

### <u>User Notes for Minimoog® Voyager™ Software Update 1.5</u>

## I. CHANGES TO OPERATING SYSTEM

The Minimoog Voyager Operating System version 1.5 contains important and powerful new functions for the instrument. It is recommended for all Voyager users. *This update is a 2-step update and requires the upgrading of the Boot System to version 1.2 as well as the System ROM.* Using the "receive update" function, first update the System ROM (bank A). Second, using "receive update" again, update the Boot ROM (bank B). Thanks to all of our customers who have provided suggestions and comments.

If you have skipped any of the updates, there will be features that you may be unfamiliar with. There is a copy of the Voyager's User's Manual online at moogmusic.com (<u>http://moogmusic.com/support\_vgr.html</u>) that is available for download.

The following is a description of the new features:

### GENERAL:

- Voyager powers up in PANEL MODE.
- Navigation using +/- buttons no longer "moves the menu". The cursor moves in the direction of the buttons. This is a feature that lots of folks asked for. Notice that the upper right corner displays the menu page followed by the number of the item that is highlighted.
- Mode menus are numbered by page and item to assist navigation.
- +/-1 button scroll function. When you hold down either of the +/-1 buttons, they begin to scroll. The scrolling goes faster after a few moments of the button being held down.
- The Voyager remembers the last edited sound on power down. That sound is loaded when the Voyager is powered up again.
- MIDI Clock retriggers LFO (LFO sync switch). When the LFO SYNC switch is set to "MIDI", a MIDI clock signal retriggers the start of the LFO cycle. Because the Voyager has an analog LFO – the LFO Rate itself is not automatically set to the clock frequency – just the start of the LFO cycle. Adjusting the LFO Rate to a different rate relative to the MIDI clock signal can yield some interesting LFO patterns.
- Voyager responds to MIDI In CC messages. CC stands for continuous controller a type of MIDI message used to produce variation in a sound.

A CC message has a number (which describes what parameter is changed) and a value. All the front panel knobs and switches are assigned a CC number. Here is the list of 53 Voyager parameters and CCs assigned to them.

Parameter	CC#	Value
mod wheel	1	0-127
LFO rate	4	0-127
glide rate	5	0-127
mod wheel mod buss amount	6	
volume	7	
pedal/on mod buss amount	8	
osc 1 wave	9	
osc 2 freq	10	
osc 2 wave	11	
osc 3 freq	12	
osc 3 wave	13	
ext audio level	14	
osc 1 level	15	
osc 2 level	16	
osc 3 level	17	
noise level	18	
filter cutoff	19	
filter spacing	20	
filter resonance	21	
filter KB amount	22	
filter attack	23	
filter decay	24	
filter sustain	25	
filter release	26	
filter env. amount	27	
volume attack	28	
volume decay	29	
volume sustain	30	
volume release	31	▼
release (footswitch)	64	0-63=off, 64-127= on
glide	65	
release (rocker switch)	66	
Ifo sync	67	
mod wheel mod buss source	68	0-15 = triangle
		16-31 = square
		32-47 = 0sc 3

		48-63 = sample and hold
		64-79 = on/mod2
		80-127 = noise/pam
mod wheel mod buss dest.	69	0-15 = pitch
		16-31 = 0.002
		$32 \cdot 47 = 0.03$
		48 63 -  filtor
		40-00 = 1000
		90.127 - Marce
	70	0.21 -  filt opv
Thod wheel thod buss shaping	70	0.31 = 100  eV
		52-05 = Velocity
		64-95 = pressure
		96-127 = on/pgm
pedal/ on mod buss source	/4	0-15 = triangle
		16-31 = square
		32-47 = osc  3
		48-63 = sample and hold
		64-79 = on/mod2
		80-127 = noise/pgm
pedal/on mod buss destination	75	0-15 = pitch
		$16-31 = \operatorname{osc} 2$
		$32-47 = \csc 3$
		48-63 = filter
		64-79 = wave
		80-127 = lfo rate/pgm
pedal/on mod buss shaping	76	0-31 = filt env
		32-63 = velocity
		64-95 = pressure
		96-127 = on/pam
osc 1 octave	80	0-15 = 32'
		16-31 = 16'
		32-47 = 8'
		48-63 = 4'
		64-79 = 2'
		80-127 = 1'
osc 2 octave	81	0.15 = 32'
		16-31 = 16'
		$32_{-}47 - 8'$
		$A_{8-63} - A'$
		40-00 = 4 61-70 = 0'
		80-127 - 1'
oso 3 octave	80	0.15 - 30'
		16 - 32
		10-31 = 10
		32-4/ = 0

