KIJIMI

Rev 1.1.0

User Manual - August 2019

SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong.

The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

PACKAGE CONTENTS

The following applies to pre-built Kijimis only. DIY Kijimi builders will obtain or assemble all of the following items from the most recent bill of materials (BOM):
KIJIMI-BOM-REV1.0.pdf

When unpacking your Kijimi, check to make sure that all of the following contents are present, and that nothing has been lost or damaged in shipping. It may be helpful to save the packaging to protect your synthesizer when transporting it in the future.

Kijimi ships with the following items:

- Kijimi rack-mount analog synthesizer
- 24v power supply

PANEL LAYOUT

1. LFO1->VCO1 frequency modulation (green=pos., red=neg., both=bipolar)

2. LFO1->VCO2 frequency modulation (green=pos., red=neg., both=bipolar)

3. LFO1->VCO1 waveform modulation (green=pos., red=neg., both=bipolar)

4. LFO1->VCO2 waveform modulation (green=pos., red=neg., both=bipolar)

5. LFO1->VCO1 sub-osc amount (green=pos., red=neg., both=bipolar)
6. LFO1->LPF/VCF cutoff frequency modulation (green=pos., red=neg., both=bipolar)
7. LFO1->LPF/VCF resonance modulation (green=pos., red=neg., both=bipolar)
8. LFO1->VCA amplitude modulation (green=pos., red=neg., both=bipolar)

9. LFO2->VCO1 frequency modulation (green=pos., red=neg., both=bipolar)

10. LFO2->VCO2 frequency modulation (green=pos., red=neg., both=bipolar)

11. LFO2->VCO1 waveform modulation (green=pos., red=neg., both=bipolar)

12. LFO2->VCO2 waveform modulation (green=pos., red=neg., both=bipolar)

13. LFO2->VCO1 sub-osc amount (green=pos., red=neg., both=bipolar)
14. LFO2->LPF/VCF cutoff frequency modulation (green=pos., red=neg., both=bipolar)
15. LFO2->LPF/VCF resonance modulation (green=pos., red=neg., both=bipolar)
16. LFO2->VCA amplitude modulation (green=pos., red=neg., both=bipolar)

17. ADSR2->VCO1 frequency modulation (green=pos., red=neg., both=bipolar)

18. ADSR2->VCO2 frequency modulation (green=pos., red=neg., both=bipolar)

19. ADSR2->VCO1 waveform modulation (green=pos., red=neg., both=bipolar)

20. ADSR2->VCO2 waveform modulation (green=pos., red=neg., both=bipolar)

21. VCO2->VCO1 frequency modulation amount

22. VCO2->VCF cutoff frequency modulation amount

23. LFO1 modulation amount (note: individual attenuation for each dest. Is also possible, see LFO section of the manual)

24. LFO2 modulation amount (note: individual attenuation for each dest. Is also possible, see LFO section of the manual)

25. ADSR2 modulation amount

26. VELOCITY->LFO1 rate amount

27. VELOCITY->LFO2 rate amount

28. VELOCITY->VCO1&2 waveform modulation amount

29. VELOCITY->VCO1 sub osc amount

30. VELOCITY->pitch bend amount

31. VELOCITY->VCA modulation amount

32. AFTERTOUCH->LFO1 rate amount

33. AFTERTOUCH ->LFO2 rate amount

34. AFTERTOUCH ->VCO1&2 waveform modulation amount

35. AFTERTOUCH ->VCO1 sub osc amount

36. AFTERTOUCH ->pitch bend amount

37. AFTERTOUCH ->VCA modulation amount

38. LFO1 rate (min. and max. rates are adjustable in LFO menu)

39. LFO2 rate (min. and max. rates are adjustable in LFO menu)

40. LFO1 EG attack (can control LFO level, rate, or both)

41. LFO2 EG attack (can control LFO level, rate, or both)

42. LFO1 EG decay (can control LFO level, rate, or both)
43. LFO2 EG decay (can control LFO level, rate, or both)
44. LFO1 waveform select
45. LFO1&2 EG on/off (red=LFO1 EG, green=LFO2 EG)
46. LFO2 waveform select
47. VCO1 frequency
48. VCO2 frequency
49. VCO1 waveform (morphs Tri->Saw->Square, far right=variable pulse)
50. VCO2 waveform (morphs Tri->Saw->Square, far right=variable pulse)
51. VCO1 volume 1/3
52. VCO1 volume 2/3 (both 51 and 52 on = 100% volume)
53. VCO2 volume
54. VCO1 sub-osc volume
55. VCO2 detune
56. Noise volume 1/3
57. Noise volume 2/3 (both 56 and 57 on = 100% noise volume)
58. VCO sync (red=VCO1->VCO2 sync, green=VCO2->VCO1 sync)
59. VCO2 key follow on/off
60. VCF cutoff/frequency
61. VCF resonance
62. VELOCITY->VCF cutoff modulation amount
63. VELOCITY->VCF resonance modulation amount
64. AFTERTOUCH->VCF cutoff modulation amount
65. AFTERTOUCH ->VCF resonance modulation amount
66. ADSR2 -> VCF cutoff modulation amount
67. VCF cutoff keyboard follow amount

68. – 71. ADSR2 Attack, Decay, Sustain, Release times

72.– 75. ADSR1 Attack, Decay, Sustain, Release times

76. ADSR1&2 global time multiplier: red=2x slower, green=3x slower, red/green=4 times slower

77. ADSR looping (trapezoid mode) on/off: red=ADSR2 loop on, green=ADSR1 loop on, red/green=both ADSR2 and ADSR1 loop on

78. Attack Keyboard Tracking: Slower ADSR Attack on lower range of keyboard, faster ADSR Attack on higher range of keyboard. Red=ADSR2 K.T. on, green=ADSR1 K.T. on, red/green=both ADSR2 and ADSR1 K.T. on

79. Glide (portamento) / glissando rate

80. Switches between portamento and glissando

SETUP AND CONNECTIONS

POWER

Connect the IEC cable to the DC power brick. Insert the barrel end of the power supply into the input labeled **POWER 24VDC** on the back of the unit. Plug the other end of the power supply into an AC outlet. Note that it may take up to two minutes for the oscillators to warm up and reach stable tuning.

AUDIO/HEADPHONES OUTPUT

Kijimi's audio output jack is unbalanced. Turn the **VOLUME** knob to minimum (fully counter-clockwise) before connecting an audio cable. Insert one end of a 1/4 inch instrument cable into the jack labeled **AUDIO OUT** on the back of the unit, and the other end into a powered amplifier or the input of an audio mixer. You can now carefully adjust the volume level by turning the **VOLUME** knob clockwise.

