixel 18	83
	1.20	Blue, pixel 18	84

DMX Mode 5: Multipix Compressed RGB

63 DMX Channels

Multipix Compressed DMX Mode gives control of the main functions, as in **Basic** DMX Mode, plus RGB color control of each individual pixel. Tilt and dimming have 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The CTC Channel lets you temporarily change from the fixed white point to any other color temperature. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

RGB color mixing is carried out on the individual pixel control channels.

Mode 5 Multipix Compressed RGB		
Main module	Tilt	1
	Intensity	2
	Shutter	3
	Zoom	4
	Control / Settings	5
	CTC (Color temperature control)	6
	CQC (Color quality control)	7
	Red, pixel 01	8
	Green, pixel 01	9
Sub module (Layer 2)	Blue, pixel 01	10
	RGB, pixels 02-17	11
		12
		13
		...
		60
	Red, pixel 18	61
	Green, pixel 18	62
	Blue, pixel 18	63

DMX Mode 6: Multipix Compressed RGBL

81 DMX Channels

Multipix Compressed RGBL DMX Mode gives control of the main functions, as in **Basic** DMX Mode, plus RGBL color control of each individual pixel with Lime added automatically.

Tilt and dimming have 16-bit control resolution. A shutter channel gives direct change between open and blackout plus a range of intensity effects. Zoom is also available with 8-bit resolution. The Control/Settings channel lets you adjust fixture settings via DMX.

The CTC Channel lets you temporarily change from the fixed white point to any other color temperature. The CQC channel lets you select if the fixture should give priority to color rendering or output intensity in its white output. This channel also offers an easy way of desaturating colors.

RGBL color mixing is carried out on the individual pixel control channels.

Mode 6 Multipix Compressed RGBL

Main module	Tilt	1
		2
	Intensity	3
		4
	Shutter	5
	Zoom	6
	Control / Settings	7
	CTC (Color temperature control)	8
	CQC (Color quality control)	9

Sub module (Layer 2)	Red, pixel 01	10
	Green, pixel 01	11
	Blue, pixel 01	12
	Lime, pixel 01	13
	RGBL, pixels 02-17	14 ... 77
1.3 ... 1.18	Red, pixel 18	78
	Green, pixel 18	79
	Blue, pixel 18	80
	Lime, pixel 18	81

4. DMX control channel layout

In the following DMX channel layout tables:

- Default settings are indicated with **bold type**.
- Where commands are marked **(3 sec.)**, you must send that DMX value continuously for 3 seconds to apply the command.
- Percentage equivalents are rounded up or down to the nearest 0.1%

DMX Mode 1: Basic**20 DMX Channels****Basic control**

Channel	Command	DMX range		Percent		Default DMX	Fade	
1	Tilt coarse					32768	Fade	
2	Tilt fine							
3	Intensity coarse					32768	Fade	
4	Intensity fine							
5	Shutter	Closed	0	4	0	1.6	255	
		Single flash each time value is changed within range 005 → 009	5	9	2.0	3.5		
		Pulse slow → fast	10	39	3.9	15.3		
		Opening pulse slow → fast	40	69	15.7	27.1		
		Closing pulse slow → fast	70	99	27.5	38.8		
		Double flash slow → fast	100	129	39.2	50.6		
		Random pixel strobe slow → fast	130	159	51.0	62.4		
		Random all strobe slow → fast	160	199	62.7	78.0		
		Strobe sync all pixels slow → fast	200	250	78.4	98.0		
		Open	251	255	98.4	100		
6	Zoom	Zoom narrow → wide	0	255	0	100	0	Fade
7	Control/Settings	See 'Control / Settings channel' on page 45						
8	RGB / RGBL / x,y color control (see also 'Key to conversion of x and y coordinates' on page 47)	[1] RGB - Red coarse [2] RGBL - Red coarse [3] x;y - x coarse	0	65535	0	100	65535	Fade
9		[1] RGB - Red fine [2] RGBL - Red fine [3] x;y - x fine						
10		[1] RGB - Green coarse [2] RGBL - Green coarse [3] x;y - y coarse	0	65535	0	100	65535	Fade
11		[1] RGB - Green fine [2] RGBL - Green fine [3] x;y - y fine						
12		[1] RGB - Blue coarse [2] RGBL - Blue coarse [3] x;y - not used	0	65535	0	100	65535	Fade
13		[1] RGB - Blue fine [2] RGBL - Blue fine [3] x;y - not used						
14		[1] RGB - not used [2] RGBL - Lime coarse [3] x;y - not used	0	65535	0	100	65535	Fade
15		[1] RGB - not used [2] RGBL - Lime fine [3] x;y - not used						

Basic control (continued)

16	Color wheel (see also 'Color wheel specifications' on page 48)	<table border="1"> <thead> <tr> <th></th><th>0</th><th>9</th><th>0</th><th>3.5</th></tr> </thead> <tbody> <tr><td>Open</td><td>0</td><td>9</td><td>0</td><td>3.5</td></tr> <tr><td>Filter 004 (Medium Bastard Amber)</td><td>10</td><td>12</td><td>3.9</td><td>4.7</td></tr> <tr><td>Filter 019 (Fire)</td><td>13</td><td>15</td><td>5.1</td><td>5.9</td></tr> <tr><td>Filter 025 (Sunset Red)</td><td>16</td><td>18</td><td>6.3</td><td>7.1</td></tr> <tr><td>Filter 026 (Bright Red)</td><td>19</td><td>21</td><td>7.5</td><td>8.2</td></tr> <tr><td>Filter 036 (Medium Pink)</td><td>22</td><td>24</td><td>8.6</td><td>9.4</td></tr> <tr><td>Filter 049 (Medium Purple)</td><td>25</td><td>27</td><td>9.8</td><td>10.6</td></tr> <tr><td>Filter 058 (Lavender)</td><td>28</td><td>30</td><td>11.0</td><td>11.8</td></tr> <tr><td>Filter 068 (Sky Blue)</td><td>31</td><td>33</td><td>12.2</td><td>12.9</td></tr> <tr><td>Filter 088 (Lime Green)</td><td>34</td><td>36</td><td>13.3</td><td>14.1</td></tr> <tr><td>Filter 089 (Moss Green)</td><td>37</td><td>39</td><td>14.5</td><td>15.3</td></tr> <tr><td>Filter 090 (Dark Yellow Green)</td><td>40</td><td>42</td><td>15.7</td><td>16.5</td></tr> <tr><td>Filter 102 (Light Amber)</td><td>43</td><td>45</td><td>16.9</td><td>17.6</td></tr> <tr><td>Filter 103 (Straw)</td><td>46</td><td>48</td><td>18.0</td><td>18.8</td></tr> <tr><td>Filter 106 (Primary Red)</td><td>49</td><td>51</td><td>19.2</td><td>20.0</td></tr> <tr><td>Filter 111 (Dark Pink)</td><td>52</td><td>54</td><td>20.4</td><td>21.2</td></tr> <tr><td>Filter 115 (Peacock Blue)</td><td>55</td><td>57</td><td>21.6</td><td>22.4</td></tr> <tr><td>Filter 117 (Steel Blue)</td><td>58</td><td>60</td><td>22.7</td><td>23.5</td></tr> <tr><td>Filter 118 (Light Blue)</td><td>61</td><td>63</td><td>23.9</td><td>24.7</td></tr> <tr><td>Filter 121 (Filter Green)</td><td>64</td><td>66</td><td>25.1</td><td>25.9</td></tr> <tr><td>Filter 122 (Fern Green)</td><td>67</td><td>69</td><td>26.3</td><td>27.1</td></tr> <tr><td>Filter 124 (Dark Green)</td><td>70</td><td>72</td><td>27.5</td><td>28.2</td></tr> <tr><td>Filter 126 (Mauve)</td><td>73</td><td>75</td><td>28.6</td><td>29.4</td></tr> <tr><td>Filter 128 (Bright Pink)</td><td>76</td><td>78</td><td>29.8</td><td>30.6</td></tr> <tr><td>Filter 131 (Marine Blue)</td><td>79</td><td>81</td><td>31.0</td><td>31.8</td></tr> <tr><td>Filter 132 (Medium Blue)</td><td>82</td><td>84</td><td>32.2</td><td>32.9</td></tr> <tr><td>Filter 134 (Golden Amber)</td><td>85</td><td>87</td><td>33.3</td><td>34.1</td></tr> <tr><td>Filter 135 (Deep Golden Amber)</td><td>88</td><td>90</td><td>34.5</td><td>35.3</td></tr> <tr><td>Filter 136 (Pale Lavender)</td><td>91</td><td>93</td><td>35.7</td><td>36.5</td></tr> <tr><td>Filter 137 (Special Lavender)</td><td>94</td><td>96</td><td>36.9</td><td>37.6</td></tr> <tr><td>Filter 138 (Pale Green)</td><td>97</td><td>99</td><td>38.0</td><td>38.8</td></tr> <tr><td>Filter 140 (Summer Blue)</td><td>100</td><td>102</td><td>39.2</td><td>40.0</td></tr> <tr><td>Filter 141 (Bright Blue)</td><td>103</td><td>105</td><td>40.4</td><td>41.2</td></tr> <tr><td>Filter 143 (Pale Navy Blue)</td><td>106</td><td>108</td><td>41.6</td><td>42.4</td></tr> <tr><td>Filter 147 (Apricot)</td><td>109</td><td>111</td><td>42.7</td><td>43.5</td></tr> <tr><td>Filter 148 (Bright Rose)</td><td>112</td><td>114</td><td>43.9</td><td>44.7</td></tr> <tr><td>Filter 152 (Pale Gold)</td><td>115</td><td>117</td><td>45.1</td><td>45.9</td></tr> <tr><td>Filter 154 (Pale Rose)</td><td>118</td><td>120</td><td>46.3</td><td>47.1</td></tr> <tr><td>Filter 157 (Pink)</td><td>121</td><td>123</td><td>47.5</td><td>48.2</td></tr> <tr><td>Filter 162 (Bastard Amber)</td><td>124</td><td>126</td><td>48.6</td><td>49.4</td></tr> <tr><td>Filter 164 (Flame Red)</td><td>127</td><td>129</td><td>49.8</td><td>50.6</td></tr> <tr><td>Filter 165 (Daylight Blue)</td><td>130</td><td>132</td><td>51.0</td><td>51.8</td></tr> <tr><td>Filter 169 (Lilac Tint)</td><td>133</td><td>135</td><td>52.2</td><td>52.9</td></tr> <tr><td>Filter 170 (Deep Lavender)</td><td>136</td><td>138</td><td>53.3</td><td>54.1</td></tr> <tr><td>Filter 172 (Lagoon Blue)</td><td>139</td><td>141</td><td>54.5</td><td>55.3</td></tr> <tr><td>Filter 180 (Dark Lavender)</td><td>142</td><td>144</td><td>55.7</td><td>56.5</td></tr> <tr><td>Filter 182 (Light Red)</td><td>145</td><td>147</td><td>56.9</td><td>57.6</td></tr> <tr><td>Filter 194 (Surprise Pink)</td><td>148</td><td>150</td><td>58.0</td><td>58.8</td></tr> <tr><td>Filter 197 (Alice Blue)</td><td>151</td><td>153</td><td>59.2</td><td>60.0</td></tr> <tr><td>Filter 201 (Full C.T. Blue)</td><td>154</td><td>156</td><td>60.4</td><td>61.2</td></tr> <tr><td>Filter 202 (Half C.T. Blue)</td><td>157</td><td>159</td><td>61.6</td><td>62.4</td></tr> <tr><td>Filter 203 (Quarter C.T. Blue)</td><td>160</td><td>162</td><td>62.7</td><td>63.5</td></tr> <tr><td>Filter 204 (Full C.T. Orange)</td><td>163</td><td>165</td><td>63.9</td><td>64.7</td></tr> <tr><td>Filter 206 (Quarter C.T. Orange)</td><td>166</td><td>168</td><td>65.1</td><td>65.9</td></tr> <tr><td>Filter 219 (Fluorescent Green)</td><td>169</td><td>171</td><td>66.3</td><td>67.1</td></tr> <tr><td>Filter 247 (Filter Minus Green)</td><td>172</td><td>174</td><td>67.5</td><td>68.2</td></tr> </tbody> </table>		0	9	0	3.5	Open	0	9	0	3.5	Filter 004 (Medium Bastard Amber)	10	12	3.9	4.7	Filter 019 (Fire)	13	15	5.1	5.9	Filter 025 (Sunset Red)	16	18	6.3	7.1	Filter 026 (Bright Red)	19	21	7.5	8.2	Filter 036 (Medium Pink)	22	24	8.6	9.4	Filter 049 (Medium Purple)	25	27	9.8	10.6	Filter 058 (Lavender)	28	30	11.0	11.8	Filter 068 (Sky Blue)	31	33	12.2	12.9	Filter 088 (Lime Green)	34	36	13.3	14.1	Filter 089 (Moss Green)	37	39	14.5	15.3	Filter 090 (Dark Yellow Green)	40	42	15.7	16.5	Filter 102 (Light Amber)	43	45	16.9	17.6	Filter 103 (Straw)	46	48	18.0	18.8	Filter 106 (Primary Red)	49	51	19.2	20.0	Filter 111 (Dark Pink)	52	54	20.4	21.2	Filter 115 (Peacock Blue)	55	57	21.6	22.4	Filter 117 (Steel Blue)	58	60	22.7	23.5	Filter 118 (Light Blue)	61	63	23.9	24.7	Filter 121 (Filter Green)	64	66	25.1	25.9	Filter 122 (Fern Green)	67	69	26.3	27.1	Filter 124 (Dark Green)	70	72	27.5	28.2	Filter 126 (Mauve)	73	75	28.6	29.4	Filter 128 (Bright Pink)	76	78	29.8	30.6	Filter 131 (Marine Blue)	79	81	31.0	31.8	Filter 132 (Medium Blue)	82	84	32.2	32.9	Filter 134 (Golden Amber)	85	87	33.3	34.1	Filter 135 (Deep Golden Amber)	88	90	34.5	35.3	Filter 136 (Pale Lavender)	91	93	35.7	36.5	Filter 137 (Special Lavender)	94	96	36.9	37.6	Filter 138 (Pale Green)	97	99	38.0	38.8	Filter 140 (Summer Blue)	100	102	39.2	40.0	Filter 141 (Bright Blue)	103	105	40.4	41.2	Filter 143 (Pale Navy Blue)	106	108	41.6	42.4	Filter 147 (Apricot)	109	111	42.7	43.5	Filter 148 (Bright Rose)	112	114	43.9	44.7	Filter 152 (Pale Gold)	115	117	45.1	45.9	Filter 154 (Pale Rose)	118	120	46.3	47.1	Filter 157 (Pink)	121	123	47.5	48.2	Filter 162 (Bastard Amber)	124	126	48.6	49.4	Filter 164 (Flame Red)	127	129	49.8	50.6	Filter 165 (Daylight Blue)	130	132	51.0	51.8	Filter 169 (Lilac Tint)	133	135	52.2	52.9	Filter 170 (Deep Lavender)	136	138	53.3	54.1	Filter 172 (Lagoon Blue)	139	141	54.5	55.3	Filter 180 (Dark Lavender)	142	144	55.7	56.5	Filter 182 (Light Red)	145	147	56.9	57.6	Filter 194 (Surprise Pink)	148	150	58.0	58.8	Filter 197 (Alice Blue)	151	153	59.2	60.0	Filter 201 (Full C.T. Blue)	154	156	60.4	61.2	Filter 202 (Half C.T. Blue)	157	159	61.6	62.4	Filter 203 (Quarter C.T. Blue)	160	162	62.7	63.5	Filter 204 (Full C.T. Orange)	163	165	63.9	64.7	Filter 206 (Quarter C.T. Orange)	166	168	65.1	65.9	Filter 219 (Fluorescent Green)	169	171	66.3	67.1	Filter 247 (Filter Minus Green)	172	174	67.5	68.2	0
	0	9	0	3.5																																																																																																																																																																																																																																																																																												
Open	0	9	0	3.5																																																																																																																																																																																																																																																																																												
Filter 004 (Medium Bastard Amber)	10	12	3.9	4.7																																																																																																																																																																																																																																																																																												
Filter 019 (Fire)	13	15	5.1	5.9																																																																																																																																																																																																																																																																																												
Filter 025 (Sunset Red)	16	18	6.3	7.1																																																																																																																																																																																																																																																																																												
Filter 026 (Bright Red)	19	21	7.5	8.2																																																																																																																																																																																																																																																																																												
Filter 036 (Medium Pink)	22	24	8.6	9.4																																																																																																																																																																																																																																																																																												
Filter 049 (Medium Purple)	25	27	9.8	10.6																																																																																																																																																																																																																																																																																												
Filter 058 (Lavender)	28	30	11.0	11.8																																																																																																																																																																																																																																																																																												
Filter 068 (Sky Blue)	31	33	12.2	12.9																																																																																																																																																																																																																																																																																												
Filter 088 (Lime Green)	34	36	13.3	14.1																																																																																																																																																																																																																																																																																												
Filter 089 (Moss Green)	37	39	14.5	15.3																																																																																																																																																																																																																																																																																												
Filter 090 (Dark Yellow Green)	40	42	15.7	16.5																																																																																																																																																																																																																																																																																												
Filter 102 (Light Amber)	43	45	16.9	17.6																																																																																																																																																																																																																																																																																												
Filter 103 (Straw)	46	48	18.0	18.8																																																																																																																																																																																																																																																																																												
Filter 106 (Primary Red)	49	51	19.2	20.0																																																																																																																																																																																																																																																																																												
Filter 111 (Dark Pink)	52	54	20.4	21.2																																																																																																																																																																																																																																																																																												
Filter 115 (Peacock Blue)	55	57	21.6	22.4																																																																																																																																																																																																																																																																																												
Filter 117 (Steel Blue)	58	60	22.7	23.5																																																																																																																																																																																																																																																																																												
Filter 118 (Light Blue)	61	63	23.9	24.7																																																																																																																																																																																																																																																																																												
Filter 121 (Filter Green)	64	66	25.1	25.9																																																																																																																																																																																																																																																																																												
Filter 122 (Fern Green)	67	69	26.3	27.1																																																																																																																																																																																																																																																																																												
Filter 124 (Dark Green)	70	72	27.5	28.2																																																																																																																																																																																																																																																																																												
Filter 126 (Mauve)	73	75	28.6	29.4																																																																																																																																																																																																																																																																																												
Filter 128 (Bright Pink)	76	78	29.8	30.6																																																																																																																																																																																																																																																																																												
Filter 131 (Marine Blue)	79	81	31.0	31.8																																																																																																																																																																																																																																																																																												
Filter 132 (Medium Blue)	82	84	32.2	32.9																																																																																																																																																																																																																																																																																												
Filter 134 (Golden Amber)	85	87	33.3	34.1																																																																																																																																																																																																																																																																																												
Filter 135 (Deep Golden Amber)	88	90	34.5	35.3																																																																																																																																																																																																																																																																																												
Filter 136 (Pale Lavender)	91	93	35.7	36.5																																																																																																																																																																																																																																																																																												
Filter 137 (Special Lavender)	94	96	36.9	37.6																																																																																																																																																																																																																																																																																												
Filter 138 (Pale Green)	97	99	38.0	38.8																																																																																																																																																																																																																																																																																												
Filter 140 (Summer Blue)	100	102	39.2	40.0																																																																																																																																																																																																																																																																																												
Filter 141 (Bright Blue)	103	105	40.4	41.2																																																																																																																																																																																																																																																																																												
Filter 143 (Pale Navy Blue)	106	108	41.6	42.4																																																																																																																																																																																																																																																																																												
Filter 147 (Apricot)	109	111	42.7	43.5																																																																																																																																																																																																																																																																																												
Filter 148 (Bright Rose)	112	114	43.9	44.7																																																																																																																																																																																																																																																																																												
Filter 152 (Pale Gold)	115	117	45.1	45.9																																																																																																																																																																																																																																																																																												
Filter 154 (Pale Rose)	118	120	46.3	47.1																																																																																																																																																																																																																																																																																												
Filter 157 (Pink)	121	123	47.5	48.2																																																																																																																																																																																																																																																																																												
Filter 162 (Bastard Amber)	124	126	48.6	49.4																																																																																																																																																																																																																																																																																												
Filter 164 (Flame Red)	127	129	49.8	50.6																																																																																																																																																																																																																																																																																												
Filter 165 (Daylight Blue)	130	132	51.0	51.8																																																																																																																																																																																																																																																																																												
Filter 169 (Lilac Tint)	133	135	52.2	52.9																																																																																																																																																																																																																																																																																												
Filter 170 (Deep Lavender)	136	138	53.3	54.1																																																																																																																																																																																																																																																																																												
Filter 172 (Lagoon Blue)	139	141	54.5	55.3																																																																																																																																																																																																																																																																																												
Filter 180 (Dark Lavender)	142	144	55.7	56.5																																																																																																																																																																																																																																																																																												
Filter 182 (Light Red)	145	147	56.9	57.6																																																																																																																																																																																																																																																																																												
Filter 194 (Surprise Pink)	148	150	58.0	58.8																																																																																																																																																																																																																																																																																												
Filter 197 (Alice Blue)	151	153	59.2	60.0																																																																																																																																																																																																																																																																																												
Filter 201 (Full C.T. Blue)	154	156	60.4	61.2																																																																																																																																																																																																																																																																																												
Filter 202 (Half C.T. Blue)	157	159	61.6	62.4																																																																																																																																																																																																																																																																																												
Filter 203 (Quarter C.T. Blue)	160	162	62.7	63.5																																																																																																																																																																																																																																																																																												
Filter 204 (Full C.T. Orange)	163	165	63.9	64.7																																																																																																																																																																																																																																																																																												
Filter 206 (Quarter C.T. Orange)	166	168	65.1	65.9																																																																																																																																																																																																																																																																																												
Filter 219 (Fluorescent Green)	169	171	66.3	67.1																																																																																																																																																																																																																																																																																												
Filter 247 (Filter Minus Green)	172	174	67.5	68.2																																																																																																																																																																																																																																																																																												

