

# DMX-Protocol

## FUTURELIGHT PLB-230 incl. bulb

No. 51838951

Version 1.2.0.0

### DMX channel functions and their values (up to 24 DMX channels):

| Mode/Channel |     |     | Decimal |     | Hexad. |    | Percentage |      | S/F | Feature   |
|--------------|-----|-----|---------|-----|--------|----|------------|------|-----|---|
| St.          | Ba. | Ex. |         |     |        |    |            |      |     |   |
| 1            | 1   | 1   |         |     |        |    |            |      |     | <b>Horizontal movement (PAN)</b>  |
|              |     |     | 0       | 255 | 00     | FF | 0%         | 100% | F   | Push slider up in order to move the head horizontally (PAN). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish. |
|              |     | 2   |         |     |        |    |            |      |     | <b>PAN-movement with 16-bit resolution</b>  |
|              |     |     | 0       | 255 | 00     | FF | 0%         | 100% | F   | Fine indexing   |
| 2            | 2   | 3   |         |     |        |    |            |      |     | <b>Vertical movement (Tilt)</b>   |
|              |     |     | 0       | 255 | 00     | FF | 0%         | 100% | F   | Push slider up in order to move the head vertically (TILT). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish.  |
|              |     | 4   |         |     |        |    |            |      |     | <b>TILT-movement with 16-bit resolution</b>   |
|              |     |     | 0       | 255 | 00     | FF | 0%         | 100% | F   | Fine indexing   |
| 3            | 3   | 5   |         |     |        |    |            |      |     | <b>PAN/TILT speed</b>   |
|              |     |     | 0       | 255 | 00     | FF | 0%         | 100% | F   | Decreasing speed  |
|              |     | 6   |         |     |        |    |            |      |     | <b>PAN/TILT function</b>  |
|              |     |     | 0       | 15  | 00     | 0F | 0%         | 6%   | S   | Normal  |
|              |     |     | 16      | 31  | 10     | 1F | 6%         | 12%  | S   | Blackout at PAN/TILT-movement (LEDs and shutter)  |
|              |     |     | 32      | 47  | 20     | 2F | 13%        | 18%  | S   | Blackout at PAN/TILT-movement (shutter)   |
|              |     |     | 48      | 63  | 30     | 3F | 19%        | 25%  | S   | Blackout at PAN/TILT-movement (LEDs)  |
|              |     |     | 64      | 255 | 40     | FF | 25%        | 100% | S   | No function   |
| 4            |     | 7   |         |     |        |    |            |      |     | <b>Shutter, strobe function</b>   |
|              |     |     | 0       | 15  | 00     | 0F | 0%         | 6%   | S   | Normal Shutter Functions  |
|              |     |     | 16      | 31  | 10     | 1F | 6%         | 12%  | S   | Opening pulse effect  |

|   |   |    |     |     |    |    |     |      |                                 |  |
|---|---|----|-----|-----|----|----|-----|------|---------------------------------|--|
|   |   |    | 32  | 47  | 20 | 2F | 13% | 18%  | S                               | Closing pulse effect                                       |
|   |   |    | 48  | 63  | 30 | 3F | 19% | 25%  | S                               | Random strobe effect                                       |
|   |   |    | 64  | 255 | 40 | FF | 25% | 100% | S                               | No function  |
| 5 |   | 8  |     |     |    |    |     |      | <b>Shutter, strobe</b>          |  |
|   |   |    |     |     |    |    |     |      | <i>Normal Shutter Functions</i> |  |
|   |   |    | 0   | 31  | 00 | 1F | 0%  | 12%  | S                               | Close  |
|   |   |    | 32  | 223 | 20 | DF | 13% | 87%  | F                               | Strobe effect with increasing speed                        |
|   |   |    | 224 | 255 | E0 | FF | 88% | 100% | S                               | Open   |
|   |   |    |     |     |    |    |     |      | <i>Opening pulse effect</i>     |  |
|   |   |    | 0   | 31  | 00 | 1F | 0%  | 12%  | S                               | Close  |
|   |   |    | 32  | 223 | 20 | DF | 13% | 87%  | F                               | Strobe effect with increasing speed                        |
|   |   |    | 224 | 255 | E0 | FF | 88% | 100% | S                               | Open   |
|   |   |    |     |     |    |    |     |      | <i>Closing pulse effect</i>     |  |
|   |   |    | 0   | 31  | 00 | 1F | 0%  | 12%  | S                               | Close  |
|   |   |    | 32  | 223 | 20 | DF | 13% | 87%  | F                               | Strobe effect with increasing speed                        |
|   |   |    | 224 | 255 | E0 | FF | 88% | 100% | S                               | Open   |
|   |   |    |     |     |    |    |     |      | <i>Random strobe effect</i>     |  |
|   |   |    | 0   | 31  | 00 | 1F | 0%  | 12%  | S                               | Close  |
|   |   |    | 32  | 223 | 20 | DF | 13% | 87%  | F                               | Strobe effect with increasing speed                        |
|   |   |    | 224 | 255 | E0 | FF | 88% | 100% | S                               | Open   |
| 6 | 5 | 9  |     |     |    |    |     |      | <b>Dimmer intensity</b>         |  |
|   |   |    | 0   | 255 | 00 | FF | 0%  | 100% | F                               | Gradual adjustment of the dimmer intensity from 0 to 100 % |
| 7 |   | 10 |     |     |    |    |     |      | <b>Color function</b>           |  |
|   |   |    | 0   | 15  | 00 | 0F | 0%  | 6%   | S                               | Normal color-change  |
|   |   |    | 16  | 31  | 10 | 1F | 6%  | 12%  | S                               | Blackout at color-change                                   |
|   |   |    | 32  | 47  | 20 | 2F | 13% | 18%  | S                               | Forwards rainbow effect                                    |
|   |   |    | 48  | 63  | 30 | 3F | 19% | 25%  | S                               | Backwards rainbow effect                                   |
|   |   |    | 64  | 79  | 40 | 4F | 25% | 31%  | S                               | Color-change at every position                             |
|   |   |    | 80  | 111 | 50 | 6F | 31% | 44%  | S                               | Color Bounce   |
|   |   |    | 112 | 255 | 70 | FF | 44% | 100% | S                               | No function  |
|   |   |    |     |     |    |    |     |      | <b>Color-wheel</b>              |  |