The **HEADPHONES** output is a stereo output that duplicates the synthesizer's mono output to both the left and right channels. Like the **AUDIO OUT** jack, the **HEADPHONES** output is controlled by the **VOLUME** knob. Turn the **VOLUME** knob to minimum before inserting your headphones cable, then adjust volume to taste.

MIDI CONNECTIONS

Because Kijimi is a rack-mount synthesizer with no onboard keyboard or sequencer, an external MIDI controller must be used to control the unit. Kijimi can be controlled with standard hardware MIDI controllers, or for more expressivity, a polyphonic aftertouch controller or MIDI Polyphonic Expression (MPE) controller. See the *SETTINGS* section of the manual for information on how to configure the unit for each type of controller.

Kijimi can also be controlled by external hardware sequencers (such as the Elektron Octatrack or the Squarp Pyramid), or via automation over USB in the Digital Audio Workstation (DAW) of your choice.

If the synthesizer loses midi communication with connected midi devices, turn the synthesizer off, wait a few seconds, and turn it back on to reset midi functionality.

DIN MIDI

To control Kijimi with a controller that uses a DIN5 MIDI output, connect a midi cable from the output of your controller to the jack labeled **MIDI IN** on the back of the unit.

If desired, MIDI signals can be passed through the unit to another device by connecting a MIDI cable to the jack labeled **MIDI THRU** on the back of the unit to the input of another device in the midi chain.

USB MIDI

To control Kijimi with a computer, use a USB-A to USB-B cable. Connect the USB-A end of the cable to your computer, and the USB-B end of the cable to the **USB** input on the back of the unit.

OVERVIEW & FEATURES

Kijimi is an 8-voice polyphonic analog synthesizer with a plethora of modulation options. Using technology available today (and in the near future), you will be able to play Kijimi with stunning expressive control.

SYNTHESIZER FEATURES

- 8-voice polyphonic analog synthesizer
- Fully analog signal path
- Complex modulation matrix
- 384 presets

ARCHITECTURE

- CEM 3340 Voltage controlled oscillators (VCOs) with continuously variable waveforms (variable pulse waveform at one end of the waveform spectrum), sub-oscillator.

- SSM2044 24dB low-pass (LP) voltage-controlled filters (VCF) with velocity and (polyphonic) aftertouch control of both cutoff and resonance, all with dedicated knobs

- Two Attack/Decay/Sustain/Release (ADSR) envelopes with looping (trapezoid) option, dedicated rate multiplier button, and optional keyboard control of Attack rate

- Two LFOs (switchable between mono and poly modes), each with Attack/Decay EG knobs, and selectable sine, triangle, saw, ramp, square and random (S&H) waveforms

- The LFO modulation matrix gives each LFO a separate routing button to VCO1&2 frequencies and waveforms, sub oscillator amount, LPF cutoff and

resonance and VCA amplitude. Each button is switchable between positive, negative, or bi-polar modulation

- The ADSR2 routing matrix has routing buttons to VCO1&2 frequencies and waveforms. Each button is switchable between positive, negative, or bi-polar modulation

- Dedicated modulation knobs for VCO2->VCO1 frequency modulation and VCO2->VCF frequency modulation

- Dedicated modulation knobs for Velocity routing to: LFO1&2 rates and amplitudes, VCO1&2 waveform morph, sub-osc amount, pitch bend and VCA amplitude

- Dedicated modulation knobs for (poly-) aftertouch routing to: LFO1&2 rates and amplitudes, VCO1&2 waveform morph, sub-osc amount, pitch bend and VCA amplitude

CONTROLS

- MIDI/MPE with polyphonic aftertouch
- Polyphonic pitch-bend
- Unison mode with detune
- MIDI over USB
- 128 factory and 256 user presets
- Alternate scales and tunings

DISPLAY & CONNECTIONS

- 128×64 OLED display
- DC input jack (24V)
- External modulation input jack (1/4 inch unbalanced)
- Expander jack (DIN5)
- USB jack (type B, device)
- MIDI IN jack (DIN5)

- MIDI THRU jack (DIN5)
- AUDIO OUT jack (1/4 inch unbalanced)

PHYSICAL SPECIFICATIONS

- 19″ 4U rack-mount
- Width: 483mm / 19″
- Height: 178mm / 7″
- Depth: 100mm / 4″
- Weight: ~ 4.8 kg / 10.6 lbs incl external PSU brick

BANKS & PRESET SELECTION

When first exploring Kijimi, it may be helpful to experiment with the factory presets to understand the capabilities of your new synthesizer. Kijimi's factory patches have been designed to demonstrate the vast range range of capabilities and expressivity your new synthesizer is capable of.

To enable the maximum amount of expressivity from your Kijimi, make sure the **MIDI MODE** settings are configured to match your MIDI controller type. To make sure Kijimi is configured correctly for your controller type, see the *SETTINGS* section of this manual:

- For basic MIDI controllers that are not capable of polyphonic aftertouch, select the **CHANNEL PRESSURE** setting.
- For MIDI controllers that are capable of polyphonic aftertouch, select the **POLY AFTERTOUCH** setting.
- For MIDI Polyphonic Expression (MPE) controllers such as Roli Seaboard, Roger Linn Linnstrument, or Haken Continuum, select the **MPE** setting.

PATCH BANK OVERVIEW

Kijimi has ten available patch banks:

- **Factory (labeled FCTR)**: This patch bank is a curated selection of 128 factory presets designed to demonstrate the vast range of Kijimi's capabilities. The **FACTORY** patch bank is not editable, but factory patches can be edited and saved to Banks 1-9

- **User Banks 1-9 (labeled BNK1-9)**: These patch banks provide 128 user-editable patches

SELECTING BANKS

To bring up the bank selection menu, press and hold the **SHIFT** button. The on-screen labels for the row of multi-function buttons next to Kijimi's screen will update to the following:

BANK | STNG | SHIFT

Buttons will be described by their hardware labeling in bold, followed by their corresponding label on the display in parentheses, in the format of: **ENTER (BANK)**

While holding **SHIFT**, press **ENTER (BANK)** to cycle through banks until the **FCTR** patch bank is selected.

If you wish to begin your exploration of Kijimi by building your own patches from the panel settings: While holding **SHIFT**, press **ENTER (BNK1)** to select **BNK 1 or BNK 2**.

SELECTING PATCH PRESETS

When navigating to a new bank, patch preset 1 will be selected.

To select the next patch preset, turn the **ENCODER** clockwise.

To select the previous patch preset, turn the **ENCODER** counter-clockwise.

Some MIDI controllers are capable of sending Program Change messages. Kijimi will respond to Program Change messages, allowing you to select the next, previous, or specific patch numbers from the current bank, or to select a different bank entirely. For more information on how Kijimi handles Program Change messages, see the *MIDI CONFIGURATION* section of this manual.

