

## ***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)                                      |

| <i><b>HAWK-800 AtomaHawk Quick Reference</b></i>                         |  |             |
|--|--|-------------|
| 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) |             |
| <i><b>HAWK-800 AtomaHawk Quick Reference</b></i>                         |  |             |
| <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> |

| <i><b>HAWK-800 AtomaHawk Quick Reference</b></i>                     |              |             |
|--|--------------|-------------|
| 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> |

| <i><b>HAWK-800 AtomaHawk Quick Reference</b></i>  |              |             |
|---|--------------|-------------|
| 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> |

| <i><b>HAWK-800 AtomaHawk Quick Reference</b></i>   |         |     |
|--|---------|-----|
| 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              |