Basic control (continued)

16 ctd.	Color wheel (continued)	Filter 248 (Half Minus Green)	175	177	68.6	69.4	0	Snap
		Filter 281 (Three Quarter C.T. Blue)	178	180	69.8	70.6		
		Filter 285 (Three Qtr. C.T. Orange)	181	183	71.0	71.8		
		Filter 352 (Glacier Blue)	184	186	72.2	72.9		
		Filter 353 (Lighter Blue)	187	189	73.3	74.1		
		Filter 507 (Madge)	190	192	74.5	75.3		
		Filter 778 (Millennium Gold)	193	195	75.7	76.5		
		Filter 793 (Vanity Fair)	196	198	76.9	77.6		
		Filter 798 (Chrysalis Pink)	199	201	78.0	78.8		
		HSI scroll, stop at first color	202	204	79.2	80.0		
		HSI scroll slow → fast	205	252	80.4	98.8		
		HSI scroll, stop at current color	253	255	99.2	100		
		Open	0	9	0	3.5		
		Fade through color temperatures of 10 000 K to 2 500 K stepless (interpolation)	10	255	4.3	100		
17	Color Temperature Control	HQ (high quality), saturated color	0	9	0	3.5	0	Snap
		Crossfade, saturated to unsaturated	10	117	3.9	45.9		
		HQ (high quality), unsaturated color	118	127	46.3	49.8		
		HO (high output), unsaturated color	128	137	50.2	53.7		
		Crossfade, unsaturated to saturated	138	245	54.1	96.1		
		HO (high output), saturated color	246	255	96.5	100		
18	CQC (Color Quality Control) / Saturation	Off (no correction)	0	9	0	3.5	0	Snap
		Full plus magenta +100%	10	10	3.9	3.9		
		Plus magenta +99% → +1%	11	124	4.3	48.6		
		Neutral / no correction	125	140	49.0	54.9		
		Plus green +1% → +99%	141	254	55.3	99.6		
		Full plus green +100%	255	255	100	100		
19	M/G shift	Off	0	9	0	3.5	0	Snap
		Tungsten ACL 250W/28V	10	19	3.9	7.5		
		Tungsten Blinder 650W/120V	20	29	7.8	11.4		
		Tungsten 750W/80V	30	39	11.8	15.3		
		Tungsten 1000W/240V	40	49	15.7	19.2		
		Tungsten 1200W/240V	50	59	19.6	23.1		
		Tungsten 2000W/230V	60	69	23.5	27.1		
		Tungsten 2500W/230V	70	79	27.5	31.0		
		Tungsten 5000W/230V	80	89	31.4	34.9		
		No function (off)	90	120	35.3	47.1		
		Off	120	139	47.1	54.5		
		FX Tungsten ACL 250W/28V	140	149	54.9	58.4		
		FX Tungsten Blinder 650W/120V	150	159	58.8	62.4		
		FX Tungsten 750W/80V	160	169	62.7	66.3		
		FX Tungsten 1000W/240V	170	179	66.7	70.2		
		FX Tungsten 1200W/240V	180	189	70.6	74.1		
		FX Tungsten 2000W/230V	190	199	74.5	78.0		
		FX Tungsten 2500W/230V	200	209	78.4	82.0		
		FX Tungsten 5000W/230V	210	219	82.4	85.9		
		No function (off)	220	255	86.3	100		
20	Tungsten simulation	Off	0	9	0	3.5	0	Snap
		Tungsten ACL 250W/28V	10	19	3.9	7.5		
		Tungsten Blinder 650W/120V	20	29	7.8	11.4		
		Tungsten 750W/80V	30	39	11.8	15.3		
		Tungsten 1000W/240V	40	49	15.7	19.2		
		Tungsten 1200W/240V	50	59	19.6	23.1		
		Tungsten 2000W/230V	60	69	23.5	27.1		
		Tungsten 2500W/230V	70	79	27.5	31.0		
		Tungsten 5000W/230V	80	89	31.4	34.9		
		No function (off)	90	120	35.3	47.1		
		Off	120	139	47.1	54.5		
		FX Tungsten ACL 250W/28V	140	149	54.9	58.4		
		FX Tungsten Blinder 650W/120V	150	159	58.8	62.4		
		FX Tungsten 750W/80V	160	169	62.7	66.3		
		FX Tungsten 1000W/240V	170	179	66.7	70.2		
		FX Tungsten 1200W/240V	180	189	70.6	74.1		
		FX Tungsten 2000W/230V	190	199	74.5	78.0		
		FX Tungsten 2500W/230V	200	209	78.4	82.0		
		FX Tungsten 5000W/230V	210	219	82.4	85.9		
		No function (off)	220	255	86.3	100		

DMX Mode 2: Normal (default DMX mode)**33 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade
Main Module: basic control					
1	Tilt coarse				
2	Tilt fine				
3	Intensity coarse				
4	Intensity fine				
5	Shutter	Closed	0	4	0
		Single flash each time value is changed within range 005 → 009	5	9	2.0
		Pulse slow → fast	10	39	3.9
		Opening pulse slow → fast	40	69	15.7
		Closing pulse slow → fast	70	99	27.5
		Double flash slow → fast	100	129	39.2
		Random pixel strobe slow → fast	130	159	51.0
		Random all strobe slow → fast	160	199	62.7
		Strobe sync all pixels slow → fast	200	250	78.4
		Open	251	255	98.4
6	Zoom	Zoom narrow → wide	0	255	0
7	Control/Settings	See 'Control / Settings channel' on page 45			
8	RGB / RGBL / x,y color control (see also 'Key to conversion of x and y coordinates' on page 47)	[1] RGB - Red coarse [2] RGBL - Red coarse [3] x;y - x coarse	0	65535	0
9		[1] RGB - Red fine [2] RGBL - Red fine [3] x;y - x fine			
10		[1] RGB - Green coarse [2] RGBL - Green coarse [3] x;y - y coarse	0	65535	0
11		[1] RGB - Green fine [2] RGBL - Green fine [3] x;y - y fine			
12		[1] RGB - Blue coarse [2] RGBL - Blue coarse [3] x;y - not used	0	65535	100
13		[1] RGB - Blue fine [2] RGBL - Blue fine [3] x;y - not used			
14		[1] RGB - not used [2] RGBL - Lime coarse [3] x;y - not used	0	65535	100
15		[1] RGB - not used [2] RGBL - Lime fine [3] x;y - not used			
16	Color wheel (see also 'Color wheel specifications' on page 48)	Open	0	9	0
		Filter 004 (Medium Bastard Amber)	10	12	3.9
		Filter 019 (Fire)	13	15	5.1
		Filter 025 (Sunset Red)	16	18	6.3
		Filter 026 (Bright Red)	19	21	7.5
		Filter 036 (Medium Pink)	22	24	8.6
		Filter 049 (Medium Purple)	25	27	9.8
		Filter 058 (Lavender)	28	30	11.0
		Filter 068 (Sky Blue)	31	33	12.2
		Filter 088 (Lime Green)	34	36	13.3

Main Module: basic control (continued)

