



Digital art crafting, sharing and learning made easy.

**R1**

# WIND SYNTHESIZER USER MANUAL

English

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# **WIND SYNTHESIZER USER MANUAL**

For firmware version 1.0

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<http://www.robkoo.com/en>




# WELCOME

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Robkoo helps everyone become a digital artist.

Thanks for purchasing R1 Wind Synthesizer. Before using this unit, please read and understand this manual. After reading, please keep it available for immediate reference.

## KEY TO SYMBOLS

-  Suggested actions or tips
-  Wrong actions or warnings
-  Correct actions

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# INTRODUCTION



## CONCEPT

R1 Wind Synthesizer is a new form of wind instrument created by Robkoo. With its intuitive design, audio technology, and realistic sounds, R1 makes performing music easier than ever.

Behold the musical instrument from future.

### ► **SOUND OF TRUE INSTRUMENTS**

With sounds sampled from top performers around the globe, R1 saves 10 or even 20 years of practice to achieve the vibe of a pro.

### ► **FOOD GRADE MOUTHPIECE**

Same material as baby pacifier for utmost health protection. Removable and replaceable.



## ► **TOUCH-SENSITIVE PERFORMANCE KEYS**

Perform by touching the keys. Fast response, Minimal noise, and maximum durability.

## ► **INDEPENDENT SEMITONE KEYS**

Resemble the buttons on an acoustic instrument. Play expressive in a realistic and graceful way.

## ► **PATCH SWITCH**

Switch tones in a flash. Multiple functions assignable without interfering the play.

## ► **TRIPLE OCTAVE KEYS**

Break away from the limitation of acoustic instruments. Travel across wide octaves in light speed.

## ► **MECHANICAL PITCH WHEEL**

Reliable and intuitive. Pitch freely with your thumb. It is also customizable to trigger other controls like portamento.

## ► **HIGH-ACCURACY GYROSCOPE**

Trigger performance techniques by simply shaking and waving. Pull up and down for LFO, another articulation, and pitch bend.

## ► **RESPONSIVE RGB LIGHTS**

The cyber style RGB light patterns display over 60,000 colors. The lights will also respond to your breath and technique, adding a visual element of your play.

## ► **LEARN IN 15 MINUTES**

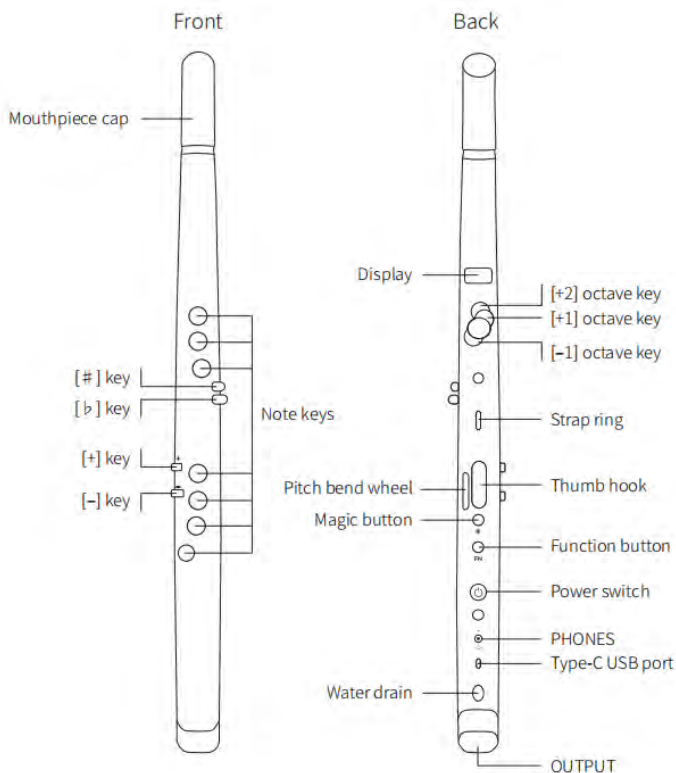
A delicate interactive course guides you through all the basics in 15 minutes. Keep practicing for 2 weeks, you will be ready to perform.

## **PACKAGE CONTENTS**

- R1 Wind Synthesizer
- Mouthpiece cap
- Neck strap
- Dust bag
- Type-C cable
- Owner's Manual
- Quickstart Guide

# PANEL DESCRIPTIONS

## FEATURES



## ① MOUTHPIECE CAP

Protects mouthpiece. To be taken off before playing. After playing, clean the mouthpiece before putting the cap back on.

