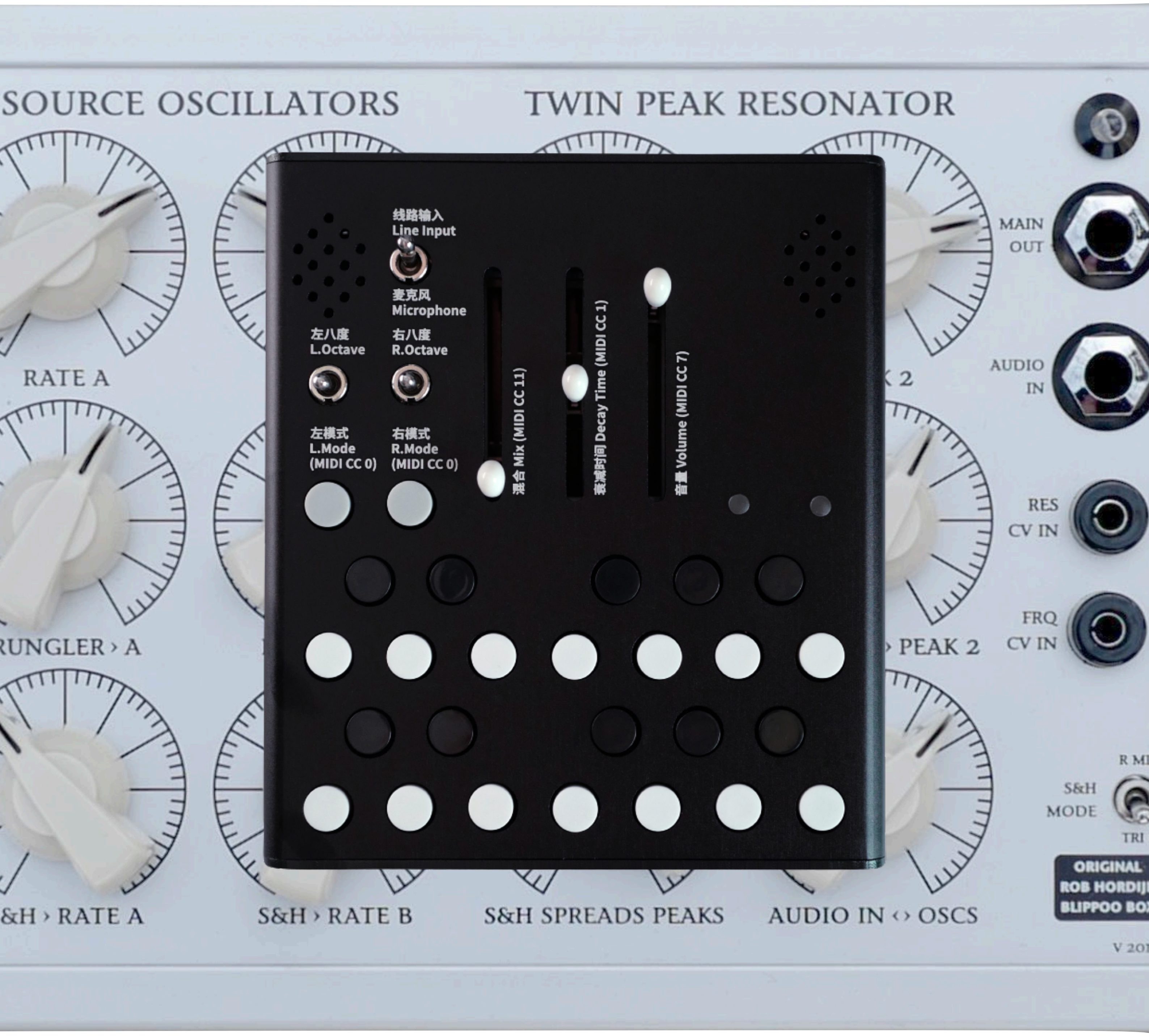

SOURCE OSCILLATORS
TWIN PEAK RESONATOR
RATE A
RUNGLER › A
S&H › RATE A
S&H › RATE B
S&H SPREADS PEAKS
AUDIO IN ‹› OSCS
› PEAK 2
MAIN OUT
AUDIO IN
RES CV IN
FRQ CV IN
S&H MODE
TRI
ORIGINAL
线路输入
Line Input
麦克风
Microphone
左八度
L.Octave
右八度
R.Octave
左模式
L.Mode
(MIDI CC 0)
右模式
R.Mode
(MIDI CC 0)
混合 Mix (MIDI CC 11)
衰减时间 Decay Time (MIDI CC 1)
音量 Volume (MIDI CC 7)

Notice:

- **Start from low volume;**
- **Beware of feedback with speakers and headphones;**
- **Keep away from moisture;**
- **DO NOT connect modular synth level signals directly to Wingie.**

Blippoo for Wingie is a firmware for Wingie2. It recreates the Blippoo Box by Rob Hordijk.

May his spirit lives on in his instrument designs, thoughts, and influences.

Links:

[Rob Hordijk Design]

[The Blippoo Box - A Chaotic Electronic Music Instrument, Bent by Design]

[SynthesisWorkshops]

* Disclaimer: The synthesis structure of the software is inspired by Blippoo Box. But this is not a duplicate of it, as the two feature differences in sounds.

Power

Wingie2 is powered by a USB Type-C cable. You can use a phone charger or a power bank. The first batch of Wingie2 (produced before May, 2022 without screws on the back) doesn't accept USB C-C cable. Please use a USB A-C cable.

If digital noise appears, try a different power source or a ground loop isolator. After powering up, there is about a 3-second fade-in from silence to full volume.

