Sonica Instruments

Sonica Instruments

KOTO 13

Virtuoso Japanese Series

User's Manual

Thank you for purchasing KOTO 13, part of Sonica Instruments' Virtuoso Japanese Series. We hope you fully enjoy KOTO 13, which has been conceived to achieve the ultimate in authentic Japanese sound.

Installation Guide

Important: Be sure to register your copy of KOTO 13 before installation. Please understand that we cannot provide support to unregistered users. Follow the instructions in the email you received from Sonica Instruments to complete the product registration.

Installation — Step 1

Extract the downloaded .rar file. We recommend UnRarX (Mac OS X) or WinRAR (Windows) to extract the compressed .rar file, but you may use any compatible extraction application.
Note: Refer to your application's user manual for instructions on how to extract .rar files.

Enter the user password in the email you received from Sonica Instruments to begin extracting KOTO 13.

Installation — Step 2

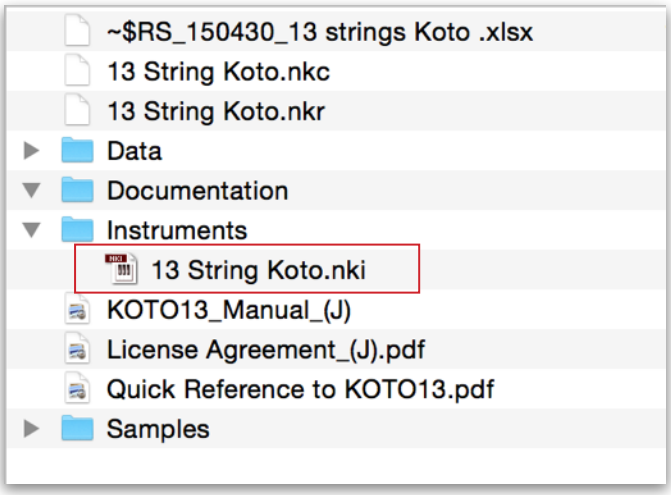
Select the folder you use for Kontakt libraries as the extraction destination and extract the file.

Installation — Step 3

Open the folder Sonica KOTO 13 / KOTO 13 when the extraction is finished.
Please read over the *License Agreement.pdf*. You may not use this product if you do not agree to the terms of the License Agreement.

Installation — Step 4

The KOTO 13 program is the file *13 String Koto.nki* in the KOTO 13 / Instruments folder. To load the program, drag the file into Kontakt 5.1 (Full) or newer.



Introduction

What is the 13-string *koto*?
As its name suggests, the 13-string *koto* is a traditional Japanese instrument with 13 strings that are plucked with fingerpicks. The 13-string *koto* is widely used in Japanese music and is considered to be one of three essential instruments — the other two being the *shamisen* and the *shakuhachi* — to produce the quintessential sound of Japanese music.

The 13 strings are strung over 13 moveable bridges (called *kotoji* in Japanese) that rest on the wooden body of the *koto*. Performers adjust the string pitches by moving the bridges along the width of the instrument.

The 13 strings are tuned to different notes depending on the piece being performed, forming different scales, known as *choushi* in Japanese. KOTO 13 comes with 28 classic *koto* scales and also features a user scale mode to create custom scales.

KOTO 13
This product was developed to reproduce the 13-string *koto* with as much realism as possible. Through uncompromising recording and Kontakt scripting, KOTO 13 embodies authentic *koto* behavior and performance expressions and is probably the closest software instrument ever to the real thing. Indeed, one of our hopes is that KOTO 13 users will become more interested in the *koto* and *koto* music.

Pitch reference
A reference tuning of A = 442 Hz produces the most natural *koto* tones. Therefore, we recommend setting Kontakt's Master Tune to 442 Hz when using KOTO 13.

Required MIDI controllers
With a number of MIDI controllers, you can access KOTO 13's full functionality and recreate lifelike *koto* performances.

• *Sustain Pedal (CC #64)*: This controller allows you to reproduce the 13-string *koto*'s deep sustained notes for highly realistic performances.