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|     |     |    |    |     |      | Normal color-change / Blackout at color-change / Color Bounce |                                  |
|-----|-----|----|----|-----|------|---|----------------------------------|
| 0   | 16  | 00 | 10 | 0%  | 6%   | S   | Open                             |
| 17  | 33  | 11 | 21 | 7%  | 13%  | S   | Position 1                       |
| 34  | 50  | 22 | 32 | 13% | 20%  | S   | Position 2                       |
| 51  | 67  | 33 | 43 | 20% | 26%  | S   | Position 3                       |
| 68  | 84  | 44 | 54 | 27% | 33%  | S   | Position 4                       |
| 85  | 101 | 55 | 65 | 33% | 40%  | S   | Position 5                       |
| 102 | 118 | 66 | 76 | 40% | 46%  | S   | Position 6                       |
| 119 | 135 | 77 | 87 | 47% | 53%  | S   | Position 7                       |
| 136 | 152 | 88 | 98 | 53% | 60%  | S   | Position 8                       |
| 153 | 169 | 99 | A9 | 60% | 66%  | S   | Position 9                       |
| 170 | 186 | AA | BA | 67% | 73%  | S   | Position 10                      |
| 187 | 203 | BB | CB | 73% | 80%  | S   | Position 11                      |
| 204 | 220 | CC | DC | 80% | 86%  | S   | Position 12                      |
| 221 | 237 | DD | ED | 87% | 93%  | S   | Position 13                      |
| 238 | 255 | EE | FF | 93% | 100% | S   | Position 14                      |
|     |     |    |    |     |      | Forwards rainbow effect                                       |                                  |
| 0   | 255 | 00 | FF | 0%  | 100% | F   | With increasing speed            |
|     |     |    |    |     |      | Backwards rainbow effect                                      |                                  |
| 0   | 255 | 00 | FF | 0%  | 100% | F   | With increasing speed            |
|     |     |    |    |     |      | Color-change at every position                                |                                  |
| 0   | 255 | 00 | FF | 0%  | 100% | F   | Positioning from 0 - 360 degrees |
|     |     |    |    |     |      | Color-wheel   |                                  |
|     |     |    |    |     |      | Normal color-change   |                                  |
| 0   | 2   | 00 | 02 | 0%  | 1%   | S   | Open                             |
| 3   | 5   | 03 | 05 | 1%  | 2%   | S   | Position 1                       |
| 6   | 8   | 06 | 08 | 2%  | 3%   | S   | Position 2                       |
| 9   | 11  | 09 | 0B | 4%  | 4%   | S   | Position 3                       |
| 12  | 14  | 0C | 0E | 5%  | 5%   | S   | Position 4                       |
| 15  | 17  | 0F | 11 | 6%  | 7%   | S   | Position 5                       |
| 18  | 20  | 12 | 14 | 7%  | 8%   | S   | Position 6                       |
| 21  | 23  | 15 | 17 | 8%  | 9%   | S   | Position 7                       |
| 24  | 26  | 18 | 1A | 9%  | 10%  | S   | Position 8                       |
| 27  | 29  | 1B | 1D | 11% | 11%  | S   | Position 9                       |
| 30  | 32  | 1E | 20 | 12% | 13%  | S   | Position 10                      |
| 33  | 35  | 21 | 23 | 13% | 14%  | S   | Position 11                      |
| 36  | 38  | 24 | 26 | 14% | 15%  | S   | Position 12                      |
| 39  | 41  | 27 | 29 | 15% | 16%  | S   | Position 13                      |
| 42  | 44  | 2A | 2C | 16% | 17%  | S   | Position 14                      |
|     |     |    |    |     |      | Blackout at color-change                                      |                                  |