16 ctd.	Color wheel (continued)	Filter 089 (Moss Green)	37	39	14.5	15.3	0	Snap
		Filter 090 (Dark Yellow Green)	40	42	15.7	16.5		
		Filter 102 (Light Amber)	43	45	16.9	17.6		
		Filter 103 (Straw)	46	48	18.0	18.8		
		Filter 106 (Primary Red)	49	51	19.2	20.0		
		Filter 111 (Dark Pink)	52	54	20.4	21.2		
		Filter 115 (Peacock Blue)	55	57	21.6	22.4		
		Filter 117 (Steel Blue)	58	60	22.7	23.5		
		Filter 118 (Light Blue)	61	63	23.9	24.7		
		Filter 121 (Filter Green)	64	66	25.1	25.9		
		Filter 122 (Fern Green)	67	69	26.3	27.1		
		Filter 124 (Dark Green)	70	72	27.5	28.2		
		Filter 126 (Mauve)	73	75	28.6	29.4		
		Filter 128 (Bright Pink)	76	78	29.8	30.6		
		Filter 131 (Marine Blue)	79	81	31.0	31.8		
		Filter 132 (Medium Blue)	82	84	32.2	32.9		
		Filter 134 (Golden Amber)	85	87	33.3	34.1		
		Filter 135 (Deep Golden Amber)	88	90	34.5	35.3		
		Filter 136 (Pale Lavender)	91	93	35.7	36.5		
		Filter 137 (Special Lavender)	94	96	36.9	37.6		
		Filter 138 (Pale Green)	97	99	38.0	38.8		
		Filter 140 (Summer Blue)	100	102	39.2	40.0		
		Filter 141 (Bright Blue)	103	105	40.4	41.2		
		Filter 143 (Pale Navy Blue)	106	108	41.6	42.4		
		Filter 147 (Apricot)	109	111	42.7	43.5		
		Filter 148 (Bright Rose)	112	114	43.9	44.7		
		Filter 152 (Pale Gold)	115	117	45.1	45.9		
		Filter 154 (Pale Rose)	118	120	46.3	47.1		
		Filter 157 (Pink)	121	123	47.5	48.2		
		Filter 162 (Bastard Amber)	124	126	48.6	49.4		
		Filter 164 (Flame Red)	127	129	49.8	50.6		
		Filter 165 (Daylight Blue)	130	132	51.0	51.8		
		Filter 169 (Lilac Tint)	133	135	52.2	52.9		
		Filter 170 (Deep Lavender)	136	138	53.3	54.1		
		Filter 172 (Lagoon Blue)	139	141	54.5	55.3		
		Filter 180 (Dark Lavender)	142	144	55.7	56.5		
		Filter 182 (Light Red)	145	147	56.9	57.6		
		Filter 194 (Surprise Pink)	148	150	58.0	58.8		
		Filter 197 (Alice Blue)	151	153	59.2	60.0		
		Filter 201 (Full C.T. Blue)	154	156	60.4	61.2		
		Filter 202 (Half C.T. Blue)	157	159	61.6	62.4		
		Filter 203 (Quarter C.T. Blue)	160	162	62.7	63.5		
		Filter 204 (Full C.T. Orange)	163	165	63.9	64.7		
		Filter 206 (Quarter C.T. Orange)	166	168	65.1	65.9		
		Filter 219 (Fluorescent Green)	169	171	66.3	67.1		
		Filter 247 (Filter Minus Green)	172	174	67.5	68.2		
		Filter 248 (Half Minus Green)	175	177	68.6	69.4		
		Filter 281 (Three Quarter C.T. Blue)	178	180	69.8	70.6		
		Filter 285 (Three Qtr. C.T. Orange)	181	183	71.0	71.8		
		Filter 352 (Glacier Blue)	184	186	72.2	72.9		
		Filter 353 (Lighter Blue)	187	189	73.3	74.1		
		Filter 507 (Madge)	190	192	74.5	75.3		
		Filter 778 (Millennium Gold)	193	195	75.7	76.5		
		Filter 793 (Vanity Fair)	196	198	76.9	77.6		
		Filter 798 (Chrysalis Pink)	199	201	78.0	78.8		

Main Module: basic control (continued)

16 ctd.	Color wheel (continued)	HSI scroll, stop at first color	202	204	79.2	80.0	0	Snap
		HSI scroll slow → fast	205	252	80.4	98.8		Fade
		HSI scroll, stop at current color	253	255	99.2	100		Snap
17	Color Temperature Control	Open	0	9	0	3.5	0	Snap
		Fade through color temperatures of 10 000 K to 2 500 K stepless (interpolation)	10	255	4.3	100		Fade
18	CQC (Color Quality Control) / Saturation	HQ (high quality), saturated color	0	9	0	3.5	0	Snap
		Crossfade, saturated to unsaturated color	10	117	3.9	45.9		Fade
		HQ (high quality), unsaturated color	118	127	46.3	49.8		Snap
		HO (high output), unsaturated color	128	137	50.2	53.7		
		Crossfade, unsaturated to saturated color	138	245	54.1	96.1		Fade
		HO (high output), saturated color	246	255	96.5	100		Snap
19	M/G shift	Off (no correction)	0	9	0	3.5	0	Snap
		Full plus magenta +100%	10	10	3.9	3.9		Fade
		Plus magenta +99% → +1%	11	124	4.3	48.6		Snap
		Neutral / no correction	125	140	49.0	54.9		
		Plus green +1% → +99%	141	254	55.3	99.6		Fade
		Full plus green +100%	255	255	100	100		Snap
20	Tungsten simulation	Off	0	9	0	3.5	0	Snap
		Tungsten ACL 250W/28V	10	19	3.9	7.5		
		Tungsten Binder 650W/120V	20	29	7.8	11.4		
		Tungsten 750W/80V	30	39	11.8	15.3		
		Tungsten 1000W/240V	40	49	15.7	19.2		
		Tungsten 1200W/240V	50	59	19.6	23.1		
		Tungsten 2000W/230V	60	69	23.5	27.1		
		Tungsten 2500W/230V	70	79	27.5	31.0		
		Tungsten 5000W/230V	80	89	31.4	34.9		
		No function (off)	90	120	35.3	47.1		
		Off	120	139	47.1	54.5		
		FX Tungsten ACL 250W/28V	140	149	54.9	58.4		
		FX Tungsten Binder 650W/120V	150	159	58.8	62.4		
		FX Tungsten 750W/80V	160	169	62.7	66.3		
		FX Tungsten 1000W/240V	170	179	66.7	70.2		
		FX Tungsten 1200W/240V	180	189	70.6	74.1		
		FX Tungsten 2000W/230V	190	199	74.5	78.0		
		FX Tungsten 2500W/230V	200	209	78.4	82.0		
		FX Tungsten 5000W/230V	210	219	82.4	85.9		
		No function (off)	220	255	86.3	100		

Main Module: basic control (continued)

21	Mix priority	Main Module and Sub Module HTP (highest value takes priority)	0	9	0	3.5	0	Snap
		Main only (Main Module color takes priority)	10	19	3.9	7.5		
		Sub only (Sub Module color takes priority)	20	29	7.8	11.4		
		Main and Sub additive (Sub Module color value added to Main Module color value)	30	39	11.8	15.3		
		Main minus Sub Module subtractive (Sub Module color value subtracted from Main)	40	49	15.7	19.2		
		Sub Module minus main subtractive (Main Module color value subtracted from Sub Module)	50	59	19.6	23.1		
		TrueColor 1: Main over Sub – snap	60	69	23.5	27.1		Snap
		TrueColor 2: Sub over Main – snap	70	79	27.5	31.0		
		TrueColor 3: Main over Sub – crossfade	80	89	31.4	34.9		Fade
		TrueColor 4: Sub over Main – crossfade	90	99	35.3	38.8		Fade
		No function	100	127	39.2	49.8		
		Main Module only	128	130	50.2	51.0		Snap
		Crossfading Main → HTP	131	190	51.4	74.5		Fade
		Main and Sub Modules (HTP)	191	192	74.9	75.3		Snap
		Crossfading HTP → Sub	193	252	75.7	98.8		Fade
		Sub Module only	253	255	99.2	100		Snap

Sub Module: second layer control

22	Intensity coarse	Intensity 0 → 100%	0	65535	0	100	0	Fade
	Intensity fine							
24	Shutter	Closed	0	4	0	1.6	0	Snap
		Single flash if value changed within the range 005 → 009	5	9	2.0	3.5		Fade
		Pulse slow → fast	10	39	3.9	15.3		Fade
		Pulse opening slow → fast	40	69	15.7	27.1		Fade
		Pulse closing slow → fast	70	99	27.5	38.8		Fade
		Double flash slow → fast	100	129	39.2	50.6		Fade
		Strobe random pixel slow → fast	130	159	51.0	62.4		Fade
		Strobe random all slow → fast	160	199	62.7	78.0		Fade
		Strobe sync all pixel slow → fast	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
25	Pattern selection	Off (all pixels active)	0	9	0	3.5	0	Snap
		Static Pattern 01	10	11	3.9	4.3		
		Static Pattern 02	12	13	4.7	5.1		
		Static Pattern 03	14	15	5.5	5.9		
		Static Pattern 04	16	17	6.3	6.7		
		Static Pattern 05	18	19	7.1	7.5		
		Static Pattern 06	20	21	7.8	8.2		
		Static Pattern 07	22	23	8.6	9.0		
		Static Pattern 08	24	25	9.4	9.8		
		Static Pattern 09	26	27	10.2	10.6		
		Static Pattern 10	28	29	11.0	11.4		
		Static Pattern 11	30	31	11.8	12.2		

Sub Module: second layer control (continued)

25 ctd.	Pattern selection continued	Static Pattern 12	32	33	12.5	12.9	0 Snap
		Static Pattern 13	34	35	13.3	13.7	
		Static Pattern 14	36	37	14.1	14.5	
		Static Pattern 15	38	39	14.9	15.3	
		Static Pattern 16	40	41	15.7	16.1	
		Static Pattern 17	52	43	20.4	16.9	
		Static Pattern 18	44	45	17.3	17.6	
		Static Pattern 19	46	47	18.0	18.4	
		Static Pattern 20	48	49	18.8	19.2	
		Static Pattern 21	50	51	19.6	20.0	
		Static Pattern 22	52	53	20.4	20.8	
		Static Pattern 23	54	55	21.2	21.6	
		Static Pattern 24	56	57	22.0	22.4	
		Static Pattern 25	58	59	22.7	23.1	
		Static Pattern 26	60	61	23.5	23.9	
		Static Pattern 27	62	63	24.3	24.7	
		Static Pattern 28	64	65	25.1	25.5	
		Static Pattern 29	66	67	25.9	26.3	
		Static Pattern 30	68	69	26.7	27.1	
		Static Pattern 31	70	71	27.5	27.8	
		Static Pattern 32	72	73	28.2	28.6	
		Static Pattern 33	74	75	29.0	29.4	
		Static Pattern 34	76	77	29.8	30.2	
		Static Pattern 35	78	79	30.6	31.0	
		Static Pattern 36	80	81	31.4	31.8	
		Static Pattern 37	82	83	32.2	32.5	
		Static Pattern 38	84	85	32.9	33.3	
		Static Pattern 39	86	87	33.7	34.1	
		Static Pattern 40	88	89	34.5	34.9	
		Static Pattern 41	90	91	35.3	35.7	
		Static Pattern 42	92	93	36.1	36.5	
		Static Pattern 43	94	95	36.9	37.3	
		Static Pattern 44	96	97	37.6	38.0	
		Static Pattern 45	98	99	38.4	38.8	
		Static Pattern 46	100	101	39.2	39.6	
		Static Pattern 47	102	103	40.0	40.4	
		Static Pattern 48	104	105	40.8	41.2	
		Static Pattern 49	106	107	41.6	42.0	
		Static Pattern 50	108	109	42.4	42.7	
		Static Pattern 51	110	111	43.1	43.5	
		Static Pattern 52	112	113	43.9	44.3	
		Static Pattern 53	114	115	44.7	45.1	
		Static Pattern 54	116	117	45.5	45.9	
		Static Pattern 55	118	119	46.3	46.7	
		Static Pattern 56	120	121	47.1	47.5	
		Static Pattern 57	122	123	47.8	48.2	
		Static Pattern 58	124	125	48.6	49.0	
		Static Pattern 59	126	127	49.4	49.8	
		Dynamic Pattern 01	128	129	50.2	50.6	
		Dynamic Pattern 02	130	131	51.0	51.4	
		Dynamic Pattern 03	132	133	51.8	52.2	
		Dynamic Pattern 04	134	135	52.5	52.9	
		Dynamic Pattern 05	136	137	53.3	53.7	
		Dynamic Pattern 06	138	139	54.1	54.5	
		Dynamic Pattern 07	140	141	54.9	55.3	

Sub Module: second layer control (continued)

25	Pattern selection (continued)	Dynamic Pattern 08	142	143	55.7	56.1	0	Snap
		Dynamic Pattern 09	144	145	56.5	56.9		
		Dynamic Pattern 10	146	147	57.3	57.6		
		Dynamic Pattern 11	148	149	58.0	58.4		
		Dynamic Pattern 12	150	151	58.8	59.2		
		Dynamic Pattern 13	152	153	59.6	60.0		
		Dynamic Pattern 14	154	155	60.4	60.8		
		Dynamic Pattern 15	156	157	61.2	61.6		
		Dynamic Pattern 16	158	159	62.0	62.4		
		Dynamic Pattern 17	160	161	62.7	63.1		
		Dynamic Pattern 18	162	163	63.5	63.9		
		Dynamic Pattern 19	164	165	64.3	64.7		
		Dynamic Pattern 20	166	167	65.1	65.5		
		Dynamic Pattern 21	168	169	65.9	66.3		
		Dynamic Pattern 22	170	171	66.7	67.1		
		Dynamic Pattern 23	172	173	67.5	67.8		
		Dynamic Pattern 24	174	175	68.2	68.6		
		Dynamic Pattern 25	176	177	69.0	69.4		
		Dynamic Pattern 26	178	179	69.8	70.2		
		Dynamic Pattern 27	180	181	70.6	71.0		
		Dynamic Pattern 28	182	183	71.4	71.8		
		Dynamic Pattern 29	184	185	72.2	72.5		
		Dynamic Pattern 30	186	187	72.9	73.3		
		Dynamic Pattern 31	188	189	73.7	74.1		
		Dynamic Pattern 32	190	191	74.5	74.9		
		Dynamic Pattern 33	192	193	75.3	75.7		
		Dynamic Pattern 34	194	195	76.1	76.5		
		Dynamic Pattern 35	196	197	76.9	77.3		
		Dynamic Pattern 36	198	199	77.6	78.0		
		Dynamic Pattern 37	200	201	78.4	78.8		
		Dynamic Pattern 38	202	203	79.2	79.6		
		Dynamic Pattern 39	204	205	80.0	80.4		
		Dynamic Pattern 40	206	207	80.8	81.2		
		Dynamic Pattern 41	208	209	81.6	82.0		
		Dynamic Pattern 42	210	211	82.4	82.7		
		Dynamic Pattern 43	212	213	83.1	83.5		
		Dynamic Pattern 44	214	215	83.9	84.3		
		Dynamic Pattern 45	216	217	84.7	85.1		
		Dynamic Pattern 46	218	219	85.5	85.9		
		Dynamic Pattern 47	220	221	86.3	86.7		
		Dynamic Pattern 48	222	223	87.1	87.5		
		Dynamic Pattern 49	224	225	87.8	88.2		
		Dynamic Pattern 50	226	227	88.6	89.0		
		Special Pattern 01	228	229	89.4	89.8		
		Special Pattern 02	230	231	90.2	90.6		
		Special Pattern 03	232	233	91.0	91.4		
		Special Pattern 04	234	235	91.8	92.2		
		Special Pattern 05	236	237	92.5	92.9		
		Special Pattern 06	238	239	93.3	93.7		
		Special Pattern 07	240	241	94.1	94.5		
		Special Pattern 08	242	243	94.9	95.3		
		Special Pattern 09	244	245	95.7	96.1		
		Special Pattern 10	246	247	96.5	96.9		
		Special Pattern 11	248	249	97.3	97.6		
		Random Pixel	250	255	98.0	100		

Sub Module: second layer control (continued)

