Owner's Manual

Table of Contents

Introduction

Valkurë employs proprietary DSP algorithms to transform your guitar into an organ in real time. Because it doesn't employ Guitar-to-MIDI, it is not prone to tracking errors, and retains all the subtleties of your playing.

In addition to eleven organ registers that cover a five-octave range, Valkurë also incorporates a big collection of settings to modify the organ tone and other characteristics. It also includes a state-of-the art rotary cabinet simulator with three distinct cabinet models, as well as a virtual-tube amplifier also offering three unique types. The rest of the built-in FX are specifically tailored to complement the underlying organ processor.

Valkurë is also compatible with Mac computers that run on Apple Silicon. It comes prepackaged with AUv3, so that you can use multiple instances of Valkurë in Auv3 compatible DAWs including Logic, GarageBand, and Cubasis. It supports MIDI learn for over 75 parameters, as well as MIDI program changes.

Legend

1) Preset Manager Access / Textual Display
2) Organ Settings
3) System Settings
4) Tapedeck (Standalone Only)
5) Input Gain & Level Indicator
6) Output Gain & Level Indicator
7) FX Panel Access Button (Visible here for iPhone & Small Auv3 Layouts)

8) Organ Controls Panel
9) FX Panel

Getting Started

Connect your guitar to the Apple device using a quality audio interface. Ensure Valkurë is given access to the device microphone. If necessary, adjust app's input gain and output volume using the sliders on the upper right of the Valkurë screen.

For best results, we recommend that you avoid placing any other pedals or audio effects before Valkurë. Feel free to follow Valkurë with other effects in the chain, however. We also recommend that you follow standard gain staging practices, thus ensuring that the signal isn't clipped or distorted before reaching Valkurë.

Access the Preset Manager screen by touching the upper left onscreen area. Browse through banks by touching the boxes on the left, and select among presets found on the right to load a patch.

Modify the basic organ tone by changing the drawbars. On the iPhone and smaller Auv3 layouts, access amp, rotary cabinet, and FX by touching the FX button on the taskbar.

TIP: Ensure that Valkurë is given permission to access device microphone. If not, the app will not be able to receive any audio input. You will be automatically prompted to allow access on the app's first launch. If you have declined this prompt, you must go to DEVICE SETTINGS -> PRIVACY & SECURITY -> MICROPHONE to manually grant microphone access for Valkurë.

TIP: Prevent signal clipping by adjusting input and output gains as needed. This also applies to gain settings found on your physical audio interface.

Organ Interface

Organ tones are obtained by combining the 11 registers found on the main screen. Each register (AKA drawbar) corresponds to a particular overtone, with the 4′ register corresponding to the fundamental frequencies of the notes as played on the guitar. The two "pedal" registers generate special, harmonically rich signals in the bass range, and can be used alone or together with the regular organ registers.

The overtones for the organ registers are:

16′	Second Suboctave
5 1/3′	Suboctave + 5th
8′	Suboctave
4′	Fundamental
2 2/3′	Fifth
2′	Octave
1 3/5′	Octave + 3rd
1 1/3′	Octave + 5th
1′	2nd Octave

As a given register is "pulled out", the corresponding signal gets louder. The output level ranges, in discrete steps, from 0 (silence) to 8.

Drawbar Presets

Drawbar settings are retained in “Drawbar Registrations” button array. Drawbar registrations allow one to switch among different drawbar configurations on-the-fly without having to switch sound presets. This feature corresponds to the “inverted keys” found on tonewheel organs. In addition, drawbar registrations retain Chorus/Vibrato switch and Percussion switch states.

Touch one of the 12 register buttons to change the drawbar configuration. Any modifications you make to the drawbars will be recorded into the selected registration.

Percussion

Valkurë is equipped with a special “percussion” unit that is triggered via note attack on the guitar. It emulates the short, bell-like tone generated when a key is pressed on a classic tone wheel organ. Percussion is activated via the PERC on/off switch. Loudness is selected by the VOLUME switch. The length of sustain is specified by the DECAY switch. The HARM switch is used to select the overtone for the percussion effect.

