DECKARD'S DREAM

Rev 1.3.0

User Manual - Sept. 2019

IMPORTANT SAFETY IN-STRUCTIONS

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.

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PACKAGE CONTENTS

The following applies to pre-built Deckard's Dream units only. DIY Deckard's Dream builders will obtain or assemble all of the following items from the most recent bill of materials (BOM)
rev1: https://www.deckardsdream.com/downloads/DD-BOM-REV1.0.zip
*rev2.1: https://www.deckardsdream.com/downloads/DD-BOM-REV2.1.zip*

Congratulations on your purchase of a Deckard's Dream Analogue Polyphonic Synthesizer, the synth that brought Black Corporation into existence! When unpacking your Deckard's Dream, check to make sure all of the following contents are present, and nothing has been lost or damaged in shipping. It may be helpful to save the packaging to protect the unit when transporting it. If you have any questions about its operation, feel free to contact us at mail@deckardsdream.com.

We at Black Corporation hope that Deckard's Dream will bring many years of inspiration, excitement, and adventure.

Deckard's Dream ships with the following items:

- Deckard's Dream rack-mount analog synthesizer

- 12V power supply

PANEL LAYOUT
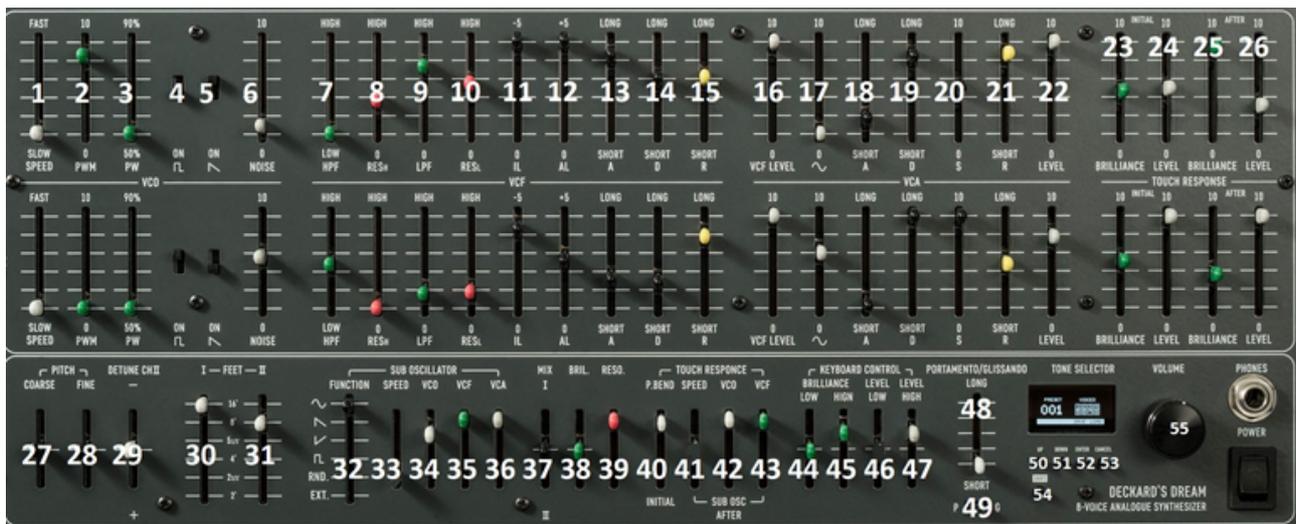
The controls for layer II are identical to controls 1 – 26 of layer I

1. **Pulse width modulation LFO speed**: determines the speed of layer I's PWM LFO. The minimum and maximum speeds can be set in the TIME menu.

2. **Pulse width modulation LFO amount**: determines the amount of pulse width modulation, from 0 to 10.

3. **Manual pulse width setting**: manually sets the pulse width from 50% (square wave) to 90% (thin pulse wave). If the PWM LFO amount is set to a non-zero value, this setting determines the center pulse width.

4. **Square/pulse wave on/off**: determines whether the square/ pulse wave (depending on the PWM settings) is turned on (switch down) or off (switch up).

5. **Saw wave on/off**: determines whether the saw wave is turned on (switch down) or off (switch up).

6. **Noise level**: determines how much of the noise generator signal is mixed in.

7.   **HPF cutoff**: High pass filter cutoff. Set to Low, the filter is all the way open. Set to High, the filter is letting through only the highest frequencies.

8.   **HPF resonance**: High pass filter resonance. Does not self-oscillate at max setting.

9.   **LPF cutoff**: Low pass filter cutoff. Set to Low, the filter is all the way open. Set to High, the filter is letting through only the highest frequencies.

10. **LPF resonance**: Low pass filter resonance. Does not self-oscillate at max setting.

11. **Initial level**: Sets the start of the filter envelope relative to the cutoff frequency of the filter. The filter cutoff will be modulated starting with a frequency lower than the HPF/LPF cutoff settings. The more IL is increased (max -5), the lower the starting frequency will be. Note: The HPF envelope polarity can be changed via the HPF MOD setting under the VOICE menu.

12. **Attack level**: Sets the maximum level attained by the filter envelope, the peak of the Attack phase. This can also be loosely regarded as the "envelope amount." Note: The HPF envelope polarity can be changed via the HPF MOD setting under the VOICE menu.

13. **Attack**: Filter envelope attack length.

14. **Decay**: Filter envelope decay length.

15. **Release**: Filter envelope release length.

16. **VCF Level**: Determines how much of the oscillator/noise → VCF signal to let through. When set to minimum, the only possible remaining sound source for this layer is the sine wave (see 17).

17. **Sine wave level**: Adds the pure sine wave component of this layer's oscillator, which is unaffected by the VCF filtering stages.

18. **Attack**: VCA attack time.

19. **Decay**: VCA decay time.

20. **Sustain**: VCA sustain level.

21. **Release**: VCA release level.

22. **Layer volume**: Controls the overall volume of this layer, useful for balancing with layer II. Note: Balance between the two layers can also be controlled via the "MIX I / II" slider (see 37).

23. **Initial touch brilliance**: Determines how much this layer's VCF cutoff is affected by keydown velocity. Note: Setting this slider to a different value than its layer II counterpart can produce sonically interesting and expressive results.

24. **Initial touch level**: Determines how much this layer's volume (VCA) level is affected by keydown velocity. Note: Setting this slider to a different value than its layer II counterpart can produce sonically interesting and expressive results.

25. **Aftertouch brilliance** - How much this layer's VCF cutoff is affected by key pressure. Note: Setting this slider to a different value than its layer II counterpart can produce sonically interesting and expressive results.

26. **Aftertouch level** - Determines how much this layer's volume (VCA) level is affected by key pressure. Note: Setting this slider to a different value than its layer II counterpart can produce sonically interesting and expressive results.

27. **Coarse pitch**: Controls overall coarse pitch (both layers I and II).

28. **Fine pitch**: Controls overall fine pitch (both layers I and II).

29. **Detune layer II**: Determines how much layer II's oscillator is detuned from layer I. Produces a full / thick / beating sound between the layer I and II oscillators.

30. **Layer I octave / fifths selector**: Similar to organ stops. Octave below (16'), default range (8'), a fifth above (5 1/3'), an octave above (4'), a fifth and an octave above (2 1/3'), two octaves above (2').

31. **Layer II octave / fifths selector**: Operates similarly to the layer I octave / fifths selector.

32. **Sub-oscillator (LFO) waveform selector**: Selects sine, saw, ramp, square, random ("sample&hold"), or External, which uses the CV signal coming into the External input jack on the rear panel.

33. **Sub-oscillator (LFO) speed**: Controls the global LFO's frequency: The lower the slider, the faster the LFO modulation.

34. **Sub-oscillator (LFO) VCO mod**: Controls how much the layer I and II VCOs are modulated by the global LFO (i.e. vibrato). The lower the slider, the more modulation.

35. **Sub-oscillator (LFO) VCF mod**: Controls how much the layer I and II VCFs are modulated by the global LFO (a kind of tremolo). The lower the slider, the more modulation.

36. **Sub-oscillator (LFO) VCA mod**: Controls how much the layer I and II VCAs are modulated by the global LFO (i.e. tremolo). The lower the slider, the more modulation.

37. **Mix I / II**: With slider all the way up, only layer I is heard. With slider all the way down, only layer II is heard. With the slider in the middle, layer I and II are mixed equally. Note: the layer I and II volumes can also be affected by their respective LEVEL and VCF LEVEL sliders.

38. **Global brilliance**: Adjusts the VCF cutoff of all filters simultaneously (HPF and LPF cutoff on both layers I and II).

39. **Global resonance**: Adjusts the VCF resonance of all filters simultaneously (HPF and LPF resonance on both layers I and II).

40. **Initial touch pitch bend**: Introduces a "glide up to the note" effect. This slider controls the amount of "glide up", depending on keydown velocity. Slider all the way down = maximum sensitivity. With higher slider settings, this can introduce very subtle and sonically interesting colors to each patch.

