



Sonica Instruments
SHAKUHACHI
Virtuoso Japanese Series
User's Manual

Thank you for purchasing **SHAKUHACHI**, part of Sonica Instruments' Virtuoso Japanese Series. We hope you fully enjoy **SHAKUHACHI**, which has been designed to achieve the ultimate in authentic Japanese sound.

Sonica Instruments Team

Introduction

What is the *Shakuhachi*?

The *shakuhachi* is a very simple wind instrument created from a species of bamboo called madake [giant timber bamboo]. It is fashioned from the root of the bamboo and includes the first seven knots. Its blown timbre and deep profound tone color, which encompasses the sound of the performer's breath, are appreciated around their world.

The standard instrument is *one shaku eight sun* (~54.5 centimeters) long, from which the name *shakuhachi* is derived. There are many lengths, and shortening or lengthening the instrument by *one sun* (~3.03 centimeters) changes the fundamental tone by one semitone. Having no reed, sound is produced by blowing directly across the carved utaguchi blowing edge at the end of the instrument. *Shakuhachi* generally have four fingering holes on the top and one fingering hole on the bottom. The many tone colors are created not just by opening and closing holes but also by varying the strength and angle of the breath. Classical music, the pop world, and other forms of music often use the *shakuhachi* because of its compelling character.

Virtuoso Japanese Series

SHAKUHACHI

Sonica Instruments developed this library to reproduce, with as much realism as possible, the magic of the *shakuhachi*: Singing sonorous intonation, deep yet delicate breathing, and a Japanese sound aesthetic that spills over into the periphery.

This library flawlessly captures the scintillating sounds of a veteran *shakuhachi* player, covering every playing technique and recorded with exacting attention to detail at every musical interval. Through uncompromising recording and Kontakt programming of the common 1.8 "D" *shakuhachi* and the lower-pitched 2.3 "A" *shakuhachi*, we have crafted **SHAKUHACHI** to be the closest software instrument ever to the real thing. That's why we encourage you to turn to **SHAKUHACHI** to add a distinctive and memorable voice and texture to all kinds of music.

Above all, it is our intention to respect Japanese instruments and performers. One of our hopes is that *Shakuhachi* users will become better acquainted with the charm of the real *shakuhachi*.

Product highlights

Recreating the liveliness of the shakuhachi's singular playing techniques required the development of special articulation mechanisms and interfaces

Key Trigger Connection lets you string together playing techniques on the without ever interrupting the sound

Being a wind instrument, the *shakuhachi* is played by varying techniques from moment to moment while maintaining a single sound: for example, moving from a straight tone to *yuri* (vibrato) and then from *yuri* to a violent and loud burst of air. We designed the **Key Trigger Connection** mechanism from scratch to reproduce this quintessential *shakuhachi* performing approach. **Key Trigger Connection** lets you string articulations together smoothly just by hitting the assigned keys while playing. Connectable articulations include various *yuri* techniques, *sforzando*, *muraiki* (breath) effects, *uchi & oshi* fingering, and *tamae* (tongue trill). You can connect as many articulations as you like while holding down the base note, for the feel of a live instrument.

Broad assortment of articulations, five phrase banks, and breath noises

The library contains 25 articulations — including vertical *yuri*, horizontal *yuri*, and other vibrato techniques, *sforzando*, multiple *muraiki* breath expressions, *tamae*, and *korokoro*, *karakara*, and other sound-effect techniques — as well as rich legato techniques, and short scale-based improvisations. All are key-switch controlled for highly expressive, real-time performances from your MIDI keyboard.

24 bit, 96 kHz multi-microphone recordings for full-fidelity

For the recording sessions, we used an array of microphones paired with colorless microphone preamps to capture every nuance of the instrument in 24 bit, 96 kHz fidelity. (The product itself contains 24 bit, 44.1 kHz samples.) The package comes with four microphone patterns — Direct Mic, Overhead Mic, Room Mic, and Stereo Mix — for mixing versatility.