Advanced parameters to control the percussion effect, as well as to set the sensitivity of the trigger detector are found in the Organ Settings / Advanced Parameters panel.

Scanner Chorus / Vibrato

Valkurë has a built-in chorus/vibrato unit that is modeled after the distinctive “scanner” circuitry found in certain tone wheel organs. Use the VIBRATO toggle to activate the effect. Use the C/V knob to select among six different types of chorus and vibrato presets.

Advanced Organ Parameters

Use the parameters found in the Organ Settings panel to vary the tonal characteristics of the organ processor, as well as to optimize input and trigger detection parameters to best suit your particular guitar and your playing style.

Input Settings

LOCUT / HICUT: Specify the amount of low and high frequency reduction applied to the input signal before it is sent to the organ unit. You can experiment with these parameters to find what you think is the tonality best suited to your particular guitar / pickup combination. The default setting is the center position.
ATTACK: Specify the length of the auto-swell effect. The auto swell-effect is triggered when Valkurë senses a note attack. To work, the associated SENSITIVITY parameter must be set to non-zero.
ATTACK SENSITIVITY: Set the level at which the auto-swell effect is to be triggered. Note that rhythm work involving chords might require a different setting than lead work involving single notes. Feel free to experiment to find the "sweet spot" for the particular use case.
DWELL: Set the amount of sustain for the input signal. Adjust this parameter to taste. Guitars low in natural sustain may benefit from increased dwell. This parameter is usually set to 1/3 to 1/2 the way for most factory presets.

Organ Settings

MODEL: Select the model for the organ processor. M is for “mellow,” and offers softer organ tones. C, for “classic”, corresponds to a profile similar to tone wheel organs. T for “transistor” generates more aggressive tones found in 1960’s transistor organs.
LEAKAGE: Specify the amount of harmonic leakage. The built-in leakage feature emulates the quirk found in tone wheel organs.
TAPER: Increase or reduce the organ taper. Increasing the taper will augment the higher registers, thus giving a more brilliant organ tone. Decreasing it will de-emphasize those registers, thus mellowing the tone.
RESONANCE: Increase or reduce the low-end presence for the organ generator.
BODY: Decrease the body to give the organ generator a classic “hollow” tone. Increase it to give it a throatier, gradually more snarly tone.
AIR: Increase or decrease the sibilance
BOOST: Gradually add more harmonic content and presence to the organ signal. At higher levels, also start adding overdrive.
CV BOOST: Amount of scanner chorus/vibrato “boost” when that unit is turned on. Replicates the behavior found in tone wheel organs.

Pedal Register Settings

GAIN: Master output level for the pedal registers.
RESONANCE: Low-end presence for the pedal registers
BOOST: Gradually add more harmonic content and presence to the pedal signal. At higher levels, also start adding overdrive.

Percussion Settings

TRIG LEVEL: Set the level at which the percussion effect is to be triggered. Note that rhythm work involving chords might require a different setting than lead work involving single notes. Feel free to experiment to find the "sweet spot" for the particular use case.
PERC -> CV: Specify whether the percussion signal goes through the scanner chorus/vibrato. By default, this is set to OFF.
SOFT LVL: Increase/decrease percussion gain when the SOFT mode is selected on the main organ panel
NORM LVL: Increase/decrease percussion gain when the NORMAL mode is selected on the main organ panel
SHORT DCY: Increase/decrease the sustain length for percussion, when the FAST mode is selected on the main organ panel
LONG DCY: Increase/decrease the sustain length for percussion, when the SLOW mode is selected on the main organ panel

Amp, Rotary Cabinet, and FX

Valkurë includes a state-of-the art rotary speaker simulator, as well as a virtual-tube amplifier unit. Both offer three distinct models to choose from. Valkurë also includes other effects that are specifically tuned to complement the organ generator.