SAVING PATCH PRESETS

Kijimi has 256 editable patch presets total. Patches can be saved in the banks labeled Bank 1 and Bank 2. Each bank has 128 available editable patch presets.

Once you have created a patch you'd like to store permanently, follow the instructions below to save your patch in the preset slot of your choice.

Saved patches store the following values:

- All front panel knob and button settings
- All settings in the menus, **except** the following Global settings: MIDI mode (channel pressure / polyAT / MPE), Number of Voices, Knobs Pick-up Mode, CC Receive on/off, MIDI Channel, MPE base channel.

To save/overwrite a patch in the current preset slot:

1. Make sure you have selected Bank 1 or Bank 2. Patches cannot be saved in the Factory bank.
2. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Kijimi is in Save mode.
3. Press **ENTER (SAVE)** a second time. Your patch has been saved, overwriting the previous values of that preset.

To save/overwrite a patch in a new preset slot of the current bank:

1. Make sure you have selected Bank 1 or Bank 2. Patches cannot be saved in the Factory bank.
2. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Kijimi is in Save mode.
3. Rotate the **ENCODER** to navigate to the preset slot you wish to save to. Be certain you are saving your patch in the correct slot, as the previous values will be overwritten when the save process is complete.
4. Press **ENTER (SAVE)** a second time. Your patch has been saved, overwriting the previous values of that preset.

To save/overwrite a patch in a different bank:

1. Hold the **SHIFT** Button and select the bank you wish to save to by pressing **UP (BNK1)** or **DOWN (BNK2)**. Patches cannot be saved in the Factory bank.
2. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Kijimi is in Save mode.

3. Press **UP (PREV)** or **DOWN (NEXT)** to navigate to the preset slot you wish to save to. Be certain you are saving your patch in the correct slot, as the previous values will be overwritten when the save process is complete.
4. Press **ENTER (SAVE)** a second time. Your patch has been saved, overwriting the previous values of that preset.

EDITING PATCH PRESETS

Once you have saved a patch to Bank 1 or Bank 2, it can be edited at any time by recalling the patch and adjusting the buttons and knobs or patch-specific settings until the desired sound is reached.

Once you have adjusted the patch to your liking, save the preset to the bank and preset slot you want following the save instructions above.

BACKING UP YOUR PATCH PRESETS

Importing and exporting of Kijimi preset banks is done via SysEx. Connect Kijimi to your computer via USB or DIN MIDI and interface, then set your SysEx program (such as MidiOX) up to listen to incoming SysEx. Then hold the Shift button while pressing the Encoder button. This will send a SysEx burst via MIDI containing all of the bank's patch data.

PANEL MODE

Panel mode is available to bypass all presets and create patches based on the current positions of all knobs and buttons on the front panel. While Kijimi does not have a method to initialize patches to a default state, you can use panel mode to create patches from scratch, which can be saved to any patch slot or bank using the instructions above.

To place Kijimi in panel mode, press the **ENCODER**. The display now reads **PNL** in place of the patch number display.

To exit panel mode, press the **ENCODER** again to return to the previous stored patch number.

SETTINGS

Kijimi's settings menu allows you to control not only the global settings of your new synthesizer, but also a subset of per-patch settings not accessible elsewhere on the front panel.

Each subsection of the menu will be labeled **GLOBAL** if its effect spans across all banks and patches, or **PER-PATCH** if it affects only the current patch. For **PER-PATCH** settings, remember to save your patch after adjustments have been made in order to retain your new settings.

PROGRAM SELECTOR BUTTONS

There are three buttons in the **PROGRAM SELECTOR** section, as well as an **ENCODER**. On the panel, the buttons are labeled as **ENTER**, **BACK**, and **SHIFT**.

For the purposes of this manual, the **ENTER**, **BACK**, and **SHIFT** buttons will be described both in terms of their panel label as well as the variant name described on the display, as button functions may change depending on the subsection of the settings menu you have selected.

Button presses will be labeled in the following format: **PHYSICAL BUTTON NAME (DISPLAY BUTTON NAME)**.

For example, from the patch selector screen, pressing the **SHIFT** button causes the display name of the **BACK** button to be relabeled **STNG**, for settings. This manual will describe this in the format of **BACK (STNG)**.

ACCESSING THE SETTINGS MENU

To access the settings menu, hold **SHIFT** and press **BACK (STNG)**.

Once in the settings menu, rotate the **ENCODER** to navigate through the settings menu sections. Press **ENTER (RUN)** or **ENTER (EDIT)** to select a section, and **BACK (BACK**) to return to the patch selection screen.

From within a menu section, you can also press **BACK (BACK)** to return to main settings menu.

RETUNE (GLOBAL)

Selecting **RETUNE** allows you to retune Kijimi's oscillators. Selecting this section of the settings menu displays the following message: "TO START RETUNE PRESS ENTER."

Pressing **BACK (BACK)** cancels the retuning process and returns you to the main settings page.

Pressing **ENTER** will start the retune process. The display will now read: "RECALIBRATION IN PROCESS." Retuning takes approximately 10-20 seconds. When complete, the screen display will update to "DONE." Pressing **BACK (CNCL)** will cancel calibration in the middle of the process.

When calibration is complete, the display will read "DONE." Press **BACK (OK)** to return to the patch selection screen.

MIDI SETTINGS

The **MIDI** settings section allows you to change how your MIDI sequencer or controller interacts with Kijimi

MODE (GLOBAL)

The **MIDI MODE** setting determines how Kijimi interacts with your MIDI controller, based on the controller's capabilities. There are 3 settings: **CHANNEL PRESSURE**, **POLY AFTERTOUCH**, and **MPE**.

- For basic MIDI controllers that are not capable of polyphonic aftertouch, select the **CHANNEL PRESSURE** setting.
- For MIDI controllers that are capable of polyphonic aftertouch, select the **POLY AFTERTOUCH** setting.
- For MIDI Polyphonic Expression (MPE) controllers such as Roli Seaboard, Roger Linn Linnstrument, or Haken Continuum, select the **MPE** setting.

Rotate the **ENCODER** to select the appropriate option for your controller type, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel changes to the **MIDI MODE** settings and return to the **MIDI** settings menu.

CHANNEL (GLOBAL)

The **CHANNEL** setting selects the MIDI channel your controller will use to control Kijimi. The content of this menu section will change, depending on which controller type you have selected in the **MODE** settings subsection.

