The Akebono Collection

Operation Manual Version 1.5

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2 Welcome to the Akebono Collection

Thank you for purchasing the **Akebono Collection** from **Icebreaker Audio**. This guide will show you how to use the included instruments, give you an overview of the controls and offer some useful hints and tips along the way.

I personally hope you enjoy this release and find it to be an inspirational addition to your musical toolkit.

2.1 System Requirements

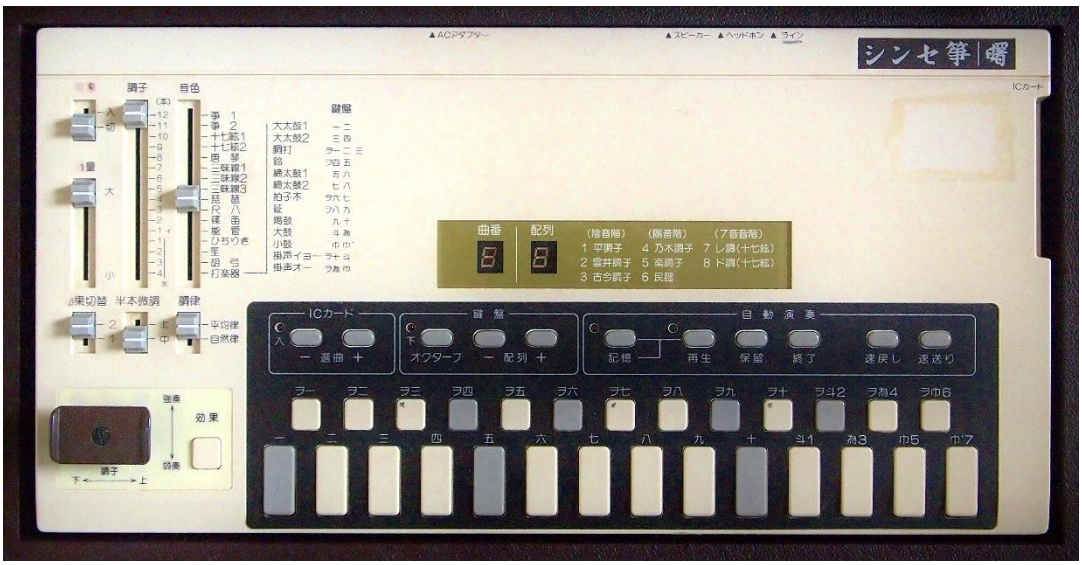
PC/Mac running **Native Instruments Kontakt 6.4.2** or higher.
The Akebono Collection does not run in Kontakt Player, only the full version of Kontakt.

More information on Kontakt can be found on the Native Instruments website.

3 What is the Akebono Collection?

The **Akebono Collection** is an authentic, sample-based emulation of the SUIKO SK-10 (aka the Akebono Koto Synth), an unusual suit-case instrument from Japan.