Rotary Cabinet

The rotary speed selector (CHORALE/TREMOLO), as well as its STOP switch are both conveniently located on the main organ panel. The rest of the parameters are found on the FX PANEL.

CHORALE / TREMOLO: Switch between fast and slow rotor spin
STOP: Apply the rotor "brake" to stop the speakers from spinning
CABINET: Displays a dropdown menu for selecting a cabinet model, or for bypassing the unit.
BALANCE: Select the drum-to-horn output been. At "D," horn output is muted and drum is maximized. At "H," the output is the inverse.
SLOW: Set the spin rate for the horn or drum when the cabinet is in CHORALE mode. NOTE: when the DRUM SLOW rate is set to minimum, it will remain stationary for CHORALE mode.
FAST: Set the spin rate for the horn or drum when the cabinet is in TREMOLO mode. NOTE: when the DRUM FAST rate is set to minimum, it will remain stationary for TREMOLO mode.
INERTIA: Specify how long it takes for either horn or drum to speed up / slow down when switching from CHORALE to TREMOLO or vice versa.
MIC: Select the mic angle for the horn or the drum. In MONO mode, a single virtual mic is used. In 90- and 180-degree modes, two virtual mics are set up with that specific angle of separation.

ROOM: Adjust the gain for the tertiary “room” microphone. The room microphone emulates surface reflections to add space to the cabinet output.
SIZE: Specify the room size for the tertiary microphone.

Amplifier

BYPASS SWITH: Turn the amplifier unit on or off.
MODEL SELECT: Select among RTR (rotary), U.S., or U.K. amp models
GAIN: Specify preamp gain. Increase the gain to obtain more overdrive.
BOOST: Enable the special “mid-boost” mode for a higher gain, cutting tone.
LO CUT: Reduce the low frequencies entering the amp.
BASS: Control the prominence of the lower frequencies, as in a guitar amp.
MID: Control the mid frequency content.
TREBLE: Control the high-mid and high frequency content.
PRESENCE: Specify the amount of high-end resonance.
VOL: Specify the final output volume for the unit.

Tape Delay

DELAY: Turn the effect on or off.
TIME: Specify the delay length.
WET: Specify the gain for the delayed signal.
FEED: Specify the feedback amount. At or near the max setting, the effect will start to self-oscillate for an authentic feel.

Compressor

COMPRESSION: Specify the amount of compression.
GAIN: Specify the amount of make-up gain.

Equalizer

The equalizer contains three independent bands, configurable for center frequency and boost/cut. Use the knobs in the upper row to set the center frequency for each band. Use the knobs in the lower row to specify how much those frequencies will be boosted or cut.

Preset System

What is saved in a preset?

All the onscreen organ & FX parameters, including input and output levels. All the MIDI CC map data.

Note that a CC LOCK switch is provided on the System Preferences panel. When activated, this lock preserves the existing MIDI CC assignments even if a different preset is selected.

Managing Presets

The app's built-in preset management system is a powerful way to organize, access, and share banks and presets. Here is the function of the buttons found in the preset manager's taskbar, left to right:

Bank Taskbar

• PLUS: Create an empty bank. • RENAME: Rename the selected bank. • EDIT: Enable to reorder or delete banks. When finished, touch again to exit editing mode. • SHARE: Display bank export/import options. See below for more information.

Presets Taskbar

• SAVE: Save as a new preset. • OVERWRITE: Overwrites the currently selected preset.

• [INIT]: Loads a basic "initial" preset, useful when writing a new patch from scratch. • RENAME: Rename the selected preset. • MOVE: Move selected preset to a different bank. • EDIT: Enable to

reorder or delete presets. When finished, touch again to exit editing mode. • SHARE: Display preset export/import options. See below for more information.

• JOKER: Randomly load a preset from the file system. • SEARCH: Search for a preset. • RESTORE FACTORY: Reinstall factory presets that came packaged with Valkurë.