Blow control

This mechanism lets you, using a controller or aftertouch, manipulate the duration from the initial breath noise before any sound is produced until the note's full power is reached. Blow control makes playing a keyboard feel like a wind controller, giving you access to smooth, dynamic breath expressions despite being sample based.

Alternate legato

When playing legato, this function automatically generates the alternating rising and falling legato that is essential to the *shakuhachi*.

Atari legato

This function recreates the unique *atari* legato, a fingering technique that causes the pitch to jump the instant a note change is made.

Oshi and uchi fingering

This function lets you add at will fast *oshi and uchi* fingering during a blown note for accents or tremolo effects.

Scale Tuning

Each chromatic pitch across the whole register can be individually fine-tuned. This lets you create traditional scale pitches from Japanese music and pitch "feels" unique to a particular performer. And of course, pitch settings can be saved and recalled.

1.8 / 2.3 hybrid combination covers a wide register

The library contains samples from the common 1.8 "D" *shakuhachi* (D3 to G6) as well as the 2.3 "A" *shakuhachi* (A2 to B4), which covers the low register. The top note of the "A" *shakuhachi* range is adjustable between G2 and B4, to find the perfect balance between the characters of the two instruments. (This applies to Straight, Tonguing, and Legato techniques only.)

Notes on Using This Product

Installation

Please download and install the library following the instructions in the email you received after purchase.

Product Specification

Format: Native Instruments KONTAKT 5.4 Full or newer (KONTAKT PLAYER is not supported)

Data size: 5.71 GB in NCW format (equivalent to 11.4 GB in wav format)

System Requirements

Mac OS X 10.10 or newer recommended

Intel Core 2 Duo or better

Windows 7, Windows 8, or Windows 10

Intel Core 2 Duo or AMD Athlon 64 X2

A minimum of 4 GB of RAM (6 GB is recommended) is needed on both Mac and Windows systems.

- Native Instruments Kontakt 5.4 or newer (Full version) is required to use this library. (KONTAKT PLAYER is not supported)

- Installing the product requires a minimum of 5GB of free disk space.

- Use the recommended Native Instruments Kontakt system requirements at a minimum.

*Installing the product on a computer with a faster CPU and ample RAM is recommended for optimal library performance.

Important: Online user registration is required in order to use the library.

This product is downloaded and installed using the Continuata Connect Download utility.

To safeguard this product from illegal copying and sharing, each purchase is embedded with a unique, non-removable watermark used to track piracy. Please read and consent to the License Agreement before using this product.

Required MIDI Controllers

With a sustain pedal, you can access the full functionality of **SHAKUHACHI** for more lifelike performances.

Sustain Pedal (CC #64)

The sustain pedal enables and disables the newly developed Key Trigger Connection function that provides a more realistic playing feel.

Key Trigger Connection lets you string together articulations from the initial articulation selected with a key switch to any of various yuri techniques, sforzando, *muraiki* (breath) effects, *uchi & oshi* fingering, and *tamae* (tongue trill), for more emotional nuances from the instrument.

Make use of the convenient Quick Reference to SHAKUHACHI (PDF)

We recommend that you have a look at the included PDF file while you get acquainted with **SHAKUHACHI**. This file gives a quick overview of the distinctive playing techniques of the *shakuhachi* as well as some *shakuhachi*-specific terms.