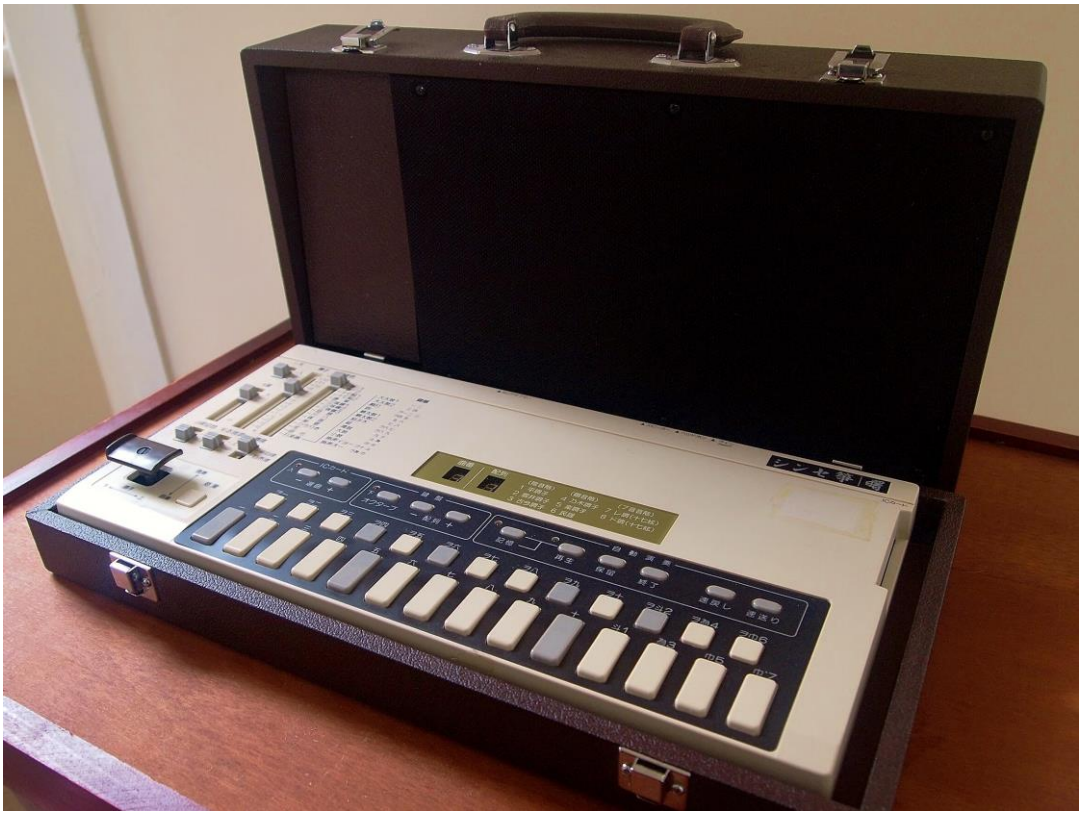
3.1 Faithful Re-creation



1 Akebono Koto Synth

The Akebono (literal translation: "Dawn") Koto Synth was probably released sometime in the mid-1980s. Detailed information in English is scarce, as it was never intended for use by western musicians. It re-creates a number of traditional Japanese instrument sounds using a combination of samples and digital synthesis.

Designed primarily as a Koto practice instrument, Akebono uses buttons instead of piano keys, has a joystick for pitch and volume modulation, and a speaker built into the suitcase.



2 The Akebono Suitcase

In order to fully recreate the authentic sound of this unique instrument, several impulse responses of the speaker were recorded at a variety of microphone positions and configurations. A rare Thuresson CM402 microphone was used for the recordings, and a total of 7 microphone configurations/positions are available in the custom designed Kontakt interface.

The instrument samples were recorded from a direct line out. You can opt to use the direct signal, the speaker signal, or a mix of both.

3.2 Included Instruments

Akebono has 15 different instruments to select from, each recreated with a combination of samples and digital synthesis. These sounds have been categorized and presented in 3 different Kontakt instruments…

3.2.1 Akebono: Plucked

Akebono: Plucked contains all of the plucked string sounds.

- **Koto (箏)** – a 13 string zither, similar to the Chinese Gu Zheng, and the Korean Gayageum.
  2 different Kotos are included.
- **17-string Koto (十七絃)** – a variation of the Koto, also known as the Bass Koto, because of its lower range.
  2 different Bass Kotos are included.
- **Guqin (古琴)** – the name translates as "ancient stringed instrument". It is a fretless, bridgeless zither.
- **Shamisen (三味線)** – literally translates as "three strings". It is kind of like a box-shaped banjo without frets.
  3 different Shamisen are included.
- **Biwa (琵琶)** – a fretted lute, and a close relative to the Chinese Pipa.

Each of the above instruments has two variant articulations. On the original hardware, these were selected with a switch and then activated with a small button below the joystick. For this product, the variants are activated with individual keyswitches.

3.2.2 Akebono: Wind

Akebono: Wind contains all of the sustained instrument sounds, most of which are woodwind.

- **Shakuhachi (尺八)** – an end-blown bamboo flute. Probably the most well-known Japanese woodwind instrument.
- **Shinobue (篠笛)** – a transverse flute, also made from bamboo.
- **Nohkan (能管)** – another bamboo transverse flute.
- **Hichiriki (ひちりき)** – a double-reed flute, similar to the western oboe.
- **Shō (笙)** – a mouth organ, made from bamboo that uses metal reeds to produce its sound. Similar in principal to a western harmonica, though with a very different playing style, as it is possible to produce dense chords and tone clusters.
- **Kokyū (胡弓)** – the only traditional Japanese stringed instrument to be played with a bow. It is similar in appearance to the shamisen.