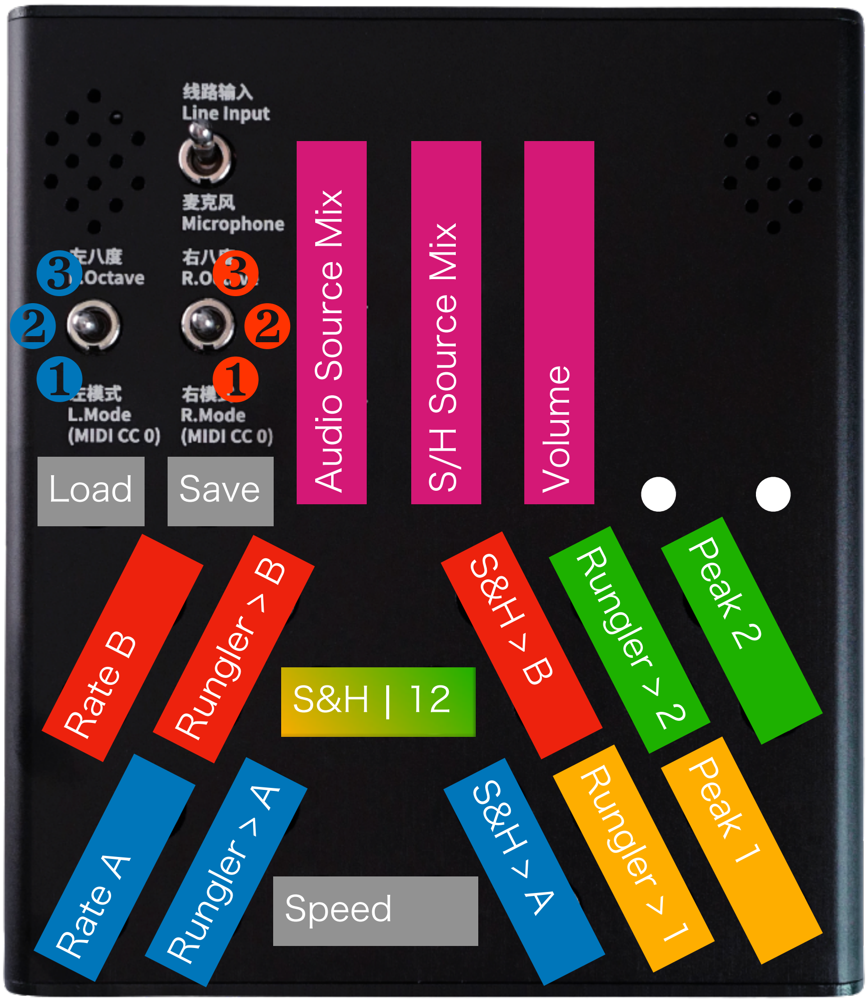
Audio Inputs

The mics pick up sounds from the air. It's very easy to get feedback with speakers. You can play with it or use headphones to avoid the feedback (be careful of too much volume). You may listen to the environment around you through Wingie2, play Wingie2 as a percussion instrument, or turn anything into one. Feel free to experiment.

Wingie2 line input is 3.5mm Stereo TRS. **Avoid very hot input signals**. Lower your input signal level (not the volume slider on Wingie2) when the distorted dry line-in signal leaks into output when the sound source is Mic, or when the Mix is 100% wet.