		48-63 = 4'
		64-79 = 2'
		80-127 = 1'
1->2 sync	83	0-63 = off, 64-127 = on
3-> FM	84	
3 KB control	85	<b>▼</b>
3 frequency	86	
external audio on/off	87	
osc 1 on/off	88	
osc 2 on/off	89	
osc 3 on/off	90	
noise on/off	91	
filter mode	92	0-63 = dual  lp,  64-127 = hp/lp
envelope gate	93	0-63 = keyboard, 64-127 = ext/on

#### MASTER MODE

- Menu page numbering scheme:
  - 1.1 LCD Contrast
  - 1.2 MIDI In Channel
  - 1.3 MIDI Out Channel
  - 1.4 MIDI Local Ctrl.
  - 2.1 MIDI Prg. Change
  - 2.2 MIDI Merge Func.
  - 2.3 Send Panel Sound
  - 2.4 Send All Presets
  - 3.1 Receive Presets
  - 3.2 \*\*Reserved\*\*
  - 3.3 \*\*Reserved\*\*
  - 3.4 \*\*Reserved\*\*
  - 4.1 Software Version
  - 4.2 Send System ROM
  - 4.3 Send Boot System
  - 4.4 Receive Update
- MIDI Local Ctrl.: Local Control On/Off for the keyboard. This turns off the keyboard's internal connection to the Voyager. This is used in the case you do NOT want the keyboard to trigger the Voyager's envelopes or change the pitch of the oscillators. This is commonly used when triggering the Voyager from a sequencer – and prevents accidental interference with the notes being played by the sequencer.
- MIDI Prg. Change: Program Change Receive On/Off. This enables or disables the Voyager's reception of MIDI program changes.
- MIDI Merge Func.: Turns MIDI merge On/Off. With Merge ON, a MIDI message appearing at the Voyager's MIDI in is sent to the Voyager's MIDI out and is

combined with the Voyager's internally generated MIDI messages. When sequencing, this function should be turned off to prevent "double triggering".

- Send Panel Sound: For archiving single presets. This function allows the export of a single preset from the Voyager's bank of presets. This used in conjunction with the ability to import a single preset in PANEL mode allows the Voyager user to build up custom preset banks. Performing this function is done just as you would the "Send ALL Presets" function.
- Software Version: Displays the current System ROM version and date of the release.
- Send System ROM: Now Displays the System ROM version on the bottom line.
- Send Boot System: Now displays the Boot System Version on the bottom line.
- Receive Update: Now has ability to update Boot ROM (Bank B) The Voyager's software is now divided into four sectors: Bank A, B, C, and D. Bank B is the Boot ROM. When Updating the Voyager software, the Voyager automatically detects which bank is being sent to it.

# EDIT MODE: note: all the following items are now part of a preset.

- Menu page numbering scheme:
  - 1.1 Recall
  - 1.2 Real Panel Control
  - 1.3 Pitch Bend Amt.
  - 1.4 Pgm. M. Whl. Source
  - 2.1 Pgm. M. Whl. Dest.
  - 2.2 Pgm. Ped. Source
  - 2.3 Pgm. Ped Dest.
  - 2.4 \*\*\*Reserved\*\*\*
  - 3.1 \*\*\*Reserved\*\*\*
  - 3.2 Keyboard Modes
  - 3.3 Trigger Modes
  - 3.4 Fil. A Pole Sel.
  - 4.1 Fil. B Pole Sel.
  - 4.2 \*\*\*Reserved\*\*\*
  - 4.3 \*\*\*Reserved\*\*\*
  - 4.4 T.S. Destinations
  - 5.1 T.S. Mem. Mod Bus
  - 5.2 T.S. Mem Global
  - 5.3 LFO Clock Divider
  - 5.4 \*\*Reserved\*\*
  - 6.1 \*\*Reserved\*\*
  - 6.2 Init. Parameters
  - 6.3 Preset Name
  - 6.4 Save Preset

- Fil. A Pole Sel.: This allows the configuration of the cutoff slope of Filter A. Filter A is the Filter that is controlled only by the cutoff control. In Dual lowpass it is the RIGHT output (using both outputs). In Highpass/Lowpass, it is the Lowpass filter. Use the +/-1 buttons to select 1, 2, 3, or 4 poles. A pole = 6dB/ octave cutoff slope as the poles increase, so does the cutoff slope of the filter. a 1 pole filter has a 6 dB/ octave cutoff slope (when it's a lowpass filter you hear it as very bright) and a 4 pole filter has a 24 dB/ octave cutoff slope (when it's a lowpass filter you hear it as smooth, dark, yet warm).
- Fil. B Pole Sel.: This allows the configuration of the cutoff slope of Filter B. Filter B is the Filter that is controlled by the Cutoff control and the Spacing control. In Dual lowpass it is the Left output (using both outputs). In Highpass/Lowpass, it is the Highpass filter. Use the +/-1 buttons to select 1, 2, 3, or 4 poles.
- T.S. Destination: Touch Surface Destination. Highlighting this item and pressing enter accesses the different outputs of the Touch surface: X, Y, A Gate. The screen looks like this:

# Touch Surface X

Touch Surface Y Touch Surface A \*\*\*Reserved\*\*\*

Use the +/-1 button and selecting an output, then press ENTER. The display shows something like this:

# Dest: Volume

MIDI Ctrl. No. 7 Direction: Normal TS-X Amount: 50%

The parameters for each touch surface axis are: touch surface destination, the MIDI CC being transmitted, the direction of control, and the amount. To get back to the previous screen, simply press ENTER.