|   |    |  |     |    |    |     |      |   |                               |
|---|----|--|-----|----|----|-----|------|---|-------------------------------|
| 6 |    | 45                                       | 47  | 2D | 2F | 18% | 18%  | S | Open                          |
|   |    | 48                                       | 50  | 30 | 32 | 19% | 20%  | S | Position 1                    |
|   |    | 51                                       | 53  | 33 | 35 | 20% | 21%  | S | Position 2                    |
|   |    | 54                                       | 56  | 36 | 38 | 21% | 22%  | S | Position 3                    |
|   |    | 57                                       | 59  | 39 | 3B | 22% | 23%  | S | Position 4                    |
|   |    | 60                                       | 62  | 3C | 3E | 24% | 24%  | S | Position 5                    |
|   |    | 63                                       | 65  | 3F | 41 | 25% | 25%  | S | Position 6                    |
|   |    | 66                                       | 68  | 42 | 44 | 26% | 27%  | S | Position 7                    |
|   |    | 69                                       | 71  | 45 | 47 | 27% | 28%  | S | Position 8                    |
|   |    | 72                                       | 74  | 48 | 4A | 28% | 29%  | S | Position 9                    |
|   |    | 75                                       | 77  | 4B | 4D | 29% | 30%  | S | Position 10                   |
|   |    | 78                                       | 80  | 4E | 50 | 31% | 31%  | S | Position 11                   |
|   |    | 81                                       | 83  | 51 | 53 | 32% | 33%  | S | Position 12                   |
|   |    | 84                                       | 86  | 54 | 56 | 33% | 34%  | S | Position 13                   |
|   |    | 87                                       | 89  | 57 | 59 | 34% | 35%  | S | Position 14                   |
|   |    | Color Bounce                             |     |    |    |     |      |   |                               |
|   |    | 90                                       | 98  | 5A | 62 | 35% | 38%  | F | Open                          |
|   |    | 99                                       | 107 | 63 | 6B | 39% | 42%  | F | Position 1                    |
|   |    | 108                                      | 116 | 6C | 74 | 42% | 45%  | F | Position 2                    |
|   |    | 117                                      | 125 | 75 | 7D | 46% | 49%  | F | Position 3                    |
|   |    | 126                                      | 134 | 7E | 86 | 49% | 53%  | F | Position 4                    |
|   |    | 135                                      | 143 | 87 | 8F | 53% | 56%  | F | Position 5                    |
|   |    | 144                                      | 152 | 90 | 98 | 56% | 60%  | F | Position 6                    |
|   |    | 153                                      | 161 | 99 | A1 | 60% | 63%  | F | Position 7                    |
|   |    | 162                                      | 170 | A2 | AA | 64% | 67%  | F | Position 8                    |
|   |    | 171                                      | 179 | AB | B3 | 67% | 70%  | F | Position 9                    |
|   |    | 180                                      | 188 | B4 | BC | 71% | 74%  | F | Position 10                   |
|   |    | 189                                      | 197 | BD | C5 | 74% | 77%  | F | Position 11                   |
|   |    | 198                                      | 206 | C6 | CE | 78% | 81%  | F | Position 12                   |
|   |    | 207                                      | 215 | CF | D7 | 81% | 84%  | F | Position 13                   |
|   |    | 216                                      | 223 | D8 | DF | 85% | 87%  | F | Position 14                   |
|   |    | Forwards rainbow effect                  |     |    |    |     |      |   |                               |
|   |    | 224                                      | 239 | E0 | EF | 88% | 94%  | F | With increasing speed         |
|   |    | Backwards rainbow effect                 |     |    |    |     |      |   |                               |
|   |    | 240                                      | 255 | F0 | FF | 94% | 100% | F | With increasing speed         |
| 9 | 12 | Rotating gobo-wheel, gobo-shake function |     |    |    |     |      |   |                               |
|   |    | 0  | 15  | 00 | 0F | 0%  | 6%   | S | Normal gobo-change            |
|   |    | 16                                       | 31  | 10 | 1F | 6%  | 12%  | S | Blackout at gobo-change       |
|   |    | 32                                       | 47  | 20 | 2F | 13% | 18%  | S | Rotating gobo-wheel forwards  |
|   |    | 48                                       | 63  | 30 | 3F | 19% | 25%  | S | Rotating gobo-wheel backwards |
|   |    | 64                                       | 79  | 40 | 4F | 25% | 31%  | S | Gobo-change at every position |