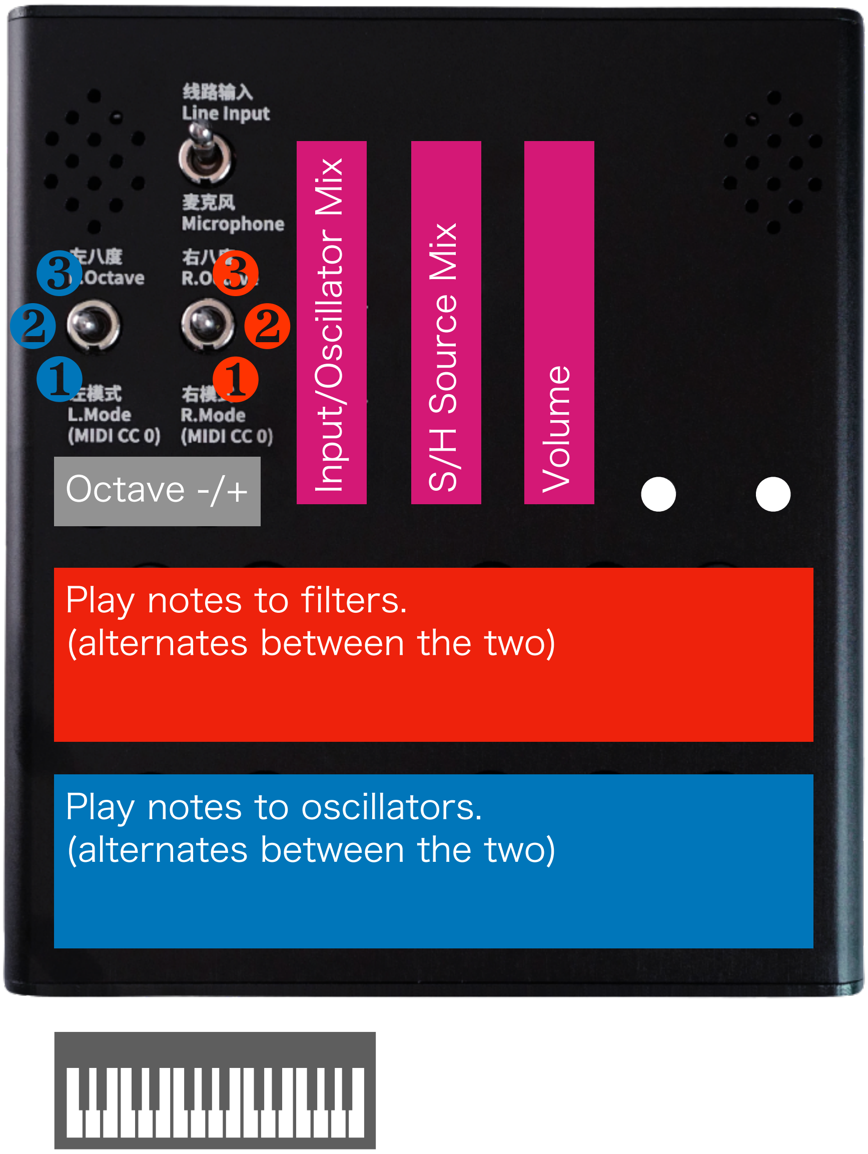
Audio Output 🎧

Wingie2 audio output is 3.5mm Stereo TRS. It is capable of directly driving headphones.


线路输入
Line Input
麦克风
Microphone
左八度
L.Octave
右八度
R.Octave
③
②
①
③
②
①
左模式
L.Mode
(MIDI CC 0)
右模式
R.Mode
(MIDI CC 0)
Audio Source Mix
S/H Source Mix
Volume
Load
Save
Rate B
Rungler > B
S&H | 12
S&H > B
Rungler > 2
Peak 2
Rate A
Rungler > A
Speed
S&H > A
Rungler > 1
Peak 1

Rat Rat Pea Pea	bottom are -, top are +
S&H | 12	left is -, right is +
S/H Source Mix	mix between TRI B & Rungler Mix