## ② [#] KEY

Lift up all notes by one semitone (sharp) while holding down.

## ③ [b] KEY

Lower all notes by one semitone (flat) while holding down.

## ④ [+] KEY

- While performing, press for the next patch.
- In menu, press for the next item.



You can customize this key in "Settings - Advanced Settings".

## ⑤ [-] KEY

- While performing, press to trigger sound 2.
- In menu, press for the previous item.



You can customize this key in "Settings - Advanced Settings".

## ⑥ NOTE KEYS

Hold different combinations of note keys while blowing into mouthpiece to play notes. You can use the fingering of saxophone, recorder, and so on.



Please find the full fingering charts in "Appendix - Fingering Charts" of this manual.

## ⑦ DISPLAY

Displays the current patch, key, octave, as well as menu and status.

## ⑧ PITCH BEND WHEEL

By default, pushing up or down will change the pitch of sounds.



You can customize the pitch bend wheel in "Settings - Advanced Settings", e.g. enable portamento instead of pitching by push up.

## ⑨ **MAGIC BUTTON**

By default, pressing magic button will enable portamento. Pressing again will disable portamento.



You can set up magic button to control sound 2 in "Settings - Advanced Settings" in order to switch articulations while performing.

## ⑩ **WATER DRAIN**

Drops of water will exit here. Wipe them off with a soft cloth.

## ⑪ **[+2] OCTAVE KEY**

Hold to play 2 octaves above, release to restore.

## ⑫ **[+1] OCTAVE KEY**

Hold to play 1 octave above, release to restore.

### **⑬ [-1] OCTAVE KEY**

Hold to play 1 octave below, release to restore.



Alternative cross-octave fingering available in "Appendix - Fingering Charts" of this manual.

### **⑭ STRAP RING**

To attach neck strap.



A neck strap can effectively prevent R1 from falling.

### **⑮ THUMB HOOK**

Fit your right thumb below the hook to hold R1.



A neck strap can relieve your thumb, in which case your other fingers can also move easier.

### **⑯ FUNCTION BUTTON**

Pressing these buttons/keys while holding the function button (FN) will form a number of hot keys:

Paired button/ key	Hot key
[#] key	Transpose up by 1 semitone step
[b] key	Transpose down by 1 semitone step
[+1] octave key	Shift all notes up by 1 octave
[-1] octave key	Shift all notes down by 1 octave
[+] key	Next patch
[-] key	Previous patch
Magic button	Go to settings



Read more about octave shift in "Advanced Settings - Octave Shift" of this manual.

## 17 POWER SWITCH

- Hold for 2 seconds to power up.
- Hold for 3 seconds to power off.
- Press while powered up to show battery status in full screen.

## 18 PHONES

Stereo 3.5mm output for headphones. Plug in your headphones/earphones to hear R1.



Please make sure the volume is proper before wearing the headphones.





The PHONES will still function while the OUTPUT is plugged in, so that you can always monitor your performance on stage.

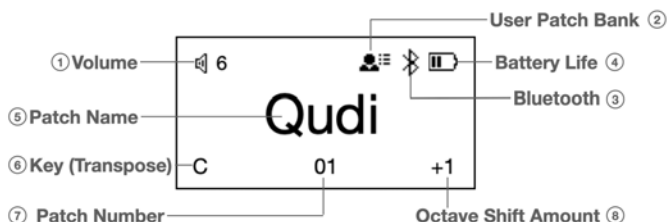
## ⑱ TYPE-C USB PORT

Charges R1 and transfers data. Connect this port to computer or smart devices to upgrade, charge, or exchange data.

## ⑳ OUTPUT

6.35mm TRS audio output. Connect this port to a mixer or amp.

# DISPLAY - PERFORMANCE MODE



## ① VOLUME

Shows the current level of volume or indicate the status of mute.

## ② USER PATCH BANK

Appears when "user patch bank" is applied. Absent when factory patch bank is applied (by default).



Read more about patch bank in "Advance Settings - Patch Bank" of this manual.

## ③ BLUETOOTH

Appears when Bluetooth is on (connected or not). Absent when Bluetooth is off.

## ④ BATTERY LIFE

Shows the remaining battery life.

## ⑤ PATCH NAME

Name of the current patch.

## ⑥ KEY (TRANPOSE)

While factory patch bank is applied, shows the global key. Changing the key will affect all patches. While user patch bank is applied, shows the key of the current patch. Each patch can be assigned to its own key in user patch bank.

