microKORG2 version 2.0

Version 2.0 introduces expanded sound engines and effects, enhanced loop recorder functions, support for split performance, and forward-looking features that open new possibilities for sound design.

■ Osc3 “low” mode

Osc3 now has an additional “low” mode, allowing it to be used as an LFO that covers a wide frequency range.

■ New virtual patch source: Osc3

Osc3 can now be used as a modulation source, regardless of the mode it is being used in.

Note: using Osc3 as a modulator when not in low mode can result in unpredictable, noise-like modulation

■ Keyboard Split

When in dual mode, the keyboard can now be split into two zones in addition to the existing “layer” mode. Depending on the setting, timbres 1 and 2 can be assigned to either the lower or upper portion of the keyboard.

■ Knob Scale Mode

In addition to Catch and Jump knob modes, Scale is now available as an option. When Scale is selected, the physical position of the knob is mapped to the current parameter value. Moving the knob counter-clockwise goes from the current value to the minimum; moving clockwise goes from the current value to the maximum. If you turn the knob all the way to the left or right, the range will be reset.

■ New Looper Features

- **Import/Export**

  Loops and audio files in a variety of formats can be loaded for playback in the looper, and recorded loops can be exported as 16-bit/48k wav files.

- **Step Record**

  Loops can now be recorded offline, one time quantized time period or “step” at a time.

- **Single Loop Record Mode**

  The looper can now be set to “single” mode. This mode will automatically stop recording after a single loop has been recorded.

- **Slice mode**

  Recorded loops can now be triggered by the keyboard as “slices”.

- **Tempo scale**

  The looper can now be run between one half and two times the system tempo.

- **Audio Trigger Mode**
  Recording can now be triggered by audio input, in addition to previously implemented loop recording modes.

■ Vocoder Pan & Level Scale

The pan and level of all 16 bands of the vocoder can now be scaled between -200% and 200% of their current values simultaneously.

■ logueSDK support

First introduced with instruments like the minilogue xd and NTS series, the logue SDK is KORG's open-source development environment that lets users expand hardware with new oscillators and effects. Four types of units are supported: oscillators, mod fx, delay fx, and reverb fx. A maximum of 32 slots are available per type, to be used as you wish.

Note: the microKORG2 is built on a different processor, meaning units built for other platforms are not compatible.

■ Stability and Quality of Life Improvements

- Improved clock stability
- Looper stutter fade improvements
- Pitch bend up and down range can now be set independently
- The unison spread parameter now affects poly voices
- Program name generator
- Minor bug fixes and UI improvements

For more details, please see below.

Details

■ Oscillator 3 Low Mode

While in “Low Mode”, the frequency range of oscillator 3 is significantly lower than normal, opening up new modulation possibilities. There are two variations available.

- **Ratio Low**
  - In this mode, the oscillator tracks the keyboard pitch in the same manner as the original Ratio mode, but several octaves lower. The Semitone and Cents parameters allow a total range of C-10 ~ G2.

- **Fixed Low**
  - In this mode, the oscillator will produce a fixed frequency, regardless of the keyboard position. The Semitone and Cents parameters are replaced with BPM Sync, which syncs the oscillator frequency to the system tempo, and Frequency, which sets the oscillator frequency between 0.005 Hz and 250 Hz.

■ New Modulation Source: Oscillator 3

Oscillator 3 is now selectable as a modulation source in the virtual patch. If selected while Oscillator 3 is in normal mode, it will produce an unpredictable noise-like modulation that changes with the oscillator frequency. If selected while Oscillator 3 is in “Low Mode”, it will produce modulation similar to LFOs 1 and 2.

■ Keyboard Split

Keyboard split allows you to trigger either timbre 1 or 2 from a specified area of the keyboard independently of the other timbre. Keyboard Split is only available in Dual Timbre Mode.

To turn on keyboard split and set the split point, do the following.