Audio Source Mix	mix between Audio Input & Oscillators
Speed	left is slow, right is fast
❸ ❸ ❷ ❷ ❶ ❶	Rungler Data Source Selection 1: Last Bit (8 step loop) 2: Oscillator 3: Inverted Last Bit (16 step loop)
Load Save	Hold Load or Save and press the note keyboard to Save / Load. The unit may stop responding during the process. Press the two buttons together and release to switch between the normal and keyboard mode. (See next page)

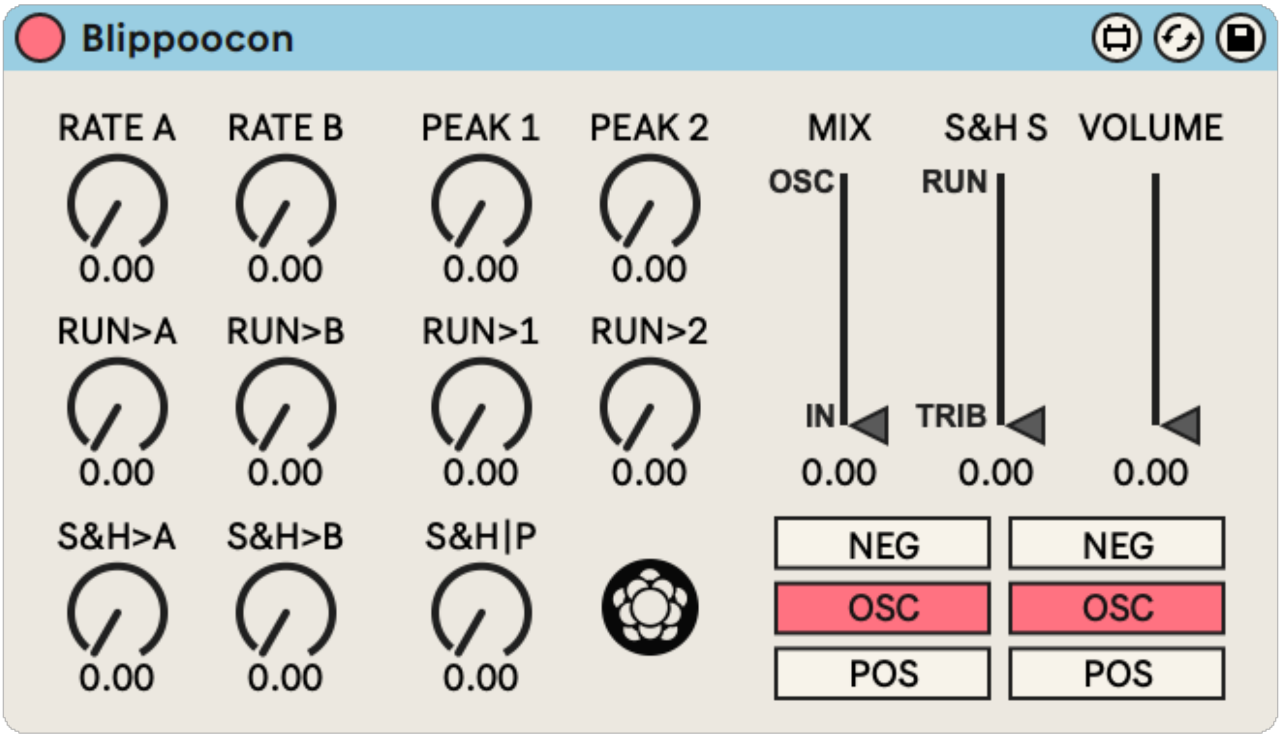
Keyboard Mode:


线路输入
Line Input
麦克风
Microphone
左八度
L.Octave
右八度
R.Octave
③
②
①
③
②
①
左模式
L.Mode
(MIDI CC 0)
右模式
R.Mode
(MIDI CC 0)
Octave -/+
Input/Oscillator Mix
S/H Source Mix
Volume

Play notes to filters.
(alternates between the two)

Play notes to oscillators.
(alternates between the two)

Use Blippoocon M4L plugin for easy total control:


Blippoocon
RATE A
0.00
RATE B
0.00
PEAK 1
0.00
PEAK 2
0.00
MIX
OSC
IN
0.00
S&H S
RUN
TRIB
0.00
VOLUME
0.00
RUN>A
0.00
RUN>B
0.00
RUN>1
0.00
RUN>2
0.00
S&H>A
0.00
S&H>B
0.00
S&H|P
0.00
NEG
OSC
POS
NEG
OSC
POS

This plug-in sends MIDI messages with 14-bit precision for highly smooth parameter control.

MIDI Channel:

MIDI Channels can be set via Wingie Tools. The MIDI Channels 1-3 in the table below is factory setting.

MIDI Channel	Note	CC
1	Alternate between two Oscillators	All works
2	Alternate between two Filters	
3	Alternate between all four of them	

MIDI Note:

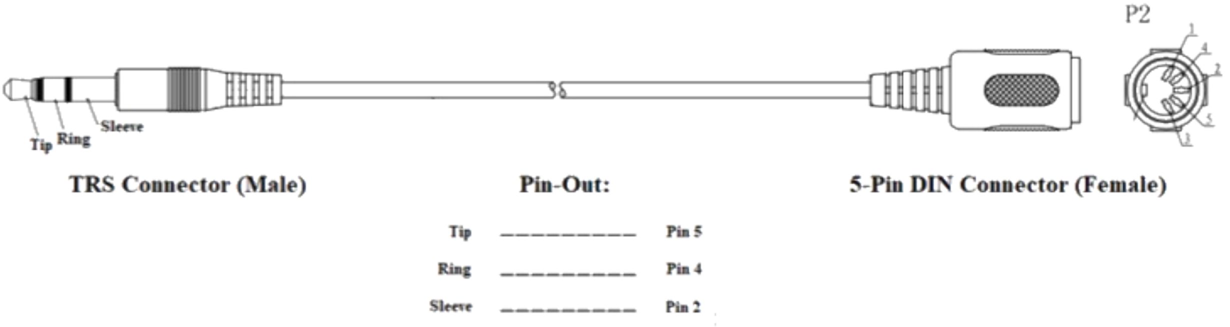
- Blippoo for Wingie accepts Note On data (Note Off is ignored).