|    |  |    |  |     |    |    |     |      |   |                                  |
|----|--|----|--|-----|----|----|-----|------|---|----------------------------------|
| 10 |  | 13 | 80   | 95  | 50 | 5F | 31% | 37%  | S | Gobo-shake                       |
|    |  |    | 96   | 255 | 60 | FF | 38% | 100% | S | No function                      |
|    |  |    | <b>Rotating gobo-wheel, gobo-shake</b>                           |     |    |    |     |      |   |                                  |
|    |  |    | <i>Normal gobo-change / Blackout at gobo-change / gobo-shake</i> |     |    |    |     |      |   |                                  |
|    |  |    | 0  | 27  | 00 | 1B | 0%  | 11%  | S | Open                             |
|    |  |    | 28   | 55  | 1C | 37 | 11% | 22%  | S | Position 1                       |
|    |  |    | 56   | 83  | 38 | 53 | 22% | 33%  | S | Position 2                       |
|    |  |    | 84   | 111 | 54 | 6F | 33% | 44%  | S | Position 3                       |
|    |  |    | 112  | 139 | 70 | 8B | 44% | 55%  | S | Position 4                       |
|    |  |    | 140  | 167 | 8C | A7 | 55% | 65%  | S | Position 5                       |
|    |  |    | 168  | 195 | A8 | C3 | 66% | 76%  | S | Position 6                       |
|    |  |    | 196  | 223 | C4 | DF | 77% | 87%  | S | Position 7                       |
|    |  |    | 224  | 255 | E0 | FF | 88% | 100% | S | Position 8                       |
|    |  |    | <i>Rotating gobo-wheel forwards</i>                              |     |    |    |     |      |   |                                  |
|    |  |    | 0  | 7   | 00 | 07 | 0%  | 3%   | S | Stop                             |
|    |  |    | 8  | 255 | 08 | FF | 3%  | 100% | F | With increasing speed            |
|    |  |    | <i>Rotating gobo-wheel backwards</i>                             |     |    |    |     |      |   |                                  |
|    |  |    | 0  | 7   | 00 | 07 | 0%  | 3%   | S | Stop                             |
|    |  |    | 8  | 255 | 08 | FF | 3%  | 100% | F | With increasing speed            |
|    |  |    | <i>Gobo-change at every position</i>                             |     |    |    |     |      |   |                                  |
|    |  |    | 0  | 255 | 00 | FF | 0%  | 100% | F | Positioning from 0 - 360 degrees |
|    |  |    | <b>Rotating gobo-wheel, gobo-shake</b>                           |     |    |    |     |      |   |                                  |
|    |  |    | <i>Normal gobo-change</i>  |     |    |    |     |      |   |                                  |
|    |  |    | 0  | 3   | 00 | 03 | 0%  | 1%   | S | Open                             |
|    |  |    | 4  | 7   | 04 | 07 | 2%  | 3%   | S | Position 1                       |
|    |  |    | 8  | 11  | 08 | 0B | 3%  | 4%   | S | Position 2                       |
|    |  |    | 12   | 15  | 0C | 0F | 5%  | 6%   | S | Position 3                       |
|    |  |    | 16   | 19  | 10 | 13 | 6%  | 7%   | S | Position 4                       |
|    |  |    | 20   | 23  | 14 | 17 | 8%  | 9%   | S | Position 5                       |
|    |  |    | 24   | 27  | 18 | 1B | 9%  | 11%  | S | Position 6                       |
|    |  |    | 28   | 31  | 1C | 1F | 11% | 12%  | S | Position 7                       |
|    |  |    | 32   | 35  | 20 | 23 | 13% | 14%  | S | Position 8                       |
|    |  |    | <i>Blackout at gobo-change</i>                                   |     |    |    |     |      |   |                                  |
|    |  |    | 36   | 39  | 24 | 27 | 14% | 15%  | S | Open                             |
|    |  |    | 40   | 43  | 28 | 2B | 16% | 17%  | S | Position 1                       |
|    |  |    | 44   | 47  | 2C | 2F | 17% | 18%  | S | Position 2                       |

|    |  |    |   |     |    |    |     |      |   |                                      |
|----|--|----|---|-----|----|----|-----|------|---|--------------------------------------|
| 7  |  |    | 48  | 51  | 30 | 33 | 19% | 20%  | S | Position 3                           |
|    |  |    | 52  | 55  | 34 | 37 | 20% | 22%  | S | Position 4                           |
|    |  |    | 56  | 59  | 38 | 3B | 22% | 23%  | S | Position 5                           |
|    |  |    | 60  | 63  | 3C | 3F | 24% | 25%  | S | Position 6                           |
|    |  |    | 64  | 67  | 40 | 43 | 25% | 26%  | S | Position 7                           |
|    |  |    | 68  | 71  | 44 | 47 | 27% | 28%  | S | Position 8                           |
|    |  |    | <i>Gobo-shake</i>                         |     |    |    |     |      |   |                                      |
|    |  |    | 72  | 90  | 48 | 5A | 28% | 35%  | F | Position 1                           |
|    |  |    | 91  | 109 | 5B | 6D | 36% | 43%  | F | Position 2                           |
|    |  |    | 110                                       | 128 | 6E | 80 | 43% | 50%  | F | Position 3                           |
|    |  |    | 129                                       | 147 | 81 | 93 | 51% | 58%  | F | Position 4                           |
|    |  |    | 148                                       | 166 | 94 | A6 | 58% | 65%  | F | Position 5                           |
|    |  |    | 167                                       | 185 | A7 | B9 | 65% | 73%  | F | Position 6                           |
|    |  |    | 186                                       | 204 | BA | CC | 73% | 80%  | F | Position 7                           |
|    |  |    | 205                                       | 223 | CD | DF | 80% | 87%  | F | Position 8                           |
|    |  |    | <i>Rotating gobo-wheel forwards</i>       |     |    |    |     |      |   |                                      |
|    |  |    | 224                                       | 224 | E0 | E0 | 88% | 88%  | S | Stop                                 |
|    |  |    | 225                                       | 239 | E1 | EF | 88% | 94%  | F | With increasing speed                |
|    |  |    | <i>Rotating gobo-wheel backwards</i>      |     |    |    |     |      |   |                                      |
|    |  |    | 240                                       | 240 | F0 | F0 | 94% | 94%  | S | Stop                                 |
|    |  |    | 241                                       | 255 | F1 | FF | 95% | 100% | F | With increasing speed                |
| 11 |  | 14 | <b>Rotating gobo-wheel, gobo rotation</b> |     |    |    |     |      |   |                                      |
|    |  |    | 0   | 15  | 00 | 0F | 0%  | 6%   | S | Gobo indexing                        |
|    |  |    | 16  | 31  | 10 | 1F | 6%  | 12%  | S | Rotating gobo-wheel forwards         |
|    |  |    | 32  | 47  | 20 | 2F | 13% | 18%  | S | Rotating gobo-wheel backwards        |
|    |  |    | 48  | 63  | 30 | 3F | 19% | 25%  | S | Motion macro forwards                |
|    |  |    | 64  | 79  | 40 | 4F | 25% | 31%  | S | Motion macro forwards with blackout  |
|    |  |    | 80  | 95  | 50 | 5F | 31% | 37%  | S | Motion macro backwards               |
|    |  |    | 96  | 111 | 60 | 6F | 38% | 44%  | S | Motion macro backwards with blackout |
|    |  |    | 112                                       | 255 | 70 | FF | 44% | 100% | S | No function                          |
|    |  |    | <b>Rotating gobo-wheel, gobo speed</b>    |     |    |    |     |      |   |                                      |
|    |  |    | <i>Gobo indexing</i>                      |     |    |    |     |      |   |                                      |
|    |  |    | 0   | 255 | 00 | FF | 0%  | 100% | F | Positioning from 0 - 360 degrees     |
|    |  |    | <i>Rotating gobo-wheel forwards</i>       |     |    |    |     |      |   |                                      |
|    |  |    | 0   | 7   | 00 | 07 | 0%  | 3%   | S | Stop                                 |
|    |  |    | 8   | 255 | 08 | FF | 3%  | 100% | F | With increasing speed                |