• *Modulation Wheel (CC #1)*: This controller is used to control the following performance techniques:
Plucking control — Controls the nuance of the attack when the string is struck by the plectrum
Tremolo — Controls the dynamics of the *Tremolo*, *Sukuizume Tremolo Slow*, and *Sukuizume Tremolo Fast* articulations

• *Control Change (CC #11):* This controller controls certain articulation variations. Note that the MIDI CC number is fixed.
D#0 Pizzicato:
L / R（Left Hand / Right Hand)
F#0 Bend Up, G0 Held Bend Up, G#0: Bend Down, A0 Bend Up/Down
A#0 Tsuki-Iro, C1 Vibrato Slow, C#1: Vibrato Fast:
H / W (Half Tone / Whole Tone)

Note: KOTO 13 always uses MIDI CC #11 (Expression) to control certain articulation variations. Therefore, when using the MIDI Learn function, please avoid assigning CC #11 to a knob.

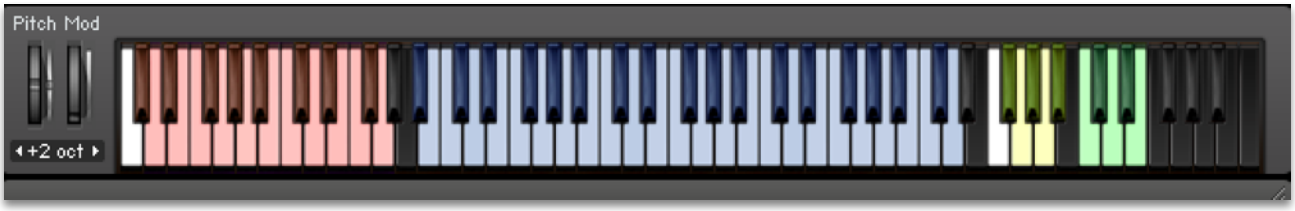
Make use of the convenient Quick Reference to KOTO 13 (PDF)
We recommend that you have a look at the included PDF file while you get acquainted with KOTO 13. This file gives a quick overview of the unique playing techniques and scale tunings of the 13-string *koto* as well as some *koto*-specific terms.

MIDI keyboard layout
Key Switch Zone 1 (articulations)
Performance Zone 1 (for the chromatic scale)
Performance Zone 2 (for *koto* scales)
Key Switch Zone 2 (phrase banks)
Performance Zone 3 (for playing phrases)

Scale / User Scale

Key Switch Zone 1 | White Keys: Scale Tone | Key Switch Zone 2

Chromatic

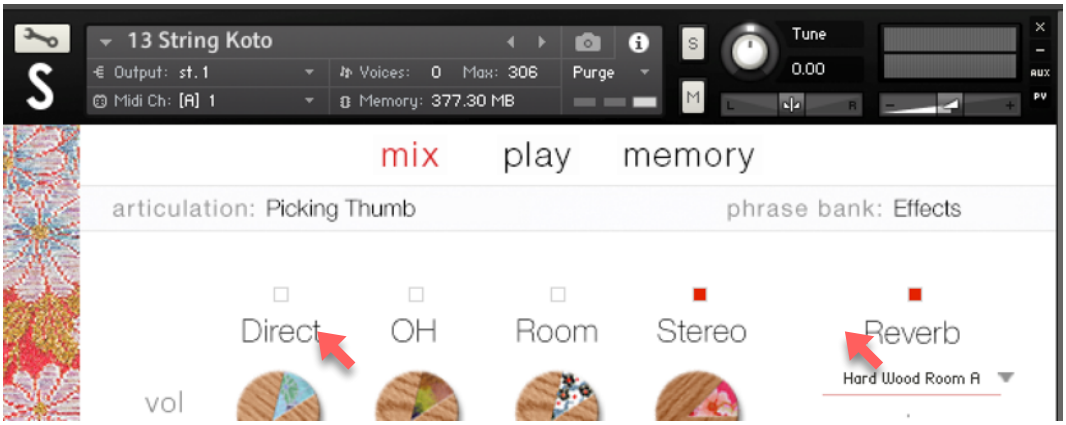


Key Switch Zone 1 | Chromatic Scale | Key Switch Zone 2

Loading KOTO 13

To load KOTO 13, drag the file *13 String Koto.nki* from the Instruments folder to the main Kontakt window.