- Set Timbre Mode to Dual
- Long press the “Timbre” button
- Set the “Split Point” control to the desired key. Turning the knob to the left will set timbre 1 to the lower section of the keyboard and timbre 2 to the upper section, while turning the knob to the right will do the opposite. The split point control moves in steps of octaves when controlled with the corresponding knob, but the INC and DEC buttons allow for increments of a single key.

■ Knob Scale Mode

In addition to Jump and Catch, Scale mode is now available as an option for how the microKORG2 knobs function. Scale mode maps the physical position of the knob to the current parameter value. Moving the knob to the left will scale from the current value to the minimum, while moving the knob to the right will scale from the current value to the maximum.

To use Scale mode, to the following.

- Go to the CONTROL page
- Set Knob Mode to Scale

■ Looper Import/Export

The microKORG2 looper can export recorded audio to the internal disk as 16 bit 48k WAVE, as well as import a number of formats at 24k or 48k for playback. To import or export audio data, do the following.

- Press and hold the FUNCTION 5 button.
- Press the LOOP RECORD button.
- Using Knob 1, select the operation that you want to execute: Import (bounce), Import (overwrite), Export, or Delete.
- If importing or deleting, use knob 2 to select the file you want to perform the operation on.
- Press the FUNCTION 3 button, labeled “EXECUTE”.

Note: For large files, importing and exporting can take several seconds.
Note: Deleting a file cannot be undone.
Note: To access exported data or add data to import, use Usb Boot Mode and navigate to the Looper folder.

Import (Bounce):

- This operation renders everything currently recorded in the looper into a single track, then loads the selected audio file. The load can be undone/redone.

Import (Overwrite):

- This operation clears the current contents of the looper, then loads the selected audio file. The load cannot be undone/redone.

Export:

- This operation exports the current contents of the looper as a stereo wave file.

Delete:

- This operation deletes the selected file from the microKORG2’s memory.

■ Looper Step Record

Step Record allows you to record loops in discrete, quantized time periods, or “steps”. This can be very helpful for recording complex rhythms or chords, especially at high tempos. It can also be used to create wave sequence-like loops by changing programs or parameters in between individual steps. To activate and use Step Record, do the following.

- Long press the Looper record button to access the LOOP SETTING A page.
- Change the Rec Start parameter to Step Record.
- Press the LOOP RECORD button. The corresponding LED will blink.
- Play a note on the keyboard. The looper will start and stop recording automatically.

Note: the looper can also be triggered using a sustain pedal by setting GLOBAL > CONTROL > Damper to either “LoopRec -/Korg” or “LoopRec +”.

Upon selecting Step Record, two new parameters will become available on the LOOP SETTING A page.

Step Length

- Sets the length of the recording step, quantized to the system tempo.

Step Decay

- Sets the amount of time that the looper will continue recording after the step has ended, as a percentage of the step length. As the decay section is recorded, a fade is applied. This is useful for smoothing the transition between steps.

Note: Pressing play while recording a loop in Step Record mode will advance the record position by one step.

■ Looper Audio Trigger

The looper can begin recording automatically when it detects audio input. To use this recording mode, do the following.

- Long press the Looper record button to access the LOOP SETTING A page.
- Change the Rec Start parameter to Audio Trigger.
- Use the mic, AUX in, or microKORG2 sound engine to make a sound and trigger recording.

■ Looper Single Loop Record

Single Loop Record mode will automatically stop recording after a single loop has been recorded. To use this setting, do the following.

- Long press the Looper record button to access the LOOP SETTING A page.
- Change the Overdub parameter to Single.
- Record a loop as normal.

■ Looper Tempo Scaling

Looper Tempo Scaling sets the ratio of the looper's tempo to the system tempo, as a percentage. To use this parameter, do the following.

- Long press the Looper play button to acces the LOOP SETTING B page.
- Set tempo scale to the desired value.

Note: tempo scale can be used while recording, but doing so can result in audible artifacts.

