# GTD

# 461 II Beam - DMX Protocol

| Revision: A | | | | Valid from firmware version: 1.0 | |
|---|---|---|---|---|---|
| **DMX mode**<br>**Standard (20ch)** | **Name** | **DMX value** | | **DMX percentage** | | **Function** | **Default DMX**<br>**Value** |

| **DMX mode**<br>**Standard (20ch)** | **Name** | **DMX value** | | **DMX percentage** | | **Function** | **Default DMX**<br>**Value** |
|---|---|---|---|---|---|---|---|
| 1 | Strobe/Shutter | 0 | 31 | 0.0% | 12.2% | Closed | 0(0%) |
| | | 32 | 63 | 12.5% | 24.7% | Open | |
| | | 64 | 127 | 25.1% | 49.8% | Synchronous strobe from slow to fast | |
| | | 128 | 159 | 50.2% | 62.4% | Open | |
| | | 160 | 223 | 62.7% | 87.5% | Random strobe from slow to fast | |
| | | 224 | 255 | 87.8% | 100.0% | Open | |
| 2 | Intensity | 0 | 255 | 0.0% | 100.0% | No light ➔ Full light | 0(0%) |
| 3 | | 0 | 65535 | 0.0% | 100.0% | Intensity fade, fine (LSB) | |
| 4 | Color wheel | 0 | 7 | 0.0% | 2.7% | Open | 0(0%) |
| | | 8 | 15 | 3.1% | 5.9% | Color 1 | |
| | | 16 | 23 | 6.3% | 9.0% | Color 2 | |
| | | 24 | 31 | 9.4% | 12.2% | Color 3 | |
| | | 32 | 39 | 12.5% | 15.3% | Color 4 | |
| | | 40 | 47 | 15.7% | 18.4% | Color 5 | |
| | | 48 | 55 | 18.8% | 21.6% | Color 6 | |
| | | 56 | 63 | 22.0% | 24.7% | Color 7 | |
| | | 64 | 71 | 25.1% | 27.8% | Color 8 | |
| | | 72 | 79 | 28.2% | 31.0% | Color 9 | |
| | | 80 | 87 | 31.4% | 34.1% | Color 10 | |
| | | 88 | 95 | 34.5% | 37.3% | Color 11 | |
| | | 96 | 103 | 37.6% | 40.4% | Color 12 | |
| | | 104 | 111 | 40.8% | 43.5% | Color 13 | |
| | | 112 | 127 | 43.9% | 49.8% | Color 14 | |
| | | 128 | 187 | 50.2% | 73.3% | Color1 continous rotation CW from fast to slow | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Color1 continous rotation CCW from slow to fast | |
| 5 | Gobo wheel (static) | 0 | 15 | 0.0% | 5.9% | Open gobo | 0(0%) |
| | | 16 | 17 | 6.3% | 6.7% | Gobo 1 | |
| | | 18 | 19 | 7.1% | 7.5% | Gobo 2 | |
| | | 20 | 21 | 7.8% | 8.2% | Gobo 3 | |
| | | 22 | 23 | 8.6% | 9.0% | Gobo 4 | |
| | | 24 | 25 | 9.4% | 9.8% | Gobo 5 | |
| | | 26 | 27 | 10.2% | 10.6% | Gobo 6 | |
| | | 28 | 29 | 11.0% | 11.4% | Gobo 7 | |
| | | 30 | 31 | 11.8% | 12.2% | Gobo 8 | |
| | | 32 | 33 | 12.5% | 12.9% | Gobo 9 | |
| | | 34 | 35 | 13.3% | 13.7% | Gobo 10 | |
| | | 36 | 37 | 14.1% | 14.5% | Gobo 11 | |
| | | 38 | 39 | 14.9% | 15.3% | Gobo 12 | |
| | | 40 | 41 | 15.7% | 16.1% | Gobo 13 | |
| | | 42 | 43 | 16.5% | 16.9% | Gobo 14 | |
| | | 44 | 45 | 17.3% | 17.6% | Gobo 15 | |
| | | 46 | 47 | 18.0% | 18.4% | Gobo 16 | |
| | | 48 | 52 | 18.8% | 20.4% | Gobo 1 shake | |
| | | 53 | 57 | 20.8% | 22.4% | Gobo 2 shake | |
