

Behringer UB-Xa / UB-Xa D Firmware Update

Version 000.003.124 (V2.0 Update) (23 Oct 2024)

Bug Fixes:

Fixed incorrect MIDI channelling for program change messages in split and double mode.

Fixed incorrect behaviour when MIDI RX channel is set to **None** and TX channel is set to **AsRx**, MIDI will no longer be transmitted.

Fixed Performance modulation LFO quantizing when Modulation CH1 quantize is enabled.

Fixed Performance modulation LFO depth increasing based on the modulation depth of the respective oscillator channel it was applied to. Now hardcoded to +/- 6 semitones which is the default.

Version 000.003.117 (V2.0 Update) (02 Sep 2024)

Bug Fixes:

Fixed 'Thumping Issue', this was due to the background calibration routine changing the pitch and pulse width CVs the moment that it detected that a particular voice was silent, even if this voice wasn't currently being calibrated. The result was a click each time the envelope was triggered which was particularly showing in unison and envelopes with a fast attack phase.

A reset all controllers message was resetting the mod wheel to 0, meaning maximum performance LFO modulation instead of no modulation.

Fixed channel pressure messages not sending if selected as the 'Aftertouch Out' and forwarding ArpSeqSel is deselected in MIDI Forwarding menu.

Fixed impossible to start Arpeggiator or Sequencer when local control is off and sync mode is set to internal.

Fixed message behaviour in Dual Mode, it behaves like split mode where messages are directed on the relevant channel, except when upper channel is equal to lower channel where then each message goes to both parts.

Fixed a few issues with MIDI transpose in local loopback mode, Local ON and USB MIDI looped back in the DAW.

Fixed Polyphonic Aftertouch only coming through one of the MIDI channels when in double mode.

Fixed write LED not turning on after receiving a current patch SYSEX message.

Fixed Oscillator 2 SAW button doesn't work if OSC 2 – HALF is activated in the VCF Mixer.

The quantize for the PWM modulation was not working properly and now it is.

Improvements:

Atrophy profiles can be stored within the patch by selecting 'Patch' as 'Save Location' in the voice menu or holding down select encoder in vintage menu.

The ranges of the filter 'frequency' knob and the filter 'modulation' knob, the PW, VCO and VCF LFO ranges, and the range of the filter pedal have been moved out of the atrophy profile and are instead stored per patch. This is because of the feedback of patch designers who indicated that these range-based settings affect the reproducibility of the patches they have designed too much when changing profile. Instead, the atrophy parameters are now more targeted towards response curves, modulation offsets and per voice offsets which are essential changing the character of the instrument. These parameters can all be accessed by long pressing the following buttons and entering the new menu with the select encoder.

Filter Frequency Range and Pedal Range: Filter OSC1

Filter Modulation (Envelope) Range: Filter OSC2 Full

VCO1 LFO Modulation Range: Modulation VCO1

VCO2 LFO Modulation Range: Modulation VCO2

VCF LFO Modulation Range: Modulation VCF

PW1 LFO Modulation Range: Modulation PW1

PW2 LFO Modulation Range: Modulation PW2

VCA LFO Modulation Range: Modulation VCA

Precision editing the filter resonance parameter can be done by hold long pressing the 'OSC2 Half' button (underneath the resonance control) and pressing in the select encoder.

The performance settings can now also be stored within each patch. To enable recalling the performance panel settings in the Globals -> Miscellaneous -> Side Panel with the 'Save Patch' option.

Note that the performance panel settings stored within a split or layer program will take precedence over the patch-based settings.

You can specifically prevent the performance transpose option from reloading. This makes the transposition parameter manual like the original which in some circumstances can be better for a live performance. In the Globals -> Miscellaneous -> Side Panel menu with the 'Load Transp' option.

Another option has been added for the performance transpose in the Globals -> Miscellaneous -> Side Panel menu with the 'Transp MIDI' option. You can still use it like the original (off), or you can choose to enable the instrument to change the MIDI notes from the output instead so that the UB-Xa can be used as a master MIDI controller.

There are new envelope modulation mods added as patch settings. With a long press of the '4 pole' button and by pressing the select encoder to go inside the new menu you can now optionally apply the following mods to either envelope.

'Flip'. Swap the polarity of the envelope. In the case of the filter envelope, this means that instead of the filter opening when you program in the envelope modulation it will instead close the filter since the envelope is now upside down. For the Loudness or VCA envelope the effect is similar, when this effect is engaged the VCA will be open and triggering a voice will close the VCA.

'Retrigger'. Set the envelope to begin from the point of no modulation each time it is triggered. This will allow you to program in a cutting attack phase even when release and decay are very long.

'Repeat'. The envelope will retrigger when it arrives at the end of the release phase. This is good for making long repeated drone patches or to decorate the end of a note with a flourish.

'Loop'. The attack and decay phase of the envelope will continuously. This can be used to make LFO like modulation using the envelopes and is an interesting effect.

'Legato'. This feature was requested to imitate the mode often found in monophonic synthesizers where the envelopes do not retrigger when you play a new note on the keyboard without releasing the previous.

The oscillator frequency quantize feature can be set to 'Octaves', 'Semitones' or 'Free' with a long press of each respective 'Saw' waveform button and entering the new menu with the select encoder. You can quantize negative and positive by using the options '+/- Octaves', '+/- Semitones' or '+/- Free' in the same menu. The parameter controlling this feature is stored inside the current patch.

The amount of filter track can be changed by a long press of the 'Track' button and entering the new menu with the select encoder. The parameter for this feature is stored inside the current patch.

The envelopes generation code has reimplemented using the new variable slope implementation and new Atrophy parameters have been added for changing the shape of the Attack Curve and the Decay and Release Curves.

The VCA (and Noise) amplitude response curve has been remeasured and corrected so now the resulting envelope shape is correctly linearized. This does allow for a much better comparison with the OB-Xa.

4 New destinations added to the Mod Matrix Destinations:

VCO Tuning drift amount.

VCF Tuning drift

VCO Tuning drift speed

VCF Tuning drift speed.

3 New Sources added to the Mod Matrix Sources:

VCO1 Drift – The randomized per voice drift factor applied to VCO1.

VCO2 Drift – The randomized per voice drift factor applied to VCO2.

VCF Drift – The randomized per voice drift factor applied to VCF.

Added an animation on the assignable preset LEDs when receiving or transmitting sysex messages.

A Global Transpose option in semitones added to MIDI menu.

Added a shortcut for initial patch, pressing twice will initialize and no need to move encoder.

The patch-based atrophy and split/double parameters are included alongside the regular patch parameters when resetting initial.

Changed the Tempo sync LFO timings to follow a more standard form. A dotted quarter note equals $\frac{3}{4}$ of a quarter note, a triplet quarter note equals $\frac{2}{3}$ of a quarter note and so on.

CC number 31 for the downwards motion of the mod wheel has been add, since currently it only transmits for the upwards motion.

Note

VCA Uni Offset set to new value of 70% on all profiles.

Release set to 32 on init patch.

Patches and Atrophy should migrate to new format in update, old Sysex format still usable, all new parameters will be set to default values.

Move voice inhibit out of the voice menu and into globals for it not to be confused with atrophy settings.

Increased range of the 'Filter Frequency Range' parameter so that it is possible to fully open the Filter by using the 'Filter Frequency' knob.

Increased the amount of smoothing by a small fraction on the Pitch Bend, Mod Wheel, Filter Frequency and Filter Modulation parameters so that it sounds less 'zippy'.