41. **Aftertouch sub-osc speed control**: This slider controls how much the key pressure speeds up the global LFO. Slider all the way down = maximum speed-up effect. Combined with sliders 42, 43, and the layer I and II Aftertouch, Brilliance, and Level sliders, this can have expressive effects, similar to the way a virtuoso violinist might add emotion to their playing by simultaneously increasing the vibrato/tremolo level, vibrato/tremolo speed, and overall bow force / volume of the note.

42. **Aftertouch sub-osc VCO mod**: Slider controls how much the key pressure affects the LFO → VCO modulation (i.e. vibrato). Slider all the way down = maximum sensitivity.

43. **Aftertouch sub-osc VCF mod**: Slider controls how much the key pressure affects the LFO->VCF modulation. Slider all the way down = maximum sensitivity.

44. & 45. **VCF keyboard follow**: Sets how the VCF cutoff is affected by how high or low on the keyboard a key is played. For example, setting the LOW slider all the way up and the HIGH slider all the way down will cause the VCFs to be more open at the top range of the keyboard and more closed at the bottom range.

46. & 47. **VCA keyboard follow:** Sets how the VCA level is affected by how high or low on the keyboard a key is played. For example, setting the LOW slider all the way up and the HIGH slider all the way down will cause the VCAs to be louder at the top range of the keyboard and quieter at the bottom range.

48. **Portamento / Glissando speed**: Controls how fast or slow the glide or glissando operates (depending on which was selected with switch 49).

49. **Portamento / Glissando switch**: When switched to the left, there is a smooth glide between notes (speed determined by slider 48). When switched to the right, the glide is quantized into discrete semitones, simulating a fast (or slow) play of all black and white keys between the last and current note. Note: The glide / gliss behavior, especially with slow-release patches, is slightly different depending on whether voice playback mode Sustain I or Sustain II is selected.

50. – 54. **Menu / preset navigation buttons** (see TONE SELECTOR BUTTONS section of the manual).

55. **Volume knob**: controls volume for both the headphone jack and the Audio Out jack in the rear of the unit.

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 9-24VDC** on the back of the unit. Plug the other end of the power supply into an AC outlet. Note that it may take a few minutes for the oscillators to reach stable tuning.

AUDIO/HEADPHONES OUTPUT

Deckard's Dream's audio output jack is unbalanced monaural. 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. 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 a headphone cable, then adjust volume to appropriate level.

MIDI CONNECTIONS

Because Deckard's Dream is a rack-mount synthesizer with no on-board keyboard or sequencer, an external MIDI controller must be used to control the unit. Deckard's Dream 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.

Deckard's Dream can also be controlled by external hardware sequencers, or via automation over USB in a Digital Audio Workstation (DAW).

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 Deckard's Dream with a controller that uses a DIN5 MIDI output, connect a midi cable from the output of the 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 MIDI input of another device.

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 a computer, and the USB-B end of the cable to the **USB** input on the back of the unit.

CONTROL VOLTAGE (CV) MODULATION

External control voltages (generated by expression pedals, modular synthesizers, or other types of CV gear) can be used to modulate Deckard's Dream. To use external CV modulation, set the **SUB OSCILLATOR FUNCTION** to **EXT**.

For more detail on how to use the external **SUB OSCILLATOR FUNCTION**, see the *PATCH PROGRAMMING* section of the manual.

The default voltage range for the external CV input is 0-5v. For more information about how to change the voltage range of the input, see the *SETTINGS* section of the manual.

OVERVIEW & FEATURES

Deckard's Dream is an 8-voice polyphonic analog synthesizer inspired by the Yamaha CS-80. Using technology available today (and in the near future), Deckard's Dream can be played with stunning expressive control.

SYNTHESIZER FEATURES

- 8-voice polyphonic analog synthesizer

- Fully analog signal path

- 2 synthesis layers per voice

- 384 presets

ARCHITECTURE

- Voltage controlled oscillator (VCO) with square, saw and sine waveforms

- Pulse width modulation (PWM) with sine-wave low frequency oscillator (LFO)

- Manual pulse width (PW) (50-90%)

- 12dB high-pass (HP) and low-pass (LP) discrete voltage-controlled filters (VCF) with individual resonance controls

- Attack/Decay/Sustain/Release (ADSR) filter envelope with adjustable initial and attack levels

- ADSR voltage-controlled amplifier (VCA) envelope

- Velocity and aftertouch controls for filter brilliance and volume levels

MASTER CONTROLS

- Global coarse/fine tune

- VCO2 detune

- LFO with sine, saw, ramp, square and stepped random waveforms

- LFO destinations: VCO, VCF, VCA

- Crossfade between layers 1 and 2

- Global filter brilliance and resonance control for additional resonance

- Polyphonic aftertouch destinations: LFO speed, LFO to VCO amount, LFO to VCF amount, filter brilliance, volume level

- Keyboard tracking adjustment for VCF and VCA

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 (9-24V)

- External modulation input jack (1/4 inch unbalanced)

- Expander jack (DIN5)

- USB jack (type B, device/host)

- 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: ~ 2.79 kg / 6.15 lbs

BANKS & PRESET SELECTION

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

To enable the maximum amount of expressivity from Deckard's Dream, make sure the **MIDI MODE** settings are configured to match the connected MIDI controller type. To make sure Deckard's Dream is configured correctly for the connected 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 after-touch, 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

Deckard's Dream has three available patch banks:

• **Factory (labeled FCTRY)**: This patch bank is a curated selection of 128 factory presets designed to demonstrate the range of Deckard's Dream's capabilities. The **FACTORY** patch bank is not editable, but factory patches can be edited and saved to Bank 1 or Bank 2.

• **User Banks 1 and 2 (labeled BNK1 and 2)** : These patch banks provide 128 user-editable patches each.

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 below Deckard's Dream's screen will update to the following:

BNK1 | BNK2 | FCTRY | STNG

Buttons are described by their hardware labeling in bold, followed by their corresponding label on the display in parentheses, in the format of: **UP (BNK1)**

While holding **SHIFT**, press **ENTER (FACTORY)** to select the **FACTORY** patch bank.

To begin exploration exploration of Deckard's Dream by building original patches from the panel settings, Press **SHIFT**, **UP (BNK1)** and **DOWN** (**BNK 2)**, simultaneously.

Note: Deckard's Dream responds to standard Program Change and Bank Change MIDI messages. Make sure that CC Receive is turned ON in the MIDI menu. Bank change uses MIDI CC message 0, with the values 0 = User Bank 1, 1 = User Bank 2, and 2 = Factory Bank.

SELECTING PATCH PRESETS

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

To select the next patch preset, press **UP (NEXT)**.

To select the previous patch preset, press **DOWN (PREV)**.

Some MIDI controllers and DAWs are capable of sending Program Change messages. Deckard's Dream will respond to Program Change messages, allowing for selection of the next, previous, or

specific patch numbers from the current bank, or from a different bank entirely.

SAVING PATCH PRESETS

Deckard's Dream has 256 editable patch presets total. Patches can be saved in the banks labeled Bank 1 and Bank 2. Each bank has 128 editable patch presets.

Saved patches store the following values:

- All front panel slider and switch positions

- All non-global **MIDI** settings:

To save/overwrite a patch in the current preset memory location:

1. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Deckard's Dream is in Save mode.

2. Press **ENTER (SAVE)** again. The patch has been saved, overwriting the previous values of that preset.

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

1. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Deckard's Dream is in

Save mode.

2. Press **UP (PREV)** or **DOWN (NEXT)** to navigate to the desired preset memory location to save the new patch to. Be certain to save the patch in the correct location, as the previous values will be overwritten when the save process is complete.

3. Press **ENTER (SAVE)** a second time. The 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 desired bank by pressing **UP (BNK1)** or **DOWN (BNK2)**.

2. Press **ENTER (SAVE)**. The Active Voices display will be replaced by the word **SAVE** to confirm Deckard's Dream is in Save mode.

3. Press **UP (PREV)** or **DOWN (NEXT)** to navigate to the preset memory location to save to. Be certain to save the patch in the correct location, as the previous values will be overwritten when the save process is complete.

4. Press **ENTER (SAVE)** a second time. The patch has been saved, overwriting the previous values of that preset.

EDITING PATCH PRESETS

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

Once adjustments have been made to taste, save the preset to the bank and preset as desired.

BACKING UP PATCH PRESETS

By powering up Deckard's Dream in USB drive mode, patch files may be backed up to a computer for later retrieval.

To place Deckard's Dream in USB drive mode and store patches:

1. If Deckard's Dream is powered on, power it off.

2. Connect a USB cable from a computer to Deckard's Dream's USB port.

3. Hold **SHIFT** while powering on Deckard's Dream. Deckard's Dream's display will show a USB symbol in place of the normal menu options.

4. Deckard's Dream should now display in the computer's file navigation as an external drive.

5. Copy the files labeled dd_bank_1.p and dd_bank_2.p to the desired folder on the computer.

6. Eject the USB drive from the computer before powering down Deckard's Dream.

7. Power down Deckard's Dream, disconnect the USB cable, then power it back on to return to the synth's normal operations.

PANEL MODE

Panel mode is available to bypass all presets and create patches based on the current positions of all knobs and switches on the front panel. While Deckard's Dream cannot initialize patches to a default state, panel mode can create patches from panel settings, which can be saved to any non-factory location.