| | | 58 | 62 | 22.7% | 24.3% | Gobo 3 shake | |
| | | 63 | 67 | 24.7% | 26.3% | Gobo 4 shake | |
| | | 68 | 72 | 26.7% | 28.2% | Gobo 5 shake | |
| | | 73 | 77 | 28.6% | 30.2% | Gobo 6 shake | |
| | | 78 | 82 | 30.6% | 32.2% | Gobo 7 shake | |
| | | 83 | 87 | 32.5% | 34.1% | Gobo 8 shake | |
| | | 88 | 92 | 34.5% | 36.1% | Gobo 9 shake | |
| | | 93 | 97 | 36.5% | 38.0% | Gobo 10 shake | |
| | | 98 | 102 | 38.4% | 40.0% | Gobo 11 shake | |
| | | 103 | 107 | 40.4% | 42.0% | Gobo 12 shake | |
| | | 108 | 112 | 42.4% | 43.9% | Gobo 13 shake | |
| | | 113 | 117 | 44.3% | 45.9% | Gobo 14 shake | |
| | | 118 | 122 | 46.3% | 47.8% | Gobo 15 shake | |
| | | 123 | 127 | 48.2% | 49.8% | Gobo 16 shake | |
| | | 128 | 187 | 50.2% | 73.3% | Gobo wheel continous rotation CW from slow to fast | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Gobo wheel continous rotation CCW from slow to fast | |
| | | 0 | 7 | 0.0% | 2.7% | Open gobo | |

| | | | | | | | Default |
|---|---|---|---|---|---|---|---|
| 6 | Rotating gobo wheel | 8 | 12 | 3.1% | 4.7% | Gobo 1 | 0(0%) |
| | | 13 | 17 | 5.1% | 6.7% | Gobo 2 | |
| | | 18 | 22 | 7.1% | 8.6% | Gobo 3 | |
| | | 23 | 27 | 9.0% | 10.6% | Gobo 4 | |
| | | 28 | 32 | 11.0% | 12.5% | Gobo 5 | |
| | | 33 | 37 | 12.9% | 14.5% | Gobo 6 | |
| | | 38 | 42 | 14.9% | 16.5% | Gobo 7 | |
| | | 43 | 47 | 16.9% | 18.4% | Gobo 8 | |
| | | 48 | 52 | 18.8% | 20.4% | Gobo 9 | |
| | | 53 | 57 | 20.8% | 22.4% | Gobo 10 | |
| | | 58 | 62 | 22.7% | 24.3% | Gobo 11 | |
| | | 63 | 67 | 24.7% | 26.3% | Gobo 12 | |
| | | 68 | 72 | 26.7% | 28.2% | Gobo 1 shake | |
| | | 73 | 77 | 28.6% | 30.2% | Gobo 2 shake | |
| | | 78 | 82 | 30.6% | 32.2% | Gobo 3 shake | |
| | | 83 | 87 | 32.5% | 34.1% | Gobo 4 shake | |
| | | 88 | 92 | 34.5% | 36.1% | Gobo 5 shake | |
| | | 93 | 97 | 36.5% | 38.0% | Gobo 6 shake | |
| | | 98 | 102 | 38.4% | 40.0% | Gobo 7 shake | |
| | | 103 | 107 | 40.4% | 42.0% | Gobo 8 shake | |
| | | 108 | 112 | 42.4% | 43.9% | Gobo 9 shake | |
| | | 113 | 117 | 44.3% | 45.9% | Gobo 10 shake | |
| | | 118 | 122 | 46.3% | 47.8% | Gobo 11 shake | |
| | | 123 | 127 | 48.2% | 49.8% | Gobo 12 shake | |
| | | 128 | 187 | 50.2% | 73.3% | Gobo wheel continous rotation CW from slow to fast | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Gobo wheel continous rotation CCW from slow to fast | |
| 7 | Gobo rotating/positioning gobo wheel 1 | 0 | 127 | 0.0% | 49.8% | Gobo rotation positioning | 0(0%) |
| | | 128 | 187 | 50.2% | 73.3% | Gobo continous rotation CW from slow to fast | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Gobo continous rotation CCW from slow to fast | |
| 8 | Focus | 0 | 255 | 0.0% | 100.0% | Near ➔ Far | 0(0%) |