If **CHANNEL PRESSURE** or **POLY AFTERTOUCH** are selected in the **MODE** setting, any of the 16 MIDI channels may be selected. The display will update to the currently selected MIDI channel (by default, channel 1). Rotate the **ENCODER** to select a new channel, then press **ENTER (SAVE)** to save your selection.

If **MPE** is selected in the **MODE** setting, only MIDI channels 1-8 can be selected. This is because the MPE standard uses an individual MIDI channel for each voice, in order to allow for polyphonic velocity, aftertouch, and other expressivity controls per voice. Kijimi assigns MIDI channels 9-16 to each of its 8 voices. The master MIDI channel you select (1-8) assigns the master channel your MPE controller will use to communicate with Kijimi. Rotate the **ENCODER** to select a new channel, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **CHANNEL** settings and return to the **MIDI** settings menu.

CC RECEIVE (GLOBAL)

The **CC RECEIVE** setting determines whether Kijimi will accept incoming continuous control (CC) messages from your sequencer or controller.

- **OFF** will ignore all incoming CC messages.
- **ON** will allow Kijimi to be modulated by external CC messages from your MIDI sequencer or controller.

Rotate the **ENCODER** to select your preference, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **CC RECEIVE** settings and return to the **MIDI** settings menu.

CC74 REPLACE (PER-PATCH)

Some MPE controllers such as the Roli Seaboard series and the Haken Continuum allow additional expressivity by moving your fingers up and down the vertical surface of

the keys. These movements are translated to continuous control messages on channel 74, which cannot be changed on the controller.

For this reason, Kijimi's firmware allows you to select a new destination for CC74, in order to take advantage of the vertical dimension of MPE controller series' keys. Available destinations include:

- LFO1 RATE (CC55)
- LFO2 RATE (CC58)
- SUB OSC (CC63)
- VCF FREQ (CC69)
- VCF RESO (CC73)

Rotate the **ENCODER** to select your preferred destination, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **CC74 REPLACE** settings and return to the **MIDI** settings menu.

KNOBS (GLOBAL)

The **KNOBS** setting allows you to change Kijimi's behavior when the physical position of a knob is different than the value stored in the current saved patch. Available options are **PICK UP, MERGE, and INSTANT**.

- **PICK UP**: Moving knobs will have no effect until the knob position moves through the current patch's stored value. Once the knob has moved through the stored value, you will begin to hear changes based on the knob's actual position.
- **MERGE**: Moving knobs has an immediate effect, but will not immediately reflect the physical knob's position. In effect, the stored value of the current patch and the current physical knob position will meet each other gradually, eventually merging at the physical knob position.
- **INSTANT**: Moving knobs has an immediate effect, instantly jumping from the stored value of the patch to the physical knob position.

Rotate the **ENCODER** to select your preferred knob behavior, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **KNOBS** settings and return to the **MIDI** settings menu.

MOD WHEEL DESTINATION (PER-PATCH)

The **MOD WHEEL DESTINATION** setting determines what continuous control (CC) message your controller's mod wheel will modulate. Available destinations include:

- LFO1 RATE (CC55)
- LFO2 RATE (CC58)
- LFO1 AMOUNT (CC5)
- LFO2 AMOUNT (CC8)
- VCF FREQ (CC69)

Rotate the **ENCODER** to select your preferred mod wheel destination, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **MOD WHEEL DESTINATION** settings and return to the **MIDI** settings menu.

MOD WHEEL POLARITY (PER-PATCH)

The **MOD WHEEL POLARITY** setting determines whether use of your controller's mod wheel increases or decreases the value of the destination it has been sent to in the **MOD WHEEL DESTINATION** setting.

The **POSITIVE** setting adds to the value of the CC destination as use of the mod wheel increases.

A **NEGATIVE** setting decreases the value of the CC destination as use of the mod wheel increases.

Rotate the **ENCODER** to select your preferred mod wheel polarity, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **MOD WHEEL POLARITY** settings and return to the **MIDI** settings menu.

PITCHBEND RANGE (PER-PATCH)

The **PITCHBEND RANGE** setting determines the range of effect your controller's modwheel will have on Kijimi in semitones, both up and down, from the center pitch. The default value is 4 semitones. The allowable range is **1** semitone to **99** semitones.

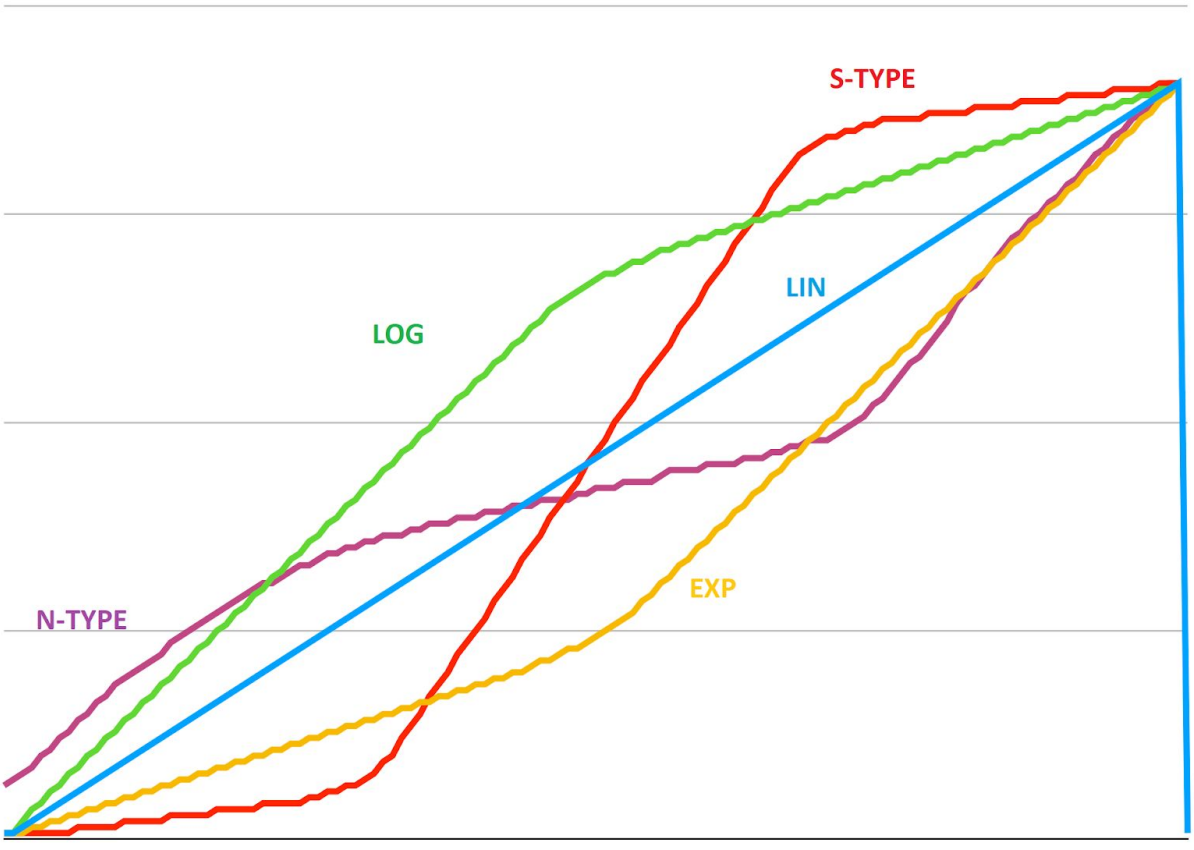
Rotate the **ENCODER** to select your preferred number of semitones, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **PITCHBEND RANGE** settings and return to the **MIDI** settings menu.