File path: Sonica KOTO 13 / KOTO 13 / Instruments / *13 String Koto.nki*



articulation and phrase bank fields

These two fields are displayed on all three panes — mix, play, and memory. This lets you monitor the key switch selections for the articulation and phrase bank at all times.

articulation

This field shows the current articulation selected by key switch. You can also confirm the current key switch setting on the Kontakt keyboard.
MIDI CC #11 can be used to control the variations of the following key switch articulations.

D#0: Pizzicato — variation: LH / RH (left hand / right hand)

F#0: Bend Up, *G0: Held Bend Up*, *G#0: Bend Down*, *A0: Bend Up/Down*, *A#0: Tsuki-Iro*, *C1: Vibrato Slow*, and *C#1: Vibrato Fast* — variation: Half Tone / Full Tone

phrase bank

This field shows the current phrase bank (of six) selected by key switch.

articulation

Articulation List and Key Switch Parameters

Key Switch	Articulation Name	Control 1	Control 2
C0	Picking Thumb	CC#1 Mod. Wheel = Plucking Control	
C#0	Picking Index	CC#1 Mod. Wheel = Plucking Control	
D0	Picking Middle	CC#1 Mod. Wheel = Plucking Control	
D#0	Pizzicato (LH / RH)		CC# 11 = LH / RH
E0	Double Picking		
F9	Keshizume	CC#1 Mod. Wheel = Plucking Control	
F#0	Bend Up (Half / Whole)	CC#1 Mod. Wheel = Plucking Control	CC# 11 = Half / Whole
G0	Held Bend Up (Half / Whole)	CC#1 Mod. Wheel = Plucking Control	CC# 11 = Half / Whole
G#0	Bend Down (Half / Whole)	CC#1 Mod. Wheel = Plucking Control	CC# 11 = Half / Whole
A0	Bend Up-Down (Half / Whole)	CC#1 Mod. Wheel = Plucking Control	CC# 11 = Half / Whole
A#0	Tsuki-Iro (Half / Whole)	CC#1 Mod. Wheel = Plucking Control	CC# 11 = Half / Whole
B0	Hiki-Iro	CC#1 Mod. Wheel = Plucking Control	
C1	Vibrato Slow	CC#1 Mod. Wheel = Plucking Control	
C#1	Vibrato Fast	CC#1 Mod. Wheel = Plucking Control	
D1	Sukuizume Picking		
D#1	Chirashizume Slow		
E1	Chirashizume Fast		
F1	Tremolo	CC#1 Mod. Wheel = Dynamics	
F#1	Sukuizume Tremolo Slow		
G1	Sukuizume Tremolo Fast		

phrase bank

Phrase Bank List and Key Switch Parameters

Key Switch	Phrase Bank Name	Number of Phrases
F5	Sahrarin	5
F#5	Glissando Up	15
G5	Glissando Down	19
G#5	Glissando Performance	6
A5	Various Performance	18
A#5	Effects	17

mix

This pane is used for basic sound production.

Audio Mixer

The audio mixer lets you mix the three microphone positions — Direct, OH (overhead), and Room — and the Stereo channel, which is a balanced mix of the three microphone sources.

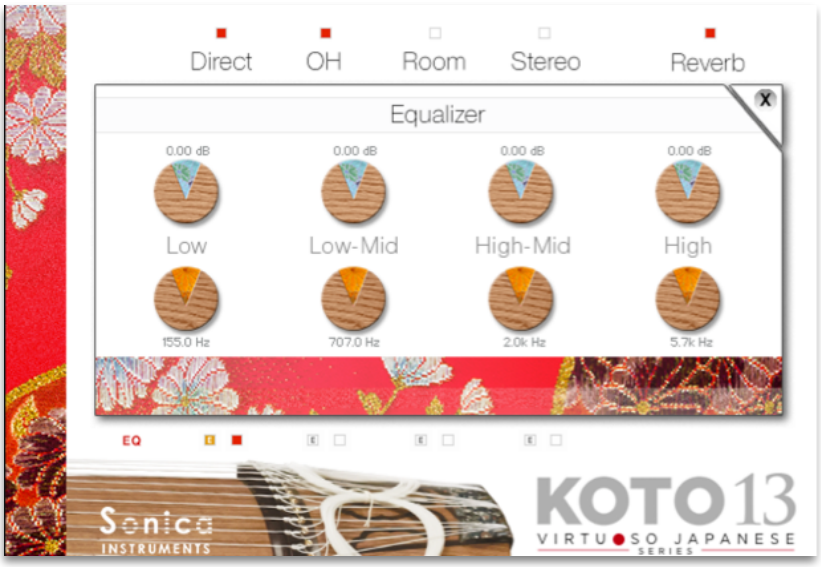
Note that turning on any of the microphone channels disables the Stereo channel, and turning on the Stereo channel disables all the microphone channels.