Favorites Bank

• You can "favorite" up to 256 presets by touching the STAR button located next to it. These presets are then displayed in the Favorites repository found at the very top of the banks list. To un-favorite a preset, simply touch the star button again.

Importing/Exporting Banks & Presets

You can export banks and presets to iOS Files or via email. Simply touch the bank or preset share task button and make a selection. The banks/presets exported to Files can be accessed through the iOS Files app (just navigate to the Valkurë root directory) and can also be accessed on your desktop computer via iTunes Filesharing.

You import banks and presets in many different ways: you can add them to the Valkurë root folder (either within your iPhone or iPad, or using iTunes Filesharing), and then install them using YPAT3 > Sharing > Import from Files. Or you can double tap any Valkurë bank/preset file, which will automatically launch the app, and install that asset. Similarly, you can touch an email attachment to install an asset.

MIDI

You can use standard MIDI controllers to "learn" and control the parameters found in Valkurë. Refer to your hardware or host software's instructions for setting up MIDI connections.

MIDI Learn

MIDI CCs can be mapped onto the knobs and switches found on the screen. The mappings can then be saved to patch and recalled for later use. See the section on the Preset System for more information about saving and loading patches.

To enter MIDI Learn mode, press the LEARN button (found on the settings panel). Touch the overlay on the desired parameter so that it is highlighted. Manipulate the control on your MIDI device until the CC/Channel pair is indicated on the overlay. Repeat with any number of parameters.

To manually enter a MIDI CC, or to access advanced MIDI settings for a parameter, simply double tap on its overlay to reveal the data entry prompt. Select the desired field, use the number pad to enter the desired value, and confirm entry by pressing SET on the number pad.

When finished, go back to Prefs -> MIDI Learn and unselect the LEARN button. Save the changes to patch by launching the Preset Manager.

To load the MIDI map saved into a patch, ensure the CC LOCK button found on the SETTINGS panel is turned off. Then simply select and load the desired patch on the PRESET MANAGER panel.

If you wish to preserve the currently loaded MIDI map even while changing presets, ensure the CC LOCK button is activated. This will prevent the pre-existing MIDI CC map from being supplanted by the map data in the incoming presets.

App Audio / MIDI

These preferences are only available for the standalone deployment of the app. In AUv3 deployments, these and similar settings are canonically provided by the host/DAW app's preferences instead.

Use the HW or VIRTUAL MIDI In buttons to toggle MIDI In from hardware or virtual sources altogether.

To access the dialog for connecting with Bluetooth MIDI inputs, touch the BTOOTH button.

You can manage connections to currently online MIDI input devices via the MIDI Inputs list. To receive MIDI or MIDI clock data from a given source, make sure the associated button next to its listing is highlighted in green. To disable receiving either data, touch the button to un-highlight it.

Enable Audio Backgrounding by touching the BG AUDIO button. Set the buffer size using the BUFFER dropdown. Set the sampling rate using the SAMPLE RATE dropdown. Notice that access and ability to set buffer size and sample rate works in a first-in-last-out manner, so that if an app is already open and using the audio (including in the background), any app opened after it will not be able to change these settings to anything other than specified by the first app.

AUv3

Valkurë comes packaged with its iOS Audio Units version 3 plugin EFFECTS binary. You can use multiple instances of Valkurë in any iOS DAW or mixer capable of hosting AUv3 effects plugins. You will typically access AUv3 effects plugins in the "Inserts" or "Effects" sections of a DAW channel. For more information on how to use AUv3 plugins, you might need to refer to your DAW's user manual.

IMPORTANT NOTE: Although Valkurë is completely MIDI controllable as an AUv3 plugin, it has come to our attention that there are a few DAWs out there that still don't allow routing of MIDI data to FX plugins. For most other DAWs, however, you should be able to obtain a MIDI connection by simply following the host's MIDI routing instructions. The way MIDI is routed to effects plugins will usually be a little different than that for MIDI instruments. Refer to the MIDI section of this manual for more information on these settings.