VELOCITY CURVE (PER-PATCH)

The **VELOCITY CURVE** setting determines the shape of the envelope applied to all velocity modulation parameters. Available options include:

- **LINEAR**: A linear curve increases or decreases at a fixed rate over time. **LOGARITHMIC**: A logarithmic curve increases or decreases more quickly at first, then slows its increase or decrease over time.
- **EXPONENTIAL**: An exponential curve increases or decreases more rapidly over time.
- **STYPE**:
- **NTYPE**:



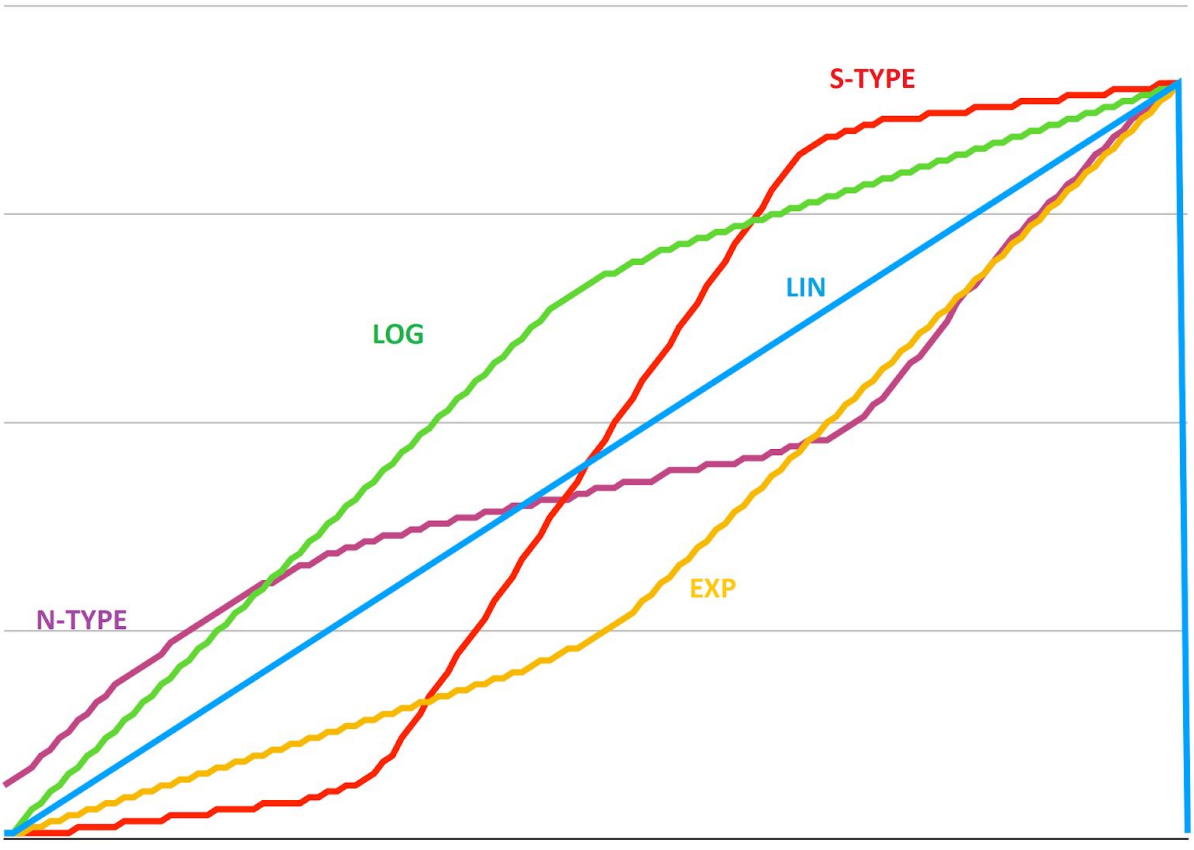
Rotate the **ENCODER** to select your preferred velocity curve type, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **VELOCITY CURVE** settings and return to the **MIDI** settings menu.

AFTERTOUCH CURVE (PER-PATCH)

The **AFTERTOUCH CURVE** setting determines the shape of the envelope applied to all aftertouch modulation parameters. Available options include:

- **LINEAR**: A linear curve increases or decreases at a fixed rate over time. **LOGARITHMIC**: A logarithmic curve increases or decreases more quickly at first, then slows its increase or decrease over time.
- **EXPONENTIAL**: An exponential curve increases or decreases more rapidly over time.
- **STYPE**:
- **NTYPE**:



Rotate the **ENCODER** to select your preferred aftertouch curve type, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **AFTERTOUCH CURVE** settings and return to the **MIDI** settings menu.

VOICE SETTINGS

The **VOICE** settings section allows you to change how Kijimi assigns and manages its 8 analog voices.

MODE (PER-PATCH)

The **VOICE MODE** setting determines how Kijimi assigns its voices as keys are played. Available options are **MONOPHONIC**, **POLYPHONIC**, and **UNISON**.

- **MONOPHONIC**: Kijimi becomes a monophonic synthesizer, using only 1 of its 8 analog voices. Pressing a new key will override the previous note, with the most recently played note taking priority. Select this mode if you want monophonic behavior with a thinner sound.
- **POLYPHONIC**: Kijimi becomes a polyphonic synthesizer, allowing up to all 8 of its analog voices to be played simultaneously (depending on the NUMBER OF VOICES setting under the VOICE menu). Select this mode if you wish to play chords or simultaneously overlapping notes.
- **UNISON**: Kijimi becomes a monophonic synthesizer, assigning up to 8 analog voices to a single note (depending on the NUMBER OF VOICES setting under the VOICE menu). Pressing a new key will override the previous note, with the most recently played note taking priority. Select this mode if you want monophonic behavior with the thickest sound possible.