To place Deckard's Dream in panel mode, hold **SHIFT** and press **UP** + **DOWN** simultaneously. The display now reads **PNL**.

To exit panel mode, press **UP (PREV)**, **DOWN (NEXT)**, or **CANCEL (LOAD)** to navigate to a saved patch.

PROGRAMMING

TERMINOLOGY

Deckard's Dream uses some terminology inspired by the Yamaha CS-80 that may be unfamiliar in modern synthesis:

- **LAYER I/LAYER II:** Deckard's Dream features two independent synthesis layers with identical controls, allowing for more complex patches than single-layer analog polyphonic synthesizers.

- **BRILLIANCE**: This term is synonymous with *voltage-controlled filter cutoff frequency*.

- **SUB OSCILLATOR**: This term is synonymous with *low-frequency oscillator*.

- **TONE SELECTOR**: This term is used on the front panel to label Deckard's Dream's patch selection and settings menu

screen.

- **INITIAL**: This term is used to describe Deckard's Dream's responsiveness to note-on velocity.

- **AFTER**: This term is used to describe Deckard's Dream's responsiveness to aftertouch modulation.

- **FEET**: This term describes an oscillator's pitch using terminology inspired by pipe organs, where a longer pipe creates a lower note, and a shorter pipe creates a higher note.

SLIDER BEHAVIOR

Similar to the CS-80, Deckard's Dream's sliders operate differently depending on the parameter. While all of Deckard's Dream's sliders travel in an up/down direction, some sliders are at their maximum value at the top, while others will be at their maximum value at the bottom.

The description of each individual slider will include a note about where the maximum value of the slider can be found, in the form of **Top=Max/Bottom=Min** or **Top=Min/Bottom=Max**. Max is defined by the end of the slider's travel that has the biggest effect on Deckard's Dream's sound. A small number of sliders and switches on the front panel cannot be described in a Min/Max fashion and will not be labeled this way.

ARCHITECTURE

Deckard's Dream's architecture consists of two independent synthesis layers with identical controls, followed by a master settings section that controls parameters applied across both layers.

This architecture allows for a high level of expressivity, as each of the two synthesis layers can be controlled independently from one another. For each layer, there is independent control over:

- Four waveforms: square, saw, sine (not affected by VCF), and white noise

- Pulse width modulation over the square waveform

- Independent high and low pass voltage-controlled filters (VCFs) with resonance controls

- Initial and After sensitivity controls for the VCF

- Attack/Decay/Release (ADR) envelope for the VCF

- Master and VCF level controls for the voltage-controlled amplifier (VCA)

- Attack/Decay/Sustain/Release (ADSR) envelope for the VCA

- Initial and After sensitivity controls for both Brilliance and Level

The master section controls settings that affect both layers, including:

- Coarse and fine tuning controls for the oscillators' pitch

- Detuning for the second layer's oscillator, creating thicker sounds

- Tuning controls for each oscillator pitch, described in **FEET**

- A **SUB OSCILLATOR** control section, or LFO, with a variety of shapes, destinations, and modulation intensity

- Master mix, brilliance, and resonance controls

- A **TOUCH RESPONSE** control section, which allows velocity and aftertouch to modulate the **SUB OSCILLATOR**

- A **KEYBOARD CONTROL** section, which allows certain frequency ranges to be emphasized over others in the VCF, functioning as a highly flexible and complex filter key-tracking control

- **PORTAMENTO/GLISSANDO** control, alters how Deckard's Dream responds to new notes

- A **TONE SELECTOR** section with OLED display, allowing control over patch selection and access to the **SETTINGS** menu

- **VOLUME** control

The combination of two independent synthesis layers plus the master settings determines the sound of a patch. Combined, the level of expressivity that can be obtained from Deckard's Dream is expansive. For example, combine a sound with a sharp, sudden transient on layer one with a slow-building pad on layer two to achieve slowly

evolving sounds not possible on analog synthesizers with only a single VCF and VCA per voice.

LAYER I/LAYER II SYNTHESIS PARAMETERS

Layer I and Layer II controls are identical and will be described in this manual only once. While the same value can be set independently for each layer, the functionality of each parameter is the same across both layers.

VOLTAGE-CONTROLLED OSCILLATOR (VCO) PARAMETERS

Deckard's Dream generates three waveforms from a single oscillator per layer: Square, saw, and sine, plus noise from the unit's white noise generator. Note that the sine waveform bypasses the filter section; it is handled by the voltage-controlled amplifier and will be covered in that section.

SPEED (Top=Max/Bottom=Min)

Controls pulse width modulation (PWM) for the square waveform, functioning as an independent LFO control over PWM.

This slider will have no effect if the **PWM** slider is set to 0.

PWM (Top=Max/Bottom=Min)

Controls the depth of PWM for the square waveform. With the slider at 0, there is no pulse width modulation. At 10, maximum modulation is achieved.

PW (Top=Max/Bottom=Min)

Controls the Pulse Width (duty cycle) of the square waveform. The percentage value describes the positive percent of the cycle. At 50%, the positive and negative cycles of the waveform are present in equal amounts. As the value is increased (up to 90%), the positive cycle of the waveform becomes more prominent, altering the timbre of the waveform.

SQUARE waveform switch (Top=Off/Bottom=On)

Turns the square waveform on or off. When the switch is down, the square waveform is turned on. When the switch is up, the square waveform is turned off.

The **SPEED**, **PWM**, and **PW** parameters will not have an effect if this switch is in the off position.

SAW waveform switch (Top=Off/Bottom=On)

Turns the saw waveform on or off. When the switch is down, the saw waveform is turned on. When the switch is up, the saw waveform is turned off.

NOISE (Top=Max/Bottom=Min)

Controls the volume of the white noise source. At 0, no white noise can be heard. At 10, white noise is heard at maximum volume.

VOLTAGE-CONTROLLED FILTER (VCF) PARAMETERS

This section covers the voltage-controlled filter. Deckard's Dream has separate 12dB/octave (2-pole) low-pass and high-pass filters per layer. Square and saw waveforms (but not sine) and white noise are processed by the VCF's parameters.

HPF (Top=Max/Low=Min)

Controls the cutoff frequency of the high-pass filter. At the top of the slider, the high-pass filter is closed and lets no frequencies through. At the bottom, the high-pass filter is completely open and lets all frequencies through.

Note that the low-pass filter may be configured to let sound through; setting the slider to the top may not entirely eliminate sound from the layer.

RES$_H$ (Top=Min/Bottom=Max)

Controls the depth of resonance (or the point at which the VCF begins to feed back) for the high-pass filter. At the bottom of the slider, no resonance is present. At the top of the slider, the maximum amount of resonance is present.

LPF (Top=Max/Low=Min)

Controls the cutoff frequency of the low-pass filter. At the top of the slider, the low-pass filter is open and lets all frequencies through. At the bottom of the slider, the low-pass filter is completely closed and lets no frequencies through.

Note that the high-pass filter may separately be configured to let sound through; setting the slider to the top may not entirely eliminate sound from the layer.

RES$_L$ (Top=Max/Bottom=Min)

Controls the depth of the resonance (or the point at which the VCF begins to feed back) for the low-pass filter. At the bottom of the slider, no resonance is present. At the top of the slider, the maximum amount of resonance is present.

IL (Top=Max/Bottom=Min)

Initial level: sets a more filtered starting point for the filter frequency cutoff than the **HPF** and **LPF** slider settings. This results in a thinner sound fading into a fuller sound.

A value of 0 will have no effect. Values above 0 will cause the effect to fade in on note on, allowing fundamentals to sound through while reducing harmonics. The depth of the attack phase is increased as the slider moves toward the top (-5).

The attack of the VCF determines the time the envelope takes to match the values of the **HPF** and **LPF** sliders. Note that if the VCF's attack is set to minimum, these sliders will have no effect.

AL (Top=Max/Bottom=Min)

Attack level: sets a less filtered starting point for the filter frequency cutoff the **HPF** and **LPF** slider settings. This results in a fuller sound fading into a thinner sound.

A value of 0 will have no effect. Values above 0 will cause the effect to start fade in on note on, allowing harmonics to sound through while reducing fundamentals. The depth of the attack phase is increased as the slider moves to the top (+5).

The attack of the VCF determines the time the envelope takes to match the values of the **HPF** and **LPF** sliders. Note that if the VCF's attack is set to minimum, these sliders will have no effect.

A (Top=Max/Bottom=Min)

Attack: controls the length of attack phase of the VCF's envelope. Attack determines the length of time it takes for the filter to reach its maximum level following note on. This parameter will have no effect if the **IL** and **AL** sliders are at minimum. Moving the slider toward the top results in a longer attack time.

Note that the maximum length of the attack phase can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

D (Top=Max/Bottom=Min)

Decay: controls the length of the decay phase of the VCF's envelope. Decay determines the time it takes for the filter to reach its steady level following the attack phase. Moving the slider toward the top results in a longer decay time.

Note that the maximum length of the attack phase can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

R (Top=Max=Bottom=Min)

Release,: controls the length of release phase of the VCF's envelope. Release determines the length of time it takes for the filter to close after note off. Moving the slider toward the top results in a longer release time.

