

## *HAWK-800 AtomaHawk Quick Reference*

### Global Mode Executable Commands

11 GL 11 = No operation	
11 GL 12 = All notes off (Panic Button)	Sends MIDI all notes off controller if MIDI keyboard TX channel is set.
11 GL 13 = SYSEX dump all patches	Sends all 64 patches (11-88) of current selected patch bank.
11 GL 14 = SYSEX dump single patch	Sends the SYSEX dump of currently selected patch.
11 GL 15 = SYSEX dump single patch	Sends the SYSEX dump for patch selected by GL 12.
11 GL 16 = SYSEX dump sequencer	Sends the SYSEX dump for the currently selected sequence.
11 GL 17 = SYSEX dump global parameters	Sends the SYSEX dump of all global parameters
11 GL 25 = Jump into flash update routine	Used to update flash ROM.
11 GL 26 = Go to "Tools" mode	Various utility functions. See the owners manual.

### Global Mode Parameters

12 GL xx - Selected patch or parameter	11-88
13 GL xx – Patch Bank Select	1 – 4
14 GL xx - Sequencer clock internal/external	1=Internal (sequencer), 2=External (MIDI)
15 GL xx - Program change enable	0=Disabled, 1=Enabled
16 GL xx – NRPN MSB Device Select	0-63, (1=Recommended)
17 GL xx – Sustain Pedal Operation Select	0=Off, 1-3 On
18 GL xx - Portamento fine tuning	00-63 (9=Recommended)
21 GL xx - Omni on/off/auto	0=Off, 1=On (Recommended)
22 GL xx - Keyboard MIDI transmit select	0=Off, 1-16=Channel
23 GL xx - Local Keyboard control	0=Off, 1=On
24 GL xx - Local Sequencer control	0=Off, 1=On
25 GL xx - Sequencer MIDI time code send	0=Off, 1=On
26 GL xx - Sequencer MIDI transmit channel	0=Off, 1-16=Channel
27 GL xx - MIDI receive channel	1-16=Channel
28 GL xx - MIDI soft thru	0=Off (Recommended), 1=On
31 GL xx - Extended playing range	0=Off, 1=On
32 GL xx - Cascading unit number	0=Off, 1=Odd, 2=Even
33 GL xx - Cascading sync mode	0=Off, 1=On
34 GL xx - Device type	0=Poly-800 Mk1, 1=EX-800, 2=Poly-800 MK2
35 GL xx - Keyboard MIDI transmit note octave offset	0=Normal Operation, 1-3= – oct. 4-6= +oct.
36 GL xx - Keyboard MIDI transmit note velocity offset	00-63, 63=Recommended
37 GL xx - Sequencer note follow mode	0=Off, 1=On
38 GL xx – Velocity sensitivity reaction timer	0=off, 1-63 increasing delay
41 GL xx - Joystick MIDI TX channel number	0=Off, 1-16=Channel
42 GL xx - Local Joystick control off	0=Off, 1=On, 2=Parameter edit, 3=para/prog edit mode.
43 GL xx - Advanced Sequencer Mode	1=Off, 2-64 = Beats per seq. display
44 GL xx – Default power on selected sequence	1-7
45 GL xx - "Fast" mode (note ON fast response timer)	2 – 64 (9 recommended)
46 GL xx – sequencer MIDI ticks per quarter note	1-12 (default 6)

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47 GL xx – scaled or absolute data values for parameter change CC values	0=scaled, 1=absolute
48 GL xx – MIDI bank select change causes a patch change	0=off, 1=on
51 – 57 GL xx – Protect sequence (locked to avoid sequence edit)	0=unlocked, 1=protected/locked
58 GL xx – AtomaHawk version selector	0=version 1.3b and lower, 1=version 1.4
86 – Display MIDI transmitted bytes	0-63 (the counter resets to zero after 63)
87 – Display MIDI received bytes	0-63 (the counter resets to zero after 63)
88 – Display MIDI over run errors	0-63 (the counter resets to zero after 63)

