

Sonica Instruments

SHAKUHACHI

Virtuoso Japanese Series

User Manual

Version 2.0 — July 2022

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.

The Sonica Instruments Team





Version History

Release notes for Update 2.0

- Groove Browser function added
- Status LED added to the EQ window
- Updated Product Requirements (KONTAKT 6.6 or later)

Release notes for Update 1.5

Added support for NKS and NATIVE ACCESS





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 the world. The standard instrument is one *shaku* and 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.

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 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, overhead, room, 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.)

Groove Browser

The library comes with many classic *shakuhachi* phrases recorded as MIDI grooves. You can drag and drop MIDI grooves directly from the Groove Browser into your DAW as MIDI data.

NKS ready

SHAKUHACHI is NKS compatible so it can be used with KONTAKT PLAYER, KONTAKT FULL, and KOMPLETE KONTROL. When **SHAKUHACHI** is linked with a KOMPLETE KONTROL keyboard or other NKS-compatible hardware, you can quickly preview tones and make full use of the hardware's knobs and controllers.





Product Specifications

KONTAKT 6.6 or later required KONTAKT PLAYER compatible NKS ready

System Requirements

Mac: Intel Macs (i5 or better) — Mac OS 10.14, 10.15, 11 or 12 (latest update)

Apple Silicon Macs (via Rosetta 2 and natively on ARM in standalone mode or in hosts that support ARM) — Mac OS 11 or 12 (latest update)

Windows: Windows 10 or 11 (latest Service Pack), Intel Core i5 / equivalent CPU or better, 2 GB RAM

Graphics hardware support for OpenGL 2.1 or higher

Minimum of 4 GB RAM (6 GB recommended)

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

- Use the recommended Native Instruments KONTAKT or KONTAKT PLAYER 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.

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.





Before Using This Product

You need to **register your serial code** and **download the library data** with the NATIVE ACCESS 2 tool in order to use this product. Check the <u>Sonica Instruments website</u> for a step-by-step installation guide and other information about updates.

1. Install NATIVE ACCESS 2

Note: You can skip this step if you already have NATIVE ACCESS 2 on your computer.

Download the NATIVE ACCESS 2 Installer for your operating system from the Native Instruments website (https://www.native-instruments.com/en/specials/native-access-2/) and follow the instructions on the screen to install the tool.



2. Log In with Your Native ID

Launch the installed NATIVE ACCESS 2 tool and log in.

If you do not have a Native Instruments account, click **Sign up now** on the Log In with Native ID window. On the Create a New Native ID window, enter the required information and create a free account.

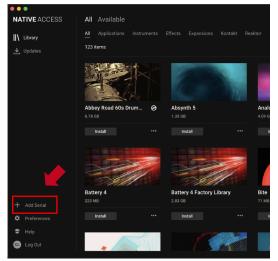
_0	Email address				
<u>A</u>	Password	•			
Don't remember your password?					
LOGIN >					
	Don't have a Native ID				

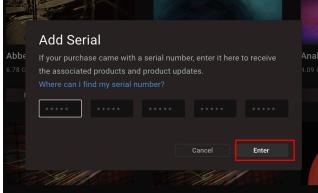




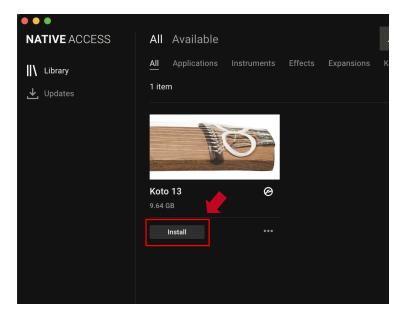
3. Register Your Serial Code

After NATIVE ACCESS 2 launches, click **Add Serial**. Enter the 25-digit serial code you received when you purchased the product and click **Enter**. (The serial code is sent you by email after purchase.)





Product registration is complete when **Success** is displayed. The product you registered will appear under the **New** tab. Click the product's **Install** button to start the download and installation process.



This completes the installation of the library.

After the download finishes, launch KONTAKT or KONTAKT PLAYER. The product will be added automatically under the **Libraries** tab on the left side of the screen. You can access the library in KOMPLETE KONTROL in the same way.





Overview of SHAKUHACHI

SHAKUHACHI works with KONTAKT, KONTAKT PLAYER, and KOMPLETE KONTROL.

Using the library with KONTAKT and KONTAKT PLAYER

Once the library is activated, the **SHAKUHACHI** library panel will be added to your KONTAKT Library Browser. Please load and use the tone model you want from the Library Browser.