Note that the maximum length of the attack phase can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

VOLTAGE-CONTROLLED AMPLIFIER (VCA) PARAMETERS

VCF LEVEL (Top=Max/Bottom=Min)

Controls the amount of signal passed from the VCF to the VCA. A value of 0 lets no sound through, while moving the slider up (to a maximum of 10) increases the volume passed from the VCF.

SINE waveform (Top=Max/Bottom/Min)

Controls the volume of the sine waveform (generated by the VCF). A value of 0 lets no sound through, while moving the slider up (to a maximum of 10) increases the volume of the sine waveform introduced to the VCA.

Use the **VCF LEVEL** slider in combination with the **SINE** slider to balance the audio at the VCA stage.

A (Top=Max/Bottom=Min)

Attack: Controls the length of the VCA envelope's attack. Attack determines the time it takes for the volume to reach its maximum level following note on. Moving the slider toward the top results in a longer attack time.

Note that the maximum length of the attack phase of the envelope can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

D (Top/Max=Bottom=Min)

Decay: controls the length VCA envelope's decay. Decay determines the time it takes for the volume to fall from its maximum level, following the attack phase, to the steady level set by the sustain slider. Moving the slider toward the top results in a longer decay time.

Note that the maximum length of the attack phase of the envelope can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

S (Top=Max/Bottom=Min)

Sustain: controls the VCA envelope's sustain. This stage of the envelope, following decay, determines the volume for the remainder of the length of note-on.

R (Top=Max/Bottom=Min)

Release: controls the VCA envelope's release. Release determines the time it takes for the volume to close after note off. Moving the slider toward the top results in a longer release time.

Note that the maximum length of the release phase of the envelope can be adjusted in the **TIME** section of the **SETTINGS** menu. For more detail, see that section of the manual.

LEVEL (Top=Max/Bottom=Min)

Controls the final volume of the layer, after any adjustments to the filter and the sine waveform. A value of 0 will reduce volume significantly, but will not result in complete silence. Moving the slider toward the top will increase the layer's volume, to a maximum of 10.

TOUCH RESPONSE PARAMETERS

INITIAL BRILLIANCE (Top=Max/Bottom=Min)

Controls the depth that velocity will open up the filter, resulting in a brighter sound. At 0, there is no effect, and the patch will sound exactly as programmed in the VCF section. Moving the slider up (toward the maximum of 10) will result in velocity having a greater effect on the sound.

To demonstrate how harder key presses result in a brighter sound, while softer key presses result in a thinner sound, close the **HPF** and/or the **LPF** sliders and raise the **INITIAL BRILLIANCE** slider to maximum while playing with a controller that sends velocity messages.

INITIAL LEVEL (Top=Max/Bottom/Min)

Controls the depth that velocity will increase the volume of the patch. At 0, there is no effect, and the patch will sound exactly as it is programmed according to **LEVEL** in the VCA. Moving the slider up (toward the maximum of 10) will result in velocity having a greater effect on the volume.

To demonstrate how harder key presses result in a louder sound, while softer key presses result in a quieter sound, move the VCA **LEVEL** slider to 0 and raise the **INITIAL LEVEL** slider to maximum while playing with a controller that sends velocity messages.

AFTER BRILLIANCE (Top=Max/Bottom=Min)

Controls the depth that aftertouch will open up the filter, resulting in a brighter sound. At 0, there is no effect, and the patch will sound exactly as it is programmed in the VCF section. Moving the slider up (toward the maximum of 10) will result in aftertouch having a greater effect on the sound.

To demonstrate how harder key presses result in a brighter sound, while softer key presses result in a thinner sound, close the **HPF** and/or the **LPF** sliders and raise the **AFTER BRILLIANCE** slider to maximum while playing with a controller that sends velocity messages.

AFTER LEVEL (Top=Max/Bottom=Min)

Controls the depth that aftertouch will increase the volume of the patch. At 0, there is no effect, and the patch will sound exactly as it is programmed according to **LEVEL** in the VCA. Moving the slider up (toward the maximum of 10) will result in aftertouch having a greater effect on the volume.

To demonstrate how harder key presses result in a louder sound, while softer key presses result in a quieter sound, reduce the VCA **LEVEL** slider to 0 and raise the **AFTER LEVEL** slider to maximum while playing with a controller that sends velocity messages.

MASTER SYNTHESIS PARAMETERS

The master synthesis parameters are global, affecting both layers I and II. Adjustments made to these parameters can have a dramatic effect on the sound and expressivity of a patch.

PITCH PARAMETERS

The pitch section adjusts the oscillators' pitches, including coarse and fine master pitch adjustments, detuning for layer II to get thicker sounds, and per-layer pitch adjustment in **FEET**.

COARSE PITCH (Top=Low/Bottom=High)

Coarse pitch has a dramatic effect on the pitch of the oscillators in layers I and II. A center detent identifies center pitch. Pitch can be adjusted approximately 5 semitones in either direction, with lower pitch toward the top, and higher pitch toward the bottom.

FINE PITCH (Top=Low/Bottom=High)

Fine pitch has a minor effect on the pitch of the oscillators in layers I and II. A center detent identifies center pitch. Pitch can be adjusted approximately 1 semitone in either direction, with lower pitch toward the top, and higher pitch toward the bottom.

DETUNE CHII (Top=Low/Bottom=High)

Detune CHII has a minor effect on the pitch of the oscillator in layer II only, creating thicker sounds. A center detent identifies center pitch. Pitch can be adjusted approximately 1 semitone in either direction, with lower pitch toward the top, and higher pitch toward the bottom.

FEET I (Top=Low/Bottom=High)

Controls the pitch of the oscillator in layer I only, functioning as an octave switch. At the top (16'), the pitch will be lowest. At the bottom (2'), the pitch will be highest.

Even numbers represent an octave above the lower number, with 8' being 1 octave higher than 16', 4' being 1 octave higher than 8', and so on.

The 5 ⅓" marker represents a perfect 5th above 8', and the 2 ⅔" marker represents a perfect 5th above 4'. Use a combination of octaves and 5ths to create chords from playing a single note.

FEET II (Top=Low/Bottom=High)

This slider operates identically to Feet I, but controls the pitch of layer II only.

SUB OSCILLATOR PARAMETERS

The sub oscillator functions as Deckard's Dream's low-frequency oscillator (LFO). The LFO has variable speed and multiple shapes, including external CV sources, and can modulate the following destinations: VCO pitch, VCF cutoff frequency, and VCA volume.

FUNCTION

Controls the shape of the LFO waveform. Available options, from top to bottom, include sine, saw, reverse saw, square, random (sample & hold), and external.

The **EXT.** LFO waveform is determined by CV sources plugged into the **EXTERNAL** jack on the back of Deckard's Dream. If no CV source is plugged in, the **EXT.** waveform will have no effect on modulation.

The depth of external CV modulation is determined by the **LEVEL** knob on the back of Deckard's Dream.

Note that the voltage range of the CV source can be configured in the **EXTERNAL** section of the **SETTINGS** menu. For more information, see the **SETTINGS** section of this manual. In addition, the volume dial at the back of the unit next to the **EXTERNAL** input jack can be used to fine tune the voltage range from an external source.

SPEED (Top=Min/Bottom=Max)

Controls the frequency or speed of the LFO. The frequency is lowest at the top, and highest at the bottom.

VCO (Top=Min/Bottom=Max)

Controls the depth of the LFO's modulation of the oscillators' pitch in both layers I and II. At the top, there is no effect. At the bottom, the modulation depth is highest.

VCF (Top=Min/Bottom=Max)

Controls the depth of the LFO's modulation of VCF's cutoff frequency in both layers I and II. At the top, there is no effect. At the bottom, the modulation depth is highest.

VCA (Top=Min/Bottom=Max)

Controls the depth of the LFO's modulation of VCA's volume in both layers I and II. At the top, there is no effect. At the bottom, the modulation depth is highest.

TONE PARAMETERS

The tone parameters offer global control over the tone of the patch. This section controls the mix of the patch between layers I and II, as well as the global filter cutoff frequency and resonance.

MIX I - II

Controls the balance of layers I and II in the final output mix and functions as a crossfader. This slider has a center detent, where the mix is balanced equally between layers I and II. At the top, only layer I is audible, while at the bottom, only layer II is audible.

BRIL

Controls the master filter cutoff frequency. At the slider's center detent, there is no effect on the patch's final output, and the sound of the patch will mirror the settings of the **HPF** and **LPF** sliders in layers I and II.

Moving the slider up from the center will remove harmonics and increase the fundamental, while moving the slider down from the center detent will increase harmonics, creating a brighter sound.

Reso (Top=Min/Bottom=Max)

Controls the master filter resonance. Adjusting resonance here will affect the filter resonance of both layers I and II. At the top, there is no effect on the patch's final output. At the bottom, resonance in the master filter output is at maximum.

TOUCH RESPONSE PARAMETERS

The touch response parameters offer additional expressivity controls over pitch bend (via velocity messages) and the effect of aftertouch messages on the depth of sub oscillator (LFO) modulation.

P BEND (Top=Min/Bottom=Max)

Controls the impact of velocity on pitch bend. At the top, there is no effect. Moving the slider toward the bottom will increase the depth of the pitch bend affect.