Each instrument has optional vibrato at two different intensities. On the original hardware, these were selected with a switch and then activated with a small button below the joystick. For this product, the vibrato is activated with keyswitches.

Note: the Shō does not use vibrato, however the option is still available on this instrument.

3.2.3 Akebono: Percussive

Akebono: Percussive is a kit containing 13 different percussion sounds:

- **Big Taiko (大太鼓)** – A large, wooden, double-headed drum. Similar in sound to a concert bass drum.
- **Dou Uchi (胴打)** – hitting the drum on the side. A hollow wooden sound.
- **Shime-daiko (締太鼓)** – literally translates as "tight drum". A smaller, shallower taiko drum.
- **Bell (鈴)** – a small cymbal.
- **Hyoshigi (拍子木)** – Two pieces of wood or bamboo that are hit together. Similar to a clave.
- **Surigane (鉦)** – a small gong.
- **Kakko (羯鼓)** – another tight, double-headed drum, though deeper than the Shime-daiko.
- **Ōtsuzumi (大鼓)** – a large hour-glass shaped drum.
- **Kotsuzumi (小鼓)** – a small hour-glass shaped drum.
- **Kakegoe "ō" (掛け声オー)** – A shout or call made during the performance.
- **Kakegoe "Iyō" (掛け声イヨー)** – A shout or call made during performance.

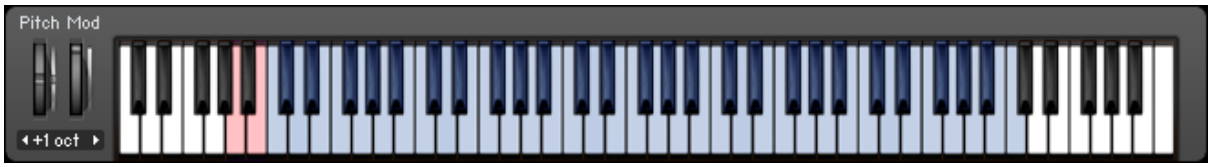
4 Using the Instruments

4.1 Keyswitches

Akebono: Plucked and **Akebono: Wind** both use keyswitches to mimic the articulation buttons on the original hardware.

- In **Akebono: Wind** each instrument features two intensities of vibrato.
- In **Akebono: Plucked** each instrument features two additional articulations.

In both cases, these additional functions are selected by holding down the keyswitches on keys **A-1** and **B-1**. These keys are highlighted in red on Kontakt's built in keyboard.



3 The keyswitches are marked with red, and the playable range is marked with blue.

4.2 Percussion Mapping

For **Akebono: Percussive,** most of the drums are doubled on the keyboard**,** mimicking the original hardware and thus making it easier to play repeating patterns on the same drum.