|    |    |    |     |     |    |    |                         |      |                               |   |
|----|----|----|-----|-----|----|----|-------------------------|------|-------------------------------|---|
| 12 |    | 15 |     |     |    |    |                         |      | Rotating gobo-wheel backwards |   |
|    |    |    | 0   | 7   | 00 | 07 | 0%                      | 3%   | S                             | Stop  |
|    |    |    | 8   | 255 | 08 | FF | 3%                      | 100% | F                             | With increasing speed   |
|    |    |    |     |     |    |    |                         |      |                               | Motion macro forwards & motion macro forwards with blackout   |
|    |    |    | 0   | 255 | 00 | FF | 0%                      | 100% | F                             | With increasing speed   |
|    |    |    |     |     |    |    |                         |      |                               | Motion macro backwards & motion macro backwards with blackout |
|    |    |    | 0   | 255 | 00 | FF | 0%                      | 100% | F                             | With increasing speed   |
|    | 8  |    |     |     |    |    |                         |      |                               | Rotating gobo-wheel, gobo speed                               |
|    |    |    |     |     |    |    |                         |      |                               | Gobo indexing   |
|    |    |    | 0   | 191 | 00 | BF | 0%                      | 75%  | F                             | Positioning from 0 - 360 degrees                              |
|    |    |    |     |     |    |    |                         |      |                               | Motion macro forwards   |
|    |    |    | 192 | 207 | C0 | CF | 75%                     | 81%  | F                             | With increasing speed   |
|    |    |    |     |     |    |    |                         |      |                               | Motion macro forwards   |
|    |    |    | 208 | 223 | D0 | DF | 82%                     | 87%  | F                             | With increasing speed   |
|    |    |    |     |     |    |    |                         |      |                               | Rotating gobo forwards  |
|    |    |    | 224 | 224 | E0 | E0 | 88%                     | 88%  | S                             | Stop  |
|    |    |    | 225 | 239 | E1 | EF | 88%                     | 94%  | F                             | With increasing speed   |
|    |    |    |     |     |    |    | Rotating gobo backwards |      |                               |   |
|    |    |    | 240 | 240 | F0 | F0 | 94%                     | 94%  | S                             | Stop  |
|    |    |    | 241 | 255 | F1 | FF | 95%                     | 100% | F                             | With increasing speed   |
| 13 | 9  | 16 |     |     |    |    |                         |      |                               | Prism   |
|    |    |    | 0   | 63  | 00 | 3F | 0%                      | 25%  | S                             | Open  |
|    |    |    | 64  | 127 | 40 | 7F | 25%                     | 50%  | S                             | 3 facet prism   |
|    |    |    | 128 | 191 | 80 | BF | 50%                     | 75%  | S                             | 8 facet prism   |
|    |    |    | 192 | 255 | C0 | FF | 75%                     | 100% | S                             | Frost   |
| 14 | 10 | 17 |     |     |    |    |                         |      |                               | Prism rotation  |
|    |    |    |     |     |    |    |                         |      |                               | Rotating prism forwards                                       |
|    |    |    | 0   | 127 | 00 | 7F | 0%                      | 50%  | F                             | With increasing speed (stop to fastest speed)                 |
|    |    |    |     |     |    |    |                         |      |                               | Rotating prism backwards                                      |
|    |    |    | 128 | 255 | 80 | FF | 50%                     | 100% | F                             | With increasing speed (stop to fastest speed)                 |
| 15 | 11 | 18 |     |     |    |    |                         |      |                               | Focus   |
|    |    |    | 0   | 255 | 00 | FF | 0%                      | 100% | F                             | Continuous adjustment from near to far                        |
| 16 | 12 | 19 |     |     |    |    |                         |      |                               | LED shutter, strobe   |
|    |    |    | 0   | 31  | 00 | 1F | 0%                      | 12%  | S                             | Shutter closed  |
|    |    |    | 32  | 63  | 20 | 3F | 13%                     | 25%  | S                             | No function (shutter open)                                    |
|    |    |    | 64  | 95  | 40 | 5F | 25%                     | 37%  | F                             | Strobe effect with increasing speed                           |
|    |    |    | 96  | 127 | 60 | 7F | 38%                     | 50%  | S                             | No function (shutter open)                                    |
|    |    |    | 128 | 159 | 80 | 9F | 50%                     | 62%  | F                             | Pulse effect in sequences                                     |
|    |    |    | 160 | 191 | A0 | BF | 63%                     | 75%  | S                             | No function (shutter open)                                    |