This parameter causes the pitch to begin below the note played, quickly sliding upward until the intended pitch is reached. The harder a key is struck at note on, the more the pitch will bend, with the maximum bend determined by the placement of the slider.

SPEED (Top=Min/Bottom=Max)

Controls the speed of the sub oscillator (LFO), based on velocity. At the top, there is no affect. Moving the slider toward the bottom will increase the effect of velocity on the LFO's speed. The harder a key is struck at note on, the higher the frequency of the LFO. The maximum speed is determined by the placement of the **SPEED** sliders in both the **SUB OSCILLATOR** and **TOUCH RESPONSE** sections.

VCO (Top=Min/Bottom=Max)

Controls the depth of the sub oscillator (LFO) modulation of the VCO's pitch, based on aftertouch. At the top, there is no affect. Moving the slider toward the bottom of its travel will increase the effect of aftertouch on VCO pitch modulation. The harder a key is pressed, the deeper the LFO will modulate the VCO's pitch. The maximum pitch modulation is determined by the placement of the

VCO sliders in both the **SUB OSCILLATOR** and **TOUCH RE-SPONSE** sections.

VCF (Top=Min/Bottom=Max)

Controls the depth of the sub oscillator (LFO) modulation of the VCF's pitch, based on aftertouch. At the top, there is no affect. Moving the slider toward the bottom will increase the effect of aftertouch on VCF cutoff frequency. The harder a key is pressed, the deeper the LFO will modulate the VCF's cutoff frequency. The maximum cutoff frequency modulation is determined by the placement of the **VCF** sliders in both the **SUB OSCILLATOR** and **TOUCH RE-SPONSE** sections.

KEYBOARD CONTROL PARAMETERS

The keyboard control parameters offer additional levels of expressivity over the filter cutoff frequency and volume of the patch, based on the range of the notes played. The controls are split between high and low notes, but there is no exact note on the keyboard that determines the divide between high and low.

Control over cutoff frequency and volume are instead distributed on a curve over the entire range of a keyboard's keys, with the effect increasing in either direction the further keys are played from the center key.

Used in combination with existing layer and master cutoff frequency and volume sliders, the keyboard control parameters can be used to emphasize notes at the bottom or top of the scale as desired.

BRILLIANCE LOW

Increases or decreases emphasis in the filter cutoff frequency for notes below the center key. At the slider's center detent, there is no effect on the patch.

Moving the slider up will decrease emphasis for notes below the center key, effectively closing the filter further as lower notes are played.

Moving the slider toward the bottom will increase emphasis for notes below the center key, effectively opening the filter further as lower notes are played.

BRILLIANCE HIGH

This parameter increases or decreases emphasis in the filter cutoff frequency for notes above the center key. At the slider's center detent, there is no effect on the patch.

Moving the slider up toward the top of its travel will decrease emphasis for notes above the center key, effectively closing the filter further as higher notes are played.

Moving the slider down toward the bottom of its travel will increase emphasis for notes above the center key, effectively opening the filter further as higher notes are played.

LEVEL LOW

Increases or decreases volume for notes below the center key. At the slider's center detent, there is no effect on the patch.

Moving the slider toward the top will decrease volume for notes below the center key, effectively decreasing volume further as lower notes are played.

Moving the slider down will increase volume for notes below the center key, effectively increasing volume further as lower notes are played.

LEVEL HIGH

Increases or decreases volume for notes above the center key. At the slider's center detent, there is no effect on the patch.

Moving the slider up will decrease volume for notes above the center key, effectively decreasing volume further as higher notes are played.

Moving the slider down will increase volume for notes above the center key, effectively increasing volume further as higher notes are played.

PORTAMENTO/GLISSANDO PARAMETERS

The portamento/glissando parameters control how pitch transitions between notes or chords. A slider and switch work together in tandem to create variations in pitch transition.

Portamento is a smooth, gliding transition between pitches. Glissando is a stepped transition between notes, increasing or decreasing pitch from the previous note in ½ steps until the final pitch is reached.

PORTAMENTO/GLISSANDO SELECTOR SWITCH

This 3-setting switch determines how pitch will transition between notes.

Left (P or PORTAMENTO): pitch glides smoothly between notes or chords, with the length of the transition determined by the **LONG/ SHORT** slider.

Center: Pitch transitions immediately between notes with no glide or stepping.

Right (G or GLISSANDO): pitch transitions between notes or chords in a stepped fashion, increasing or decreasing in ½ note steps until the final pitch is reached, with the length of the transition time determined by the **LONG/SHORT** slider.

LONG/SHORT slider (Top=Max/Bottom=Min)

Controls the time it takes for pitch to transition from one note or chord to the next. At the bottom, there will be a barely noticeable effect on pitch transition. At the top, the transition time is at maximum.

Increasing the distance between notes will also increase transition time. With the slider at the top, it takes approximately 10 seconds to transition from the lowest note to the highest note (or vice versa).

TONE SELECTOR PARAMETERS

The tone selector buttons and display select, save, and store patches, as well as change Deckard's Dream's per-patch and global settings.

The functions of the tone selector section are covered elsewhere in this manual:

- For details on changing, saving, and editing patches, see the **BANK & PRESET SELECTION** section of this manual.

- For details on editing Deckard's Dream's settings, see the **SETTINGS MENU** section of this manual.

VOLUME KNOB

Controls the final output volume of a patch, both of the headphone amplifier on the front panel, and the **AUDIO OUTPUT** jack on the back of the synth. Fully counter-clockwise, the volume is at minimum, and Deckard's Dream is not audible. Volume reaches maximum at fully clockwise.

Before plugging Deckard's Dream into an amplifier or mixer, always turn the volume knob fully counter-clockwise to minimum, then slowly increase volume as necessary until the desired level is reached.

SETTINGS

Deckard's Dream's settings menu controls not only the global settings of Deckard's Dream, 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 a patch after adjustments in order to retain the new settings.

TONE SELECTOR BUTTONS

There are five buttons in the **TONE SELECTOR** section. On the panel, they are labeled as **UP**, **DOWN**, **ENTER**, **CANCEL**, and **SHIFT**.

For the purposes of this manual, the **UP**, **DOWN**, **ENTER**, and **CANCEL** buttons will be described in terms of their panel label as well as the variant name on the display, as button functions may change depending on the subsection of the selected settings.

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 **CANCEL** button to be relabeled **STNG**, for settings. This manual will describe this in the format of **CANCEL (STNG)**.

ACCESSING THE SETTINGS MENU

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

In the settings menu, use the **UP** and **DOWN** buttons to navigate through the settings menu sections. Press **ENTER (RUN)** to select a section, and **CANCEL (BACK)** to return to the patch selection screen.

From within a menu section, press **CANCEL (BACK)** to return to the main settings menu.

RETUNE (GLOBAL)

RETUNE quickly retunes Deckard's Dream's oscillators. Selecting this section of the settings menu displays the following message: "TO START RETUNE PRESS ENTER."

Press **CANCEL (BACK)** to cancel the retuning process and returns to the main settings page.

Press **ENTER** to start the retune process. The display will read: "RECALIBRATION IN PROCESS." Retuning takes approximately 10-20 seconds. When complete, the display will update to "DONE." Press **CANCEL (OK)** to return to the patch selection screen.

MIDI SETTINGS

The **MIDI** settings section changes how a MIDI sequencer or controller interacts with Deckard's Dream.

MODE (GLOBAL)

MIDI MODE determines how Deckard's Dream interacts with a 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 **CHANNEL PRESSURE**.

- For MIDI controllers that are capable of polyphonic aftertouch, select **POLY AFTERTOUCH**.

- For MIDI Polyphonic Expression (MPE) controllers such as Roli Seaboard, Roger Linn Linnstrument, or Haken Continuum, select **MPE**.

Press **UP (↑)** or **DOWN (↓)** to select the appropriate option for the connected controller, then press **ENTER (SAVE)** to save the selection.

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

CHANNEL (GLOBAL)

CHANNEL selects the MIDI channel Deckard's Dream will receive. The content of this menu section will change, depending on the selected controller type.

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

If **MPE** is selected in **MODE**, only MIDI channels 1-8 can be selected. 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. Deckard's Dream assigns MIDI channels 9-16 to each of its 8 voices. The master MIDI channel selected (1-8) assigns the master channel Deckard's Dream will receive. Press **UP (↑)** or **DOWN (↓)** to select a new channel, then press **ENTER (SAVE)** to save the selection.

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

CC RECEIVE (GLOBAL)

CC RECEIVE determines whether Deckard's Dream will accept incoming continuous control (CC) messages from the connected sequencer or controller.

- **OFF** ignores all incoming CC messages.

- **ON** allows Deckard's Dream to be modulated by external CC messages from the connected MIDI sequencer or controller.

Press **UP (↑)** or **DOWN (↓)** to select preference, then press **ENTER (SAVE)** to save the selection.