DEST.: Voyager users can choose one of 32 destinations for the Voyager's touch surface outputs X, Y and A. Here is a list of the destinations:

- LFO rate
- glide rate
- mod wheel mod bus amount
- volume
- pedal/on mod bus amount
- osc 1 waveform
- osc 2 frequency
- osc 2 waveform
- osc 3 frequency
- osc 3 waveform
- external audio in level

- osc 1 level
- osc 2 level
- osc 3 level
- noise level
- filter cutoff
- filter spacing
- filter resonance
- filter KB amount
- filter attack
- filter decay
- filter sustain
- filter release
- filter envelope amount
- volume attack
- volume decay
- volume sustain
- volume release
- key cv (pitch of all 3 oscillators across range of keyboard)
- osc 1 octave (pitch of single oscillator across range of keyboard)
- osc 2 octave (pitch of single oscillator across range of keyboard)
- osc 3 octave (pitch of single oscillator across range of keyboard)

MIDI Ctrl No. (Note: as MIDI CC outs are not yet implemented, this function does not work yet.)

Direction: normal or inverted – this selects a direction for the touch surface axes to modulate the destination.

For the X axis, Normal means moving from *left to right* increases the destination's value, inverted means *right to left* increases the destination's value.

For the Y axis, normal means moving from *bottom to top* increases the destination's value, inverted means *top to bottom* increases the destination's value.

For the A (area) axis, normal means changing the area covered from *small* to large increases the destination's value, inverted means large to *small* increases the destination's value.

Amount: OFF, 50%, or 100%. This parameter sets the amount of touch surface modulation of it's destination. Each axis can be set independently. OFF means that axis does not modulate the destination. 50% means that the amount of the touch surface output adds 50% of the total range of that control to its present value. For example, if the Filter cutoff is the destination of touch surface x, the amount is set to 50%, and the Cutoff knob is fully counter clockwise, the maximum X value (all the way to the right) would make a change in the filter cutoff equal to turning the Cutoff knob to the

mid-position. When the amount is set to 100%, the touch surface output equals the full range of the destination's control.

- Touch Surface Memory Mod Busses. This adds memory to the touch surface X and Y outputs used as modulation sources in the mod busses. When the user's finger is removed from the touch surface, the last X and Y values are remembered until the next time contact is made with the touch surface.
- Touch Surface Memory Global. This adds memory to the direct destinations of Touch surface X and Y. When the user's finger is removed from the touch surface, the last X and Y values are remembered until the next time contact is made with the touch surface.
- LFO MIDI Clock Divider. When the LFO sync switch is set to MIDI, a MIDI Clock signal retriggers the start of the LFO cycle. The clock divider calculates a new retrigger signal based on the MIDI Clock signal. The divider has 96 values, with 48 divisions per beat. The values create the following rhythms:
  - $\square$  96 = Half note = 2 beats of the MIDI Clock signal
  - $72 = \text{dotted quarter note} = 1 \frac{1}{2}$  beats of the MIDI Clock signal
  - 48 =quarter note = 1 beat of the MIDI Clock signal
  - $36 = \text{dotted eighth note} = \frac{3}{4} \text{ of a beat of the MIDI Clock signal}$
  - $24 = eighth note = \frac{1}{2}$  of a beat of the MIDI Clock signal
  - $\square$  16 = triplet eighth note = 1/3 of a beat of the MIDI Clock signal
  - 12 = sixteenth note  $= \frac{1}{4}$  of a beat of the MIDI Clock signal

# PANEL MODE:

- Menu numbering scheme:
  - 1.1 Quick Mode
  - 1.2 Parameter Display
  - 1.3 Master Volume
  - 1.4 Headphone Volume
- Receive Single Presets. This does not appear as an option in the Panel Menu

   but is used in conjunction with "Receive Presets" in Master Mode. In Master Mode, make sure Sysex is enabled in "Receive Presets". Once this is done, a single preset can be received to the current active preset location in Panel mode. Once a preset is received in the current active location, it can be auditioned. If you want that preset to become part of the Voyager's preset bank, you must save the imported preset. If it is not saved and the current preset number is changed, the imported preset is wiped from the Voyager's preset memory buffer. Using this function in conjunction with the "Send single preset" function in Master mode allows the mix and match of presets from different banks.

### Stay tuned for new Updates!! www.moogmusic.com

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