|           |           |           |     |     |    |    |     |      |   |  |
|-----------|-----------|-----------|-----|-----|----|----|-----|------|---|--|
|           |           |           | 192 | 223 | C0 | DF | 75% | 87%  | F | Random strobe effect with increasing speed                 |
|           |           |           | 224 | 255 | E0 | FF | 88% | 100% | S | No function (shutter open)                                 |
| <b>17</b> | <b>13</b> | <b>20</b> |     |     |    |    |     |      |   | <b>LED dimmer intensity</b>                                |
|           |           |           | 0   | 255 | 00 | FF | 0%  | 100% | F | Gradual adjustment of the dimmer intensity from 0 to 100 % |
| <b>18</b> | <b>14</b> | <b>21</b> |     |     |    |    |     |      |   | <b>Red</b>   |
|           |           |           | 0   | 255 | 00 | FF | 0%  | 100% | F | Red 0 - 100 % increasing                                   |
| <b>19</b> | <b>15</b> | <b>22</b> |     |     |    |    |     |      |   | <b>Green</b>   |
|           |           |           | 0   | 255 | 00 | FF | 0%  | 100% | F | Green 0 - 100 % increasing                                 |
| <b>20</b> | <b>16</b> | <b>23</b> |     |     |    |    |     |      |   | <b>Blue</b>  |
|           |           |           | 0   | 255 | 00 | FF | 0%  | 100% | F | Blue 0 - 100 % increasing                                  |
| <b>21</b> | <b>17</b> | <b>24</b> |     |     |    |    |     |      |   | <b>Reset, display control</b>                              |
|           |           |           | 0   | 7   | 00 | 07 | 0%  | 3%   | S | No function  |
|           |           |           | 8   | 15  | 08 | 0F | 3%  | 6%   | S | Reset all motors   |
|           |           |           | 16  | 23  | 10 | 17 | 6%  | 9%   | S | Reset only Pan/Tilt  |
|           |           |           | 24  | 31  | 18 | 1F | 9%  | 12%  | S | Reset only colors  |
|           |           |           | 32  | 39  | 20 | 27 | 13% | 15%  | S | Reset only gobo  |
|           |           |           | 40  | 47  | 28 | 2F | 16% | 18%  | S | Reset shutter  |
|           |           |           | 48  | 55  | 30 | 37 | 19% | 22%  | S | Reset other motors   |
|           |           |           | 56  | 63  | 38 | 3F | 22% | 25%  | S | Display Off  |
|           |           |           | 64  | 71  | 40 | 47 | 25% | 28%  | S | Display On   |
|           |           |           | 72  | 79  | 48 | 4F | 28% | 31%  | S | Lamp Off   |
|           |           |           | 80  | 87  | 50 | 57 | 31% | 34%  | S | Lamp On  |
|           |           |           | 88  | 95  | 58 | 5F | 35% | 37%  | S | Hibernation  |
|           |           |           | 96  | 255 | 60 | FF | 38% | 100% | S | No function  |



| Eigenschaft   |
|---|
| <b>Horizontale Bewegung (PAN)</b>   |
| Wenn Sie den Regler verschieben, bewegen Sie den Kopf horizontal (PAN). Allmähliches Einstellen des Kopfes bei langsamen Schieben des Reglers (0-255, 128-Mitte). Der Kopf kann an jeder gewünschten Einstellung angehalten werden. |
| <b>PAN-Bewegung mit 16 Bit-Auflösung</b>  |
| Feinindizierung   |
| <b>Vertikale Bewegung (TILT)</b>  |
| Wenn Sie den Regler verschieben, bewegen Sie den Kopf vertikal (TILT). Allmähliches Einstellen des Kopfes bei langsamen Schieben des Reglers (0-255, 128-Mitte). Der Kopf kann an jeder gewünschten Einstellung angehalten werden.  |
| <b>TILT-Bewegung mit 16 Bit-Auflösung</b>   |
| Feinindizierung   |
| <b>Geschwindigkeit PAN-/TILT-Bewegung</b>   |
| Abnehmende Geschwindigkeit  |
| <b>Funktion PAN-/TILT-Bewegung</b>  |
| Normal  |
| Blackout bei PAN-/TILT-Bewegung (LEDs und Shutter)  |
| Blackout bei PAN-/TILT-Bewegung (Shutter)   |
| Blackout bei PAN-/TILT-Bewegung (LEDs)  |
| Keine Funktion  |
| <b>Funktion Shutter, Strobe</b>   |
| Normale Shutter Funktionen  |
| Öffnender Puls-Effekt   |