26 ctd.	Pattern step / speed continued	Stop (first pattern step)	0	2	0.0	0.8	0	Snap
		CW fast → slow (run pattern step 1 → n)	3	63	1.2	24.7		
		Stop at current position	64	66	25.1	25.9		
		CCW slow → fast (run pattern step n → 1)	67	127	26.3	49.8		
		Pattern Step 01	128	129	50.2	50.6		
		Pattern Step 02	130	131	51.0	51.4		
		Pattern Step 03	132	133	51.8	52.2		
		Pattern Step 04	134	135	52.5	52.9		
		Pattern Step 05	136	137	53.3	53.7		
		Pattern Step 06	138	139	54.1	54.5		
		Pattern Step 07	140	141	54.9	55.3		
		Pattern Step 08	142	143	55.7	56.1		
		Pattern Step 09	144	145	56.5	56.9		
		Pattern Step 10	146	147	57.3	57.6		
		Pattern Step 11	148	149	58.0	58.4		
		Pattern Step 12	150	151	58.8	59.2		
		Pattern Step 13	152	153	59.6	60.0		
		Pattern Step 14	154	155	60.4	60.8		
		Pattern Step 15	156	157	61.2	61.6		
		Pattern Step 16	158	159	62.0	62.4		
		Pattern Step 17	160	161	62.7	63.1		
		Pattern Step 18	162	163	63.5	63.9		
		Pattern Step 19	164	165	64.3	64.7		
		Pattern Step 20	166	167	65.1	65.5		
		Pattern Step 21	168	169	65.9	66.3		
		Pattern Step 22	170	171	66.7	67.1		
		Pattern Step 23	172	173	67.5	67.8		
		Pattern Step 24	174	175	68.2	68.6		
		Pattern Step 25	176	177	69.0	69.4		
		Pattern Step 26	178	179	69.8	70.2		
		Pattern Step 27	180	181	70.6	71.0		
		Pattern Step 28	182	183	71.4	71.8		
		Pattern Step 29	184	185	72.2	72.5		
		Pattern Step 30	186	187	72.9	73.3		
		Pattern Step 31	188	189	73.7	74.1		
		Pattern Step 32	190	191	74.5	74.9		
		Pattern Step 33	192	193	75.3	75.7		
		Pattern Step 34	194	195	76.1	76.5		
		Pattern Step 35	196	197	76.9	77.3		
		Pattern Step 36	198	199	77.6	78.0		
		Pattern Step 37	200	201	78.4	78.8		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 44	214	215	83.9	84.3		
		Pattern Step 45	216	217	84.7	85.1		
		Pattern Step 46	218	219	85.5	85.9		
		Pattern Step 47	220	221	86.3	86.7		
		Pattern Step 48	222	223	87.1	87.5		

Sub Module: second layer control (continued)

26 ctd.	Pattern step / speed continued	Pattern Step 49	224	225	87.8	88.2	0	Snap
		Pattern Step 50	226	227	88.6	89.0		
		Pattern Step 51	228	229	89.4	89.8		
		Pattern Step 52	230	231	90.2	90.6		
		Pattern Step 53	232	233	91.0	91.4		
		Pattern Step 54	234	235	91.8	92.2		
		Pattern Step 55	236	237	92.5	92.9		
		Pattern Step 56	238	239	93.3	93.7		
		Pattern Step 57	240	241	94.1	94.5		
		Pattern Step 58	242	243	94.9	95.3		
		Pattern Step 59	244	245	95.7	96.1		
		Pattern Step 60	246	247	96.5	96.9		
		Pattern Step 61	248	249	97.3	97.6		
		Pattern Step 62	250	251	98.0	98.4		
		Pattern Step 63	252	253	98.8	99.2		
		Pattern Step 64	254	255	99.6	100.0		
27	Pattern step crossfading (from one step to next)	Off (no crossfading, Snap)	0	9	0	3.5	0	Snap
		Crossfading: Snap → min. Xfade → max. Xfade (fade in and fade out times are identical)	10	127	3.9	49.8		Fade
		Off (no crossfading, Snap)	128	137	50.2	53.7		Snap
		Crossfading with tail: Snap → min. Xfade with tail → max. Xfade with tail (fade in time is shorter than fade out time)	138	255	54.1	100		Fade
		Off (snap from one pattern to next)	0	9	0	3.5	0	Snap
28	Pattern transition (from one pattern to next)	Normal transition (snap → fade 5s)	10	63	3.9	24.7		Fade
		Off (snap from one pattern to next)	64	73	25.1	28.6		Snap
		FOB (Fade Over Blackout) transition (snap → fade 5s)	74	127	29.0	49.8		Fade
		Off (snap from one pattern to next)	128	137	50.2	53.7		Snap
		FOF (Fade Over Full) transition (snap → fade 5s)	138	191	54.1	74.9		Fade
		No function	192	255	75.3	100.0		
		Off	0	0	0	0		
29	Fixture total number	1 fixture in total	1	1	0.4	0.4	0	Snap
		2 fixtures in total	2	2	0.8	0.8		
		3...254 fixtures in total	3	254	1.2	99.6		
		255 fixtures in total	255	255	100	100		
		Off	0	0	0	0		
30	Fixture position	Fixture in position 1	1	1	0.4	0.4	0	Snap
		Fixture in position 2	2	2	0.8	0.8		
		Fixture in position 3 ... 254	3	254	1.2	99.6		
		Fixture in position 255	255	255	100	100		
		Off	0	0	0	0		
31	Red, pixel 01-18	Intensity 0 → 100%	0	255	0	100	0	Fade
32	Green, pixel 01-18	Intensity 0 → 100%	0	255	0	100	0	Fade
33	Blue, pixel 01-18	Intensity 0 → 100%	0	255	0	100	0	Fade

DMX Mode 3: Segments**48 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Default Fade
Main Module: basic control					
1	Tilt coarse				
2	Tilt fine				
3	Intensity coarse				
4	Intensity fine				
5	Shutter	Closed	0	4	0
		Single flash each time value is changed within range 005 → 009	5	9	2.0
		Pulse slow → fast	10	39	3.9
		Opening pulse slow → fast	40	69	15.3
		Closing pulse slow → fast	70	99	27.1
		Double flash slow → fast	100	129	38.8
		Random pixel strobe slow → fast	130	159	50.6
		Random all strobe slow → fast	160	199	62.4
		Strobe sync all pixels slow → fast	200	250	78.0
		Open	251	255	98.4
6	Zoom	Zoom narrow → wide	0	255	100
7	Control/Settings	See 'Control / Settings channel' on page 45			
8	RGB / RGBL / x,y color control (see also 'Key to conversion of x and y coordinates' on page 4747)	[1] RGB - Red coarse	0	65535	255
9		[2] RGBL - Red coarse			
10		[3] x;y - x coarse			
11		[1] RGB - Red fine	0	65535	255
12		[2] RGBL - Red fine			
13		[3] x;y - x fine			
14		[1] RGB - Green coarse	0	65535	255
15		[2] RGBL - Green coarse			
		[3] x;y - y coarse			
11		[1] RGB - Green fine	0	65535	255
12		[2] RGBL - Green fine			
13		[3] x;y - y fine			
14		[1] RGB - Blue coarse	0	65535	255
15		[2] RGBL - Blue coarse			
		[3] x;y - not used			
11		[1] RGB - Blue fine	0	65535	255
12		[2] RGBL - Blue fine			
13		[3] x;y - not used			
14		[1] RGB - not used	0	65535	255
15		[2] RGBL - Lime coarse			
		[3] x;y - not used			
11		[1] RGB - not used	0	65535	255
12		[2] RGBL - Lime fine			
13		[3] x;y - not used			

Main Module: basic control (continued)

16	Color wheel (see also 'Color wheel specifications' on page 48)	Open	0	9	0	3.5	0	Snap
		Filter 004 (Medium Bastard Amber)	10	12	3.9	4.7		
		Filter 019 (Fire)	13	15	5.1	5.9		
		Filter 025 (Sunset Red)	16	18	6.3	7.1		
		Filter 026 (Bright Red)	19	21	7.5	8.2		
		Filter 036 (Medium Pink)	22	24	8.6	9.4		
		Filter 049 (Medium Purple)	25	27	9.8	10.6		
		Filter 058 (Lavender)	28	30	11.0	11.8		
		Filter 068 (Sky Blue)	31	33	12.2	12.9		
		Filter 088 (Lime Green)	34	36	13.3	14.1		
		Filter 089 (Moss Green)	37	39	14.5	15.3		
		Filter 090 (Dark Yellow Green)	40	42	15.7	16.5		
		Filter 102 (Light Amber)	43	45	16.9	17.6		
		Filter 103 (Straw)	46	48	18.0	18.8		
		Filter 106 (Primary Red)	49	51	19.2	20.0		
		Filter 111 (Dark Pink)	52	54	20.4	21.2		
		Filter 115 (Peacock Blue)	55	57	21.6	22.4		
		Filter 117 (Steel Blue)	58	60	22.7	23.5		
		Filter 118 (Light Blue)	61	63	23.9	24.7		
		Filter 121 (Filter Green)	64	66	25.1	25.9		
		Filter 122 (Fern Green)	67	69	26.3	27.1		
		Filter 124 (Dark Green)	70	72	27.5	28.2		
		Filter 126 (Mauve)	73	75	28.6	29.4		
		Filter 128 (Bright Pink)	76	78	29.8	30.6		
		Filter 131 (Marine Blue)	79	81	31.0	31.8		
		Filter 132 (Medium Blue)	82	84	32.2	32.9		
		Filter 134 (Golden Amber)	85	87	33.3	34.1		
		Filter 135 (Deep Golden Amber)	88	90	34.5	35.3		
		Filter 136 (Pale Lavender)	91	93	35.7	36.5		
		Filter 137 (Special Lavender)	94	96	36.9	37.6		
		Filter 138 (Pale Green)	97	99	38.0	38.8		
		Filter 140 (Summer Blue)	100	102	39.2	40.0		
		Filter 141 (Bright Blue)	103	105	40.4	41.2		
		Filter 143 (Pale Navy Blue)	106	108	41.6	42.4		
		Filter 147 (Apricot)	109	111	42.7	43.5		
		Filter 148 (Bright Rose)	112	114	43.9	44.7		
		Filter 152 (Pale Gold)	115	117	45.1	45.9		
		Filter 154 (Pale Rose)	118	120	46.3	47.1		
		Filter 157 (Pink)	121	123	47.5	48.2		
		Filter 162 (Bastard Amber)	124	126	48.6	49.4		
		Filter 164 (Flame Red)	127	129	49.8	50.6		
		Filter 165 (Daylight Blue)	130	132	51.0	51.8		
		Filter 169 (Lilac Tint)	133	135	52.2	52.9		
		Filter 170 (Deep Lavender)	136	138	53.3	54.1		
		Filter 172 (Lagoon Blue)	139	141	54.5	55.3		
		Filter 180 (Dark Lavender)	142	144	55.7	56.5		
		Filter 182 (Light Red)	145	147	56.9	57.6		
		Filter 194 (Surprise Pink)	148	150	58.0	58.8		
		Filter 197 (Alice Blue)	151	153	59.2	60.0		
		Filter 201 (Full C.T. Blue)	154	156	60.4	61.2		
		Filter 202 (Half C.T. Blue)	157	159	61.6	62.4		
		Filter 203 (Quarter C.T. Blue)	160	162	62.7	63.5		
		Filter 204 (Full C.T. Orange)	163	165	63.9	64.7		

Main Module: basic control (continued)

16 ctd.	Color wheel (continued)	Filter 206 (Quarter C.T. Orange)	166	168	65.1	65.9	0	Snap
		Filter 219 (Fluorescent Green)	169	171	66.3	67.1		
		Filter 247 (Filter Minus Green)	172	174	67.5	68.2		
		Filter 248 (Half Minus Green)	175	177	68.6	69.4		
		Filter 281 (Three Quarter C.T. Blue)	178	180	69.8	70.6		
		Filter 285 (Three Qtr. C.T. Orange)	181	183	71.0	71.8		
		Filter 352 (Glacier Blue)	184	186	72.2	72.9		
		Filter 353 (Lighter Blue)	187	189	73.3	74.1		
		Filter 507 (Madge)	190	192	74.5	75.3		
		Filter 778 (Millennium Gold)	193	195	75.7	76.5		
		Filter 793 (Vanity Fair)	196	198	76.9	77.6		
		Filter 798 (Chrysalis Pink)	199	201	78.0	78.8		
		HSI scroll, stop at first color	202	204	79.2	80.0		Snap
		HSI scroll slow → fast	205	252	80.4	98.8		Fade
		HSI scroll, stop at current color	253	255	99.2	100		Snap
17	Color Temperature Control	Open	0	9	0	3.5	0	Snap
		Fade through color temperatures of 10 000 K to 2 500 K stepless (interpolation)	10	255	4.3	100		Fade
18	CQC (Color Quality Control) / Saturation	HQ (high quality), saturated color	0	9	0	3.5	0	Snap
		Crossfade, saturated to unsaturated color	10	117	3.9	45.9		Fade
		HQ (high quality), unsaturated color	118	127	46.3	49.8		Snap
		HO (high output), unsaturated color	128	137	50.2	53.7		
		Crossfade, unsaturated to saturated color	138	245	54.1	96.1		Fade
		HO (high output), saturated color	246	255	96.5	100		Snap
19	M/G shift	Off (no correction)	0	9	0	3.5	0	Snap
		Full plus magenta +100%	10	10	3.9	3.9		Fade
		Plus magenta +99% → +1%	11	124	4.3	48.6		Snap
		Neutral / no correction	125	140	49.0	54.9		
		Plus green +1% → +99%	141	254	55.3	99.6		Fade
		Full plus green +100%	255	255	100	100		Snap
20	Tungsten simulation	Off	0	9	0	3.5	0	Snap
		Tungsten ACL 250W/28V	10	19	3.9	7.5		
		Tungsten Blinder 650W/120V	20	29	7.8	11.4		
		Tungsten 750W/80V	30	39	11.8	15.3		
		Tungsten 1000W/240V	40	49	15.7	19.2		
		Tungsten 1200W/240V	50	59	19.6	23.1		
		Tungsten 2000W/230V	60	69	23.5	27.1		
		Tungsten 2500W/230V	70	79	27.5	31.0		
		Tungsten 5000W/230V	80	89	31.4	34.9		
		No function (off)	90	120	35.3	47.1		
		Off	120	139	47.1	54.5		
		FX Tungsten ACL 250W/28V	140	149	54.9	58.4		
		FX Tungsten Blinder 650W/120V	150	159	58.8	62.4		
		FX Tungsten 750W/80V	160	169	62.7	66.3		
		FX Tungsten 1000W/240V	170	179	66.7	70.2		

Main Module: basic control (continued)

20 ctd.	Tungsten simulation (continued)	FX Tungsten 1200W/240V	180	189	70.6	74.1	0	Snap
		FX Tungsten 2000W/230V	190	199	74.5	78.0		
		FX Tungsten 2500W/230V	200	209	78.4	82.0		
		FX Tungsten 5000W/230V	210	219	82.4	85.9		
		No function (off)	220	255	86.3	100		
21	Mix priority	Main Module and Sub Module HTP (highest value takes priority)	0	9	0	3.5	0	Snap
		Main only (Main Module color takes priority)	10	19	3.9	7.5		
		Sub only (Sub Module color takes priority)	20	29	7.8	11.4		
		Main and Sub additive (Sub Module color value added to Main Module color value)	30	39	11.8	15.3		
		Main minus Sub Module subtractive (Sub Module color value subtracted from Main)	40	49	15.7	19.2		
		Sub Module minus main subtractive (Main Module color value subtracted from Sub Module)	50	59	19.6	23.1		
		TrueColor 1: Main over Sub – snap	60	69	23.5	27.1		Snap
		TrueColor 2: Sub over Main – snap	70	79	27.5	31.0		
		TrueColor 3: Main over Sub – crossfade	80	89	31.4	34.9		Fade
		TrueColor 4: Sub over Main – crossfade	90	99	35.3	38.8		Fade
		No function	100	127	39.2	49.8		
		Main Module only	128	130	50.2	51.0		Snap
		Crossfading Main → HTP	131	190	51.4	74.5		Fade
		Main and Sub Modules (HTP)	191	192	74.9	75.3		Snap
		Crossfading HTP → Sub	193	252	75.7	98.8		Fade
		Sub Module only	253	255	99.2	100		Snap