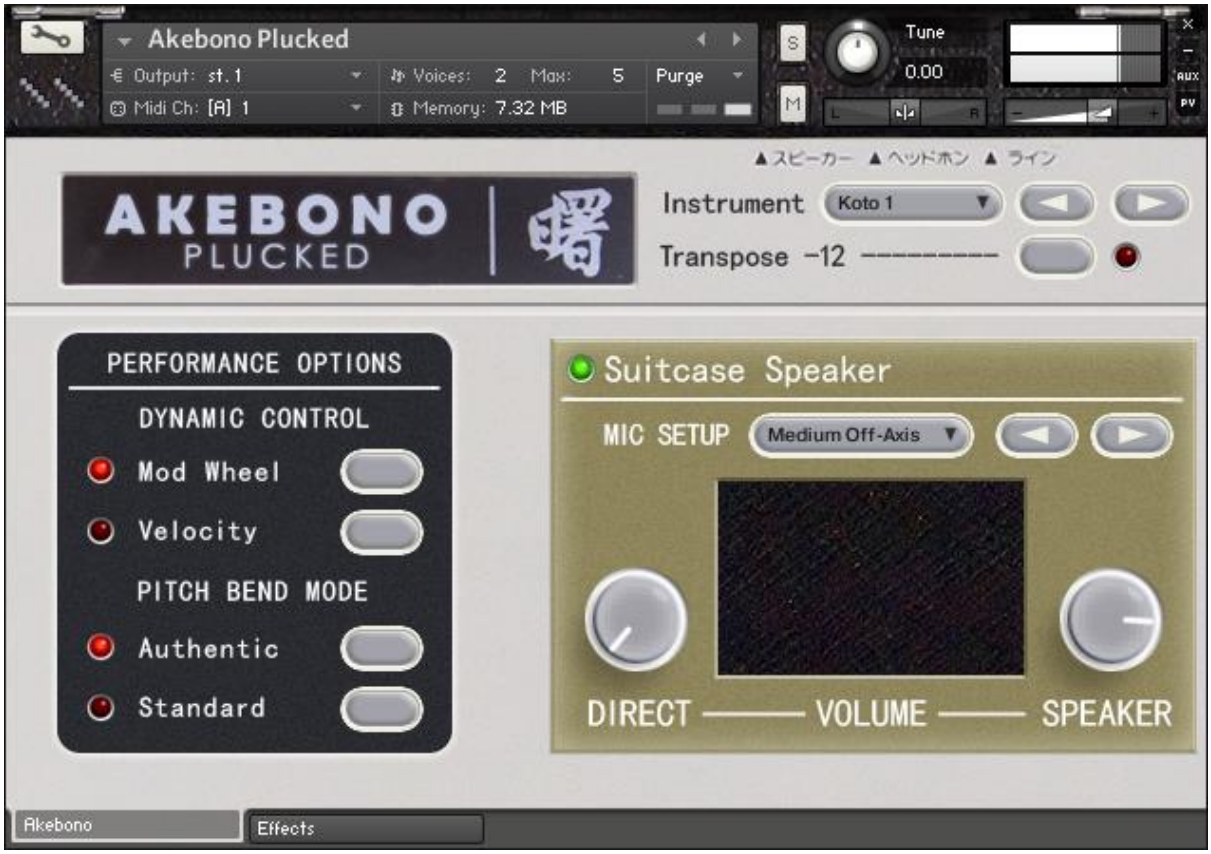
The keyboard is colored in a way to highlight where the different drums are located.

The mapping is as follows:

MIDI Note	Note Name	Drum
24	C0	Big Taiko 1
25	C#0	Dou Uchi
26	D0	Big Taiko 1
27	D#0	Dou Uichi
28	E0	Big Taiko 2
29	F0	Big Taiko 2
30	F#0	Bell
31	G0	Shime-daiko 1
32	G#0	Bell
33	A0	Shime-daiko 1
34	A#0	Hyoshigi
35	B0	Shime-daiko 2
36	C1	Shime-daiko 2
37	C#1	Hyoshigi
38	D1	Kakko
39	D#1	Surigane
40	E1	Kakko
41	F1	Otsuzumi
42	F#1	Surigane
43	G1	Otsuzumi
44	G#1	Kakegoe "Iyo-"
45	A1	Kotsuzumi
46	A#1	Kakegoe "o-"
47	B1	Kotsuzumi

4.3 The Interface – Page 1

The interfaces for the **Akebono Collection** all share a similar layout.



4 The Akebono: Plucked Interface

At the top of the instrument is the Kontakt instrument header with all of the usual controls. If you are not familiar with these controls, details of how they work are provided in the Kontakt manual.

The first page you see is the instrument page, and contains controls relating to the direct sound of the device, as well as a few performance options.

4.3.1 Instrument Controls

Below the header are the main instrument controls. These are the same for the **Plucked** and **Wind** instruments:

- **Instrument Select:** select the instrument sound source. A list of the included instruments is available in section 3.2 Included Instruments. Changing instruments unloads any unused samples from memory.
- **Transpose -12:** activating this switch transposes the instrument down by one octave. This mimics a similar control found on the original Akebono hardware.

The **Percussive** instrument is similar, except that the **Instrument Select** control is replaced with a readout that displays the name of the last played drum.

5 The Percussion Instrument Controls

Beside this display is a control that allows you to tune each key individually:

- Click and drag to tune the selected drum.
- Or double click the value area and enter the tuning you want (+/-12 semi-tones).