MIDI CC (Control Change):

- The incoming MIDI CC overwrites the corresponding control setting for the 3 fader and 2 toggle switch parameters. By moving the fader/switch, the panel setting becomes valid again;
- Blippoo for Wingie accepts 14-bit MIDI;

CC Number	Function
CC 1	Rate A
CC 2	Rate B
CC 3	Rungler > A
CC 4	Rungler > B
CC 5	S&H > A
CC 6	S&H > B
CC 7	Peak 1
CC 8	Peak 2
CC 9	Rungler > 1
CC 10	Rungler > 2
CC 11	S&H spreads Peaks
CC 12	Audio Input Mix
CC 13	S&H Source Mix
CC 14	Volume
CC 15	Rungler A Data Source Selection
CC 16	Rungler B Data Source Selection

The MIDI port is designed to the TRS standard by MMA Specification. Please use a MIDI cable of the following type :


P2
1
4
2
5
3
Tip
Ring
Sleeve
TRS Connector (Male)
Pin-Out:
5-Pin DIN Connector (Female)

Tip	Pin 5
Ring	Pin 4
Sleeve	Pin 2

Development with Wingie2

Wingie2 can be used as a development platform. The firmware is open source.

For instructions on how to build the compiling environment & firmware download, use the link below:

https://github.com/mengqimusic/Wingie2

The firmware is built in 2 steps:

- DSP section written and compiled in Faust
- Arduino sketch that connects and defines interface functions

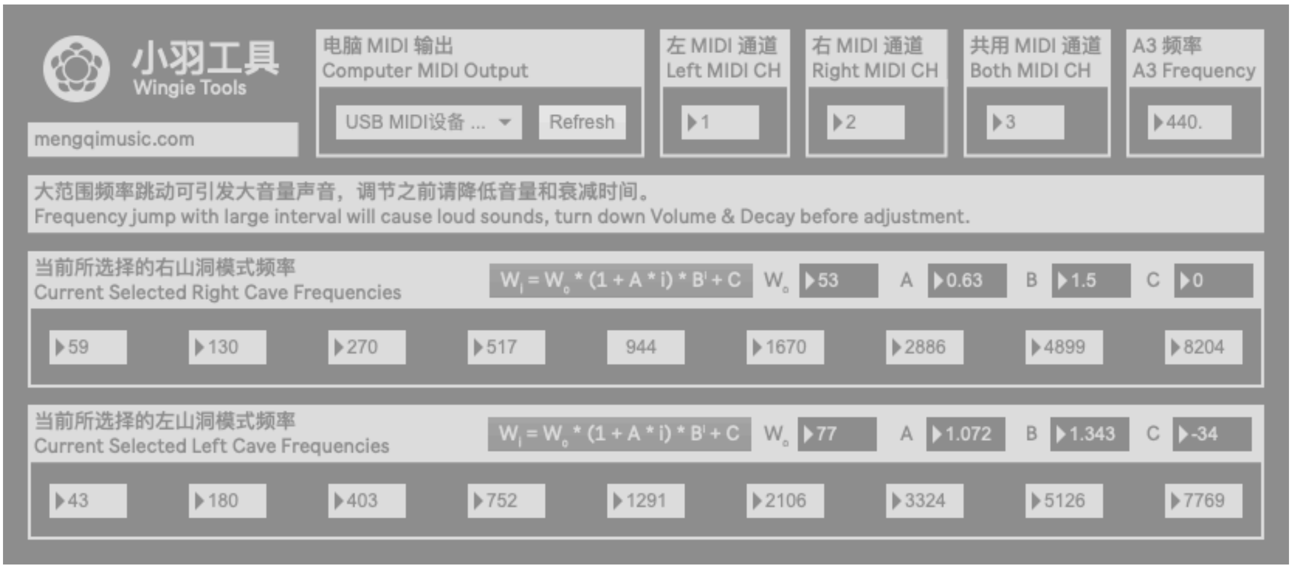
You can modify the scale, customize your control interface or redefine the whole unit.

Global Settings

MIDI Channels and Global Tuning can be user customized for Blippoo for Wingie firmware.

You can download Wingie Tools from the [Meng Qi Website](#).