Rotate the **ENCODER** to select your preferred voice mode, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **MODE** settings and return to the **VOICE** settings menu.

CARDS PER VOICE (PER-PATCH)

The **CARDS PER VOICE** setting determines how many of Kijimi's voice cards are dedicated to a single voice. Increasing the number of voice cards per voice results in a thicker sound. Available options are **1**, **2**, and **4**.

This setting affects only the **MONOPHONIC** and **POLYPHONIC** settings in the **VOICE MODE** settings section. Because selecting **UNISON** assigns all 8 voice cards to a single voice, **CARDS PER VOICE** does not affect the **UNISON** setting.

- **1**: A setting of **1** assigns 1 voice card to 1 voice, for a thinner sound per voice. This allows you to play up to 8 notes simultaneously in **POLYPHONIC** mode.
- **2**: A setting of **2** assigns 2 voice cards to 1 voice, for a thicker sound per voice. This allows you to play up to 4 notes simultaneously in **POLYPHONIC** mode.
- **4**: A setting of **4** assigns 4 voice cards to 1 voice, for an even thicker sound per voice. This allows you to play up to 2 notes simultaneously in **POLYPHONIC** mode.

Rotate the **ENCODER** to select your preferred number of cards per voice, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **CARDS PER VOICE** settings and return to the **VOICE** settings menu.

NUMBER OF VOICES (GLOBAL)

The **NUMBER OF VOICES** setting determines the maximum number of voices available in **POLYPHONIC** mode. This setting does not affect the **MONOPHONIC** or **UNISON** modes, as they are already limited to 1 voice. Available options are 8 (the default value) to 1.

Rotate the **ENCODER** to select your preferred maximum number of voices, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **NUMBER OF VOICES** settings and return to the **VOICE** settings menu.

VCA LEVEL (PER-PATCH)

The **VCA LEVEL** setting determines the maximum output level of Kijimi's VCA. The default setting is **10%**. The allowable range is **10%** to **100%**. Higher percentages will have a higher final output volume.

Rotate the **ENCODER** to select your preferred VCA level, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **VCA LEVEL** settings and return to the **VOICE** settings menu.

DETUNE (PER-PATCH)

The **DETUNE** setting allows you to add pitch drift to Kijimi's VCOs. While Kijimi is a modern synth with stable tuning, it may be desirable to simulate the randomly detuned nature of classic analog synths to create thicker sounds. Pitch drift can be introduced in 1/10th of a Hz (or 1/10th of one frequency cycle per second), with a maximum of 3.0 Hz.

Detuning will have varying results depending on the **VOICE MODE** setting:

- In **MONOPHONIC** mode, the current note will be detuned from its center pitch, with the amount of detuning from central pitch determined by the Hz setting.
- In **POLYPHONIC** mode, detuning will introduce random pitch fluctuations per voice. At lower detune settings, detuning will introduce a warble into your chords, while extreme detuning settings will result discordant sounds barely recognizable as the chord being played.
- In **UNISON** mode, detuning will create an even thicker sound than standard **UNISON** mode, especially useful for bass patches. At lower detune settings, the sound becomes slightly thicker, while extreme detuning settings result in a swarm-like sound.

Rotate the **ENCODER** to select your preferred amount of detuning, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **DETUNE** settings and return to the **VOICE** settings menu.

PLAYBACK (PER-PATCH)

The **PLAYBACK** setting determines how the sustain of notes or chords is handled when new notes or chords are played. Available options include **SUSTAIN I** and **SUSTAIN II**.

- **SUSTAIN I**: In **SUSTAIN I** mode, all notes sustain and release independently regardless of what other notes or chords are played, and each note has the same release time. This mode is also called “round-robin” voice allocation.
- **SUSTAIN II**: In **SUSTAIN II** mode, notes or chords will be cut off by any new notes or chords that are played (unless held down). The last notes or chords played will carry the sustain and release. This setting can have a dramatic effect if portamento or glissando is enabled, and with patches that have long Release times. It is a special, very musically useful voice mode that is carried over from the Deckard’s Dream.

Rotate the **ENCODER** to select your preferred **PLAYBACK** mode, then press **ENTER (SAVE)** to save your selection.

Press **BACK (CNCL)** at any time to cancel any changes to the **PLAYBACK** settings and return to the **VOICE** settings menu.

LFO SETTINGS

The **LFO** settings allow you to adjust the maximum LFO frequencies, as well as various other characteristics of the LFO.

LFO1/LFO2 SETTINGS: Please refer to the v1.1 Release Notes for information on the new per-patch LFO settings LFO EG DEST, LFO SYNC, etc. These are all PER-PATCH settings.

LFO MAX (PER-PATCH)

The **LFO MAX** setting allows you to control the maximum frequency of LFO1 and LFO2. This determines the frequency value when the RATE knobis set to max.

Rotate the **ENCODER** to select the desired frequency, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **LFO MAX** settings and return to the **TIME** settings menu.

LFO MIN (PER-PATCH)

The **LFO MIN** setting allows you to control the minimum frequency of LFO1 and LFO2. This determines the frequency value when the RATE knobis set to minimum.

Rotate the **ENCODER** to select the desired frequency, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **LFO MIN** settings and return to the **TIME** settings menu.

LFO MODE (PER-PATCH)

The **LFO MODE** setting allows you to control the **SUB OSCILLATOR**'s behavior when multiple notes or chords are played. Available options include **POLY** and **MONO**.

- **POLY**: LFO cycles are created independently per note. If multiple notes are played at different times, their LFOs will cycle independently. This setting will have no effect if Kijimi is in **MONOPHONIC** or **UNISON** voice mode.
- **MONO**: LFO cycles are synced across all notes. The cycle phase is determined by the first note pressed in the chord.

Rotate the **ENCODER** to select the desired **LFO MODE**, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **LFO MODE** settings and return to the **TIME** settings menu.

LFO SUSTAIN MODE (PER-PATCH)

This setting determines whether each LFO EG sustains when notes are held down, or whether it goes directly from the ATTACK phase to the DECAY phase.
Rotate the **ENCODER** to select the desired frequency, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **PWM MAX** settings and return to the **TIME** settings menu.

RESET TO DEFAULTS (GLOBAL)

The **RESET TO DEFAULTS** option allows you to reset all **TIME** settings back to their default values. Selecting this section of the **TIME** menu displays the following message: "TO RESET TO FACTORY DEFAULTS PRESS ENTER."

Pressing **CANCEL (BACK)** cancels the reset process and returns you to the main **TIME** settings page.

Pressing **ENTER** will start the reset process. The display will now read: “CONFIRM RESET.” Press **ENTER (OK)** to proceed with reset, or press **CANCEL (BACK)** to return to the main **TIME** settings screen.