MIDI keyboard layout

C0 – A1: Articulation key switch zone

F#1, G#1, A#1: Legato key switches

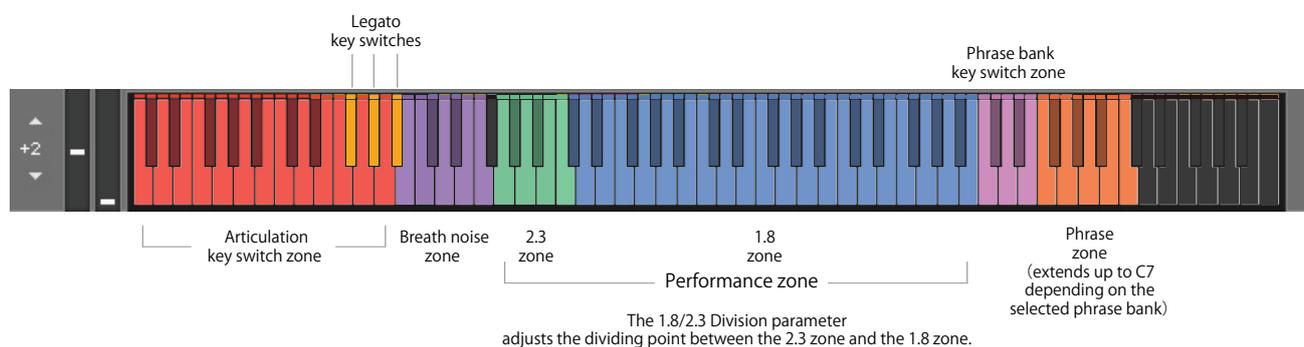
B1 – F2 : Breath noise zone

G2 – B5 : Performance zone

C6 – E6 : Phrase bank key switch zone

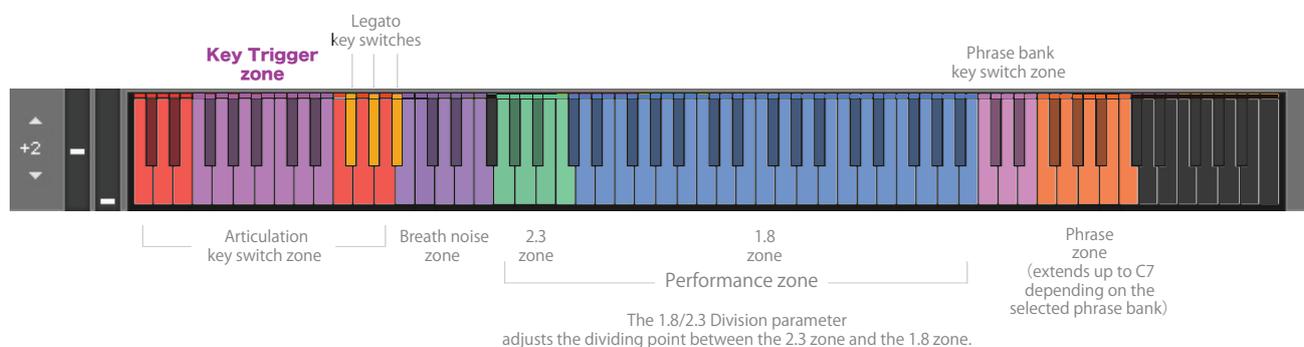
F6 – C7 : Phrase zone

F0 – E1 : Key trigger zone (when Key Trigger Connection is on)



When Key Trigger Connection is on

See Page 10 for details about Key Trigger Connection.



Loading SHAKUHACHI

To load SHAKUHACHI, drag the file *Shakuhachi.nki* from the Instruments folder to the main KONTAKT window.



Three Monitor Fields

articulation

Legato

phrase bank



The articulation, legato, and phrase bank monitor fields are displayed on all four panes — mix, play, tune, and memory. This lets you see immediately the currently selected articulation, legato, and phrase bank at all times.

articulation

This field shows the current articulation selected by key switch. You can also check the current key switch on the KONTAKT keyboard.