The settings would be saved to the internal memory one second after any adjustment.



电脑 MIDI 输出 Computer MIDI Output: USB MIDI设备 ...

左 MIDI 通道 Left MIDI CH: 1

右 MIDI 通道 Right MIDI CH: 2

共用 MIDI 通道 Both MIDI CH: 3

A3 频率 A3 Frequency: 440.

大范围频率跳动可引发大音量声音，调节之前请降低音量和衰减时间。
Frequency jump with large interval will cause loud sounds, turn down Volume & Decay before adjustment.

当前所选择的右山洞模式频率
Current Selected Right Cave Frequencies

$W_i = W_0 * (1 + A * i) * B^i + C$ W_0 53 A 0.63 B 1.5 C 0

59 130 270 517 944 1670 2886 4899 8204

当前所选择的左山洞模式频率
Current Selected Left Cave Frequencies

$W_i = W_0 * (1 + A * i) * B^i + C$ W_0 77 A 1.072 B 1.343 C -34

43 180 403 752 1291 2106 3324 5126 7769

MIDI Data for Global Settings

MIDI Channel	MIDI CC	Function	Factory Setting
16	20	MIDI Ch for Oscillator note	1
	21	MIDI Ch for Filter note	2
	22	MIDI Ch for all	3
	23 (MSB) 55 (LSB)	Global Tuning Offset (from 440Hz) Range is ± 81.92Hz Resolution is 0.01Hz	0.00

Playing Tips:

1. Connect to a MIDI controller box;
2. Play with Wingie2 resonators for a mix of chaos and harmony;
3. Process external audio;
4. Use as backing tracks for band jamming;
5. Create feedback with effectors (including Wingie2 resonator);

And more for you to explore.

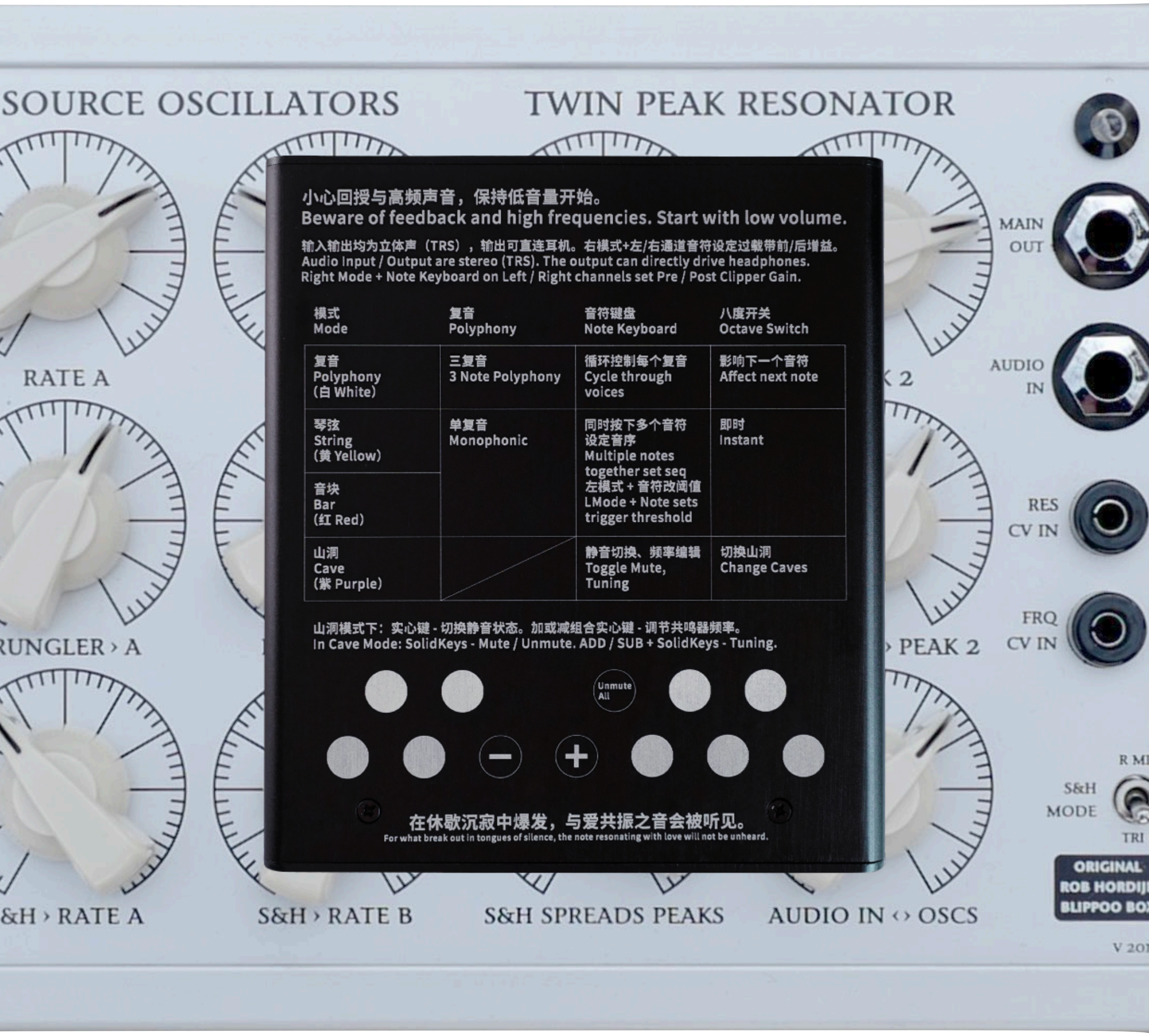
Thanks to Roy & Janet for the original Wingie description and manual proofread.