## ⑦ PATCH NUMBER

The corresponding number of the current patch.

## ⑧ OCTAVE SHIFT AMOUNT

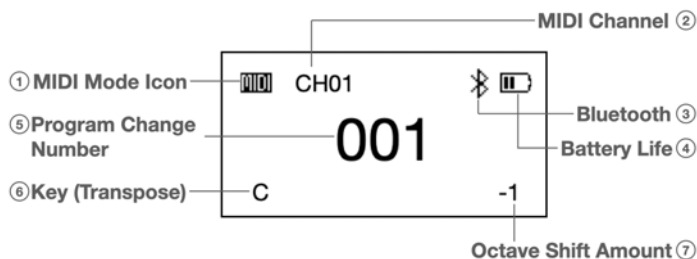
Absent by default. If octave has been shifted (Fn+ [+1]/[-1] octave key), it shows the amount of octave shifts. While factory patch bank is applied, the shift applies to all patches.



Read more about hot keys in "Panel Description - Features - Function Button" of this manual.

## DISPLAY - MIDI MODE

R1 switches to MIDI mode when connected to a DAW or JamKoo APP.



### ① MIDI MODE ICON

Appears when R1 switches to MIDI mode. When connected to JamKoo APP, JamKoo icon will appear instead.

## ② MIDI CHANNEL

The current MIDI Channel. Displays "CH01" to "CH16" for Channel 1 to 16.

## ③ BLUETOOTH

Appears when Bluetooth is on (connected or not). Absent when Bluetooth is off.

## ④ BATTERY LIFE

Shows the remaining battery life.

## ⑤ PROGRAM CHANGE NUMBER

The current program change number, ranging from 001 to 128.

## ⑥ KEY (TRANPOSE)

The current key (transpose), globally effective in MIDI mode.

## ⑦ OCTAVE SHIFT AMOUNT

If octave has been shifted (Fn+[+1]/[-1] octave key), it shows the amount of octave shifts. The shift applies globally in MIDI mode.

# PLAY

## HOLDING R1

Hold R1 as the graph shows with left hand above right hand. Rest your left thumb on the circle between octave keys. Fit your right thumb below the thumb hook to support this position.



It is advised to use a neck strap.

### ► USE THE MOUTHPIECE

- Default method: gently wrap the mouthpiece with lips like using a straw. Do not bite the mouthpiece.

- Alternative method: stick a saxophone/clarinet mouthpiece patch on its top. Wrap the mouthpiece with lips while gently bite the top where covered by the patch with upper teeth.



To prevent injury, please do not bite the mouthpiece with strength.

# BASIC FINGERING

● Pressed note key

○ Released note key

The diagram illustrates basic fingering for notes 1 through 8 on a treble clef staff. Each note is shown on a staff line, and below it is a vertical stack of keys representing the instrument's layout. Fingers are numbered 1 through 4. A solid black circle indicates a 'Pressed note key', and an open circle indicates a 'Released note key'. A flat symbol (b) is placed next to the key for notes 1, 2, 3, and 4, indicating a B-flat. The fingering for each note is as follows:

- Note 1:** Finger 1 on the key.
- Note 2:** Finger 2 on the key.
- Note 3:** Finger 3 on the key.
- Note 4:** Finger 4 on the key.
- Note 5:** Finger 1 on the key.
- Note 6:** Finger 2 on the key.
- Note 7:** Finger 3 on the key.
- Note 8:** Finger 4 on the key.



Multiple fingering modes (saxophone/flute/hulusi) available in Advanced Settings. Access full fingering charts in "Appendix - Fingering Charts" of this manual.

## SELECTING A PATCH

There are more than one controls to browse through patches. The controls below are

applicable to both performance mode and MIDI mode.

### ► **CONTROL 1**

Press [+] key for the next patch. Keep pressing to rotate through the patch bank.

### ► **CONTROL 2**

Press [+] key while holding function button for the next patch.

Press [-] key while holding function button for the previous patch.

## **ARTICULATIONS**

Extra articulations are available through tonguing, press of a button, or raising the body of R1. Try tonguing or set up in Advance Settings.



Access full articulation list in "Appendix - Articulation List" of this manual.

# BASIC SETTINGS

## SETTINGS MENU

Press the magic button while holding function button to enter the settings menu.