Using the library with KOMPLETE KONTROL

SHAKUHACHI is NKS ready, so the library can be linked with KOMPLETE KONTROL or a KOMPLETE KONTROL keyboard to preview tones and save settings as presets. You can also make full use of the KOMPLETE KONTROL keyboard's knobs, controllers, and browser. See <u>KONTROL Series Controller Parameters on Page 21</u> for details.







Three Monitor Fields



The articulation, legato, and phrase bank monitor fields are displayed on all five panes — **mix**, **play**, **tune**, **groove**, and **memory**. The monitor fields let 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 your KONTAKT keyboard.

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
EO	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)
В0	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

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

Legato List and Key Switch Parameters

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

phrase bank

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

Phrase Bank List and Key Switch Parameters

Key Switch	Phrase Bank Name	Number of Phrases
C6	Short Phrases 1	8
C#6	Short Phrases 2	8
D6	Short Phrases 3	8
D#6	Short Phrases 4	6
E5	Short Phrases 5	5





MIDI keyboard layout

C0 - A1: Articulation key switch zone

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

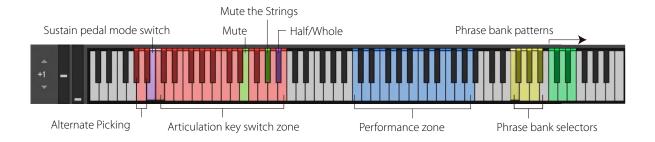
B1 – **F2**: Breath noise zone

G2 – **B5**: Performance zone

C6 - E6: Phrase bank key switch zone

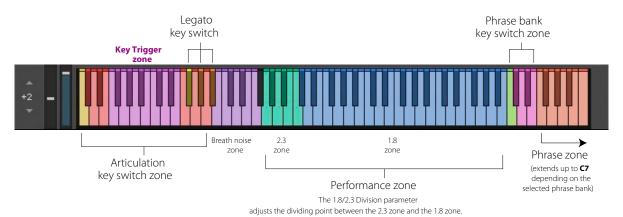
F6 – **C7**: Phrase zone

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



When Key Trigger Connection is on

See Page 15 for details about Key Trigger Connection.







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** (stereo mix) channel, which is a pre-balanced mix of the three microphone sources. Turning on any of the microphone channels disables the **Stereo** channel, and turning on the **Stereo** channel disables all 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.

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.



Setting multiple channels for a single microphone output

Please see the KONTAKT manual for how to create multiple outputs. After creating the 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 output control.



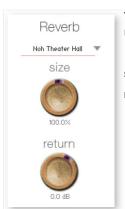


EQ



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. The EQ can be turned on or off on the pop-up dialog as well.

Reverb



The library contains 30 convolution reverbs, including two impulse responses from a Noh theater, available from the pull-down list.

size: Adjusts the reverb dwell time.

return: Adjusts the volume of the reverb component.

MIDI CC# learn function

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



To assign a control knob in **SHAKUHACHI** 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 CC# automation

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





play

This pane is used to set shakuhachi tunings and tonal nuances.





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

100.0 %



curve type: Sets the velocity curve to *Linear*, *S-Curve*, *Compound*, or *Fixed*.

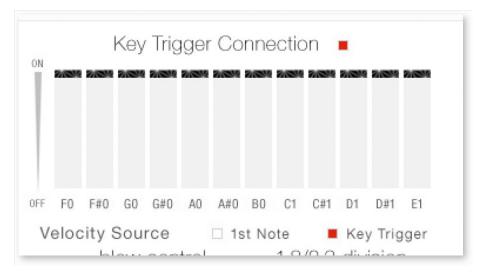
curve: Modifies the selected curve.

max: Adjusts the maximum velocity of played notes.





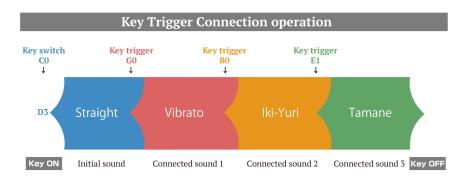
Key Trigger Connection



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 by default.

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.





groove

This pane is used to browse and preview the MIDI grooves included in the library and export the grooves to a DAW.



Velocity Transpose



 Swing
 Grid
 Tempo
 Feel

 1/8
 120.00 \$
 x1.0

 post
 x1.0
 x1.0

Velocity: Adjusts the playback velocity of the MIDI groove.

Transpose: Changes the key in semitone increments.

Swing: Adds a swing feel to the MIDI groove.

Grid: Toggles the **Swing** quantization between eighth notes and sixteenth notes.

Tempo: Specifies the playback tempo. The tempo cannot be changed when **Sync** is enabled.

Sync: When enabled, syncs the MIDI groove's tempo with the DAW tempo.

Feel: Toggles the playback tempo of the phrase between *x*1.0 (original), *x*2.0 (double-time), and *x*0.5 (half-time).