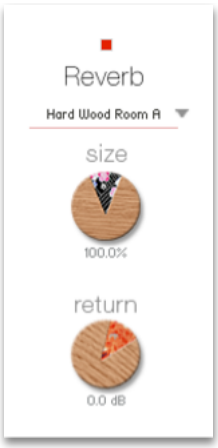
vol: This adjusts the volume of each channel.
pan: This adjusts the left-right panning of each channel.
rev: This adjusts the send volume of each channel to the built-in convolution reverb.
out: This selects the audio output of each channel. This is useful when capturing multiple channels in your DAW.

EQ: This adjusts 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.

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 KOTO 13's **out** control.

Equalizer window





Reverb: There are 48 convolution reverbs available from the pull-down list.
size: This adjusts the reverb time.
return: This adjusts the volume of the reverb component.

MIDI Learn function
All control knobs can be controlled individually with MIDI Control Change messages.

To assign any KOTO 13 knobs to a certain MIDI controller:
1. Right-click 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 the knob and select *Remove MIDI Automation: CC# nn*.

Note: MIDI CC #11 is dedicated to controlling articulation variations. Therefore, please avoid assigning CC #11 to prevent duplications. If you do accidentally assign CC #11, remove the assignment with *Remove MIDI Automation: CC# 11*.

play

This page is used to set the *koto*'s scale and tonal nuances.

scale: KOTO 13 offers 28 characteristic koto scales as well as a chromatic scale to perform with. It also has a function to create, save, and load user scales so that you can customize KOTO 13 for any piece of music.

Chromatic Scale	

User Scale	This function lets you create, save, and load custom scales for specific pieces.
Load User Scale…	This loads a previously saved user scale. User scales are stored and saved in the User Scale folder inside the Data folder. The Preset Scale folder contains scales specific to a number of famous *koto* pieces.
Save User Scale…	This saves the current user scale.
Copy to User Scale	This is a useful function to create a new scale by copying and editing one of the 28 *koto* scales.
---	
28 koto *scales*	KOTO 13 comes with 28 classic *koto* scales that you can select from the pull-down menu.

Note: User scales cannot be transposed.

1ST STRING OCTAVE DOWN

This button selects between setting the first string and fifth string to the same note and dropping the first string an octave lower than the fifth string.

Scale Indicator: When you select a koto scale or a user scale, the notes for strings 1 through 13 are shown here. When User Scale is selected, you can edit the note for each string by clicking in the box and dragging up or down.

Key: The 28 preset scales are transposable through the following keys: G, G#, A, A#, B, C, C#, D, D#, E.

Note: Because of range limitations in the keys of G, G#, and A, the first string and the fifth string are set to the same note even if the **1ST STRING OCTAVE DOWN** button is enabled.

The meaning of "key" in KOTO 13

KOTO 13 comes with characteristic *koto* tunings (scales) for the 13 strings and gives you the ability to freely transpose the scales. With the *koto*, scales are traditionally created or transposed by "raising or lowering string x by y semitones" from a fixed scale in D. Transposing in this way can lead to keys and scales that deviate from a Western D scale, for example. It is best to think of all *koto* tunings being referenced to D. KOTO 13 stores the 28 *koto* scales in D and applies this type of transposition (parallel shift) when changing keys.