### ► NAVIGATING IN SETTINGS MENU

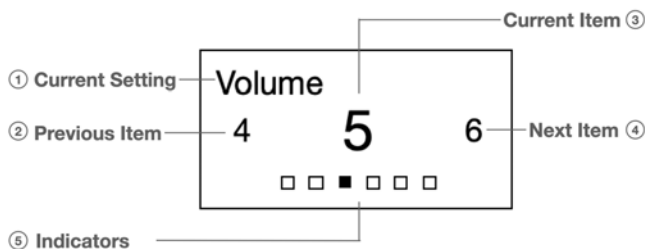
Magic button: confirm/enter

Function button: cancel/back

[+] key: next/plus

[-] key: previous/minus

### ► DISPLAY - SETTINGS



### ① CURRENT SETTING

Name of the current setting.



## ② PREVIOUS ITEM

The previous selectable item.

## ③ CURRENT ITEM

The selected item. Press magic button to confirm.

## ④ NEXT ITEM

The next selectable item.

## ⑤ INDICATORS

Shows current location within the menu.

### ► SETTINGS WITH JAMKOO APP

While R1 is connected with JamKoo APP, it can be found on the "Devices" page of JamKoo. Click on its card, full settings are accessible on the following page.



Read more about JamKoo APP in "MIDI Mode - Connect with JamKoo App" of this manual.

## VOLUME

Adjusts the overall volume of PHONES and OUTPUT.



There are 10 levels from 1 to 10, along with mute.

## REVERB

Adjusts the level of reverb in performance mode (as built-in reverb does not work in MIDI mode). There are 5 levels of reverb from 1 to 5, along with off.



## TRANPOSE

Adjusts the global transpose (key). There are 12 keys ranging from G, A $\flat$ , A, B $\flat$ , B, C (default), to D $\flat$ , D, E $\flat$ , E, F, and F $\sharp$ .



While user patch bank is applied, transpose will only affect the current patch.



Read more about patch bank in "Advanced Settings - Switch Patch Bank" of this manual.

# ADVANCED SETTINGS

## PATCH BANK

Switch the Patch Bank here.



### ► **FACTORY PATCH BANK**

The default patch bank with patches listed in fixed order. While applied, settings of volume, transpose, reverb, and octave shift are effective globally. For example, if R1 is transposed to the key of G, all patches will be in G.

### ► **USER PATCH BANK**

Patches can be rearranged to fulfill practical needs on stage. User patch bank supports recurring patches, individual transpose, and individual octave shift. Set up a user patch bank on JamKoo App after connecting R1 to a smart device.



While user patch bank is applied, transpose and octave shift on R1 will only affect the current patch.

## OCTAVE SHIFT

Shifts the octave of all patches while factory patch bank is applied or MIDI mode is enabled, ranges from -3 to +3. Only shifts the current patch when user patch bank is applied.



## MAGIC BUTTON

Magic button can be customized to aid performance. Press magic button once to enable its function, press again to disable.



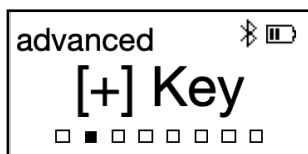
- Portamento (default): to enable smooth and continuous slide of pitch between notes.
- Sound 2: to switch to Sound 2 of the current patch.



Read more about alternative sounds in "Appendix - Sound List" of this manual.

## [+] KEY

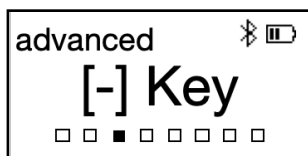
- Next patch (default): press to load the next patch. Patch number goes up.



- Sound 2: press to trigger Sound 2 of the current patch, release to restore.

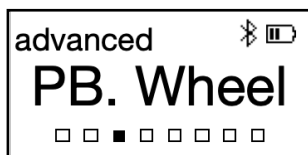
## **[ - ] KEY**

- Sound 2 (default): press to trigger Sound 2 of the current patch, release to restore.
- Previous patch: press to load the previous patch. Patch number goes down.



## **PITCH BEND WHEEL**

- Pitch bend (default).
- Portamento/pitch down: push up the wheel to enable portamento, release to disable. Push down to pitch down.
- Sound 2/pitch down: push up the wheel to trigger Sound 2, release to restore. Push down to pitch down.



## **MOTION CONTROL**

While motion control is enabled, the control kicks in as R1 gets lifted to 45° from vertical. The



related parameter reaches maximum when R1 reaches 75° from vertical.

- Vibrato: while motion control is enabled, lift R1 to turn on vibrato, pull back to turn off. The transaction is seamless.
- Portamento: while motion control is enabled, lift R1 to enable portamento, pull back to disable.
- Pitch bend: while motion control is enabled, lift R1 to pitch up, pull back to restore.
- Sound 2: while motion control is enabled, lift R1 to switch to Sound 2, pull back to switch back.
- Off: default option.