| 9 | Prism1 | 0 | 31 | 0.0% | 12.2% | Off | 0(0%) |
| | | 32 | 255 | 12.5% | 100.0% | On | |
| 10 | Prism1 rotation | 0 | 127 | 0.0% | 49.8% | Prism indexed | 0(0%) |
| | | 128 | 187 | 50.2% | 73.3% | Prism continous rotation CW from slow to fast | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Prism continous rotation CCW from slow to fast | |
| 11 | Prism2 | 0 | 31 | 0.0% | 12.2% | Off | 0(0%) |
| | | 32 | 255 | 12.5% | 100.0% | On | |
| 12 | Prism2 rotation | 0 | 127 | 0.0% | 49.8% | Prism indexed | 0(0%) |
| | | 128 | 187 | 50.2% | 73.3% | Prism continous rotation CW from slow to fast | |
| | | 188 | 195 | 73.7% | 76.5% | Stop | |
| | | 196 | 255 | 76.9% | 100.0% | Prism continous rotation CCW from slow to fast | |
| 13 | Prism Zoom | 0 | 255 | 0.0% | 100.0% | Narrow ➔ Wide | 0(0%) |
| 14 | Frost | 0 | 127 | 0.0% | 49.8% | Off | 0(0%) |
| | | 128 | 255 | 50.2% | 100.0% | On | |
| 15 | Pan | 0 | 255 | 0.0% | 100.0% | Pan | 0(0%) |
| 16 | | 0 | 65535 | 0.0% | 100.0% | Pan, fine (LSB) | |
| 17 | Tilt | 0 | 255 | 0.0% | 100.0% | Tilt | 46(18.0%) |
| 18 | | 0 | 65535 | 0.0% | 100.0% | Tilt, fine (LSB) | |
| 19 | Scan speed | 0 | 255 | 0.0% | 100.0% | Scan speed from slow to fast | 0(0%) |
| 20 | Special controls | 0 | 9 | 0.0% | 3.5% | No function | 0(0%) |
| | | 10 | 19 | 3.9% | 7.5% | Open light after 5 seconds | |
| | | 20 | 29 | 7.8% | 11.4% | Close light after 5 seconds | |
| | | 30 | 39 | 11.8% | 15.3% | Color wheel half color switch | |
| | | 40 | 49 | 15.7% | 19.2% | Color wheel random positioning | |
| | | 50 | 59 | 19.6% | 23.1% | Reserved | |
| | | 60 | 69 | 23.5% | 27.1% | Reset all motor after 5 seconds | |
| | | 70 | 79 | 27.5% | 31.0% | Scan motor reset after 5 seconds | |
| | | 80 | 89 | 31.4% | 34.9% | All color motor reset after 5 seconds | |
| | | 90 | 99 | 35.3% | 38.8% | All gobo motor reset after 5 seconds | |
| | | 100 | 109 | 39.2% | 42.7% | All strobe motor reset after 5 seconds | |
| | | 110 | 119 | 43.1% | 46.7% | Other motor reset after 5 seconds | |
| | | 120 | 129 | 47.1% | 50.6% | Built-in program 1 | |
| | | 130 | 139 | 51.0% | 54.5% | Built-in program 2 | |
| | | 140 | 149 | 54.9% | 58.4% | Built-in program 3 | |
| | | 150 | 159 | 58.8% | 62.4% | Built-in program 4 | |
| | | 160 | 169 | 62.7% | 66.3% | Built-in program 5 | |
| | | 170 | 179 | 66.7% | 70.2% | Built-in program 6 | |
| | | 180 | 189 | 70.6% | 74.1% | Built-in program 7 | |
| | | 190 | 199 | 74.5% | 78.0% | Built-in program 8 | |
| | | 200 | 209 | 78.4% | 82.0% | Built-in program 9 | |
| | | 210 | 219 | 82.4% | 85.9% | Built-in program 10 | |
| | | 220 | 255 | 86.3% | 100.0% | Voice control | |