Transposition sequence [Key name in Japanese]

G [*Soujou*] > G# [*Fushou*] > A [*Oushiki*] > Bb [*Rankei*] > B [*Banshiki*] >
C [*Shinsen*] > C# [*Kamimu*] > D [*Ichikotsu*] > D# [*Tangin*] > E [*Hyoujou*]

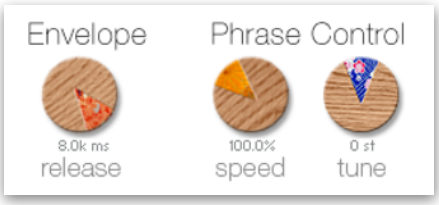
Scale List:

Hira, Hira Kinjuu, Rokuagari, Yonkyuagari, Kumoi, Hon Kumoi, Han Kumoi, Kata Kumoi, Nijuu Kumoi, Kumoi Kinjuu, Nakazora, Han Nakazora, Akebono, Gaku, Han Gaku, Nogi, Hanagumo, Iwato 1(13=A), Iwato 2 (13=A♭)、Han Iwato 1 (13=A), Han Iwarto 2 (13=A♭), Natsuyama, Kokin, Shin Kokin, Akino Ryukyu, Soufuren, Shin Setsugekka

Envelope: This adjusts the release time of notes. The ideal situation is to use a sustain pedal when playing KOTO 13 with a keyboard to reproduce the natural sustain of *koto* strings. But if you do not use a sustain pedal, we recommend setting the release time to between 7,000 and 8,000 milliseconds.

Phrase Control

These two knobs adjust the speed and tuning of phrases. The phrases were recorded in the Hira scale in D.



speed: This adjusts the phrase's playback speed.
tune: This adjusts the phrase's playback pitch in semitone steps.

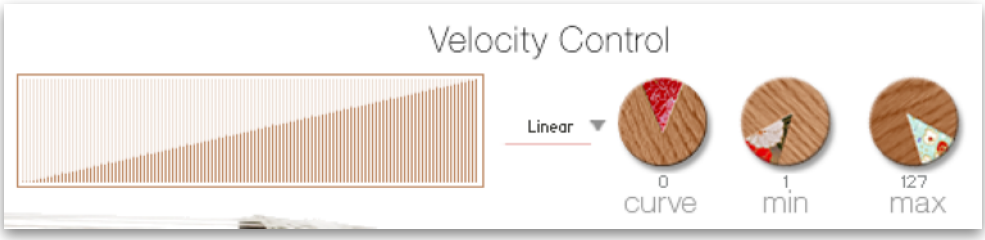
Plucking Control: These two knobs control the behavior from the moment the plectrum strikes the string until the string sounds. This function recreates the subtle nuances of the initial plucking attack that are so important to a stringed instrument. By controlling these plucking variations, you can achieve many different musical expressions.

preroll: This adjusts the maximum time from the instant the plectrum makes contact with the string until the plectrum clears the string.
RANDOM PREROLL: When enabled, this randomizes the preroll setting for each *Key On* event.
variance: This adjusts the random preroll's variation range.

Note: You can use a modulation wheel (MIDI CC #1) to control preroll randomization while performing.
Control value 0: Maximum preroll (longest)
Control value 127: Minimum preroll (shortest)

Velocity Control: KOTO 13 comes with five velocity control curves: *Linear*, *S-Curve*, *Compand*, *Fixed*, and *User*. With the *User* curve selected, the **RESET CURVE** button resets the curve.

curve: This modifies the selected curve.
min: This adjusts the minimum velocity of played notes.
max: This adjusts the maximum velocity of played notes.



memory

This pane is used to selectively load samples for all articulations and all phrase banks, allowing you to adjust the amount of memory used by Kontakt. Turning off a **Load** button in the list will disable the corresponding articulation or phrase bank and reduce the size of KOTO 13's memory footprint.

Credits
Production, Recording and Editing: Sonica Instruments
Kontakt Development: Umlaut Audio
Koto played by Miki Maruta
GUI Designer: Yujin Ono

Executive Producer: Tomohiro Harada
Marketing, Translation & Production Consulting: Craig Leonard
Audio Editing: Yoshitaka Koyama
Recording Engineer: Keigo Sonoda (Pastoral Sound)
Web Design: Masayo Sasaki
Photography: Takashi Matsuda, Keita Ikeda

Production Supervisor: Daichi Yoshida
Production Management: Anne Juenger
Scripting, Programming: Mario Krušelj
Sample Mapping: Anthony Mena
GUI Controls Layout: Scott Kane
Additional Programming: Cameron MacNair
Audio Consulting: Ross Totino
Assistant Production Management: Jillian Strauss

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