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

CC74 REPLACE (GLOBAL)

Some MPE controllers, such as the Roli Seaboard series and the Haken Continuum, allow additional expressivity by moving 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, Deckard's Dream's firmware can select a new destination for CC74, in order to take advantage of the vertical dimension of MPE controller series' keys. Available destinations include:

- LFO SPEED (CC 105)

- LFO TO VCO (CC106)

- LFO TO VCF (CC 107)

- LFO TO VCA (CC 108)

- BRILLIANCE (CC109)

- LPF A (CC 048)

- LPF B (CC 075)

- HPF A (CC 046)

- HPF B (CC 073)

Press **UP (↑)** or **DOWN (↓)** to select the preferred destination, then press **ENTER (SAVE)** to save the selection.

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

SLIDERS (GLOBAL)

SLIDERS changes Deckard's Dream's behavior when the physical position of a switch or slider is different than the value stored in the current saved patch. Available options are **PICK UP** and **MERGE**.

- **PICK UP**: Moving sliders has no effect until the slider position moves through the current patch's stored value. Once the slider has moved through the stored value, changes will be audible based on the slider's actual position.

- **MERGE**: Moving sliders has an immediate effect, but will not immediately reflect the physical slider position. In effect, the stored value of the current patch and the current slider position will meet each other gradually, eventually merging at the slider position.

Press **UP (↑)** or **DOWN (↓)** to select the preferred slider behavior, then press **ENTER (SAVE)** to save the selection.

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

MOD WHEEL DESTINATION (PER-PATCH)

MOD WHEEL DESTINATION determines what continuous control (CC) message the connected controller's mod wheel will modulate. Available destinations include:

- LFO DEPTH - VCO (CC 106)

- LFO DEPTH - VCF (CC 107)

- LFO DEPTH - VCA (CC 108)

- BRILLIANCE (CC 109)

- PORTAMENTO LEVEL (CC 005)

- PWM SPEED 1 (CC 040)

- PWM SPEED 2 (CC 067)

- PWM SPEED 1+2 (CC 040 and CC 067)

- DETUNE (CC 095)

- FEET 1 (CC 102)

- FEET 2 (CC 103)

Press **UP (↑)** or **DOWN (↓)** to select the preferred mod wheel destination, then press **ENTER (SAVE)** to save the selection.

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

MOD WHEEL POLARITY (PER-PATCH)

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

POSITIVE: adds to the value of the CC destination as use of the mod wheel increases.

NEGATIVE: decreases the value of the CC destination as use of the mod wheel increases.

Press **UP (↑)** or **DOWN (↓)** to select the preferred mod wheel polarity, then press **ENTER (SAVE)** to save the selection.

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

VOICE SETTINGS

VOICE changes how Deckard's Dream assigns and manages its 8 analog voices.

MODE (PER-PATCH)

VOICE MODE determines how Deckard's Dream assigns its voices as keys are played. Available options are **MONOPHONIC**, **POLYPHONIC**, and **UNISON**.

- **MONOPHONIC**: Deckard's Dream becomes a monophonic synthesizer, using 1 of its 8 analog voices. Pressing a new key will override the previous note, with the most recently played note taking priority.

- **POLYPHONIC**: Deckard's Dream becomes a polyphonic synthesizer, allowing up to 8 of its analog voices to be played simultaneously (depending on the **NUMBER OF VOICES** setting under the **VOICE** menu). Select this mode to play chords or simultaneously overlapping notes.

- **UNISON**: Deckard's Dream 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 for monophonic behavior with the thickest sound possible.

Press **UP (↑)** or **DOWN (↓)** to select the preferred voice mode, then press **ENTER (SAVE)** to save the selection.

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

CARDS PER VOICE (GLOBAL)

CARDS PER VOICE determines how many of Deckard's Dream'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** and **2**.

This setting affects only the **MONOPHONIC** and **POLYPHONIC** settings in the **VOICE MODE** settings section.

- **1**: Assigns 1 voice card to 1 voice, for a thinner sound per voice. This allows up to 8 notes to be played simultaneously in **POLYPHONIC** mode.

- **2**: Assigns 2 voice cards to 1 voice, for a thicker sound per voice. This allows up to 4 notes to be played simultaneously in **POLYPHONIC** mode.

Press **UP (↑)** or **DOWN (↓)** to select the preferred number of cards per voice, then press **ENTER (SAVE)** to save the selection.

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

NUMBER OF VOICES (GLOBAL)

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

Press **UP (↑)** or **DOWN (↓)** to select the preferred maximum number of voices, then press **ENTER (SAVE)** to save the selection.

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

DETUNE (PER-PATCH)

DETUNE adds pitch drift to Deckard's Dream's VCOs. Deckard's Dream is a modern synth with stable tuning, but it may be desirable to simulate the randomly detuned nature of classic analog synths to create thicker sounds. Pitch drift can be introduced in increments of 1/10th of a Hz (or 1/10th of one frequency cycle per second), with a maximum of 3.0 Hz.

Detuning has varying results depending on the **VOICE MODE** setting:

- **MONOPHONIC**: The current note is simply detuned from its center pitch, with the amount of detuning from central pitch determined by the Hz setting.

- **POLYPHONIC**: Detuning introduces random pitch fluctuations per voice. At lower detune settings, detuning will introduce a warble into chords, while extreme detuning settings will result discordant sounds barely recognizable as the chord being

played.

- **UNISON**: 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.

Press **UP (↑)** or **DOWN (↓)** to select the preferred amount of detuning, then press **ENTER (SAVE)** to save the selection.

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

HPF MOD (GLOBAL)

HPF MOD inverts the polarity of the envelope for the high-pass filter. Available options include **NORMAL** and **INVERTED**.

- **NORMAL**: The high-pass filter envelope is positive, and responds in the opposite way of the low-pass filter.

- **INVERTED**: The high-pass filter's envelope is inverted, andwill responds the same way as the low-pass filter.

Press **UP (↑)** or **DOWN (↓)** to select the preferred **HPF MOD** mode, then press **ENTER (SAVE)** to save the selection.

Press **CANCEL (CNCL)** at any time to cancel changes to **HPF MOD** settings and return to the **VOICE** settings menu.

PLAYBACK (PER-PATCH)

PLAYBACK 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** (not related to layers I and II).

- **SUSTAIN I**: All notes sustain and release independently regardless of other notes or chords played, and each note has the same release time. This mode is also called "round-robin" voice assignment.

- **SUSTAIN II**: Notes or chords will be cut off by any new notes or chords 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. This setting is a unique feature of the CS-80 and is musically useful especially with slow-release patches, making it possible to play monophonic / legato leads with the right hand while holding down chords with the left.

Press **UP (↑)** or **DOWN (↓)** to select the preferred **PLAYBACK** mode, then press **ENTER (SAVE)** to save the selection.

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

TIME SETTINGS

TIME adjusts the maximum length of LFO cycles, pulse width cycles, and envelope phases, as well as the characteristics of the LFO.

LFO MAX (PER-PATCH)

LFO MAX controls the maximum frequency of the **SUB OSCILLATOR**. This determines the value of the bottom of the **SUB OSCIL-**

LATOR SPEED slider. The default value is 25.0 Hz. The allowable range is 10.0 Hz to 45.0 Hz.

Press **UP (↑)** or **DOWN (↓)** to select the desired frequency, then press **ENTER (SAVE)** to save the selection.

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

LFO MIN (PER-PATCH)

LFO MIN controls the minimum frequency of the **SUB OSCILLA-TOR**. This determines the value of the top of the **SUB OSCILLA-TOR SPEED** slider. The default value is 0.7 Hz. The allowable range is 0.1 Hz to 5.0 Hz.

Press **UP (↑)** or **DOWN (↓)** to select the desired frequency, then press **ENTER (SAVE)** to save the selection.

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

PWM MAX (PER-PATCH)

PWM MAX controls the maximum frequency of the square wave oscillator's pulse-width modulation. This determines the value of the top of the **PWM** slider. The default value is 70.0 Hz. The allowable range is 10.0 Hz to 100.0 Hz.

Press **UP (↑)** or **DOWN (↓)** to select the desired frequency, then press **ENTER (SAVE)** to save the selection.

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

PWM MIN (PER-PATCH)

PWM MIN controls the minimum frequency of the square wave oscillator's pulse-width modulation. This determines the value of the bottom of the **PWM** slider. The default value is 0.7 Hz. The allowable range is 0.1 Hz to 5.0 Hz.

Press **UP (↑)** or **DOWN (↓)** to select the desired frequency, then press **ENTER (SAVE)** to save the selection.

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

PWM MODE (GLOBAL)

PWM MODE controls how the Pulse Width Modulation (PWM) LFOs behaves. Available options include **SEPARATE** and **SYNC**.

- **SEPARATE**: The PWM LFOs of layers I and II behave independently of each other. Speed and depth are controlled by the respective SPEED and PWM sliders of layers I and II.

- **SYNC**: The PWM LFOs are synchronized and run at the same speed. Speed is controlled by the SPEED slider of layer I. The Pulse Width Modulation (PWM) depth, however, is still controlled independently by the PWM sliders of layers I and II.

Press **UP (↑)** or **DOWN (↓)** to select the desired **PWM MODE**, then press **ENTER (SAVE)** to save the selection.

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

ATTACK TIME (PER-PATCH)

ATTACK TIME sets the maximum length of the attack stage of the VCF and VCA's envelopes. The default value is 1.0 seconds. The

allowable range is 1.0 seconds to 100.0 seconds. From 1.0 to 10.0 seconds, values can be incremented in units of 1 second. From 10.0 seconds to 100.0 seconds, values can be incremented in units of 10 seconds.