Legato

This field shows the current legato type selected by key switch. You can also check the current key switch on the KONTAKT keyboard.

phrase bank

This field shows the current phrase bank name selected by key switch. You can also check the current key switch on the KONTAKT keyboard.

articulation

Articulation List and Key Switch Parameters

Key Switch	Articulation Name	Key Trigger Connection
C0	Straight	n/a
C#0	Tonguing	n/a
D0	Grace Note	n/a
D#0	Portamento Up	n/a
E0	Straight and Atari	n/a
F0	Sforzando	On / Off with sustain pedal (CC #64)
F#0	Uchi and Oshi	On / Off with sustain pedal (CC #64)
G0	Yuri 1 (Vibrato Horizontal)	On / Off with sustain pedal (CC #64)
G#0	Yuri 2 (Vibrato Vertical)	On / Off with sustain pedal (CC #64)
A0	Yuri 3 (Vibrato Vertical Long)	On / Off with sustain pedal (CC #64)
A#0	Iki-Yuri 1 (Vibrato with Breath)	On / Off with sustain pedal (CC #64)
B0	Iki-Yuri 2 (Vibrato with Breath Fast)	On / Off with sustain pedal (CC #64)
C1	Muraiki 1 (Breath FX1)	On / Off with sustain pedal (CC #64)
C#1	Muraiki 2A (Breath FX2A)	On / Off with sustain pedal (CC #64)
D1	Muraiki 2B (Breath FX2B)	On / Off with sustain pedal (CC #64)
D#1	Muraiki 3 (Breath FX3)	On / Off with sustain pedal (CC #64)
E1	Tamane (FX with Tongue Trill)	On / Off with sustain pedal (CC #64)
F1	Karakara (FX with Finger)	n/a
G1	Korokoro (FX with Finger)	n/a
A1	Improvisation	n/a

Legato

Legato List and Key Switch Parameters

Key Switch	Articulation Name
F#1	Slow Legato
G#1	Fast Legato
A#1	Atari Legato

phrase bank

Phrase Bank List and Key Switch Parameters

key switch	Phrase Bank Name	Number of Phrases
C6	Short Phrase 1	8
C#6	Short Phrase 2	8
D6	Short Phrase 3	8
D#6	Short Phrase 4	6
E6	Short Phrase 5	5

mix

This pane is used for basic sound production.



Audio Mixer

The audio mixer lets you mix the three stereo microphone positions – Direct, OH (overhead), and Room – and the Stereo Mix channel, which is a balanced mix of the three microphone sources. Note that turning on any of the microphone channels disables the Stereo channel, and turning on the Stereo channel disables all the microphone channels.

vol: Adjusts the volume of each channel.

Stereo width: Adjusts the stereo microphone width of each channel: 100% gives the original stereo width; 0% reduces the width to monaural.

Note: This knob does not function for the Direct channel, which was recorded in monaural.

pan: Adjusts the left-right panning of each channel.

rev: Adjusts the send volume of each channel to the built-in convolution reverb.

out: Selects the audio output of each channel. This is useful when sending multiple channels to your DAW.

Note: Please see the KONTAKT manual for how to create multiple outputs. After creating outputs, clicking the Restart Engine button (marked with an exclamation mark) at the top right of the KONTAKT interface will update the output list under **SHAKUHACHI's** out control.



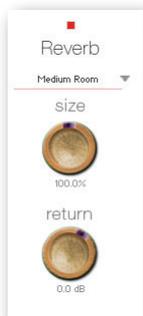
EQ: Provides a four-band equalizer for each channel. Clicking the left [E] button opens the Equalizer window. Clicking the right button enables or disables the equalizer settings for the corresponding channel.

Reverb

There are 28 convolution reverbs available from the pull-down list.

size: Adjusts the reverb time.

return: Adjusts the volume of the reverb component.

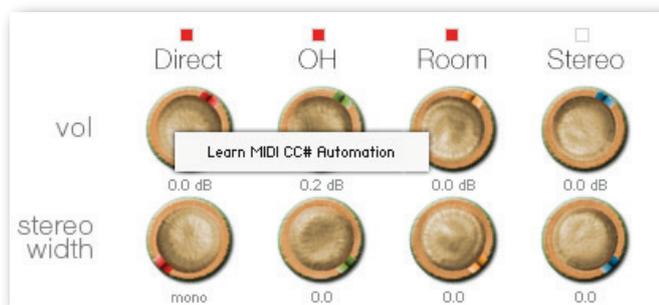


MIDI Learn function

All control knobs can be controlled individually with MIDI Control Change (CC) messages.