Sub Module: second layer control

22	Intensity coarse	Intensity 0 → 100%	0	65535	0	100	0	Fade
23	Intensity fine		4	0	1.6			
24	Shutter	Closed	0	4	0	1.6	0	Snap
		Single flash if value changed within the range 005 → 009	5	9	2.0	3.5		Fade
		Pulse slow → fast	10	39	3.9	15.3		Fade
		Pulse opening slow → fast	40	69	15.7	27.1		Fade
		Pulse closing slow → fast	70	99	27.5	38.8		Fade
		Double flash slow → fast	100	129	39.2	50.6		Fade
		Strobe random pixel slow → fast	130	159	51.0	62.4		Fade
		Strobe random all slow → fast	160	199	62.7	78.0		Fade
		Strobe sync all pixel slow → fast	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap

Sub Module: second layer control (continued)

25	Pattern selection	Off (all pixels active)	0	9	0	3.5	0	Snap
		Static Pattern 01	10	11	3.9	4.3		
		Static Pattern 02	12	13	4.7	5.1		
		Static Pattern 03	14	15	5.5	5.9		
		Static Pattern 04	16	17	6.3	6.7		
		Static Pattern 05	18	19	7.1	7.5		
		Static Pattern 06	20	21	7.8	8.2		
		Static Pattern 07	22	23	8.6	9.0		
		Static Pattern 08	24	25	9.4	9.8		
		Static Pattern 09	26	27	10.2	10.6		
		Static Pattern 10	28	29	11.0	11.4		
		Static Pattern 11	30	31	11.8	12.2		
		Static Pattern 12	32	33	12.5	12.9		
		Static Pattern 13	34	35	13.3	13.7		
		Static Pattern 14	36	37	14.1	14.5		
		Static Pattern 15	38	39	14.9	15.3		
		Static Pattern 16	40	41	15.7	16.1		
		Static Pattern 17	52	43	20.4	16.9		
		Static Pattern 18	44	45	17.3	17.6		
		Static Pattern 19	46	47	18.0	18.4		
		Static Pattern 20	48	49	18.8	19.2		
		Static Pattern 21	50	51	19.6	20.0		
		Static Pattern 22	52	53	20.4	20.8		
		Static Pattern 23	54	55	21.2	21.6		
		Static Pattern 24	56	57	22.0	22.4		
		Static Pattern 25	58	59	22.7	23.1		
		Static Pattern 26	60	61	23.5	23.9		
		Static Pattern 27	62	63	24.3	24.7		
		Static Pattern 28	64	65	25.1	25.5		
		Static Pattern 29	66	67	25.9	26.3		
		Static Pattern 30	68	69	26.7	27.1		
		Static Pattern 31	70	71	27.5	27.8		
		Static Pattern 32	72	73	28.2	28.6		
		Static Pattern 33	74	75	29.0	29.4		
		Static Pattern 34	76	77	29.8	30.2		
		Static Pattern 35	78	79	30.6	31.0		
		Static Pattern 36	80	81	31.4	31.8		
		Static Pattern 37	82	83	32.2	32.5		
		Static Pattern 38	84	85	32.9	33.3		
		Static Pattern 39	86	87	33.7	34.1		
		Static Pattern 40	88	89	34.5	34.9		
		Static Pattern 41	90	91	35.3	35.7		
		Static Pattern 42	92	93	36.1	36.5		
		Static Pattern 43	94	95	36.9	37.3		
		Static Pattern 44	96	97	37.6	38.0		
		Static Pattern 45	98	99	38.4	38.8		
		Static Pattern 46	100	101	39.2	39.6		
		Static Pattern 47	102	103	40.0	40.4		
		Static Pattern 48	104	105	40.8	41.2		
		Static Pattern 49	106	107	41.6	42.0		
		Static Pattern 50	108	109	42.4	42.7		
		Static Pattern 51	110	111	43.1	43.5		
		Static Pattern 52	112	113	43.9	44.3		

Sub Module: second layer control (continued)

25	Pattern selection (continued)	Static Pattern 53	114	115	44.7	45.1	0	Snap
		Static Pattern 54	116	117	45.5	45.9		
		Static Pattern 55	118	119	46.3	46.7		
		Static Pattern 56	120	121	47.1	47.5		
		Static Pattern 57	122	123	47.8	48.2		
		Static Pattern 58	124	125	48.6	49.0		
		Static Pattern 59	126	127	49.4	49.8		
		Dynamic Pattern 01	128	129	50.2	50.6		
		Dynamic Pattern 02	130	131	51.0	51.4		
		Dynamic Pattern 03	132	133	51.8	52.2		
		Dynamic Pattern 04	134	135	52.5	52.9		
		Dynamic Pattern 05	136	137	53.3	53.7		
		Dynamic Pattern 06	138	139	54.1	54.5		
		Dynamic Pattern 07	140	141	54.9	55.3		
		Dynamic Pattern 08	142	143	55.7	56.1		
		Dynamic Pattern 09	144	145	56.5	56.9		
		Dynamic Pattern 10	146	147	57.3	57.6		
		Dynamic Pattern 11	148	149	58.0	58.4		
		Dynamic Pattern 12	150	151	58.8	59.2		
		Dynamic Pattern 13	152	153	59.6	60.0		
		Dynamic Pattern 14	154	155	60.4	60.8		
		Dynamic Pattern 15	156	157	61.2	61.6		
		Dynamic Pattern 16	158	159	62.0	62.4		
		Dynamic Pattern 17	160	161	62.7	63.1		
		Dynamic Pattern 18	162	163	63.5	63.9		
		Dynamic Pattern 19	164	165	64.3	64.7		
		Dynamic Pattern 20	166	167	65.1	65.5		
		Dynamic Pattern 21	168	169	65.9	66.3		
		Dynamic Pattern 22	170	171	66.7	67.1		
		Dynamic Pattern 23	172	173	67.5	67.8		
		Dynamic Pattern 24	174	175	68.2	68.6		
		Dynamic Pattern 25	176	177	69.0	69.4		
		Dynamic Pattern 26	178	179	69.8	70.2		
		Dynamic Pattern 27	180	181	70.6	71.0		
		Dynamic Pattern 28	182	183	71.4	71.8		
		Dynamic Pattern 29	184	185	72.2	72.5		
		Dynamic Pattern 30	186	187	72.9	73.3		
		Dynamic Pattern 31	188	189	73.7	74.1		
		Dynamic Pattern 32	190	191	74.5	74.9		
		Dynamic Pattern 33	192	193	75.3	75.7		
		Dynamic Pattern 34	194	195	76.1	76.5		
		Dynamic Pattern 35	196	197	76.9	77.3		
		Dynamic Pattern 36	198	199	77.6	78.0		
		Dynamic Pattern 37	200	201	78.4	78.8		
		Dynamic Pattern 38	202	203	79.2	79.6		
		Dynamic Pattern 39	204	205	80.0	80.4		
		Dynamic Pattern 40	206	207	80.8	81.2		
		Dynamic Pattern 41	208	209	81.6	82.0		
		Dynamic Pattern 42	210	211	82.4	82.7		
		Dynamic Pattern 43	212	213	83.1	83.5		
		Dynamic Pattern 44	214	215	83.9	84.3		
		Dynamic Pattern 45	216	217	84.7	85.1		
		Dynamic Pattern 46	218	219	85.5	85.9		
		Dynamic Pattern 47	220	221	86.3	86.7		

Sub Module: second layer control (continued)

25 ctd.	Pattern selection (continued)	Dynamic Pattern 48	222	223	87.1	87.5	0	Snap
		Dynamic Pattern 49	224	225	87.8	88.2		
		Dynamic Pattern 50	226	227	88.6	89.0		
		Special Pattern 01	228	229	89.4	89.8		
		Special Pattern 02	230	231	90.2	90.6		
		Special Pattern 03	232	233	91.0	91.4		
		Special Pattern 04	234	235	91.8	92.2		
		Special Pattern 05	236	237	92.5	92.9		
		Special Pattern 06	238	239	93.3	93.7		
		Special Pattern 07	240	241	94.1	94.5		
		Special Pattern 08	242	243	94.9	95.3		
		Special Pattern 09	244	245	95.7	96.1		
		Special Pattern 10	246	247	96.5	96.9		
		Special Pattern 11	248	249	97.3	97.6		
		Random Pixel	250	255	98.0	100		
26	Pattern step / speed	Stop (first pattern step)	0	2	0.0	0.8	0	Snap
		CW fast → slow (run pattern step 1 → n)	3	63	1.2	24.7		
		Stop at current position	64	66	25.1	25.9		
		CCW slow → fast (run pattern step n → 1)	67	127	26.3	49.8		
		Pattern Step 01	128	129	50.2	50.6		
		Pattern Step 02	130	131	51.0	51.4		
		Pattern Step 03	132	133	51.8	52.2		
		Pattern Step 04	134	135	52.5	52.9		
		Pattern Step 05	136	137	53.3	53.7		
		Pattern Step 06	138	139	54.1	54.5		
		Pattern Step 07	140	141	54.9	55.3		
		Pattern Step 08	142	143	55.7	56.1		
		Pattern Step 09	144	145	56.5	56.9		
		Pattern Step 10	146	147	57.3	57.6		
		Pattern Step 11	148	149	58.0	58.4		
		Pattern Step 12	150	151	58.8	59.2		
		Pattern Step 13	152	153	59.6	60.0		
		Pattern Step 14	154	155	60.4	60.8		
		Pattern Step 15	156	157	61.2	61.6		
		Pattern Step 16	158	159	62.0	62.4		
		Pattern Step 17	160	161	62.7	63.1		
		Pattern Step 18	162	163	63.5	63.9		
		Pattern Step 19	164	165	64.3	64.7		
		Pattern Step 20	166	167	65.1	65.5		
		Pattern Step 21	168	169	65.9	66.3		
		Pattern Step 22	170	171	66.7	67.1		
		Pattern Step 23	172	173	67.5	67.8		
		Pattern Step 24	174	175	68.2	68.6		
		Pattern Step 25	176	177	69.0	69.4		
		Pattern Step 26	178	179	69.8	70.2		
		Pattern Step 27	180	181	70.6	71.0		
		Pattern Step 28	182	183	71.4	71.8		
		Pattern Step 29	184	185	72.2	72.5		
		Pattern Step 30	186	187	72.9	73.3		
		Pattern Step 31	188	189	73.7	74.1		
		Pattern Step 32	190	191	74.5	74.9		
		Pattern Step 33	192	193	75.3	75.7		
		Pattern Step 34	194	195	76.1	76.5		

Sub Module: second layer control (continued)

26 ctd.	Pattern step / speed continued	Pattern Step 35	196	197	76.9	77.3	0	Snap
		Pattern Step 36	198	199	77.6	78.0		
		Pattern Step 37	200	201	78.4	78.8		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 44	214	215	83.9	84.3		
		Pattern Step 45	216	217	84.7	85.1		
		Pattern Step 46	218	219	85.5	85.9		
		Pattern Step 47	220	221	86.3	86.7		
		Pattern Step 48	222	223	87.1	87.5		
		Pattern Step 49	224	225	87.8	88.2		
		Pattern Step 50	226	227	88.6	89.0		
		Pattern Step 51	228	229	89.4	89.8		
		Pattern Step 52	230	231	90.2	90.6		
		Pattern Step 53	232	233	91.0	91.4		
		Pattern Step 54	234	235	91.8	92.2		
		Pattern Step 55	236	237	92.5	92.9		
		Pattern Step 56	238	239	93.3	93.7		
		Pattern Step 57	240	241	94.1	94.5		
		Pattern Step 58	242	243	94.9	95.3		
		Pattern Step 59	244	245	95.7	96.1		
		Pattern Step 60	246	247	96.5	96.9		
		Pattern Step 61	248	249	97.3	97.6		
		Pattern Step 62	250	251	98.0	98.4		
		Pattern Step 63	252	253	98.8	99.2		
		Pattern Step 64	254	255	99.6	100.0		
27	Pattern step crossfading (from one step to next)	Off (no crossfading, Snap)	0	9	0	3.5	0	Snap
		Crossfading: Snap → min. Xfade → max. Xfade (fade in and fade out times are identical)	10	127	3.9	49.8		Fade
		Off (no crossfading, snap)	128	137	50.2	53.7		Snap
		Crossfading with tail: Snap → min. Xfade with tail → max. Xfade with tail (fade in time is shorter than fade out time)	138	255	54.1	100		Fade
28	Pattern transition (from one pattern to next)	Off (snap from one pattern to next)	0	9	0	3.5	0	Snap
		Normal transition (snap → fade 5s)	10	63	3.9	24.7		Fade
		Off (snap from one pattern to next)	64	73	25.1	28.6		Snap
		FOB (Fade Over Blackout) transition (snap → fade 5s)	74	127	29.0	49.8		Fade
		Off (snap from one pattern to next)	128	137	50.2	53.7		Snap
		FOF (Fade Over Full) transition (snap → fade 5s)	138	191	54.1	74.9		Fade
		No function	192	255	75.3	100.0		

Sub Module: second layer control (continued)

29	Fixture total number	Off	0	0	0	0	0	Snap
		1 fixture in total	1	1	0.4	0.4		
		2 fixtures in total	2	2	0.8	0.8		
		3...254 fixtures in total	3	254	1.2	99.6		
		255 fixtures in total	255	255	100	100		
30	Fixture position	Off	0	0	0	0	0	Snap
		Fixture in position 1	1	1	0.4	0.4		
		Fixture in position 2	2	2	0.8	0.8		
		Fixture in position 3 ... 254	3	254	1.2	99.6		
		Fixture in position 255	255	255	100	100		
31	Red, pixel 01-03	Intensity 0 → 100%	0	255	0	100	0	Fade
32	Green, pixel 01-03	Intensity 0 → 100%	0	255	0	100	0	Fade
33	Blue, pixel 01-03	Intensity 0 → 100%	0	255	0	100	0	Fade
34	Red, pixel 04-06	Intensity 0 → 100%	0	255	0	100	0	Fade
35	Green, pixel 04-06	Intensity 0 → 100%	0	255	0	100	0	Fade
36	Blue, pixel 04-06	Intensity 0 → 100%	0	255	0	100	0	Fade
37	Red, pixel 07-09	Intensity 0 → 100%	0	255	0	100	0	Fade
38	Green, pixel 07-09	Intensity 0 → 100%	0	255	0	100	0	Fade
39	Blue, pixel 07-09	Intensity 0 → 100%	0	255	0	100	0	Fade
40	Red, pixel 10-12	Intensity 0 → 100%	0	255	0	100	0	Fade
41	Green, pixel 10-12	Intensity 0 → 100%	0	255	0	100	0	Fade
42	Blue, pixel 10-12	Intensity 0 → 100%	0	255	0	100	0	Fade
43	Red, pixel 13-15	Intensity 0 → 100%	0	255	0	100	0	Fade
44	Green, pixel 13-15	Intensity 0 → 100%	0	255	0	100	0	Fade
45	Blue, pixel 13-15	Intensity 0 → 100%	0	255	0	100	0	Fade
46	Red, pixel 16-18	Intensity 0 → 100%	0	255	0	100	0	Fade
47	Green, pixel 16-18	Intensity 0 → 100%	0	255	0	100	0	Fade
48	Blue, pixel 16-18	Intensity 0 → 100%	0	255	0	100	0	Fade