## PORTAMENTO TIME

Change the speed of portamento between 2 notes. There are 3 levels available: slow, standard, and fast.



## PITCH BEND RANGE

Select the range of pitch bend controls to either direction (pitch up/down) from 1 to 3 semi-steps. Applicable to any mechanism of pitch control.



## MIDI CHANNEL

Applicable to MIDI mode, select the MIDI channel to send MIDI signal to DAWs, smart devices, and other sound sources. 16 channels are available from 1 to 16.



## MASTER TUNING

Default at 440Hz. When needed, can adjust the master tuning between 435Hz to 445Hz.



## FINGERING MODE

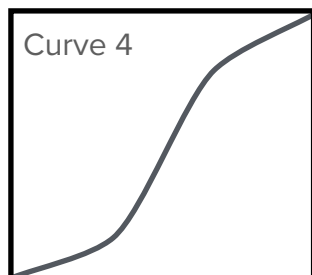
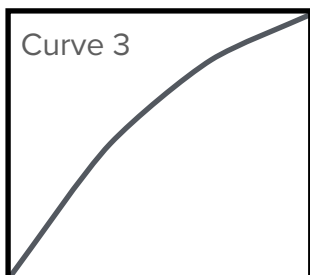
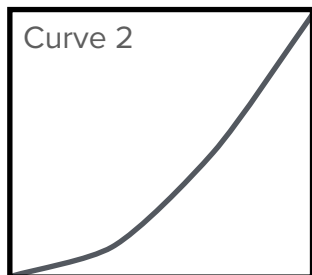
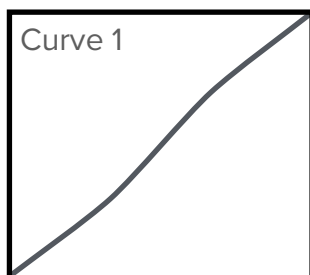
Alternative fingering modes are available for players with different experience. Saxophone/recorder fingering is the default fingering mode, while flute and Hulusi fingerings are selectable here.



Find the full fingering charts in "Appendix - Fingering Charts" of this manual.

## BREATH CURVE

Select the velocity curve of breath sensor. 4 curves are available as below, with horizontals representing the strength of breath while verticals represents the corresponding velocity.



## BREATH SENSITIVITY

Adjust the sensitivity of breath sensor. 5 levels are available from 1 to 5, with





level 3 as default. The lower the level number is, the more breath-saving R1 becomes.

## KEY SENSITIVITY

Adjust the sensitivity of keys. 5 levels are available from 1 to 5, with level 3 as default. The lower the level number is, the faster the keys respond.

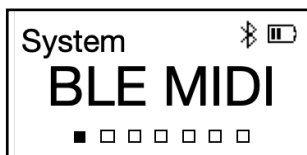


Unwanted notes may occur when keys are too sensitive. Change key sensitivity to higher number to avoid.

# SYSTEM SETTINGS

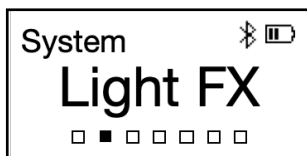
## BLE MIDI

Enabled by default. When Bluetooth MIDI (BLE MIDI) is enabled, a bluetooth icon will be on the top right of the display. R1 is able to connect with smart phone, computer and other smart devices through BLE MIDI.



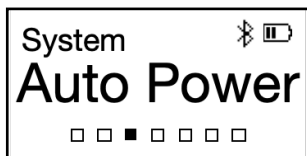
## LIGHT FX

Switch the light effects of responsive RGB light bars. 3 sets of effects are available, along with lights off option.



## AUTO POWER OFF

R1 will power off by itself after standing by for a certain period of time. This setting selects the length of time before the auto



power off. 4 options are available: 5 mins, 30 mins, 60 mins, and "never".

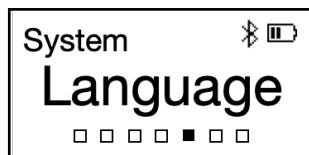
## DISPLAY SLEEP

While Display Sleep is enabled, the display of R1 will sleep during performance. The display will wake up when performance stops.



## LANGUAGE

Chinese (simplified) and English are supported.



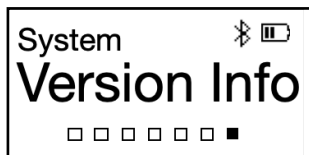
## FACTORY RESET

Reset all settings including user patch bank.