Thanks to Annqi for the saying on the back of Wingie2.

...and there is much on the **Horizon**.

Find Me:

Website : mengqimusic.com
Bandcamp : mengqi.bandcamp.com
YouTube : youtube.com/c/MengQiMusic
Instagram: instagram.com/mengqimusic
Synthesis Minority : instagram.com/synthesisminority


SOURCE OSCILLATORS
TWIN PEAK RESONATOR
RATE A
RUNGLER › A
› PEAK 2
S&H › RATE A
S&H › RATE B
S&H SPREADS PEAKS
AUDIO IN ‹› OSCS
MAIN OUT
AUDIO IN
RES CV IN
FRQ CV IN
S&H MODE
TRI
ORIGINAL
Unmute All
−
+

小心回授与高频声音，保持低音量开始。
Beware of feedback and high frequencies. Start with low volume.

输入输出均为立体声（TRS），输出可直连耳机。右模式+左/右通道音符设定过载带前/后增益。
Audio Input / Output are stereo (TRS). The output can directly drive headphones.
Right Mode + Note Keyboard on Left / Right channels set Pre / Post Clipper Gain.

模式 Mode	复音 Polyphony	音符键盘 Note Keyboard	八度开关 Octave Switch
复音 Polyphony (白 White)	三复音 3 Note Polyphony	循环控制每个复音 Cycle through voices	影响下一个音符 Affect next note
琴弦 String (黄 Yellow)	单复音 Monophonic	同时按下多个音符设定音序 Multiple notes together set seq 左模式 + 音符改阈值 LMode + Note sets trigger threshold	即时 Instant
音块 Bar (红 Red)			
山洞 Cave (紫 Purple)		静音切换、频率编辑 Toggle Mute, Tuning	切换山洞 Change Caves

山洞模式下：实心键 - 切换静音状态。加或减组合实心键 - 调节共鸣器频率。
In Cave Mode: SolidKeys - Mute / Unmute. ADD / SUB + SolidKeys - Tuning.

在休歇沉寂中爆发，与爱共振之音会被听见。
For what break out in tongues of silence, the note resonating with love will not be unheard.