PRESET VOLUME (PER-PATCH)

The **PRESET VOLUME** setting allows you to adjust the gain of an individual patch, allowing you to normalize volume between patches if desired. The available range of gain includes -6db to +6db.

Rotate the **ENCODER** to select the desired gain level, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **PRESET VOLUME** settings and return to the main settings menu.

AMOUNT MODE (PER-PATCH)

When set to INDIVIDUAL, it is possible the tweak each modulation amount in the mod matrix individually for each destination. To use, press lit mod matrix selector button and turn AMOUNT knob to attenuate to each individual destination. This allows the user to control modulations with increased detail.

EXTERNAL (GLOBAL)

The **EXTERNAL RANGE** setting allows you to adjust the voltage range of the **EXTERNAL** input on the back of Kijimi. NOTE: AS OF i v1.1.0, THIS FEATURE IS NOT YET IMPLEMENTED. The voltage range is represented by 10 blocks on the display. The available range includes 0V-1V on the low end, and 0V-10V on the high end. The default value is 0V-5V.

Rotate the **ENCODER** to select the desired voltage range, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **EXTERNAL RANGE** settings and return to the main settings menu.

TIME (PER-PATCH)

CYCLE MODE (POLY / MONO): When an ADSR has been set to CYCLE mode via the CYCLE button, this determines whether the cycling is polyphonic (individual per voice) or monophonic (the cycling ADSR is global to all voices). This is similar to the LFO poly/mono settings.

KT MULT (X1 / X2 / X4): When an ADSR has been set to K.T. (keyboard tracking of Attack time), this multiplies the effect of that tracking. For example when set to X4 (multiplied times 4), the ADSR Attack will be much slower at the bottom end of the keyboard, than it would be with X1.

CALIBRATION SETTINGS

The **CALIBRATION** settings allow you to calibrate knob positions, tune oscillator voices as a group or individually, enable or disable microtuning, and debug issues with Kijimi.

POTENTIOMETERS (GLOBAL)

The **POTENTIOMETERS** setting allows allows you to re-calibrate the center position of knobs with a center detent. Selecting the **POTENTIOMETERS** calibration setting updates Kijimi's display to read, "SET CENTER DETENT KNOBS TO MIDDLE AND PRESS ENTER."

This includes the following knobs:

- **All knobs under VELOCITY and AFTERTOUCH in the MODULATIONS section**
- **VCO1 and VCO2 FREQUENCY knobs**
- **OSC2/VCO2 DETUNE knob in the VCO2 section**
- **All 6 CTRL knobs under the VCF section**

Ensure that all of the above knobs are in their center detent position before running calibration, as the behavior of the knobs will be altered if their center position is relocated.

Pressing **CANCEL (BACK)** cancels the knob calibration process and returns you to the **CALIBRATION** settings page.

Pressing **ENTER** will start the knob calibration process. The display will now read: “RECALIBRATION IN PROCESS.” Calibration occurs instantly. When complete, the screen display will update to “DONE.” Press **CANCEL (OK)** to return to the **CALIBRATION** settings screen.

OSCILLATORS (GLOBAL)

The **OSCILLATORS** setting allows you to tune the oscillators of all voices simultaneously, or to tune oscillators on a per-voice basis.

The tune all voices simultaneously, select **TUNE ALL VOICES**. The display will update to read “TO START AUTOTUNE PRESS ENTER.”

Pressing **CANCEL (BACK)** cancels the oscillator calibration process and returns you to the **CALIBRATION** settings page.

Pressing **ENTER** will start the oscillator calibration process. The display will now read: “OSC 1A TUNING,” and will display a progress bar. Calibration takes approximately 1-2 minutes per voice and must proceed from OSC 1A to OSC 1B to OSC 2A and so on. Full calibration of all oscillators takes approximately 10 minutes. When complete, the screen display will update to “DONE.” Press **CANCEL (OK)** to return to the **CALIBRATION** settings screen.

The tune voices individually, select the voice number you wish to tune. The process for tuning individual voices is the same as above, but completes more quickly.

FILTERS (GLOBAL)

The FILTERS calibration functions work the same as the OSCILLATOR ones described above.

MICROTUNING (GLOBAL)

The **MICROTUNING** setting allows you to enable or disable microtuning. Available options include **ON** or **OFF**.

- **ON**: Microtuning is enabled. This also enables a new section of the **CALIBRATION** settings menu called **EDIT FREQS**. See the **EDIT FREQS** section of the manual for more detail.
- **OFF**: Microtuning is disabled.

Rotate the **ENCODER** to select the desired setting, then press **ENTER (SAVE)** to save your selection.

Press **CANCEL (CNCL)** at any time to cancel any changes to the **MICROTUNING** settings and return to the **CALIBRATION SETTINGS** menu.

DEBUG (GLOBAL)

The **DEBUG** setting allows you to debug issues with Kijimi's knobs and buttons. Selecting this setting will display the current value of the first knob, **KNOB LFO1 AMOUNT**.

Press **ENTER (NEXT)** to proceed to the next setting as many times as desired until you have reached the knob or button you wish to debug.

Press **CANCEL (EXIT)** to exit the debug menu at any time and return to the **CALIBRATION SETTINGS** menu.

FILTER ADJUST (GLOBAL)

Allows you to adjust the VCF frequency of each voice.

RESET SETTINGS (GLOBAL)

The **RESET SETTINGS** setting allows you to revert all Kijimi settings back to their default. Selecting this section of the settings menu displays the following message: "TO RESET SETTINGS PRESS ENTER."

Pressing **CANCEL (BACK)** cancels the reset process and returns you to the main settings page.

Pressing **ENTER** will start the reset process. The display will now read: "CONFIRM RESET." Press **ENTER (OK)** again to confirm, or press **CANCEL (BACK)** to cancel the reset process.

If **ENTER (OK)** is pressed a second time, the reset process takes place immediately and returns all settings to their default values. You will be automatically returned to the patch selection screen.