## VERSION INFO.

Display the model name, firmware version (FW), and serial number (SN). firmware can be updated while connected with JamKoo. Serial number is also printed at the physical bottom of R1.



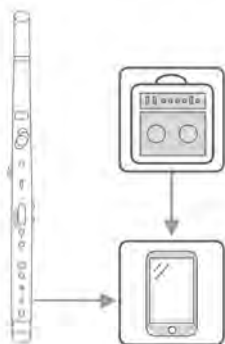
# MIDI MODE

## CONNECT R1

R1 can be used as a MIDI controller to play virtual instruments on computer or smart device.

### ► USB MIDI

Connect R1 with computer or smart device through USB cable as the graph indicates. R1 sends out MIDI controls through cable, while the connected device outputs the sound.



### ► BLE MIDI

R1 comes with built in BLE (Bluetooth) MIDI connectivity. While BLE is enabled, R1 can connect with computer or smart device wirelessly.

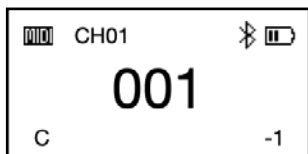
The default bluetooth device name of R1 is "ROBKOO R1 - (last 4 digits of serial number)". This name can be modified using JamKoo APP.



Serial number (SN) is visible at the physical bottom of R1 or in menu "System - Version Info".

## PLAY IN MIDI MODE

Upon successful connection with computer or smart device, R1 will switch to MIDI Mode, indicated by a display as the graph. Onboard sound of R1 will be disabled in MIDI Mode, and the display will show the MIDI instrument number.



## CONNECT WITH JAMKOO APP

### ► DOWNLOAD (FREE)

Search "JamKoo" in App Store and download for free.



Jamkoo

### ► CONNECT

Keep R1 close to JamKoo, and find it in the device page of JamKoo. Alternatively, use USB Type-C cable to connect with smart device. A "Connected" message will pop up indicating successful connection.



Make sure both R1 and the smart device have Bluetooth enabled, meanwhile JamKoo is given access to Bluetooth.

## ► **USE R1 WITH JAMKOO**

- Quickstart: tap "🎵" to access MIDI devices. Go to the details of R1 and find "Quickstart Guide" in the menu.
- Settings: tap "⚙️" to access MIDI devices. All settings are available in the detail page of R1.
- User patch bank: tap "🎹" to access MIDI devices. Go to "User Bank" in detail page of R1.
- Custom fingerings: go to "Fingering Mode" in detail page of R1, and add extra fingerings for any note.

# APPENDIX

## IMPORTANT NOTES

Please read carefully before using R1:



To avoid electric shock, damage, or other dangerous events that may result in injury or catastrophic outcomes, please use R1 safely by complying with the following notes.

### ► **POWER SUPPLY**

Please use a standard 5V AC adapter.

### ► **DO NOT DISASSEMBLE**

No part of R1 is supposed to be repaired by users themselves. DO NOT open up R1, take away parts, or modify the hardware in any way. If malfunction occurs, please stop using R1 and visit Robkoo website ([www.robkoo.com](http://www.robkoo.com)) to find a retailer for repair service.

### ► **WARNING ON HUMIDITY**

Please DO NOT expose R1 in rain, use R1 near water, or use R1 in humid environment. Please



keep R1 away from any liquid container (e.g. vase, bottle, glass) to avoid infiltration. If water or any liquid infiltrates R1, please power off R1 and remove all cables immediately. Repair information can be found on Robkoo website ([www.robkoo.com](http://www.robkoo.com)). DO NOT connect cables with wet hands.

### ► **CAUTION OF FIRE**

Please keep R1 away from burning objects like candle to prevent the event of fire.

### ► **IN EVENT OF ACCIDENT**

When any of the following event occurs, please power off R1 immediately. Visit Robkoo website ([www.robkoo.com](http://www.robkoo.com)) for repair information.

- Smell or smoke coming out from R1.
- Objects sliding into R1.
- Falling or damaging.



Please follow the guidelines below to prevent injury, damage, or property loss to you and other people.

### ► **STORAGE**

DO NOT store R1 at unstable locations to avoid flipping.

DO NOT expose R1 to corrosive gases or salt gas to avoid malfunctions.

Please remove all cables before storing R1.

## ► **CONNECTION**

Please switch off the audio equipment before connecting to R1. Please apply minimal level of volume before powering on/off any equipment.