■ Looper Slice Mode

Looper Slice Mode allows you to trigger the recorded loop using the built-in keyboard. Each key triggers a different "slice", or offset from the start of the loop. Holding a key down will play the loop normally. While in Slice mode, the oscillators will not make any sound. However, the modulation system will still run normally, so you can use the arpeggiator to create new patterns from recorded audio. To use slice mode, do the following.

- Press and hold the FUNCTION 5 button, then press the play button.
- Play the keyboard.

Note: The mod wheel and pitch bend wheel both have special functions in looper slice mode.

■ Vocoder Scale

The Level Scale and Pan Scale parameters allow you to control the level and pan of all 16 bands of the vocoder at once, adjusting the value between -200% and 200% of the original value. To use the vocoder scale parameters, do the following.

- Go to the Vocoder Filter Band page.
- Set the Level Scale and Pan Scale parameters to your liking.

Note: both Vocoder Level Scale and Vocoder Pan Scale are available as virtual patch destinations.

■ Pitch Bend Range independent up/down setting

The range of the pitch bend wheel can now be set independently for the upper and lower parts of the pitch bend wheel range. To access these parameters, do the following.

- Navigate to the VOICE > PITCH page
- Press and hold the OCTAVE SHIFT UP or DOWN button for up or down respectively.
- Turn the knob corresponding to Pitch Bend Range.

■ Program Name Generator

The program name generator is built on the same engine that automatically generates looper export file names. It can be helpful when you want to save a program but can't think of a name, or when you want to create a new program and are looking for inspiration. To use the name generator, do the following.

- Press the FUNCTION 4 button to access the WRITE page.
- Long press the EXECUTE button.
- A new name will be generated, and the program color will be randomized.

*logue SDK

■ Custom Oscillators and Effects

The *logue SDK* is a software development kit and API that allows users to create custom oscillators, synths, and effects for the KORG prologue, minilogue xd, Nu:Tekt NTS-1 digital kit, Nu:Tekt NTS-1 digital kit mkII, Nu:Tekt NTS-3 kaoss pad kit, drumlogue, and as of version 2.0, microKORG2.

Singular pieces of custom content created with the SDK are commonly referred to as *units*. Each target platform can support certain unit types and not others, depending on the instrument's design and signal path.

The microKORG2 supports oscillator, mod effect, delay effect, and reverb effect type units. Try creating your own or installing units created by third party developers to customize and expand your microKORG2.

■ Custom Oscillators

To use an oscillator unit, do the following.

- Go to the OSC1 page and set WAVE to USER. This will replace the three internal oscillators with a custom oscillator.
- Select the desired unit with the Unit control
- Edit the selected custom oscillator with the presented parameters. Use the corresponding edit button to cycle through the available edit pages.

■ Custom Effects

To use a custom effect unit, do the following.

- Go to the Mod, Delay, or Reverb effect page and set Type to USER.
- Select the desired unit with the Unit control.
- Edit the available parameters as desired. Use the corresponding button to cycle through the two pages of parameters.

■ Developing Custom Units With the Logue SDK

For more information on how to make your own custom oscillators and effects, please go to https://korginc.github.io/logue-sdk/ or join the developer discord at https://discord.gg/pqW5VpdQkZ

How to install

logueSDK units can be installed on the microKORG2 via USB mass storage mode.

Installing via USB mass storage mode

- Connect your microKORG2 to your computer via a USB cable.

- While your microKORG2 is off, press and hold the FUNCTION 1 button and power on the unit. It will boot into mass storage mode.

- Navigate to the Units folder, then the folder that corresponds to the unit you want to install (Oscs, ModFx, DelayFx, ReverbFx).

- Drag and drop the unit you want to install into an empty SLOT folder. Alternatively, you can drag and drop the unit or units into the unit type folder (Oscs, ModFx, DelayFx, ReverbFx) and let the microKORG2 organize them into a folder or folders for you. Please note that there is a maximum of 32 units for each type, and trying to install more than the maximum will result in some units being ignored by the system. It is also important to only place one unit in any given slot folder at a time.

- Eject your microKORG2 from your computer, then press FUNCTION 5 to exit USB mass storage mode and boot the device normally.