FIRMWARE UPDATES

Kijmi 1.1 release notes:

1. Individual attenuation of modulation amount in the mod matrix option selectable in the menu.
(AMOUNT MODE -> INDIVIDUAL). To use, press lit mod matrix selector button and turn
AMOUNT knob to attenuate to each individual destination. This allows the user to control
modulations with increased detail.
2. LFO Attack/Decay can now be applied to Rate, Amplitude, or Both (previously only
Amplitude). (MENU -> LFO -> LFO1/2 -> LFO EG DEST). Rate or Both can not be selected
when midi sync is on and MIDI sync can not be selected when LFO EG DEST is set to RATE or
BOTH.
3. LFO may now be synced to MIDI. (MENU -> LFO -> LFO1/2 -> SYNC)
Dividers and multiplayers are set by the LFO RATE knobs rate pots which range: 1/32, 1/24,
1/16, 1/12, 1/8, 1/6, 1/4, 1/3, 1/2, 1, 1.5, 2, 3, 4, 6, 8. This is only in MONO LFO mode and
when AD Destinations are set to amplitude.
4. Synchronization of LFO rate with rate of other LFO has been added. (MENU -> LFO -> LFO1/2
-> SYNC)
5. LFO EG modulation polarity may also be set in the menu. (MENU LFO -> LFO1/2 -> LFO EG
POL)
6. LFO EG maximum time of attack and decay can be adjusted in the menu from 1 to 20
seconds. (MENU LFO -> LFO1/2 -> LFO EG MAX)
7. Maximum (2 to 100Hz) and minimum (0.01 to 1Hz) LFO frequency can be set in the menu.
(LFO -> LFO MAX/MIN)
8. Upload of MIDI Tuning Standard (MTS) microtuning files with sysex librarian. Scala files may
also be reformatted to MTS using
http://www.microtonalsoftware.com/scl-scala-to-mtsconverter.html

9. Microtuning is also applied to self oscillation pitches when Keyboard Control is ON (KEYB.
CTRL knob is not in 0 (Min) position)
10. Extended range of VCF CUTOFF FREQUENCY (~22kHz).
11. Manual tuning of individual filters in Self Oscillation.
12. Self Oscillation pitch is now affected by Portamento and Glissando, and again, Microtuning!
13. 10 preset banks (Factory, Bank 1-9), previously 3.
14. Bank Select and Program change accept CC commands. (Note, Factory is selected as Bank 1
in Most DAWs/MIDI programmers, so Bank 2 will select Bank 1, etc)
15. Scrolling in and out of the menu is more intuitive. Pressing BACK will return the user to the last
selection instead of the top of the menu.
16. Ability to cancel calibration operation for oscillators and filters. Previously, the only way to
cancel was to power off the unit.
17. Midi channel and MPE global channel are now global settings instead of per preset.
18. Removed last voice algorithm. Voices cycle through the last voice card without needing to
have the second to last voice engaged. (This is a unique feature particular to Deckard's Dream
and is not necessary on Kijimi)
19. Fixed bug when voices became silent while switching between presets with 2/4 cards per
voice set

MIDI CC LIST

This specification may be expanded in future firmware revisions.

CC0	Bank select
CC1	Modulation wheel
CC2	
CC3	
CC4	
CC5	POT MOD LFO1 AMOUNT
CC6	
CC7	
CC8	POT MOD LFO2 AMOUNT
CC9	Expander sustain switch
CC10	Expander sustain slider
CC11	
CC12	
CC13	
CC14	
CC15	
CC16	
CC17	
CC18	
CC19	
CC20	
CC21	
CC22	
CC23	
CC24	
CC25	
CC26	
CC27	
CC28	
CC29	
CC30	
CC31	
CC32	
CC33	
CC34	
CC35	
CC36	
CC37	
CC38	
CC39	
CC40	POT MOD ADSR2 AMOUNT
CC41	POT MOD VELOCITY TO LFO1 RATE
CC42	POT MOD AFTERTOUCH TO LFO1 RATE
CC43	POT MOD VELOCITY TO LFO2 RATE
CC44	POT MOD AFTERTOUCH TO LFO2 RATE
CC45	POT MOD VELOCITY TO WAVEFORM MORPH
CC46	POT MOD AFTERTOUCH TO WAVEFORM MORPH
CC47	POT MOD VELOCITY TO SUB AMOUNT
CC48	POT MOD AFTERTOUCH TO SUB AMOUNT
CC49	POT MOD VCO2 TO VCO1
CC50	POT MOD VELOCITY TO PITCHBEND

CC51	POT MOD AFTERTOUCH TO PITCHBEND
CC52	POT MOD VCO2 TO VCF
CC53	POT MOD VELOCITY TO VCA
CC54	POT MOD AFTERTOUCH TO VCA
CC55	POT LFO1 RATE
CC56	POT LFO1 ATTACK
CC57	POT LFO1 DECAY
CC58	POT LFO2 RATE
CC59	POT LFO2 ATTACK
CC60	POT LFO2 DECAY
CC61	POT VCO1 FREQUENCY
CC62	POT VCO1 WAVEFORM
CC63	POT SUBOSC
CC64	Sustain pedal
CC65	POT VCO2 FREQUENCY
CC66	POT VCO2 WAVEFORM
CC67	POT VCO2 VOLUME
CC68	POT VCO2 OSC2 DETUNE
CC69	POT VCF FREQUENCY
CC70	POT VCF VELOCITY CONTROL
CC71	POT VCF AFTERTOUCH CONTROL
CC72	POT VCF ADSR2 CONTROL
CC73	POT VCF RESONANCE
CC74	Roli CC74
CC75	POT VCF VELOCITY Q CONTROL
CC76	POT VCF AFTERTOUCH Q CONTROL
CC77	POT VCF KEYBOARD CONTROL
CC78	POT ADSR2 ATTACK
CC79	POT ADSR2 DECAY
CC80	POT ADSR2 SUSTAIN
CC81	POT ADSR2 RELEASE
CC82	POT ADSR1 ATTACK
CC83	POT ADSR1 DECAY
CC84	POT ADSR1 SUSTAIN
CC85	POT ADSR1 RELEASE
CC86	POT GLIDE RATE
CC87	POT VOLUME
CC88	MOD LFO1 TO VCO1
CC89	MOD LFO1 TO VCO2
CC90	MOD LFO1 TO WAVE1
CC91	MOD LFO1 TO WAVE2
CC92	MOD LFO1 TO SUB
CC93	MOD LFO1 TO LPF
CC94	MOD LFO1 TO RESO
CC95	MOD LFO1 TO VCA
CC96	
CC97	
CC98	
CC99	
CC100	
CC101	
CC102	MOD LFO2 TO VCO1
CC103	MOD LFO2 TO VCO2
CC104	MOD LFO2 TO WAVE1
CC105	MOD LFO2 TO WAVE2
CC106	MOD LFO2 TO SUB
CC107	
CC108	MOD LFO2 TO RESO
CC109	MOD LFO2 TO VCA
CC110	MOD ADSR2 TO VCO1

CC111	
CC112	MOD ADSR2 TO WAVE1
CC113	MOD ADSR2 TO WAVE2
CC114	MOD LFO2 TO LPF
CC115	MOD ADSR2 TO VCO2
CC116	
CC117	
CC118	
CC119	
CC120	
CC121	
CC122	
CC123	
CC124	
CC125	
CC126	
CC127	