Press **UP (↑)** or **DOWN (↓)** to select the desired number of seconds, then press **ENTER (SAVE)** to save the selection.

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

DEC/REL TIME (PER-PATCH)

DEC/REL TIME sets the maximum length of the decay and release stages of the VCF and VCA's envelopes. The default value is 15.0 seconds. The allowable range is 15.0 seconds to 150.0 seconds. Values can be incremented in units of 1 second.

Press **UP (↑)** or **DOWN (↓)** to select the desired number of seconds, then press **ENTER (SAVE)** to save the selection.

Press **CANCEL (CNCL)** at any time to cancel changes to the **DEC/REL TIME** settings and return to the **TIME** settings menu.

LFO DEPTH (PER-PATCH)

LFO DEPTH controls the maximum depth of **SUB OSCILLATOR** modulation, creating more dramatic effects with the **SUB OSCILLATOR VCO**, **VCF**, and **VCA** sliders. Available options include **CLASSIC** and **EXTENDED**.

- **CLASSIC (default)**: Has a shallower level of maximum **SUB OSCILLATOR** modulation depth.

- **EXTENDED**: Increases the maximum modulation depth of the **SUB OSCILLATOR** beyond what is possible with **CLASSIC**.

Press **UP (↑)** or **DOWN (↓)** to select the desired **LFO DEPTH** mode, then press **ENTER (SAVE)** to save the selection.

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

LFO MODE (GLOBAL)

LFO MODE controls 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 Deckard's Dream 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 a chord.

Press **UP (↑)** or **DOWN (↓)** to select the desired **LFO MODE**, then press **ENTER (SAVE)** to save the selection.

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

RESET TO DEFAULTS (GLOBAL)

RESET TO DEFAULTS resets 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."

Press **CANCEL (BACK)** to cancel the reset process and return to the main **TIME** settings page.

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

USB MODE SETTINGS (GLOBAL)

USB MODE switches between **HOST** and **DEVICE** modes.

- **HOST**: This mode will power devices (such as the connected MIDI controller) connected via USB to Deckard's Dream.

- **DEVICE**: This mode allows Deckard's Dream to connect to a computer and to update the firmware.

Press **UP (↑)** or **DOWN (↓)** to select the desired **USB MODE**, then press **ENTER (SAVE)** to save the selection.

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

KEYBOARD SETTINGS

KEYBOARD controls the pitchbend range, tracking width, and middle octave of the connected MIDI controller.

PITCHBEND RANGE (GLOBAL)

PITCHBEND RANGE sets the maximum pitchbend range of the connected controller. The default setting is 3 semitones. The allowable range is 1 to 99 semitones.

Press **UP (↑)** or **DOWN (↓)** to select the desired number of semitones, then press **ENTER (SAVE)** to save the selection.

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

TRACKING WIDTH (GLOBAL)

TRACKING WIDTH sets the connected controller's octave range that can modulate **BRILLIANCE** and **LEVEL** in the **KEYBOARD CONTROL** master parameters section of the front panel.

Keyboard tracking on modern synthesizers typically controls the amount of keyboard tracking of the VCF and VCA. Deckard's Dream allows for more complex tracking along the entire keyboard range, up to 10 octaves in total, or a smaller range.

Setting **TRACKING WIDTH** to lower values, such as 3 octaves, limits the range of tracking across the keyboard. Tracking begins at the center octave selected in the **MIDDLE OCTAVE** setting. In the example of 3 octaves, the Low and High VCF and VCA slider settings still take effect, but across a smaller range of the keyboard, meaning that if a scale is played in the range of 3 octaves (2 octaves up and 1 down) from the middle octave, the VCF cutoff and VCA level will change more with each note played.

The available range includes 1 to 10 octaves. The default value is 4 octaves.

Octaves are represented on the display via a series of 10 blocks. At 1 octave, only the octave selected as the middle octave in the **MIDDLE OCTAVE** setting will be highlighted. Increasing the number of octaves from 1 will add octaves above and below the middle octave in an alternating fashion.

Press **UP (↑)** or **DOWN (↓)** to select the desired number of octaves, then press **ENTER (SAVE)** to save the selection.

Press **CANCEL (CNCL)** at any time to cancel changes to **TRACKING WIDTH** settings and return to the **KEYBOARD** settings menu.

MIDDLE OCTAVE (GLOBAL)

MIDDLE OCTAVE selects the center octave that the **TRACKING WIDTH** uses to determine its starting point. Note that if **TRACKING WIDTH** is set to 10 octaves, **MIDDLE OCTAVE** will have no effect.

Press **UP (↑)** or **DOWN (↓)** to select the desired center octave, then press **ENTER (SAVE)** to save the selection.

Press **CANCEL (CNCL)** at any time to cancel changes to **MIDDLE OCTAVE** settings and return to the **KEYBOARD** settings menu.

PRESET VOLUME (PER-PATCH)

PRESET VOLUME adjusts the gain of an individual patch, allowing for normalization of volumes between patches. The available range is -6db to +6db.

Press **UP (↑)** or **DOWN (↓)** to select the desired gain level, then press **ENTER (SAVE)** to save the selection.

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

EXTERNAL (GLOBAL)

EXTERNAL RANGE adjusts the voltage range of the **EXTERNAL** input on the back of Deckard's Dream, which is used as a modulation source for the **EXT.** setting of the **SUB OSCILLATOR**. 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.

Press **UP (↑)** or **DOWN (↓)** to select the desired voltage range, then press **ENTER (SAVE)** to save the selection.

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

EXPANSION (GLOBAL) *Available in future revisions

EXPANSION settings configure how two Deckard's Dream units behave when chained together.

CHAIN (GLOBAL)

CHAIN sets the parameters for connecting two Deckard's Dream units. Available options include **ON** or **OFF**.

- **On**: Allows two Deckard's Dream units to be chained.

- **Off**: Chaining is disabled.

Press **UP (↑)** or **DOWN (↓)** to select the desired setting, then press **ENTER (SAVE)** to save the selection.

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

MODE (GLOBAL)

MODE determines the order each unit plays voices. Available options include **MASTER** and **SLAVE**. This setting has no effect if **CHAIN** is set to **Off**.

- **MASTER**: The unit plays voices 1 - 8

- **SLAVE**: The unit plays voices 9 - 16

Press **UP (↑)** or **DOWN (↓)** to select the desired mode, then press **ENTER (SAVE)** to save the selection.

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

CALIBRATION SETTINGS

CALIBRATION calibrates slider positions, tunes oscillator voices as a group or individually, enables or disables microtuning, and debugs issues with Deckard's Dream.

SLIDERS (GLOBAL)

SLIDERS calibrates the center position of sliders with a center detent. Selecting the **SLIDERS** calibration setting updates Deckard's Dream's display to read, "SET CENTER DETENT SLIDERS TO MIDDLE AND PRESS ENTER."

All sliders with center detents are found in the Master Synthesis Parameters section of Deckard's Dream. These sliders include:

- **PITCH: COARSE**

- **PITCH: FINE**

- **DETUNE CHII**

- **MIX I/II**

- **MASTER BRILLIANCE**

- **KEYBOARD CONTROL: BRILLIANCE LOW**

- **KEYBOARD CONTROL: BRILLIANCE HIGH**

- **KEYBOARD CONTROL: LEVEL LOW**

- **KEYBOARD CONTROL: LEVEL HIGH**

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

Press **CANCEL (BACK)** to cancel the slider calibration process and return to the **CALIBRATION** settings page.

Press **ENTER** to start the slider calibration process. Calibration occurs instantly. When complete, the screen displays "DONE." Press **CANCEL (OK)** to return to the **CALIBRATION** settings screen.

OSCILLATORS (GLOBAL)

OSCILLATORS calibrates the oscillators of all voices simultaneously or on a per-voice basis. Note: For best results, allow the unit to warm up for 20 minutes before performing this procedure.

To tune all voices simultaneously, select **TUNE ALL VOICES**. The display will read "TO START AUTOTUNE PRESS ENTER."

Press **CANCEL (BACK)** to cancel the oscillator calibration process and return to the **CALIBRATION** settings page.

Press **ENTER** to start the oscillator calibration process. The display will read: "OSC 1A TUNING," and displays a progress bar. Calibration takes approximately 1-3 minutes per voice and proceeds from OSC 1A to OSC 1B to OSC 2A and so on. Full calibration of all oscillators takes approximately 10-15 minutes. When complete, the screen displays "DONE." Press **CANCEL (OK)** to return to the **CALIBRATION** settings screen.

To tune an individual voice, select the the desired voice number and press **ENTER.**

MICROTUNING (GLOBAL) *Firmware 1.3.0 and earlier

MICROTUNING enables or disables microtuning.
Available options are **ON** and **OFF**.

- **ON**: Microtuning is enabled.
  - In firmware 1.3.0 and earlier, this enables a new section of the **CALIBRATION** settings menu called **EDIT FREQS**. See the **EDIT FREQS** section of the manual for more detail.
  - In firmware 1.3.1 and beyond, this enables a new section of the **CALIBRATION** settings menu called **TUNING PROGRAM,** Deckard's Dream's memory locations for storing individualized micro-tuning programs. See the **TUNING PROGRAM** section of the manual for more detail.
- **OFF**: Microtuning is disabled.