Process: Toggles at which point the **Swing** feel is applied, either before (*pre*) **Grid** is applied or after (*post*) **Grid** is applied. This control lets you access a variety of playing feels even with the same phrase and settings.

Note about the scale when playing back grooves

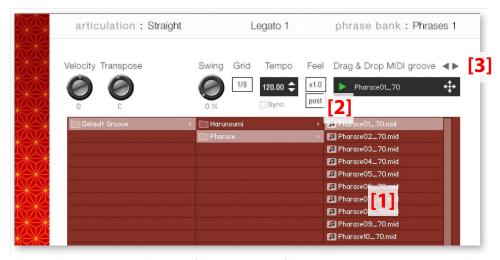
The scale is automatically set to the Chromatic scale when playing MIDI phrases in the Groove Browser. If you have customized the scale, be sure to save it as a User Scale before using the Groove Browser. Otherwise, your customizations will be lost when the scale is reset.





Using a MIDI groove

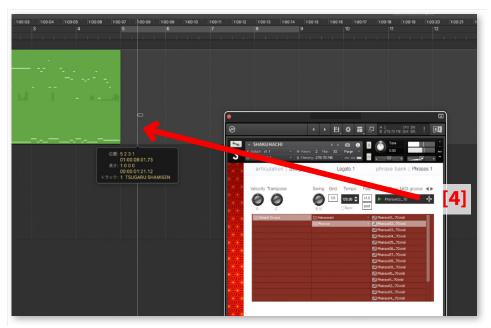
To load a MIDI groove into the Player, double-click on the MIDI groove you want to use from the Groove Browser [1]. Click the play button [2] to start a preview playback. Double-clicking on a pattern while the MIDI groove is playing will switch patterns without pausing the playback. You can move to the previous pattern or next pattern with the arrow keys [3] in the Player.



The number appended to the end of the MIDI groove file name indicates the tempo at which the phrase was recorded at.

Loading a MIDI groove into your DAW

You can load a MIDI groove into your DAW as MIDI data. Simply drag the groove with the key [4] and drop the groove into your DAW.

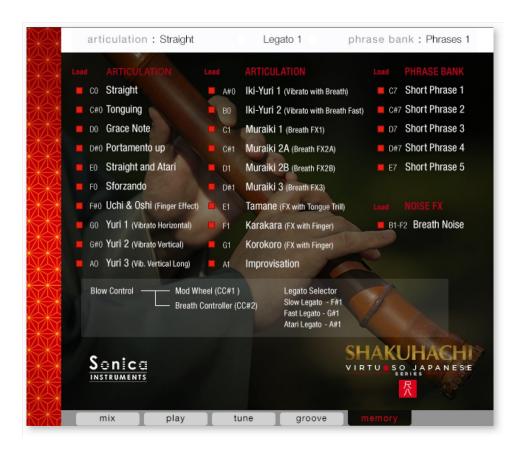






memory

This pane is used to selectively load samples for all articulations and all phrase banks. Turning off a **Load** button in the list will disable the corresponding articulation or phrase bank and reduce the size of **SHAKUHACHI**'s memory footprint. Key switches and articulations without a **Load** button are always loaded.







KONTROL Series Controller Parameters

You can adjust controller parameters more intuitively on KOMPLETE KONTROL or KONTROL Series (MIDI keyboards). (See the previous pages for details about each parameter.)

In KOMPLETE KONTROL, click the **Control** button to display parameters.



Inst Editor

Inst Editor provides control over Instrument Modeler parameters.



Mixer Mic / Vol

Mixer Mic / Vol provides mic channel selection and volume adjustment for each channel.







Mixer Width / Pan

Mixer Width / Pan provides width and panning adjustments for each channel.



Reverb

Reverb provides adjustments for the reverb send volume from each channel as well as control over Reverb parameters.



Direct EQ

Direct EQ provides adjustments for the gain and center frequency for the Direct channel.



OH EQ

OH EQ provides adjustments for the gain and center frequency for the Overhead channel.







Room EQ

Room EQ provides adjustments for the gain and center frequency for the Room channel.



Stereo EQ

Stereo EQ provides adjustments for the gain and center frequency for the Stereo channel.



Groove

Groove provides control over Groove Browser parameters.







Credits

Executive Producer: Tomohiro Harada

Production, Recording, Editing and KONTAKT Development: Sonica Instruments

Shakuhachi performed by Ray Jin

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

GUI Designer: Yujin Ono

Audio Editing: Yoshitaka Koyama

Recording Engineer: Keigo Sonoda (Pastoral Sound)

Photography: Takashi Matsuda Music Video: Yasuhiro Nakashima

Marketing & Translation: Craig Leonard
User Manual: Yoshifumi Yamaguchi (LRCOT)

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