DMX Mode 4: MultiPix Advanced**84 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Default Fade
Main Module: basic control					
1	Tilt coarse				
2	Tilt fine				
3	Intensity coarse				
4	Intensity fine				
5	Shutter	Closed	0	4	0
		Single flash each time value is changed within range 005 → 009	5	9	2.0
		Pulse slow → fast	10	39	3.9
		Opening pulse slow → fast	40	69	15.7
		Closing pulse slow → fast	70	99	27.5
		Double flash slow → fast	100	129	39.2
		Random pixel strobe slow → fast	130	159	51.0
		Random all strobe slow → fast	160	199	62.7
		Strobe sync all pixels slow → fast	200	250	78.4
		Open	251	255	98.4
6	Zoom	Zoom narrow → wide	0	255	0
7	Control/Settings	See 'Control / Settings channel' on page 45			
8	RGB / RGBL / x,y color control (see also 'Key to conversion of x and y coordinates' on page 4747)	[1] RGB - Red coarse [2] RGBL - Red coarse [3] x;y - x coarse	0	65535	0
9		[1] RGB - Red fine [2] RGBL - Red fine [3] x;y - x fine			
10		[1] RGB - Green coarse [2] RGBL - Green coarse [3] x;y - y coarse			
11		[1] RGB - Green fine [2] RGBL - Green fine [3] x;y - y fine			
12		[1] RGB - Blue coarse [2] RGBL - Blue coarse [3] x;y - not used	0	65535	0
13		[1] RGB - Blue fine [2] RGBL - Blue fine [3] x;y - not used			
14		[1] RGB - not used [2] RGBL - Lime coarse [3] x;y - not used			
15		[1] RGB - not used [2] RGBL - Lime fine [3] x;y - not used	0	65535	0
16	Color wheel (see also 'Color wheel specifications' on page 48)	Open	0	9	0
		Filter 004 (Medium Bastard Amber)	10	12	3.9
		Filter 019 (Fire)	13	15	5.1
		Filter 025 (Sunset Red)	16	18	6.3
		Filter 026 (Bright Red)	19	21	7.5
		Filter 036 (Medium Pink)	22	24	8.6
		Filter 049 (Medium Purple)	25	27	9.8
		Filter 058 (Lavender)	28	30	11.0
		Filter 068 (Sky Blue)	31	33	12.2
		Filter 088 (Lime Green)	34	36	14.1

Main Module: basic control (continued)

16 ctd.	Color wheel (continued)	Filter 089 (Moss Green)	37	39	14.5	15.3	0	Snap
		Filter 090 (Dark Yellow Green)	40	42	15.7	16.5		
		Filter 102 (Light Amber)	43	45	16.9	17.6		
		Filter 103 (Straw)	46	48	18.0	18.8		
		Filter 106 (Primary Red)	49	51	19.2	20.0		
		Filter 111 (Dark Pink)	52	54	20.4	21.2		
		Filter 115 (Peacock Blue)	55	57	21.6	22.4		
		Filter 117 (Steel Blue)	58	60	22.7	23.5		
		Filter 118 (Light Blue)	61	63	23.9	24.7		
		Filter 121 (Filter Green)	64	66	25.1	25.9		
		Filter 122 (Fern Green)	67	69	26.3	27.1		
		Filter 124 (Dark Green)	70	72	27.5	28.2		
		Filter 126 (Mauve)	73	75	28.6	29.4		
		Filter 128 (Bright Pink)	76	78	29.8	30.6		
		Filter 131 (Marine Blue)	79	81	31.0	31.8		
		Filter 132 (Medium Blue)	82	84	32.2	32.9		
		Filter 134 (Golden Amber)	85	87	33.3	34.1		
		Filter 135 (Deep Golden Amber)	88	90	34.5	35.3		
		Filter 136 (Pale Lavender)	91	93	35.7	36.5		
		Filter 137 (Special Lavender)	94	96	36.9	37.6		
		Filter 138 (Pale Green)	97	99	38.0	38.8		
		Filter 140 (Summer Blue)	100	102	39.2	40.0		
		Filter 141 (Bright Blue)	103	105	40.4	41.2		
		Filter 143 (Pale Navy Blue)	106	108	41.6	42.4		
		Filter 147 (Apricot)	109	111	42.7	43.5		
		Filter 148 (Bright Rose)	112	114	43.9	44.7		
		Filter 152 (Pale Gold)	115	117	45.1	45.9		
		Filter 154 (Pale Rose)	118	120	46.3	47.1		
		Filter 157 (Pink)	121	123	47.5	48.2		
		Filter 162 (Bastard Amber)	124	126	48.6	49.4		
		Filter 164 (Flame Red)	127	129	49.8	50.6		
		Filter 165 (Daylight Blue)	130	132	51.0	51.8		
		Filter 169 (Lilac Tint)	133	135	52.2	52.9		
		Filter 170 (Deep Lavender)	136	138	53.3	54.1		
		Filter 172 (Lagoon Blue)	139	141	54.5	55.3		
		Filter 180 (Dark Lavender)	142	144	55.7	56.5		
		Filter 182 (Light Red)	145	147	56.9	57.6		
		Filter 194 (Surprise Pink)	148	150	58.0	58.8		
		Filter 197 (Alice Blue)	151	153	59.2	60.0		
		Filter 201 (Full C.T. Blue)	154	156	60.4	61.2		
		Filter 202 (Half C.T. Blue)	157	159	61.6	62.4		
		Filter 203 (Quarter C.T. Blue)	160	162	62.7	63.5		
		Filter 204 (Full C.T. Orange)	163	165	63.9	64.7		
		Filter 206 (Quarter C.T. Orange)	166	168	65.1	65.9		
		Filter 219 (Fluorescent Green)	169	171	66.3	67.1		
		Filter 247 (Filter Minus Green)	172	174	67.5	68.2		
		Filter 248 (Half Minus Green)	175	177	68.6	69.4		
		Filter 281 (Three Quarter C.T. Blue)	178	180	69.8	70.6		
		Filter 285 (Three Qtr. C.T. Orange)	181	183	71.0	71.8		
		Filter 352 (Glacier Blue)	184	186	72.2	72.9		
		Filter 353 (Lighter Blue)	187	189	73.3	74.1		
		Filter 507 (Madge)	190	192	74.5	75.3		
		Filter 778 (Millennium Gold)	193	195	75.7	76.5		
		Filter 793 (Vanity Fair)	196	198	76.9	77.6		
		Filter 798 (Chrysalis Pink)	199	201	78.0	78.8		

Main Module: basic control (continued)

16 ctd.	Color wheel (continued)	HSI scroll, stop at first color	202	204	79.2	80.0	0	Snap
		HSI scroll slow → fast	205	252	80.4	98.8		Fade
		HSI scroll, stop at current color	253	255	99.2	100		Snap
17	Color Temperature Control	Open	0	9	0	3.5	0	Snap
		Fade through color temperatures of 10 000 K to 2500 K stepless (interpolation)	10	255	4.3	100		Fade
18	CQC (Color Quality Control) / Saturation	HQ (high quality), saturated color	0	9	0	3.5	0	Snap
		Crossfade, saturated to unsaturated color	10	117	3.9	45.9		Fade
		HQ (high quality), unsaturated color	118	127	46.3	49.8		Snap
		HO (high output), unsaturated color	128	137	50.2	53.7		
		Crossfade, unsaturated to saturated color	138	245	54.1	96.1		Fade
		HO (high output), saturated color	246	255	96.5	100		Snap
19	M/G shift	Off (no correction)	0	9	0	3.5	0	Snap
		Full plus magenta +100%	10	10	3.9	3.9		
		Plus magenta +99% → +1%	11	124	4.3	48.6		Fade
		Neutral / no correction	125	140	49.0	54.9		Snap
		Plus green +1% → +99%	141	254	55.3	99.6		Fade
		Full plus green +100%	255	255	100	100		Snap
20	Tungsten simulation	Off	0	9	0	3.5	0	Snap
		Tungsten ACL 250W/28V	10	19	3.9	7.5		
		Tungsten Blinder 650W/120V	20	29	7.8	11.4		
		Tungsten 750W/80V	30	39	11.8	15.3		
		Tungsten 1000W/240V	40	49	15.7	19.2		
		Tungsten 1200W/240V	50	59	19.6	23.1		
		Tungsten 2000W/230V	60	69	23.5	27.1		
		Tungsten 2500W/230V	70	79	27.5	31.0		
		Tungsten 5000W/230V	80	89	31.4	34.9		
		No function (off)	90	120	35.3	47.1		
		Off	120	139	47.1	54.5		
		FX Tungsten ACL 250W/28V	140	149	54.9	58.4		
		FX Tungsten Blinder 650W/120V	150	159	58.8	62.4		
		FX Tungsten 750W/80V	160	169	62.7	66.3		
		FX Tungsten 1000W/240V	170	179	66.7	70.2		
		FX Tungsten 1200W/240V	180	189	70.6	74.1		
		FX Tungsten 2000W/230V	190	199	74.5	78.0		
		FX Tungsten 2500W/230V	200	209	78.4	82.0		
		FX Tungsten 5000W/230V	210	219	82.4	85.9		
		No function (off)	220	255	86.3	100		

Main Module: basic control (continued)

21	Mix priority	Main Module and Sub Module HTP (highest value takes priority)	0	9	0	3.5	0	Snap
		Main only (Main Module color takes priority)	10	19	3.9	7.5		
		Sub only (Sub Module color takes priority)	20	29	7.8	11.4		
		Main and Sub additive (Sub Module color value added to Main Module color value)	30	39	11.8	15.3		
		Main minus Sub Module subtractive (Sub Module color value subtracted from Main)	40	49	15.7	19.2		
		Sub Module minus main subtractive (Main Module color value subtracted from Sub Module)	50	59	19.6	23.1		
		TrueColor 1: Main over Sub – snap	60	69	23.5	27.1		
		TrueColor 2: Sub over Main – snap	70	79	27.5	31.0		
		TrueColor 3: Main over Sub – crossfade	80	89	31.4	34.9		
		TrueColor 4: Sub over Main – crossfade	90	99	35.3	38.8		
		No function	100	127	39.2	49.8		
		Main Module only	128	130	50.2	51.0		
		Crossfading Main → HTP	131	190	51.4	74.5		
		Main and Sub Modules (HTP)	191	192	74.9	75.3		
		Crossfading HTP → Sub	193	252	75.7	98.8		
		Sub Module only	253	255	99.2	100		

Sub Module: second layer control

22	Intensity coarse	Intensity 0 → 100%	0	65535	0	100	0	Fade
23	Intensity fine							
24	Shutter	Closed	0	4	0	1.6	0	Snap
		Single flash if value changed within the range 005 → 009	5	9	2.0	3.5		Fade
		Pulse slow → fast	10	39	3.9	15.3		
		Pulse opening slow → fast	40	69	15.7	27.1		
		Pulse closing slow → fast	70	99	27.5	38.8		
		Double flash slow → fast	100	129	39.2	50.6		
		Strobe random pixel slow → fast	130	159	51.0	62.4		
		Strobe random all slow → fast	160	199	62.7	78.0		
		Strobe sync all pixel slow → fast	200	250	78.4	98.0		
		Open	251	255	98.4	100		Snap
25	Pattern selection	Off (all pixels active)	0	9	0	3.5	0	Snap
		Static Pattern 01	10	11	3.9	4.3		
		Static Pattern 02	12	13	4.7	5.1		
		Static Pattern 03	14	15	5.5	5.9		
		Static Pattern 04	16	17	6.3	6.7		
		Static Pattern 05	18	19	7.1	7.5		
		Static Pattern 06	20	21	7.8	8.2		
		Static Pattern 07	22	23	8.6	9.0		
		Static Pattern 08	24	25	9.4	9.8		
		Static Pattern 09	26	27	10.2	10.6		
		Static Pattern 10	28	29	11.0	11.4		
		Static Pattern 11	30	31	11.8	12.2		
		Static Pattern 12	32	33	12.5	12.9		
		Static Pattern 13	34	35	13.3	13.7		

Sub Module: second layer control (continued)

25 ctd.	Pattern selection (continued)	Static Pattern 14	36	37	14.1	14.5	0 Snap
		Static Pattern 15	38	39	14.9	15.3	
		Static Pattern 16	40	41	15.7	16.1	
		Static Pattern 17	52	43	20.4	16.9	
		Static Pattern 18	44	45	17.3	17.6	
		Static Pattern 19	46	47	18.0	18.4	
		Static Pattern 20	48	49	18.8	19.2	
		Static Pattern 21	50	51	19.6	20.0	
		Static Pattern 22	52	53	20.4	20.8	
		Static Pattern 23	54	55	21.2	21.6	
		Static Pattern 24	56	57	22.0	22.4	
		Static Pattern 25	58	59	22.7	23.1	
		Static Pattern 26	60	61	23.5	23.9	
		Static Pattern 27	62	63	24.3	24.7	
		Static Pattern 28	64	65	25.1	25.5	
		Static Pattern 29	66	67	25.9	26.3	
		Static Pattern 30	68	69	26.7	27.1	
		Static Pattern 31	70	71	27.5	27.8	
		Static Pattern 32	72	73	28.2	28.6	
		Static Pattern 33	74	75	29.0	29.4	
		Static Pattern 34	76	77	29.8	30.2	
		Static Pattern 35	78	79	30.6	31.0	
		Static Pattern 36	80	81	31.4	31.8	
		Static Pattern 37	82	83	32.2	32.5	
		Static Pattern 38	84	85	32.9	33.3	
		Static Pattern 39	86	87	33.7	34.1	
		Static Pattern 40	88	89	34.5	34.9	
		Static Pattern 41	90	91	35.3	35.7	
		Static Pattern 42	92	93	36.1	36.5	
		Static Pattern 43	94	95	36.9	37.3	
		Static Pattern 44	96	97	37.6	38.0	
		Static Pattern 45	98	99	38.4	38.8	
		Static Pattern 46	100	101	39.2	39.6	
		Static Pattern 47	102	103	40.0	40.4	
		Static Pattern 48	104	105	40.8	41.2	
		Static Pattern 49	106	107	41.6	42.0	
		Static Pattern 50	108	109	42.4	42.7	
		Static Pattern 51	110	111	43.1	43.5	
		Static Pattern 52	112	113	43.9	44.3	
		Static Pattern 53	114	115	44.7	45.1	
		Static Pattern 54	116	117	45.5	45.9	
		Static Pattern 55	118	119	46.3	46.7	
		Static Pattern 56	120	121	47.1	47.5	
		Static Pattern 57	122	123	47.8	48.2	
		Static Pattern 58	124	125	48.6	49.0	
		Static Pattern 59	126	127	49.4	49.8	
		Dynamic Pattern 01	128	129	50.2	50.6	
		Dynamic Pattern 02	130	131	51.0	51.4	
		Dynamic Pattern 03	132	133	51.8	52.2	
		Dynamic Pattern 04	134	135	52.5	52.9	
		Dynamic Pattern 05	136	137	53.3	53.7	
		Dynamic Pattern 06	138	139	54.1	54.5	
		Dynamic Pattern 07	140	141	54.9	55.3	
		Dynamic Pattern 08	142	143	55.7	56.1	
		Dynamic Pattern 09	144	145	56.5	56.9	
		Dynamic Pattern 10	146	147	57.3	57.6	

Sub Module: second layer control (continued)