To assign a **Shakuhachi** knob to a certain MIDI controller:

1. Right-click on the knob and select **Learn MIDI CC# Automation**.
2. Turn the knob or move the slider on your MIDI hardware controller.
3. The assignment is complete.

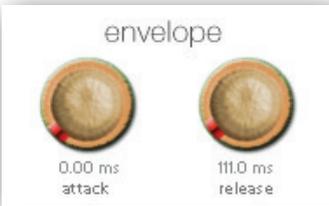
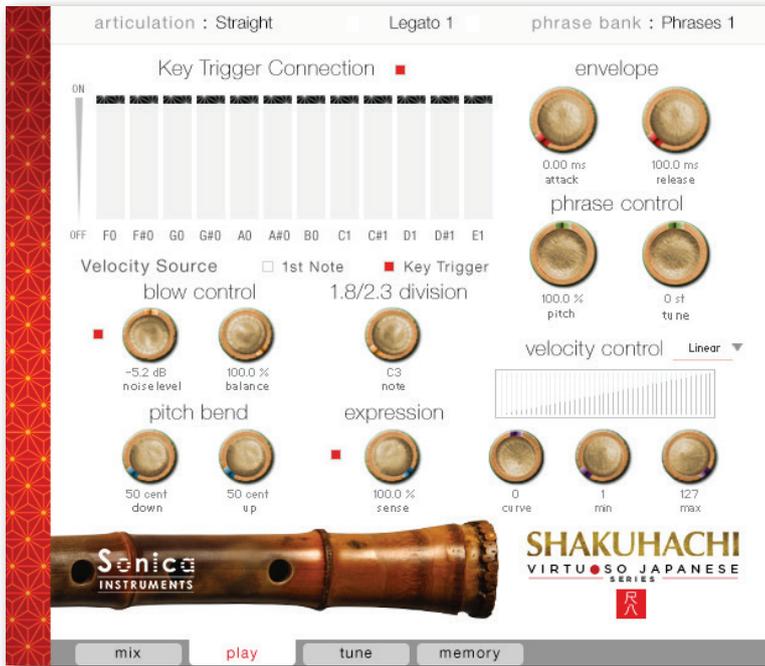


Removing MIDI controller assignments

To remove an assignment, right-click on the knob and select **Remove MIDI Automation: CC# nn**.

play

This pane is used to set performance and tonal nuances in *Shakuhachi*.



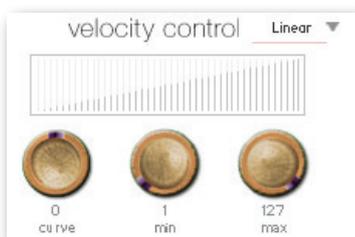
Envelope

These two knobs adjust the attack time and release time.



Phrase Control

These two knobs adjust the speed and fine tuning (pitch) of phrases selected from the five phrase banks.



Velocity Control

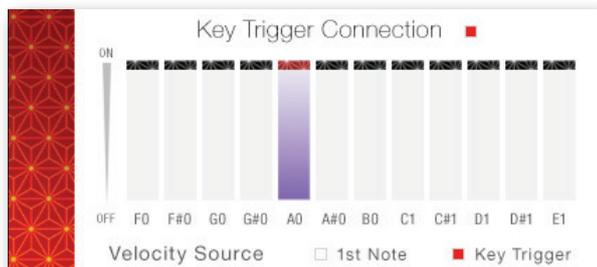
Curve Type: Linear, S-Curve, Compound, Fixed, and User

curve: Modifies the selected curve.

min: Adjusts the minimum velocity of played notes.

max: Adjusts the maximum velocity of played notes.