|   |
|---|
| Schließender Puls-Effekt  |
| Strobe-Effekt über Zufallsgenerator                                 |
| Keine Funktion  |
| <b>Shutter, Strobe</b>  |
| <i>Normale Shutter Funktionen</i>                                   |
| Geschlossen   |
| Strobe-Effekt mit zunehmender Geschwindigkeit                       |
| Offen   |
| <i>Öffnender Puls-Effekt</i>  |
| Geschlossen   |
| Strobe-Effekt mit zunehmender Geschwindigkeit                       |
| Offen   |
| <i>Schließender Puls-Effekt</i>                                     |
| Geschlossen   |
| Strobe-Effekt mit zunehmender Geschwindigkeit                       |
| Offen   |
| <i>Strobe-Effekt über Zufallsgenerator</i>                          |
| Geschlossen   |
| Strobe-Effekt mit zunehmender Geschwindigkeit                       |
| Offen   |
| <b>Shutter, Strobe</b>  |
| Shutter geschlossen   |
| Keine Funktion (Shutter offen)                                      |
| Strobe-Effekt mit zunehmender Geschwindigkeit                       |
| Keine Funktion (Shutter offen)                                      |
| Puls-Effekt in Sequenzen  |
| Keine Funktion (Shutter offen)                                      |
| Strobe-Effekt über Zufallsgenerator mit zunehmender Geschwindigkeit |
| Keine Funktion (Shutter offen)                                      |
| <b>Dimmerintensität</b>   |
| Allmähliche Einstellung der Dimmerintensität von 0 bis 100 %        |
| <b>Funktion Farben</b>  |
| Normaler Farbwechsel  |
| Blackout bei Farbwechsel  |
| Rainboweffekt vorwärts  |
| Rainboweffekt rückwärts   |
| Farbwechsel an jeder Position                                       |
| Schneller Farbsprung  |
| Keine Funktion  |
| <b>Farbrad</b>  |

|   |
|---|
| <i>Normaler Farbwechsel / Blackout bei Farbwechsel / schneller Farbsprung</i> |
| Offen   |
| Position 1  |
| Position 2  |
| Position 3  |
| Position 4  |
| Position 5  |
| Position 6  |
| Position 7  |
| Position 8  |
| Position 9  |
| Position 10   |
| Position 11   |
| Position 12   |
| Position 13   |
| Position 14   |
| <i>Rainboweffekt vorwärts</i>   |
| Mit zunehmender Geschwindigkeit   |
| <i>Rainboweffekt rückwärts</i>  |
| Mit zunehmender Geschwindigkeit   |
| <i>Farbwechsel an jeder Position</i>  |
| Positionierung von 0 - 360 Grad   |
| <b>Farbrad</b>  |
| <i>Normaler Farbwechsel</i>   |
| Offen   |
| Position 1  |
| Position 2  |
| Position 3  |
| Position 4  |
| Position 5  |
| Position 6  |
| Position 7  |
| Position 8  |
| Position 9  |
| Position 10   |
| Position 11   |
| Position 12   |
| Position 13   |
| Position 14   |
| <i>Blackout bei Farbwechsel</i>   |

|   |
|---|
| Offen   |
| Position 1                                      |
| Position 2                                      |
| Position 3                                      |
| Position 4                                      |
| Position 5                                      |
| Position 6                                      |
| Position 7                                      |
| Position 8                                      |
| Position 9                                      |
| Position 10                                     |
| Position 11                                     |
| Position 12                                     |
| Position 13                                     |
| Position 14                                     |
| <i>Schneller Farbsprung</i>                     |
| Offen   |
| Position 1                                      |
| Position 2                                      |
| Position 3                                      |
| Position 4                                      |
| Position 5                                      |
| Position 6                                      |
| Position 7                                      |
| Position 8                                      |
| Position 9                                      |
| Position 10                                     |
| Position 11                                     |
| Position 12                                     |
| Position 13                                     |
| Position 14                                     |
| <i>Rainboweffekt vorwärts</i>                   |
| Mit zunehmender Geschwindigkeit                 |
| <i>Rainboweffekt rückwärts</i>                  |
| Mit zunehmender Geschwindigkeit                 |
| <b>Funktion rotierendes Goborad, Gobo-Shake</b> |
| Normaler Gobowechsel                            |
| Blackout bei Gobowechsel                        |
| Rotierendes Goborad vorwärts                    |
| Rotierendes Goborad rückwärts                   |
| Gobowechsel an jeder Position                   |