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<b>Original Parameter Groups</b>		
<b>DCO1 and DCO2 Group</b>	<b>Range</b>	<b>CC #</b>
Original 11, 21 – DCO1, DCO2 Octave	1 to 3	0,8
Original 12, 22 – DCO1, DCO2 Waveform	1 and 2	1,9
Original 13, 23 – DCO1, DCO2 harmonic selector	1 to 16	2,10
Original 14, 24 – DCO1, DCO2 harmonic modulation waveform	1 to 11	3,11
Original 15, 25 – DCO1, DCO2 harmonic modulation LFO source	1 to 4	4,12
Original 16, 26 – DCO1, DCO2 harmonic modulation depth	0 to 15	5,13
Original 17, 27 – DCO1, DCO2 volume	0 to 31	6,14
Original 18 – DCO single double mode	1 and 2	7
<b>DCO Tune and Noise Group</b>	<b>Range</b>	<b>CC #</b>
Original 31 – DCO2 interval	0 to 11	16
Original 32 – DCO2 detune	0 to 3	17
Original 33 – Noise Level	0 to 15	18
Original 34 – Effects delay time (MK2 mode only)	0 to 99	19
Original 35 – Effects feedback (MK2 mode only)	0 to 15	20
Original 36 – Effects modulation frequency (MK2 mode only)	0 to 31	21
Original 37 – Effects modulation intensity (MK2 mode only)	0 to 31	22
Original 38 – Effects level (MK2 mode only)	0 to 15	23
<b>VCF and Chorus Group</b>	<b>Range</b>	<b>CC #</b>
Original 41 – VCF cut off set point	0 to 99	24
Original 42 – VCF keyboard track	0 to 2	25
Original 43 – VCF EG polarity	1 and 2	26
Original 44 – VCF EG depth	0 to 15	27
Original 45 – EG3 trigger	1 and 2	28
Original 46 – EQ bass (MK2 mode only)	0 to 11	29
Original 47 – EQ treble (MK2 mode only)	0 to 11	30
Original 48 – Chorus (MK1 and EX-800 modes only)	0 and 1	31
<b>EG1, EG2 and EG3 Group</b>	<b>Range</b>	<b>CC #</b>

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Original 51, 61, 71 – Attack	0 to 31	32,40,48
Original 52, 62, 72 – Decay	0 to 31	33,41,49
Original 53, 63, 73 – Break point	0 to 31	34,42,50
Original 54, 64, 74 – Slope	0 to 31	35, 43, 51
Original 55, 65, 75 – Sustain	0 to 31	36, 44, 52
Original 56, 66, 76 – Release	0 to 31	37, 45, 53
<b>Velocity Group</b>	<b>Range</b>	<b>CC #</b>
Original 81 – Velocity Operator 1 Intensity	0 to 15	56
Original 82 – Velocity Operator 1 Invert	0 to 1	57
Original 83 – Velocity Operator 1 Target	1 to12	58
Original 84 – Velocity Operator 1 Intensity	0 to 15	59
Original 85 – Velocity Operator 1 Invert	0 to 1	60
Original 86 – Velocity Operator 1 Target	1 to12	61
Original 87 – VCF Velocity Sensitive Intensity	0 to 6	62
Original 88 – VCF velocity sensitive response shape	1 to 4	63
<b>Extended Parameter Groups</b>		
<b>LFO1 and LFO2 Group</b>	<b>Range</b>	<b>CC #</b>
Extended 11, 21 – LFO1, LFO2 frequency	0 to 15	64,72
Extended 12, 22 – LFO1, LFO2 delay timer	0 to 15	65,73
Extended 13, 23 – LFO1, LFO2 free running	0 and 1	66,74
Extended 14, 24 – LFO1, LFO2 delay invert	0 and 1	67,75
Extended 15, 25 – LFO1, LFO2 PWM phase	0 to 63	68,76
Extended 16, 26 – LFO3/4 waveform for LFO1/2 frequency modulation	1 to 8	69,77
Extended 17, 27 – LFO3/4 modulation depth of LFO1/2 freq. modulation	0 to 15	70,78
Extended 18 – LFO1 start phase position 0,90,180,270 degrees	1 to 4	71
Extended 28 – LFO2 sync driven frequency	0 to 63	79
<b>DCO Modulation Group</b>	<b>Range</b>	<b>CC #</b>
Extended 31 – DCO LFO waveform selector	1 to 11	80
Extended 32 – DCO LFO modulation source selector	1 to 4	81
Extended 33 – DCO LFO modulation depth	0 to 15	82
Extended 34 – not used		83
Extended 35 – DCO EG invert	1 and 2	84
Extended 36 – DCO EG depth	0 to 15	85
Extended 37 – not used		86
Extended 38 – DCO Modulation mode	0 to 2	87
<b>VCF Modulation Group</b>	<b>Range</b>	<b>CC #</b>