Key Trigger Connection

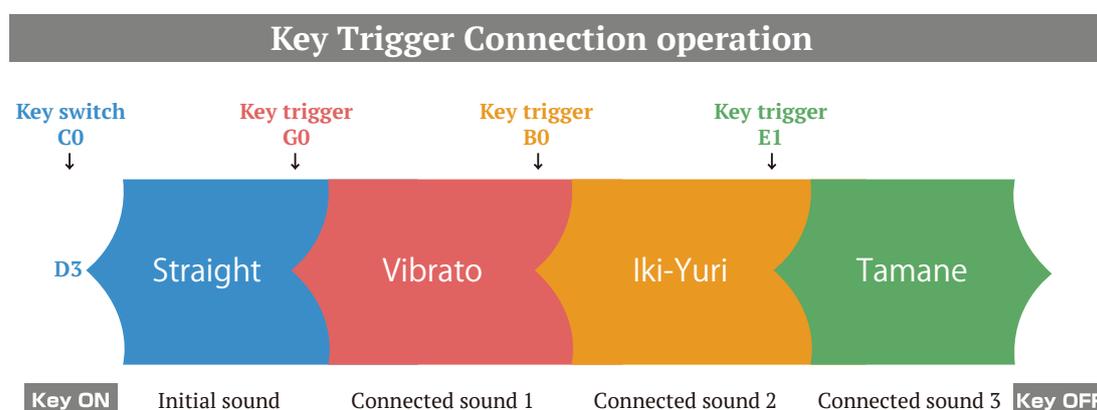


Key Trigger Connection is the instrument's most important mechanism.

Key Trigger Connection outperforms musical expressions created with ordinary key switches by providing much smoother control over articulation changes. This mechanism lets you glide between vibrato, *muraiki*, and many other colorful articulations without ever interrupting the note being played.

With **Key Trigger Connection**, you can string together as many articulations as you like while holding down the base note.

The sustain pedal (CC #64) toggles **Key Trigger Connection** on and off. This is helpful in attaining emotional nuances from the instrument because you can instantly activate the function as needed.



Articulations are connected smoothly without interrupting the sound.

Velocity Source

This control selects the velocity source for articulations connected using **Key Trigger Connection**.

1st Note: Applies the velocity at the initial Key On event to all following articulations.

Key Trigger: Applies the Key Trigger event velocity to the corresponding connected articulation. Use this setting to add nuance at each articulation connection.

Blow Control



This control adjusts the duration from the initial breath noise to the full power of the note. By default, these controls are assigned to Modulation Wheel (CC #1) and Breath Control (CC #2). Breath Control (CC #2) cannot be reassigned. Blow control makes playing a keyboard feel like a wind controller, giving you access to smooth, dynamic breath expressions despite being sample based.

noise level: Adjusts the breath noise level.

balance: Adjusts the balance between the actual note and the breath noise.

1.8 / 2.3 Division



Sets the crossover point between the 2.3 “A” *shakuhachi*, which covers the low register, and the 1.8 “D” *shakuhachi*. (Setting applies to Straight, Tonguing, and Legato techniques only.) The highest 2.3 *shakuhachi* note is shown.

Pitch Bend



Provides individual adjustment of the up and down pitch bend ranges.

Expression



Adjusts how much the velocity affects the tone color.

Tune

This pane is used to individually fine tune each chromatic pitch across the entire shakuhachi register. Pitch settings can be saved as preset tuning files.

You can load up to three presets in Slot A, B, and C.

Reset All: Resets all tuning settings to 0.

Humanise: Set the range with the knob and then click the button on the left. This instantly allocates random tuning values within the set range.



Credits

Production, Recording, Editing and Kontakt Development: Sonica Instruments

Shakuhachi Played by Ray Jin

GUI Designer: Yujin Ono

Executive Producer: Tomohiro Harada

Kontakt Programming: Rataro. M (Think Master Inc.)

Marketing, Translation & Production Consulting: Craig Leonard

Audio Editing: Yoshitaka Koyama

Recording Engineer: Keigo Sonoda (Pastoral Sound)

Photography: Takashi Matsuda

Music Video: Yasuhiro Nakashima

User's Manual: Yoshifumi Yamaguchi (LRCOT)

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Sonica Instruments

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