4.3.2 Performance Options

Each instrument has two performance options that allow you to specify how you want the instrument to react to MIDI from your keyboard or sequencer. The options available for each instrument are as follows:

- **Akebono: Plucked** and **Akebono: Percussive**
  - Dynamic Control
  - Pitch Bend Mode
- **Akebono: Wind**
  - Dynamic Control
  - Voice Mode

Dynamic Control

On the original hardware, dynamics are controlled with a joystick, but on most modern instruments they are controlled with keyboard velocity. Using the buttons, you can select how you want to play the instrument:

- **ModWheel** – the level of the played note is specified by the ModWheel position.
- **Velocity** – the level of the played note is specified by the MIDI velocity of the note.

Depending on the instrument, the modwheel will either give you continuous control of the instrument volume, or will set the level at the time the note is played.

Pitch Bend Mode

Bending notes is an important part of Koto performance. Most modern instruments use the pitch bend control to change the pitch of all active notes. On the Akebono hardware only the notes that are currently pressed are affected by the pitch bend joystick.

Two options are available for you to specify the Pitch Bend behaviour:

- **Authentic** – the pitch bend control behaves like the original Akebono hardware: only notes with the key still pressed will be affected.
- **Standard** – the pitch bend control affects all notes.

For **Akebono: Percussive,** the behaviour is slightly different:

- **Authentic** – only the Kakegoe are affected by the pitch bend control.
- **Standard** – the pitch bend control affects all drums.

Voice Mode

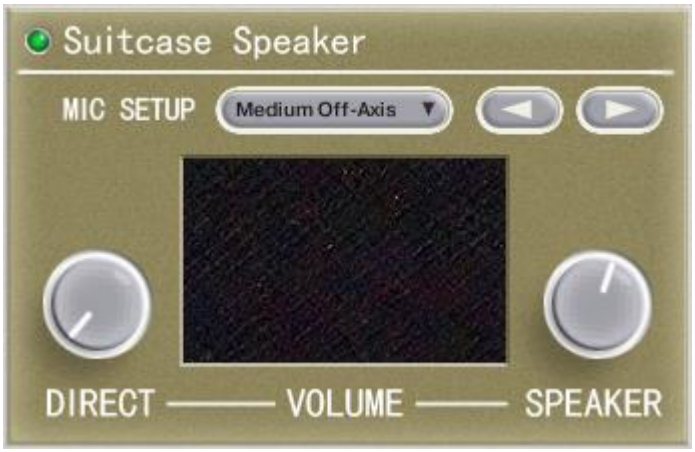
Flutes are naturally monophonic (they can only play one note at a time). The voicing of the Akebono hardware was automatic depending on the selected instrument. However, in our software you can select the voice mode, and override the automatic setting:

- **Mono** – only one note can be played at a time. Akebono uses high note priority, so the highest key held will be the one played.
- **Poly** – multiple notes can be played at once.

The voice mode is set automatically when you select an instrument.

4.3.3 Speaker Controls

To the right of the instrument are the speaker options.