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Extended 41 – VCF 1st LFO waveform selector	1 to 11	88
Extended 42 – VCF 1st LFO modulation source selector	1 to 4	89
Extended 43 – VCF 1st LFO modulation depth	0 to 15	90
Extended 44 – VCF 2nd LFO waveform selector	1 to 9	91
Extended 45 – VCF 2nd LFO modulation source selector	1 to 4	92
Extended 46 – VCF 2nd LFO modulation depth	0 to 15	93
Extended 47 – VCF modulator mode for 2nd attenuates 1 <sup>st</sup> and 2 <sup>nd</sup> minimum	00 to 15	94
Extended 48 – VCF 12/24db filter selector *	1 and 2	95
<b>Resonance Modulation Group</b>	<b>Range</b>	<b>CC #</b>
Extended 51 – Resonance set point	0 to 99	96
Extended 52 – Resonance LFO modulation waveform selector	1 to 9	97
Extended 53 – Resonance LFO modulation source selector	1 to 4	98
Extended 54 – Resonance LFO modulation depth	0 to 15	99
Extended 55 – not used		100
Extended 56 – Resonance EG depth	0 to 15	101
Extended 57 – Resonance EG invert	1 and 2	102
Extended 58 – Aggressive Resonance *	0 and 1	103
<b>FM/Noise Modulation Group *</b>	<b>Range</b>	<b>CC #</b>
Extended 61 – FM800 set point *	0 to 99	104
Extended 62 – FM800 LFO modulation waveform selector *	1 to 9	105
Extended 63 – FM800 LFO modulation source selector *	1 to 4	106
Extended 64 – FM800 LFO modulation depth *	0 to 15	107
Extended 65 – not used		108
Extended 66 – FM800 EG depth *	0 to 15	109
Extended 67 – FM800 EG invert *	1 and 2	110
Extended 68 – FM800 Mode *	0 to 2	111
<b>SLFO Group</b>	<b>Range</b>	<b>CC #</b>
Extended 71 – SLFO3 frequency	0 to 15	112
Extended 72 – SLFO3 PWM phase	0 to 63	113
Extended 73 – SLFO3 free running	0 and 1	114
Extended 74 – quarter note rate of clocked random sample and hold	0 to 63	115
Extended 75 – SLFO4 frequency	0 to 15	116
Extended 76 – SLFO4 PWM phase	0 to 63	117
Extended 77 – SLFO4 free running	0 and 1	118
Extended 78 – SLFO4 start phase position 0,90,180,270 degrees	1 to 4	119
<b>Tremolo and Special Parameters Group</b>	<b>Range</b>	<b>CC #</b>

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Extended 81 – Tremolo DCO1 mode and LFO source	0 to 2	120
Extended 82 – Tremolo DCO1 LFO modulation depth	0 to 15	121
Extended 83 – Tremolo DCO2 mode and LFO source	0 to 2	122
Extended 84 – Tremolo DCO2 LFO modulation depth	0 to 15	123
Extended 85 – Bend Depth	0 to 63	124
Extended 86 – Portamento Rate	0 to 63	125
Extended 87 – Pedal operation Decay/Sustain Offset	0 to 31	126
Extended 88 – Poly Mode	0 to 3	127

NOTE: \* -You must have the AtomaHawk upgrade kit installed for this parameter to have any effect.

See next page for LFO waveforms and harmonics selection quick reference.

LFO Waveform	Parameter Value
Triangle	1
Inverted triangle	2
Sawtooth	3
Inverted sawtooth	4
Sine	5
Inverted sine	6
PWM square	7
Inverted PWM square	8
Random sample and hold from LFO	9
Random sample and hold from Seq. Or MIDI clock	10
Random sample and hold from Seq. loop/repeat	11
Source from Envelope Generator 3	12
Source from inverted Envelope Generator 3	13

Selected Harmonics	Parameter Value
16'	1
8'	2
4'	3
2'	4
16' + 8'	5
16' + 4'	6
16' + 2'	7
8' + 4'	8
8' + 2'	9
4' + 2'	10
16' + 8' + 4'	11
16' + 8' + 2'	12
16' + 4' + 2'	13
8' + 4' + 2'	14
All harmonics ON	15
All harmonics OFF	16