25 Ctd.	Pattern selection (continued)	Dynamic Pattern 11	148	149	58.0	58.4	0	Snap
		Dynamic Pattern 12	150	151	58.8	59.2		
		Dynamic Pattern 13	152	153	59.6	60.0		
		Dynamic Pattern 14	154	155	60.4	60.8		
		Dynamic Pattern 15	156	157	61.2	61.6		
		Dynamic Pattern 16	158	159	62.0	62.4		
		Dynamic Pattern 17	160	161	62.7	63.1		
		Dynamic Pattern 18	162	163	63.5	63.9		
		Dynamic Pattern 19	164	165	64.3	64.7		
		Dynamic Pattern 20	166	167	65.1	65.5		
		Dynamic Pattern 21	168	169	65.9	66.3		
		Dynamic Pattern 22	170	171	66.7	67.1		
		Dynamic Pattern 23	172	173	67.5	67.8		
		Dynamic Pattern 24	174	175	68.2	68.6		
		Dynamic Pattern 25	176	177	69.0	69.4		
		Dynamic Pattern 26	178	179	69.8	70.2		
		Dynamic Pattern 27	180	181	70.6	71.0		
		Dynamic Pattern 28	182	183	71.4	71.8		
		Dynamic Pattern 29	184	185	72.2	72.5		
		Dynamic Pattern 30	186	187	72.9	73.3		
		Dynamic Pattern 31	188	189	73.7	74.1		
		Dynamic Pattern 32	190	191	74.5	74.9		
		Dynamic Pattern 33	192	193	75.3	75.7		
		Dynamic Pattern 34	194	195	76.1	76.5		
		Dynamic Pattern 35	196	197	76.9	77.3		
		Dynamic Pattern 36	198	199	77.6	78.0		
		Dynamic Pattern 37	200	201	78.4	78.8		
		Dynamic Pattern 38	202	203	79.2	79.6		
		Dynamic Pattern 39	204	205	80.0	80.4		
		Dynamic Pattern 40	206	207	80.8	81.2		
		Dynamic Pattern 41	208	209	81.6	82.0		
		Dynamic Pattern 42	210	211	82.4	82.7		
		Dynamic Pattern 43	212	213	83.1	83.5		
		Dynamic Pattern 44	214	215	83.9	84.3		
		Dynamic Pattern 45	216	217	84.7	85.1		
		Dynamic Pattern 46	218	219	85.5	85.9		
		Dynamic Pattern 47	220	221	86.3	86.7		
		Dynamic Pattern 48	222	223	87.1	87.5		
		Dynamic Pattern 49	224	225	87.8	88.2		
		Dynamic Pattern 50	226	227	88.6	89.0		
		Special Pattern 01	228	229	89.4	89.8		
		Special Pattern 02	230	231	90.2	90.6		
		Special Pattern 03	232	233	91.0	91.4		
		Special Pattern 04	234	235	91.8	92.2		
		Special Pattern 05	236	237	92.5	92.9		
		Special Pattern 06	238	239	93.3	93.7		
		Special Pattern 07	240	241	94.1	94.5		
		Special Pattern 08	242	243	94.9	95.3		
		Special Pattern 09	244	245	95.7	96.1		
		Special Pattern 10	246	247	96.5	96.9		
		Special Pattern 11	248	249	97.3	97.6		
		Random Pixel	250	255	98.0	100		

Sub Module: second layer control (continued)

26	Pattern step / speed	Stop (first pattern step)	0	2	0.0	0.8	0	Snap
		CW fast → slow (run pattern step 1 → n)	3	63	1.2	24.7		
		Stop at current position	64	66	25.1	25.9		
		CCW slow → fast (run pattern step n → 1)	67	127	26.3	49.8		
		Pattern Step 01	128	129	50.2	50.6		
		Pattern Step 02	130	131	51.0	51.4		
		Pattern Step 03	132	133	51.8	52.2		
		Pattern Step 04	134	135	52.5	52.9		
		Pattern Step 05	136	137	53.3	53.7		
		Pattern Step 06	138	139	54.1	54.5		
		Pattern Step 07	140	141	54.9	55.3		
		Pattern Step 08	142	143	55.7	56.1		
		Pattern Step 09	144	145	56.5	56.9		
		Pattern Step 10	146	147	57.3	57.6		
		Pattern Step 11	148	149	58.0	58.4		
		Pattern Step 12	150	151	58.8	59.2		
		Pattern Step 13	152	153	59.6	60.0		
		Pattern Step 14	154	155	60.4	60.8		
		Pattern Step 15	156	157	61.2	61.6		
		Pattern Step 16	158	159	62.0	62.4		
		Pattern Step 17	160	161	62.7	63.1		
		Pattern Step 18	162	163	63.5	63.9		
		Pattern Step 19	164	165	64.3	64.7		
		Pattern Step 20	166	167	65.1	65.5		
		Pattern Step 21	168	169	65.9	66.3		
		Pattern Step 22	170	171	66.7	67.1		
		Pattern Step 23	172	173	67.5	67.8		
		Pattern Step 24	174	175	68.2	68.6		
		Pattern Step 25	176	177	69.0	69.4		
		Pattern Step 26	178	179	69.8	70.2		
		Pattern Step 27	180	181	70.6	71.0		
		Pattern Step 28	182	183	71.4	71.8		
		Pattern Step 29	184	185	72.2	72.5		
		Pattern Step 30	186	187	72.9	73.3		
		Pattern Step 31	188	189	73.7	74.1		
		Pattern Step 32	190	191	74.5	74.9		
		Pattern Step 33	192	193	75.3	75.7		
		Pattern Step 34	194	195	76.1	76.5		
		Pattern Step 35	196	197	76.9	77.3		
		Pattern Step 36	198	199	77.6	78.0		
		Pattern Step 37	200	201	78.4	78.8		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 41	208	209	81.6	82.0		
		Pattern Step 42	210	211	82.4	82.7		
		Pattern Step 43	212	213	83.1	83.5		
		Pattern Step 44	214	215	83.9	84.3		
		Pattern Step 45	216	217	84.7	85.1		
		Pattern Step 46	218	219	85.5	85.9		
		Pattern Step 47	220	221	86.3	86.7		
		Pattern Step 48	222	223	87.1	87.5		
		Pattern Step 49	224	225	87.8	88.2		
		Pattern Step 50	226	227	88.6	89.0		

Sub Module: second layer control (continued)

26 ctd.	Pattern step / speed continued	Pattern Step 51	228	229	89.4	89.8	0	Snap
		Pattern Step 52	230	231	90.2	90.6		
		Pattern Step 53	232	233	91.0	91.4		
		Pattern Step 54	234	235	91.8	92.2		
		Pattern Step 55	236	237	92.5	92.9		
		Pattern Step 56	238	239	93.3	93.7		
		Pattern Step 57	240	241	94.1	94.5		
		Pattern Step 58	242	243	94.9	95.3		
		Pattern Step 59	244	245	95.7	96.1		
		Pattern Step 60	246	247	96.5	96.9		
		Pattern Step 61	248	249	97.3	97.6		
		Pattern Step 62	250	251	98.0	98.4		
		Pattern Step 63	252	253	98.8	99.2		
		Pattern Step 64	254	255	99.6	100.0		
27	Pattern step crossfading (from one step to next)	Off (no crossfading, Snap)	0	9	0	3.5	0	Snap
		Crossfading: Snap → min. Xfade → max. Xfade (fade in and fade out times are identical)	10	127	3.9	49.8		Fade
		Off (no crossfading, Snap)	128	137	50.2	53.7		Snap
		Crossfading with tail: Snap → min. Xfade with tail → max. Xfade with tail (fade in time is shorter than fade out time)	138	255	54.1	100		Fade
28	Pattern transition (from one pattern to next)	Off (snap from one pattern to next)	0	9	0	3.5	0	Snap
		Normal transition (snap → fade 5s)	10	63	3.9	24.7		Fade
		Off (snap from one pattern to next)	64	73	25.1	28.6		Snap
		FOB (Fade Over Blackout) transition (snap → fade 5s)	74	127	29.0	49.8		Fade
		FOF (Fade Over Full) transition (snap → fade 5s)	128	137	50.2	53.7		Snap
		No function	138	191	54.1	74.9		Fade
			192	255	75.3	100.0		
29	Fixture total number	Off	0	0	0	0	0	Snap
		1 fixture in total	1	1	0.4	0.4		
		2 fixtures in total	2	2	0.8	0.8		
		3...254 fixtures in total	3	254	1.2	99.6		
		255 fixtures in total	255	255	100	100		
30	Fixture position	Off	0	0	0	0	0	Snap
		Fixture in position 1	1	1	0.4	0.4		
		Fixture in position 2	2	2	0.8	0.8		
		Fixture in position 3 ... 254	3	254	1.2	99.6		
		Fixture in position 255	255	255	100	100		
31	Red, pixel 01	Intensity 0 → 100%	0	255	0	100	0	Fade
32	Green, pixel 01	Intensity 0 → 100%	0	255	0	100	0	Fade
33	Blue, pixel 01	Intensity 0 → 100%	0	255	0	100	0	Fade
34	Red, pixel 02	Intensity 0 → 100%	0	255	0	100	0	Fade
35	Green, pixel 02	Intensity 0 → 100%	0	255	0	100	0	Fade
36	Blue, pixel 02	Intensity 0 → 100%	0	255	0	100	0	Fade
37	Red, pixel 03	Intensity 0 → 100%	0	255	0	100	0	Fade
38	Green, pixel 03	Intensity 0 → 100%	0	255	0	100	0	Fade
39	Blue, pixel 03	Intensity 0 → 100%	0	255	0	100	0	Fade
40	Red, pixel 04	Intensity 0 → 100%	0	255	0	100	0	Fade

Sub Module: second layer control (continued)

41	Green, pixel 04	Intensity 0 → 100%	0	255	0	100	0	Fade
42	Blue, pixel 04	Intensity 0 → 100%	0	255	0	100	0	Fade
43	Red, pixel 05	Intensity 0 → 100%	0	255	0	100	0	Fade
44	Green, pixel 05	Intensity 0 → 100%	0	255	0	100	0	Fade
45	Blue, pixel 05	Intensity 0 → 100%	0	255	0	100	0	Fade
46	Red, pixel 06	Intensity 0 → 100%	0	255	0	100	0	Fade
47	Green, pixel 06	Intensity 0 → 100%	0	255	0	100	0	Fade
48	Blue, pixel 06	Intensity 0 → 100%	0	255	0	100	0	Fade
49	Red, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
50	Green, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
51	Blue, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
52	Red, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
53	Green, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
54	Blue, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
55	Red, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
56	Green, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
57	Blue, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
58	Red, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
59	Green, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
60	Blue, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
61	Red, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
62	Green, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
63	Blue, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
64	Red, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
65	Green, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
66	Blue, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
67	Red, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
68	Green, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
69	Blue, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
70	Red, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
71	Green, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
72	Blue, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
73	Red, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
74	Green, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
75	Blue, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
76	Red, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
77	Green, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
78	Blue, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
79	Red, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
80	Green, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
81	Blue, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
82	Red, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade
83	Green, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade
84	Blue, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade

DMX Mode 5: MultiPix Compressed RGB**63 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade
Main module: basic control					
1	Tilt coarse				
2	Tilt fine	Tilt back → front	0	65535	0
3	Intensity coarse		0	65535	0
4	Intensity fine	Intensity 0 → 100%	0	65535	100
5	Shutter	Closed	0	4	0
		Single flash each time value is changed within range 005 → 009	5	9	2.0
		Pulse slow → fast	10	39	3.9
		Opening pulse slow → fast	40	69	15.3
		Closing pulse slow → fast	70	99	27.1
		Double flash slow → fast	100	129	38.8
		Random pixel strobe slow → fast	130	159	50.6
		Random all strobe slow → fast	160	199	62.4
		Strobe sync all pixels slow → fast	200	250	78.0
		Open	251	255	98.4
6	Zoom	Zoom narrow → wide	0	255	100
7	Control/Settings	See 'Control / Settings channel' on page 45			
8	Color Temperature Control	Open	0	9	0
		Fade through color temperatures of 10 000 K to 2 500 K stepless (interpolation)	10	255	3.5
9	CQC (Color Quality Control) / Saturation	HQ (high quality), saturated color	0	9	45.9
		Crossfade, saturated to unsaturated color	10	117	3.9
		HQ (high quality), unsaturated color	118	127	46.3
		HO (high output), unsaturated color	128	137	50.2
		Crossfade, unsaturated to saturated color	138	245	53.7
		HO (high output), saturated color	246	255	96.1
10	Red, pixel 01	Intensity 0 → 100%	0	255	100
11	Green, pixel 01	Intensity 0 → 100%	0	255	100
12	Blue, pixel 01	Intensity 0 → 100%	0	255	100
13	Red, pixel 02	Intensity 0 → 100%	0	255	100
14	Green, pixel 02	Intensity 0 → 100%	0	255	100
15	Blue, pixel 02	Intensity 0 → 100%	0	255	100
16	Red, pixel 03	Intensity 0 → 100%	0	255	100
17	Green, pixel 03	Intensity 0 → 100%	0	255	100
18	Blue, pixel 03	Intensity 0 → 100%	0	255	100
19	Red, pixel 04	Intensity 0 → 100%	0	255	100
20	Green, pixel 04	Intensity 0 → 100%	0	255	100
21	Blue, pixel 04	Intensity 0 → 100%	0	255	100
22	Red, pixel 05	Intensity 0 → 100%	0	255	100
23	Green, pixel 05	Intensity 0 → 100%	0	255	100
24	Blue, pixel 05	Intensity 0 → 100%	0	255	100
25	Red, pixel 06	Intensity 0 → 100%	0	255	100
26	Green, pixel 06	Intensity 0 → 100%	0	255	100
27	Blue, pixel 06	Intensity 0 → 100%	0	255	100

Main module: basic control (continued)

28	Red, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
29	Green, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
30	Blue, pixel 07	Intensity 0 → 100%	0	255	0	100	0	Fade
31	Red, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
32	Green, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
33	Blue, pixel 08	Intensity 0 → 100%	0	255	0	100	0	Fade
34	Red, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
35	Green, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
36	Blue, pixel 09	Intensity 0 → 100%	0	255	0	100	0	Fade
37	Red, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
38	Green, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
39	Blue, pixel 10	Intensity 0 → 100%	0	255	0	100	0	Fade
40	Red, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
41	Green, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
42	Blue, pixel 11	Intensity 0 → 100%	0	255	0	100	0	Fade
43	Red, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
44	Green, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
45	Blue, pixel 12	Intensity 0 → 100%	0	255	0	100	0	Fade
46	Red, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
47	Green, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
48	Blue, pixel 13	Intensity 0 → 100%	0	255	0	100	0	Fade
49	Red, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
50	Green, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
51	Blue, pixel 14	Intensity 0 → 100%	0	255	0	100	0	Fade
52	Red, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
53	Green, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
54	Blue, pixel 15	Intensity 0 → 100%	0	255	0	100	0	Fade
55	Red, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
56	Green, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
57	Blue, pixel 16	Intensity 0 → 100%	0	255	0	100	0	Fade
58	Red, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
59	Green, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
60	Blue, pixel 17	Intensity 0 → 100%	0	255	0	100	0	Fade
61	Red, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade
62	Green, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade
63	Blue, pixel 18	Intensity 0 → 100%	0	255	0	100	0	Fade