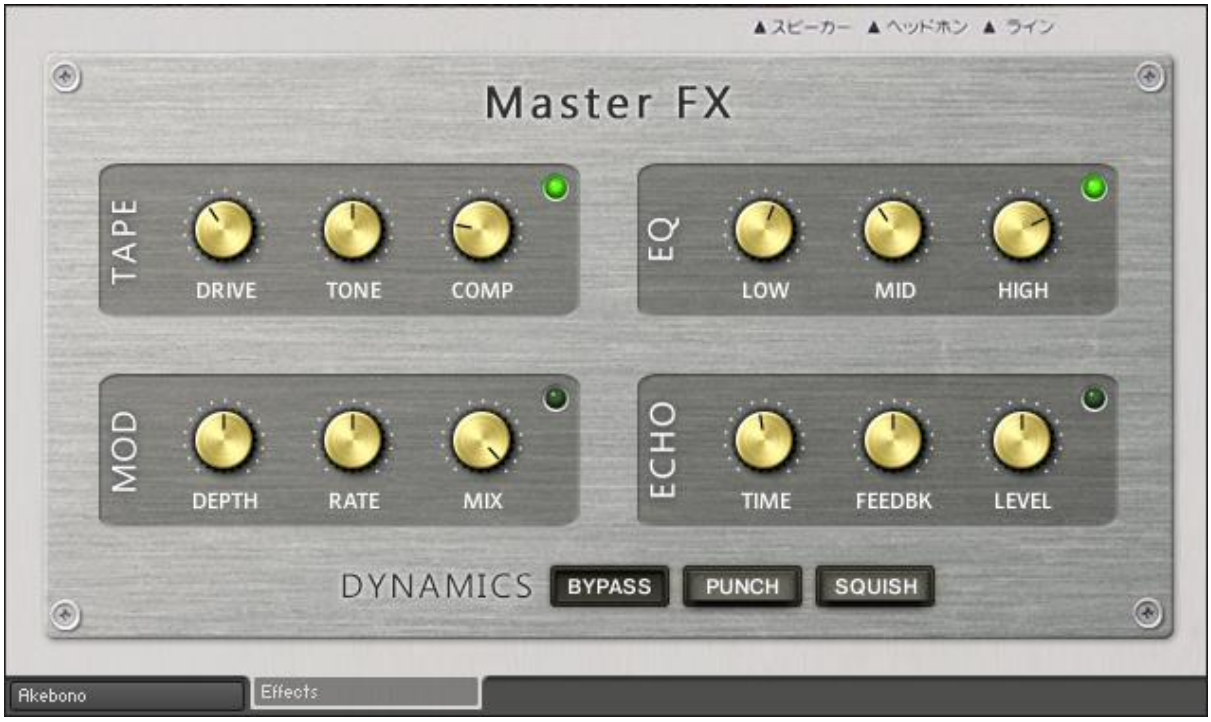
6 The Speaker Controls

The speaker controls are as follows:

- **Off / On:** the LED to the top left toggles the speaker effect on or off.
- **Mic Setup:** selects the microphone configuration and position. 7 options are available.
- **Direct Volume:** controls the volume of the dry (direct) signal.
- **Speaker Volume:** controls the volume of the wet (speaker) signal.

4.4 The Interface – Page 2

Page 2 contains additional effects to shape the sound in ways that were not possible on the original hardware.



7 The Master FX Page

There are a total of 5 effects available to you. The four main effects can be toggled on or off from the green LED button to the top right of the effect's area.

4.4.1 Tape

The Tape effect is an emulation of a reel-to-reel tape machine.

- **DRIVE** – controls the input gain, and thus the level of distortion.
- **TONE** – controls the high frequency content. Lower settings will remove harsh overtones, and higher settings will give a brighter sound.
- **COMP** – controls how much the effect will compress the dynamic range of the sound.

4.4.2 EQ

The EQ is a fixed three band equalizer. It can be used to quickly alter the tonality or timbre of the sound.

- **BASS** – controls the gain of the low frequencies.
- **MID** – controls the gain of the middle frequencies.
- **TREB** – controls the gain of the high frequencies.

4.4.3 Mod

A chorus effect, also known as an ensemble effect. This can be used to give the sound subtle movement to extreme modulation.

- **DEPTH** – controls the depth of the LFO modulator.
- **RATE** – controls the rate of the LFO modulator.
- **AMOUNT** – controls the dry/wet mix of the effect.

4.4.4 Echo

Also known as a Delay effect, this can be used to add space to the sound, or to create rhythmic patterns.

- **TIME** – sets the time between echoes.
- **FEEDBACK** – controls the amount of signal fed from the effect output back into the input (ie. the number of repeating echoes).
- **LEVEL** – controls the amount of signal sent into the effect.

4.4.5 Dynamics

Dynamics is a compressor effect with two preset settings:

- **PUNCH** – uses longer attack and release times to emphasise transients and make the sound punchier. For sustained sounds this is a more subtle compression setting.
- **SQUISH** – uses a fast attack and release, along with a high ratio to really squish the dynamic range. This emphasises the sustaining portion of the sound.

5 Credits

Sound Design and Kontakt Script Programming: Adam Hanley

Impulse Responses recordings: Flesh & Bone Studios.
http://www.fleshandbonestudios.com/

Artwork and GUI Design: Joel Steudler and Adam Hanley
http://www.sampleoddity.com/

Interface design makes use of *switch_toggle.knob* by az.
http://www.g200kg.com/en/webknobman/gallery.php?m=p&p=58