## ► **USE R1 SAFELY**

DO NOT stick finger into any gap or hole of R1.

Please avoid having objects (e.g. paper, plastic, metal) sticking into any gap of R1. In event of such situations, please power off R1 immediately, and remove all cables. Visit Robkoo website ([www.robkoo.com](http://www.robkoo.com)) for latest repair information.

DO NOT stack your body or heavy objects onto R1, and DO NOT apply excessive strength on the buttons, power switch, or ports of R1.

DO NOT apply high/uncomfortable volume with speaker/amp/headphone for extended period of time to avoid ear damage. If you experience symptom of deaf or tinnitus, please seek help from a doctor.

Robkoo is not responsible for any damage or data loss caused by misuse or unauthorized refit of R1.

## **MAINTENANCE**

### **► MOUTHPIECE**

Gargle before playing to maintain the hygiene of mouthpiece. Drops of water will exit from the water drain, dry off with soft cloth.

Mouthpiece can be removed regularly to wash. Hold the ring below mouthpiece with one hand, meanwhile twist the mouthpiece with the other hand to remove it. After washing, use soft cloth to wipe it dry.

## **FIRMWARE UPDATE**

You may update the firmware of your R1 from time to time, in order to improve its performance or fix bugs.

Connect R1 to JamKoo APP, go to "Version Information" under System section of the device page to check available updates.

# TROUBLESHOOTING

Problem	Solution
Some notes are silent.	Notes are beyond the range of sound patch. Try another key or shift octave backwards.
Breath is out of control.	Water may jam within R1 and interfere with the breath sensor. Lean R1 vertically and let water exit from water drain.
Fingering does not respond properly.	Fingering may not function if all 7 note keys are touched when powering up. Release all 7 note keys at the same time to fix.
R1 cannot be found by other smart devices.	<ul style="list-style-type: none"><li>• Check the Bluetooth icon on the top right of display (performance mode). If the icon is absent, enable Bluetooth in "Settings - System - BLE MIDI".</li><li>• Check if the Smart Application is authorized to enable Bluetooth. If not, please authorize the application in settings of the device.</li><li>• Bluetooth MIDI needs to be connected within a supported application. DO NOT connect in settings of the device where Bluetooth earbuds are connected.</li></ul>

Cannot charge.	The adapter may not be qualified. Use another adapter that supports USB protocol.
Noise comes from PHONES port while connected with computer.	Some computer may cause noise while charging R1 via USB cable. Use another power source or avoid charging while playing.
Random sound occurs while performing.	Please check if motion control is enabled.

# PATCH LIST

No.	Sound	Default Articulation	Articulation 2
1	Qudi (Chinese Flute)	Sustain+flutter	Vibrato
2	Suona	Sustain+flutter	Flutter
3	Morin Khuur	Sustain	Vibrato
4	Erhu	Sustain	Vibrato
5	Pipa	Pluck+roll	Roll
6	Hulusi	Sustain	Vibrato
7	Flute	Sustain	-
8	Trumpet	Sustain	Sustain 2
9	Tenor Saxophone	Sustain	Sustain 2
10	Violin	Sustain	-
11	Clarinet	Sustain	Sustain 2
12	Bassoon	Sustain	Vibrato

# FINGERING CHART

● Hold

○ Release

## ► SAXOPHONE FINGERING

1                      #1/♭2                      2                      #2/♭3                      3

Fingering diagrams for notes 1, #1/♭2, 2, #2/♭3, and 3. Each diagram shows finger placement on the keys, with filled circles for 'Hold' and open circles for 'Release'.

4                      #4/♭5                      5                      #5/♭6

Fingering diagrams for notes 4, #4/♭5, 5, and #5/♭6. Each diagram shows finger placement on the keys, with filled circles for 'Hold' and open circles for 'Release'.

6                      #6/♭7                      7                      i

Fingering diagrams for notes 6, #6/♭7, 7, and i. Each diagram shows finger placement on the keys, with filled circles for 'Hold' and open circles for 'Release'.

Meanwhile, express fingerings are available for certain notes in a higher octave. It means that some notes beyond one octave can be played without using any octave key.

The image displays a series of musical staves and corresponding fingering diagrams for notes 1 through 5 in a higher octave. Each note is shown on a treble clef staff with a whole note. Below each staff is a diagram of a right hand with five fingers, where circles represent keys and dots represent fingerings. The diagrams are organized into three rows, each containing two staves and four diagrams.