DMX Mode 6: MultiPix Compressed RGBL**81 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Default Fade
Main module: basic control					
1	Tilt coarse				
2	Tilt fine				
3	Intensity coarse				
4	Intensity fine				
5	Shutter	Closed	0	4	0
		Single flash each time value is changed within range 005 → 009	5	9	2.0
		Pulse slow → fast	10	39	3.9
		Opening pulse slow → fast	40	69	15.3
		Closing pulse slow → fast	70	99	27.1
		Double flash slow → fast	100	129	38.8
		Random pixel strobe slow → fast	130	159	50.6
		Random all strobe slow → fast	160	199	62.4
		Strobe sync all pixels slow → fast	200	250	78.0
		Open	251	255	98.0
6	Zoom	Zoom narrow → wide	0	255	0
7	Control/Settings	See 'Control / Settings channel' on page 45			
8	Color Temperature Control	Open	0	9	0
		Fade through color temperatures of 10 000 K to 2 500 K stepless (interpolation)	10	255	3.5
9	CQC (Color Quality Control) / Saturation	HQ (high quality), saturated color	0	9	4.3
		Crossfade, saturated to unsaturated color	10	117	100
		HQ (high quality), unsaturated color	118	127	45.9
		HO (high output), unsaturated color	128	137	49.8
		Crossfade, unsaturated to saturated color	138	245	50.2
		HO (high output), saturated color	246	255	53.7
10	Red, pixel 01	Intensity 0 → 100%	0	255	0
11	Green, pixel 01	Intensity 0 → 100%	0	255	100
12	Blue, pixel 01	Intensity 0 → 100%	0	255	100
13	Lime, pixel 01	Intensity 0 → 100%	0	255	100
14	Red, pixel 02	Intensity 0 → 100%	0	255	100
15	Green, pixel 02	Intensity 0 → 100%	0	255	100
16	Blue, pixel 02	Intensity 0 → 100%	0	255	100
17	Lime, pixel 02	Intensity 0 → 100%	0	255	100
18	Red, pixel 03	Intensity 0 → 100%	0	255	100
19	Green, pixel 03	Intensity 0 → 100%	0	255	100
20	Blue, pixel 03	Intensity 0 → 100%	0	255	100
21	Lime, pixel 03	Intensity 0 → 100%	0	255	100
22	Red, pixel 04	Intensity 0 → 100%	0	255	100
23	Green, pixel 04	Intensity 0 → 100%	0	255	100
24	Blue, pixel 04	Intensity 0 → 100%	0	255	100
25	Lime, pixel 04	Intensity 0 → 100%	0	255	100
26	Red, pixel 05	Intensity 0 → 100%	0	255	100
27	Green, pixel 05	Intensity 0 → 100%	0	255	100
28	Blue, pixel 05	Intensity 0 → 100%	0	255	100
29	Lime, pixel 05	Intensity 0 → 100%	0	255	100

Main module: basic control (continued)

30	Red, pixel 06	Intensity 0 → 100%	0	255	0	100	0 Fade
31	Green, pixel 06	Intensity 0 → 100%	0	255	0	100	
32	Blue, pixel 06	Intensity 0 → 100%	0	255	0	100	
33	Lime, pixel 06	Intensity 0 → 100%	0	255	0	100	
34	Red, pixel 07	Intensity 0 → 100%	0	255	0	100	
35	Green, pixel 07	Intensity 0 → 100%	0	255	0	100	
36	Blue, pixel 07	Intensity 0 → 100%	0	255	0	100	
37	Lime, pixel 07	Intensity 0 → 100%	0	255	0	100	
38	Red, pixel 08	Intensity 0 → 100%	0	255	0	100	
39	Green, pixel 08	Intensity 0 → 100%	0	255	0	100	
40	Blue, pixel 08	Intensity 0 → 100%	0	255	0	100	
41	Lime, pixel 08	Intensity 0 → 100%	0	255	0	100	
42	Red, pixel 09	Intensity 0 → 100%	0	255	0	100	
43	Green, pixel 09	Intensity 0 → 100%	0	255	0	100	
44	Blue, pixel 09	Intensity 0 → 100%	0	255	0	100	
45	Lime, pixel 09	Intensity 0 → 100%	0	255	0	100	
46	Red, pixel 10	Intensity 0 → 100%	0	255	0	100	
47	Green, pixel 10	Intensity 0 → 100%	0	255	0	100	
48	Blue, pixel 10	Intensity 0 → 100%	0	255	0	100	
49	Lime, pixel 10	Intensity 0 → 100%	0	255	0	100	
50	Red, pixel 11	Intensity 0 → 100%	0	255	0	100	
51	Green, pixel 11	Intensity 0 → 100%	0	255	0	100	
52	Blue, pixel 11	Intensity 0 → 100%	0	255	0	100	
53	Lime, pixel 11	Intensity 0 → 100%	0	255	0	100	
54	Red, pixel 12	Intensity 0 → 100%	0	255	0	100	
55	Green, pixel 12	Intensity 0 → 100%	0	255	0	100	
56	Blue, pixel 12	Intensity 0 → 100%	0	255	0	100	
57	Lime, pixel 12	Intensity 0 → 100%	0	255	0	100	
58	Red, pixel 13	Intensity 0 → 100%	0	255	0	100	
59	Green, pixel 13	Intensity 0 → 100%	0	255	0	100	
60	Blue, pixel 13	Intensity 0 → 100%	0	255	0	100	
61	Lime, pixel 13	Intensity 0 → 100%	0	255	0	100	
62	Red, pixel 14	Intensity 0 → 100%	0	255	0	100	
63	Green, pixel 14	Intensity 0 → 100%	0	255	0	100	
64	Blue, pixel 14	Intensity 0 → 100%	0	255	0	100	
65	Lime, pixel 14	Intensity 0 → 100%	0	255	0	100	
66	Red, pixel 15	Intensity 0 → 100%	0	255	0	100	
67	Green, pixel 15	Intensity 0 → 100%	0	255	0	100	
68	Blue, pixel 15	Intensity 0 → 100%	0	255	0	100	
69	Lime, pixel 15	Intensity 0 → 100%	0	255	0	100	
70	Red, pixel 16	Intensity 0 → 100%	0	255	0	100	
71	Green, pixel 16	Intensity 0 → 100%	0	255	0	100	
72	Blue, pixel 16	Intensity 0 → 100%	0	255	0	100	
73	Lime, pixel 16	Intensity 0 → 100%	0	255	0	100	
74	Red, pixel 17	Intensity 0 → 100%	0	255	0	100	
75	Green, pixel 17	Intensity 0 → 100%	0	255	0	100	
76	Blue, pixel 17	Intensity 0 → 100%	0	255	0	100	
77	Lime, pixel 17	Intensity 0 → 100%	0	255	0	100	
78	Red, pixel 18	Intensity 0 → 100%	0	255	0	100	
79	Green, pixel 18	Intensity 0 → 100%	0	255	0	100	
80	Blue, pixel 18	Intensity 0 → 100%	0	255	0	100	
81	Lime, pixel 18	Intensity 0 → 100%	0	255	0	100	

Control / Settings channel

The Control / Settings commands listed below are available on Channel 7 in every DMX mode.

Channel	Command	DMX range	Percent	Default DMX	Fade
7	No function	0	11	0	4.3
	iQ.Service connect	12	13	4.7	5.1
	No function	14	19	5.5	7.5
Control / Settings	Dimmer curve: Soft (square) (3 sec.)	20	21	7.8	8.2
	Dimmer curve: Linear (3 sec.)	22	23	8.6	9.0
	Dimmer curve: S-Curve (3 sec.)	24	25	9.4	9.8
	No function	26	29	10.2	11.4
	Display mode: Off (3 sec.)	30	31	11.8	12.2
	Display mode: Auto (3 sec.)	32	33	12.5	12.9
	Display mode: On (3 sec.)	34	35	13.3	13.7
	No function	36	37	14.1	14.5
	Display orientation: Auto (3 sec.)	38	39	14.9	15.3
	Display orientation: Normal (3 sec.)	40	41	15.7	16.1
	Display orientation: Inverted (3 sec.)	42	43	16.5	16.9
	No function	44	45	17.3	17.6
	No signal: Blackout (3 sec.)	46	47	18.0	18.4
	No signal: Hold (3 sec.)	48	49	18.8	19.2
	No signal: Play captured scene (3 sec.)	50	51	19.6	20.0
	No signal: Capture current scene (3 sec.)	52	53	20.4	20.8
	No function	54	55	21.2	21.6
	Fan mode: Minimum (3 sec.)	56	57	22.0	22.4
	Fan mode: Regulated (3 sec.)	58	59	22.7	23.1
	Fan mode: High (3 sec.)	60	61	23.5	23.9
	Fan mode: Medium (3 sec.)	62	63	24.3	24.7
	Fan mode: Low (3 sec.)	64	65	25.1	25.5
	No function	66	69	25.9	27.1
	Pixel mirror: Off (3 sec.)	70	71	27.5	27.8
	Pixel mirror: x-mirror (3 sec.)	72	73	28.2	28.6
	No function	74	91	29.0	35.7
	Position feedback: Off (3 sec.)	92	93	36.1	36.5
	Position feedback: On (3 sec.)	94	95	36.9	37.3
	No function	96	97	37.6	38.0
	Tilt inversion: Off (3 sec.)	98	99	38.4	38.8
	Tilt inversion: On (3 sec.)	100	101	39.2	39.6
	No function	102	129	40.0	50.6
	Performance: Fast (3 sec.)	130	131	51.0	51.4
	Performance: Normal (3 sec.)	132	133	51.8	52.2
	Performance: Smooth (3 sec.)	134	135	52.5	52.9
	No function	136	137	53.3	53.7
	White point 8000 K (3 sec.)	138	139	54.1	54.5
	White point 6500 K (3 sec.)	140	141	54.9	55.3
	White point 5600 K (3 sec.)	142	143	55.7	56.1
	White point 4200 K (3 sec.)	144	145	56.5	56.9
	White point 3200 K (3 sec.)	146	147	57.3	57.6
	No function	148	149	58.0	58.4

7 ctd.	Control / Settings (continued)	Sub module mode: Normal (3 sec.)	150	151	58.8	59.2	0	Snap
		Sub module mode: Independent (3 sec.)	152	153	59.6	60.0		
		<i>No function</i>	154	165	60.4	64.7		
		Color mode: RGB [1] (3 sec.)	166	167	65.1	65.5		
		Color mode: RGBL [2] (3 sec.)	198	169	77.6	66.3		
		Color mode: x:y [3] (3 sec.)	170	171	66.7	67.1		
		<i>No function</i>	172	181	67.5	71.0		
		iQ gamut: Full (3 sec.)	182	183	71.4	71.8		
		iQ gamut: Rec. 2020 (3 sec.)	184	185	72.2	72.5		
		iQ gamut: Rec. 706 (3 sec.)	186	187	72.9	73.3		
		<i>No function</i>	188	189	73.7	74.1		
		Hibernation Off (3 sec., fixture will reset)	190	191	74.5	74.9		
		Hibernation On (3 sec.)	192	193	75.3	75.7		
		<i>No function</i>	194	215	76.1	84.3		
		PWM Optimal (3 sec.)	216	217	84.7	85.1		
		PWM High 1 (3 sec.)	218	219	85.5	85.9		
		PWM High 2 (3 sec.)	220	221	86.3	86.7		
		PWM Max. (3 sec.)	222	223	87.1	87.5		
		<i>No function</i>	224	229	87.8	89.8		
		Save as User Settings Preset 1 (3 s.)	230	231	90.2	90.6		
		Save as User Settings Preset 2 (3 s.)	232	233	91.0	91.4		
		Save as User Settings Preset 3 (3 s.)	234	235	91.8	92.2		
		<i>No function</i>	236	237	92.5	92.9		
		Load User Settings Preset 1 (3 sec.)	238	239	93.3	93.7		
		Load User Settings Preset 2 (3 sec.)	240	241	94.1	94.5		
		Load User Settings Preset 3 (3 sec.)	242	243	94.9	95.3		
		Load Settings Default (3 sec.)	244	245	95.7	96.1		
		<i>No function</i>	246	249	96.5	97.6		
		Reset tilt (3 sec.)	250	251	98.0	98.4		
		Reset head (3 sec.)	252	253	98.8	99.2		
		Reset ALL (3 sec.)	254	255	99.6	100		

To reduce the risk of accidentally changing settings, the commands on the Control / Settings channel must be held for a certain time before they are executed. The above table indicates the number of seconds that you must hold a command.

5. Key to conversion of x and y coordinates

The following formulas are used when converting DMX values to x/y coordinates on the RGB and RGBL color mixing channels:

8-bit

$$\text{DMX } x = \frac{x \text{ co-ordinate} \times 255}{0.8}$$

$$\text{DMX } y = \frac{y \text{ co-ordinate} \times 255}{0.8}$$

16-bit

$$\text{DMX } x = \frac{x \text{ co-ordinate} \times 65535}{0.8}$$

$$\text{DMX } y = \frac{y \text{ co-ordinate} \times 65535}{0.8}$$

6. Color wheel specifications

The following table gives the color gamut co-ordinates of the color presets available on the color wheel effect.

Filter 004, Medium Bastard Amber	0.37;0.335
Filter 019, Fire	0.664;0.31
Filter 025, Sunset Red	0.566;0.359
Filter 026, Bright Red	0.712;0.281
Filter 036, Medium Pink	0.36;0.268
Filter 049, Medium Purple	0.283;0.101
Filter 058, Lavender	0.212;0.099
Filter 068, Sky Blue	0.151;0.128
Filter 088, Lime Green	0.356;0.511
Filter 089, Moss Green	0.259;0.547
Filter 090, Dark Yellow Green	0.184;0.641
Filter 102, Light Amber	0.434;0.44
Filter 103, Straw	0.336;0.359
Filter 106, Primary Red	0.699;0.285
Filter 111, Dark Pink	0.389;0.215
Filter 115, Peacock Blue	0.134;0.296
Filter 117, Steel Blue	0.223;0.278
Filter 118, Light Blue	0.149;0.113
Filter 121, Filter Green	0.302;0.534
Filter 122, Fern Green	0.234;0.543
Filter 124, Dark Green	0.123;0.586
Filter 126, Mauve	0.287;0.082
Filter 128, Bright Pink	0.401;0.151
Filter 131, Marine Blue	0.199;0.305
Filter 132, Medium Blue	0.137;0.11
Filter 134, Golden Amber	0.501;0.371
Filter 135, Deep Golden Amber	0.667;0.326
Filter 136, Pale Lavender	0.288;0.254
Filter 137, Special Lavender	0.231;0.175
Filter 138, Pale Green	0.331;0.433
Filter 140, Summer Blue	0.201;0.245
Filter 141, Bright Blue	0.129;0.159
Filter 143, Pale Navy Blue	0.17;0.205
Filter 147, Apricot	0.446;0.381
Filter 148, Bright Rose	0.482;0.238
Filter 152, Pale Gold	0.37;0.332
Filter 154, Pale Rose	0.35;0.318

Filter 157, Pink	0.457;0.272
Filter 162, Bastard Amber	0.348;0.328
Filter 164, Flame Red	0.659;0.302
Filter 165, Daylight Blue	0.159;0.158
Filter 169, Lilac Tint	0.294;0.281
Filter 170, Deep Lavender	0.278;0.211
Filter 172, Lagoon Blue	0.141;0.22
Filter 180, Dark Lavender	0.191;0.072
Filter 182, Light Red	0.67;0.313
Filter 194, Surprise Pink	0.24;0.183
Filter 197, Alice Blue	0.164;0.118
Filter 201, Full C.T. Blue	0.228;0.233
Filter 202, Half C.T. Blue	0.261;0.273
Filter 203, Quarter C.T. Blue	0.285;0.294
Filter 204, Full C.T. Orange	0.437;0.392
Filter 206, Quartet C.T. Orange	0.346;0.34
Filter 219, Fluorescent Green	0.219;0.334
Filter 247, Filter Minus Green	0.325;0.279
Filter 248, Half Minus Green	0.317;0.297
Filter 281, Three Quarter C.T. Blue	0.239;0.258
Filter 285, Three Quarter C.T. Orange	0.4;0.387
Filter 352, Glacier Blue	0.171;0.19
Filter 353, Lighter Blue	0.193;0.246
Filter 506, Madge	0.662;0.337
Filter 778, Millennium Gold	0.606;0.382
Filter 793, Vanity Fair	0.419;0.17
Filter 798, Chrysalis Pink	0.191;0.061