Press **UP (↑)** or **DOWN (↓)** to select the desired setting, then press **ENTER (SAVE)** to save the selection.

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

DEBUG (GLOBAL)

DEBUG debugs issues with Deckard's Dream's sliders and switches. Selecting this setting displays the current value of the first slider, **PWM SPEED A**.

- The values of sliders will be displayed as approximately **0** at the bottom to approximately **255** the top. Note that these numbers will most likely not be exactly 0 or 255.

- The values of oscillator switches is displayed as **ON** or **OFF**.

- The values of the **PORTAMENTO/GLISSANDO** switch aredisplayed as **PORTAMENTO**, **GLISSANDO**, or **OFF**.

Press **ENTER (NEXT)** to proceed to the next setting as many times as needed to reach the desired slider or switch to be debugged.

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

EDIT FREQS (GLOBAL) *Firmware v1.3.0 and earlier

EDIT FREQS configures micro-tuning settings. This section of the **CALIBRATION SETTINGS** menu is only available when **MICRO-TUNING** is set to **ON**.

To edit micro-tuning frequencies, first select the octave. To select an octave, press **ENTER (EDIT)**. Available options include:

- OCTAVE -1

- OCTAVE 0

- OCTAVE 1

- OCTAVE 2

- OCTAVE 3

- OCTAVE 4

- OCTAVE 5

- OCTAVE 6

- OCTAVE 7

- OCTAVE 8

Once an octave is selected, the menu displays each note in that octave (for example, **C0**, **C#0**, **D0**, **D#0**, **E0**, **F0**, **F#0**, **G0**, **G#0**, **A0**, **A#0**, and **B0**), along with its corresponding frequency. Press **ENTER (EDIT)** to select a note for frequency editing.

Note frequencies are displayed in Hz may be adjusted 5 increments up or down. After selecting the desired frequency, press **ENTER (SAVE)** to save the selection.

Pressing **CANCEL (CNCL)** at any time to back out of the editing menu and return to the previous menu.

TUNING PROGRAM (GLOBAL) *Firmware v1.3.1 and later

The TUNING PROGRAM configures micro-tuning settings.

Tuning programs may be custom created, or there are various sources with downloadable files in the SCALA or .scl format. These files must be converted to .mts format using http:// www.microtonal-software.com/scl-scala-to-mtsconverter.html. Once the .mts file is created, it can be uploaded to Kijimi using any sysex librarian software, which is also used to save presets on a computer. When uploaded, Kijimi will automatically navigate to preset locations where the tuning program can be saved.

COOLING FAN (GLOBAL) *Rev1 Units only

COOLING FAN enables or disables Deckard's Dream's cooling fan. This setting does not appear in Rev2 or later units.

- **ON**: Deckard's Dream's fan is enabled and runs perpetually.

- **OFF**. Deckard's Dream's fan is disabled.

Press **UP (↑)** or **DOWN (↓)** to select the desired setting, then press **ENTER (SAVE)** to save the selection.

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

ABOUT

ABOUT displays the following information about the device:

- Hardware revision number

- Firmware revision number

- Black Corporation copyright information

Press **CANCEL (BACK)** to return to the main settings menu.

RESET SETTINGS (GLOBAL)

RESET SETTINGS reverts all Deckard's Dream settings to their default. Selecting this will display the following message: "TO RESET SETTINGS PRESS ENTER."

Press **CANCEL (BACK)** to cancel the reset process and return to the main settings page.

Press **ENTER** to 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.

Press **ENTER (OK)** a second time to start the reset process. Reset takes place immediately and returns all settings to their default values.

FIRMWARE UPDATES

Download the most current versions of Black Corporation Product Firmware and the Black Corporation Application at: https://www.deckardsdream.com/build.

For versions of Deckard's Dream firmware 1.2.9 and higher:

Update firmware using the Black Corporation Application (download at https://www.deckardsdream.com/build).

1. Open the Black Corporation application.
2. Select **Deckard's Dream** in the pull down menu. If Deckard's Dream does not appear in the menu, confirm that **USB MODE** is set to **DEVICE**.
3. Click **Open Device**. A confirmation will appear displaying the current version of the firmware.
4. Click **Open Firmware** and navigate to the latest firmware .bin file.
5. Finally, click **Send Firmware**. When the progress bar completes, the unit will restart and load the updated firmware.

For versions of Deckard's Dream firmware 1.2.5 and earlier:

Firmware updates should be completed using Windows or a Windows parallel to avoid freezing the unit.

1. Download the latest firmware update file. It will have a .bin extension.
2.
3. Connect to a computer via USB, DD should mount as a flash drive.
4.
5. Copy the .bin firmware file onto the DD flash drive.
6.
7. Reboot Deckard's Dream. It will show a firmware update progress bar.
8.
9. Once the update is done the new version will display while booting up.

Deckard's Dream 1.3.1 release notes:

MIDI SPECIFICATIONS

MIDI CC	RANGE	FUNCTION
0	0-1-2	BANK SELECTION
1	0-127	MODULATION WHEEL
40	0-127	PULSE WIDTH MODULATION SPEED A
41	0-127	PULSE WIDTH MODULATION AMOUNT A
42	0-127	PULSE WIDTH A
43	0-64/65-127	SQUARE A
44	0-64/65-127	SAW A
45	0-127	NOISE LEVEL A
46	0-127	HIGH PASS FILTER BRILLIANCE A
47	0-127	HIGH PASS FILTER RESONANCE A
48	0-127	LOW PASS FILTER BRILLIANCE A
49	0-127	LOW PASS FILTER RESONANCE A
50	0-127	FILTER EG INITIAL LEVEL A
51	0-127	FILTER EG AFTER LEVEL A
52	0-127	FILTER ATTACK A
53	0-127	FILTER DECAY A
54	0-127	FILTER RELEASE A

55	0-127	VCF LEVEL A
56	0-127	SINE LEVEL A
57	0-127	ATTACK A
58	0-127	DECAY A
59	0-127	SUSTAIN A
60	0-127	RELEASE A
61	0-127	LEVEL A
62	0-127	INITIAL BRILLIANCE A
63	0-127	INITIAL LEVEL A
65	0-127	AFTER BRILLIANCE A
66	0-127	AFTER LEVEL A
67	0-127	PULSE WIDTH MODULATION SPEED B
68	0-127	PULSE WIDTH MODULATION AMOUNT B
69	0-127	PULSE WIDTH B
70	0-64/65-127	SQUARE B
71	0-64/65-127	SAW B
72	0-127	NOISE LEVEL B
73	0-127	HIGH PASS FILTER BRILLIANCE B
119	0-127	HIGH PASS FILTER RESONANCE B
75	0-127	LOW PASS FILTER BRILLIANCE B
76	0-127	LOW PASS FILTER RESONANCE B
77	0-127	FILTER EG INITIAL LEVEL B
78	0-127	FILTER EG AFTER LEVEL B
79	0-127	FILTER ATTACK B
80	0-127	FILTER DECAY B
81	0-127	FILTER RELEASE B
82	0-127	VCF LEVEL B
83	0-127	SINE LEVEL B

	84	0-127	ATTACK B
	85	0-127	DECAY B
	86	0-127	SUSTAIN B
	87	0-127	RELEASE B
	88	0-127	LEVEL B
	89	0-127	INITIAL BRILLIANCE B
	90	0-127	INITIAL LEVEL B
	91	0-127	AFTER BRILLIANCE B
	92	0-127	AFTER LEVEL B
	93	0-64-127	COARSE PITCH
	94	0-64-127	FINE PITCH
	95	0-64-127	DETUNE OSC B
	102	0-21/22-42/43-63/64-84/85-105/106-127	FEET A
	103	0-21/22-42/43-63/64-84/85-105/106-127	FEET B
	104	0-21/22-42/43-63/64-84/85-105/106-127	SUB OSCILLATOR WAVEFORM
	105	0-127	SUB OSCILLATOR SPEED
	106	0-127	SUB OSCILLATOR TO VCO AMOUNT
	107	0-127	SUB OSCILLATOR TO VAMOUNT
	108	0-127	SUB OSCILLATOR TO VCA AMOUNT
	8	0-64-127	MIX 43102
	109	0-64-127	MASTER BRILLIANCE
	110	0-127	MASTER RESONANCE
	111	0-127	INITIAL PITCHBEND
	112	0-127	AFTER TO SUB OSCILLATOR SPEED
	113	0-127	AFTER TO VCO AMOUNT
	114	0-127	AFTER TO VCF AMOUNT
	115	0-64-127	KEYBOARD CONTROL - BRILLIANCE LOW
	116	0-64-127	KEYBOARD CONTROL - BRILLIANCE HIGH

117	0-64-127	KEYBOARD CONTROL - LEVEL LOW
118	0-64-127	KEYBOARD CONTROL - LEVEL HIGH
5	0-127	GLIDE TIME
120	0-42/43-84/85-126	GLIDE MODE
7	0-127	GLOBAL VOLUME
64		SUSTAIN PEDAL