|   |
|---|
| Gobo-Shake  |
| Keine Funktion  |
| <b>Rotierendes Goborad, Gobo-Shake</b>                              |
| <i>Normaler Gobowechsel / Blackout bei Gobowechsel / Gobo-Shake</i> |
| Offen   |
| Position 1  |
| Position 2  |
| Position 3  |
| Position 4  |
| Position 5  |
| Position 6  |
| Position 7  |
| Position 8  |
| <i>Rotierendes Goborad vorwärts</i>                                 |
| Stopp   |
| Mit zunehmender Geschwindigkeit                                     |
| <i>Rotierendes Goborad rückwärts</i>                                |
| Stopp   |
| Mit zunehmender Geschwindigkeit                                     |
| <i>Gobowechsel an jeder Position</i>                                |
| Positionierung von 0 - 360 Grad                                     |
| <b>Rotierendes Goborad, Gobo-Shake</b>                              |
| <i>Normaler Gobowechsel</i>   |
| Offen   |
| Position 1  |
| Position 2  |
| Position 3  |
| Position 4  |
| Position 5  |
| Position 6  |
| Position 7  |
| Position 8  |
| <i>Blackout bei Gobowechsel</i>                                     |
| Offen   |
| Position 1  |
| Position 2  |

|  |
|--|
| Position 3                                       |
| Position 4                                       |
| Position 5                                       |
| Position 6                                       |
| Position 7                                       |
| Position 8                                       |
| <i>Gobo-Shake</i>                                |
| Position 1                                       |
| Position 2                                       |
| Position 3                                       |
| Position 4                                       |
| Position 5                                       |
| Position 6                                       |
| Position 7                                       |
| Position 8                                       |
| <i>Rotierendes Goborad vorwärts</i>              |
| Stop   |
| Mit zunehmender Geschwindigkeit                  |
| <i>Rotierendes Goborad rückwärts</i>             |
| Stop   |
| Mit zunehmender Geschwindigkeit                  |
| <b>Rotierendes Goborad, Gobo-Rotation</b>        |
| Goboindizierung                                  |
| Rotierendes Goborad vorwärts                     |
| Rotierendes Goborad rückwärts                    |
| Bewegungsmakro vorwärts                          |
| Bewegungsmakro vorwärts mit Blackout             |
| Bewegungsmakro rückwärts                         |
| Bewegungsmakro rückwärts mit Blackout            |
| Keine Funktion                                   |
| <b>Rotierendes Goborad, Gobo-Geschwindigkeit</b> |
| Goboindizierung                                  |
| Positionierung von 0 - 360 Grad                  |
| <i>Rotierendes Goborad vorwärts</i>              |
| Stopp  |
| Mit zunehmender Geschwindigkeit                  |

|  |
|--|
| Rotierendes Goborad rückwärts  |
| Stopp  |
| Mit zunehmender Geschwindigkeit  |
| Bewegungsmakro vorwärts & Bewegungsmakro vorwärts mit Blackout         |
| Mit zunehmender Geschwindigkeit  |
| Bewegungsmakro rückwärts & Bewegungsmakro rückwärts mit Blackout       |
| Mit zunehmender Geschwindigkeit  |
| <b>Rotierendes Goborad, Gobo-Geschwindigkeit</b>                       |
| Goboindizierung  |
| Positionierung von 0 - 360 Grad  |
| Bewegungsmakro vorwärts  |
| Mit zunehmender Geschwindigkeit  |
| Bewegungsmakro vorwärts  |
| Mit zunehmender Geschwindigkeit  |
| Goborotation vorwärts  |
| Stop   |
| Mit zunehmender Geschwindigkeit  |
| Goborotation rückwärts   |
| Stop   |
| Mit zunehmender Geschwindigkeit  |
| <b>Prisma</b>  |
| Offen  |
| 3-Facetten-Prisma  |
| 8-Facetten-Prisma  |
| Frost  |
| <b>Prismenrotation</b>   |
| Rotierendes Prisma vorwärts  |
| Mit zunehmender Geschwindigkeit (Stopp bis schnellste Geschwindigkeit) |
| Rotierendes Prisma rückwärts   |
| Mit zunehmender Geschwindigkeit (Stopp bis schnellste Geschwindigkeit) |
| <b>Fokus</b>   |
| Allmähliche Einstellung von nah bis weit                               |
| <b>Shutter, Strobe LEDs</b>  |
| Shutter geschlossen  |
| Keine Funktion (Shutter offen)   |
| Strobe-Effekt mit zunehmender Geschwindigkeit                          |
| Keine Funktion (Shutter offen)   |
| Puls-Effekt in Sequenzen   |
| Keine Funktion (Shutter offen)   |

|   |
|---|
| Strobe-Effekt über Zufallsgenerator mit zunehmender Geschwindigkeit |
| Keine Funktion (Shutter offen)                                      |
| <b>Dimmerintensität LEDs</b>  |
| Allmähliche Einstellung der Dimmerintensität von 0 bis 100 %        |
| <b>Rot</b>  |
| Rot 0 - 100 % zunehmend   |
| <b>Grün</b>   |
| Grün 0 - 100 % zunehmend  |
| <b>Blau</b>   |
| Blau 0 - 100 % zunehmend  |
| <b>Reset, Displaysteuerung</b>                                      |
| Keine Funktion  |
| Reset Alle  |
| Reset PAN/TILT  |
| Reset Farben  |
| Reset Gobos   |
| Reset Shutter   |
| Reset Übrige  |
| Display aus   |
| Display an  |
| Lampe aus   |
| Lampe an  |
| Standby-Modus   |
| Keine Funktion  |