**Row 1:**

- Staff 1: Note 1 (C4). Diagrams show fingerings 1, 2, 3, and 4.
- Staff 2: Note #1 (C#4). Diagrams show fingerings 1, 2, 3, and 4.
- Staff 3: Note 2 (D4). Diagrams show fingerings 1, 2, 3, and 4.

**Row 2:**

- Staff 4: Note #2/b3 (D#4/Eb4). Diagrams show fingerings 1, 2, 3, and 4.
- Staff 5: Note 3 (E4). Diagrams show fingerings 1, 2, 3, and 4.

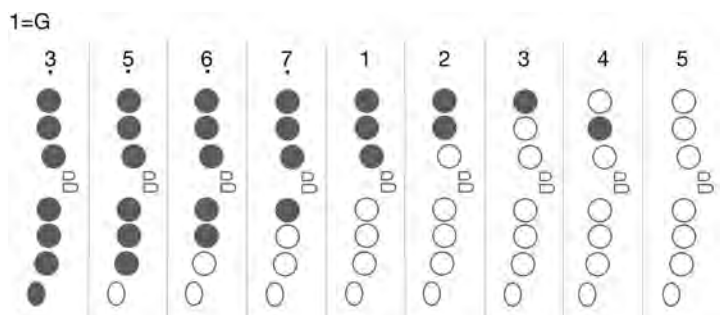
**Row 3:**

- Staff 6: Note 4 (F4). Diagrams show fingerings 1, 2, 3, and 4.
- Staff 7: Note #4/b5 (F#4/Gb4). Diagrams show fingerings 1, 2, 3, and 4.
- Staff 8: Note 5 (G4). Diagrams show fingerings 1, 2, 3, and 4.



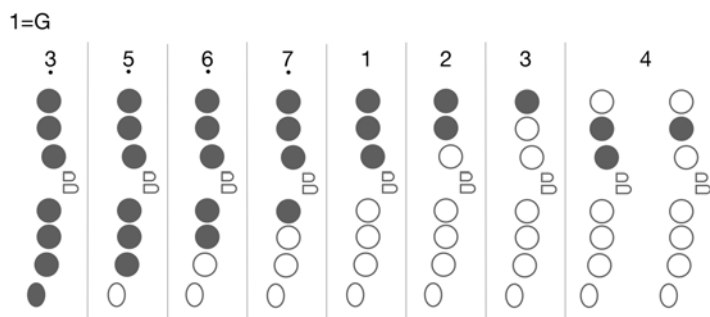
## ► HULUSI FINGERING

When the upper 6 note keys play together as the 5th (sol), the fingering chart is as follows:



## ► FLUTE FINGERING

When the upper 6 note keys play together as the 5th (sol), the fingering chart is as follows:



Express octave fingerings are applicable to all 3 fingering modes.

## MIDI CC MESSAGES

In MIDI mode, depending on your settings, the following CC messages will be sent to computer or other sound sources.

Message	Control
CC 1	Gyroscope, pitch bend wheel
CC 2	Breath sensor
CC 5	Portamento time
CC 7	Volume
CC 11	Breath sensor
CC 65	Magic button, gyroscope, pitch bend wheel
CC 80	Magic button, [+] key, [−] key, gyroscope, pitch bend wheel
Program Change	FN&[+] key, FN&[−] key, [+] key, [−] key
Pitch Bend	Gyroscope, pitch bend wheel
After Touch	Breath sensor
Active Sense	(Sent every 270ms)

## SPECIFICATIONS

Power Supply	USB(Type-C)5V $\approx$ 1.5A
Battery	2600mAh
Current Draw	1.5A
Sensor	Breath sensor, Gyroscope
Battery Life	10 hours lights off, 6 hours light on
MIDI Interface	USB MIDI, BLE MIDI
Audio Ports	Stereo 3.5mm TRS Headphone output, 6.35mm TRS audio output
Accessories	Type-C cable, Owner's Manual, Quickstart Guide, neck strap, mouthpiece cap, dust bag
Size	67cm (length) $\times$ 4cm (width) $\times$ 5cm (height)
Weight	400g

The built in BLE module has been certified by SRRC, CMIIT ID: 2016DJ4571.

## FCC Information and Copyright

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,

uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference

to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is

encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### 15.19 Labelling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC RF warning** statement: the device has been evaluated to meet general RF exposure requirement , The device can be used in portable exposure condition without restriction.



Digital art crafting, sharing and learning made easy.

# DIGITAL ART CRAFTING, SHARING AND LEARNING MADE EASY.

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