

VONGON

rosetones



USER MANUAL

VERSION 1.0

POWER INPUT - 9 VDC center negative, 200mA

AUDIO JACKS - ¼" TS jacks, instrument or line level

midi - 3.5mm Type B MIDI input

mix - blends dry and synth signal

tone - brightness control over synth signal

modulation - macro control of modulation depth, mode selected by **CHORUS** and **VIBRATO** LEDs

CHORUS - slow and widening chorus

VIBRATO - drifting pitch detune per synth voice



sens - controls how strongly the synth responds to your playing

lower settings require more input to excite the voices

higher settings increase tracking sensitivity and sustain

feedback - sets the base resonance and decay of the synth engine

higher settings increase sustain and allow the voices to bloom

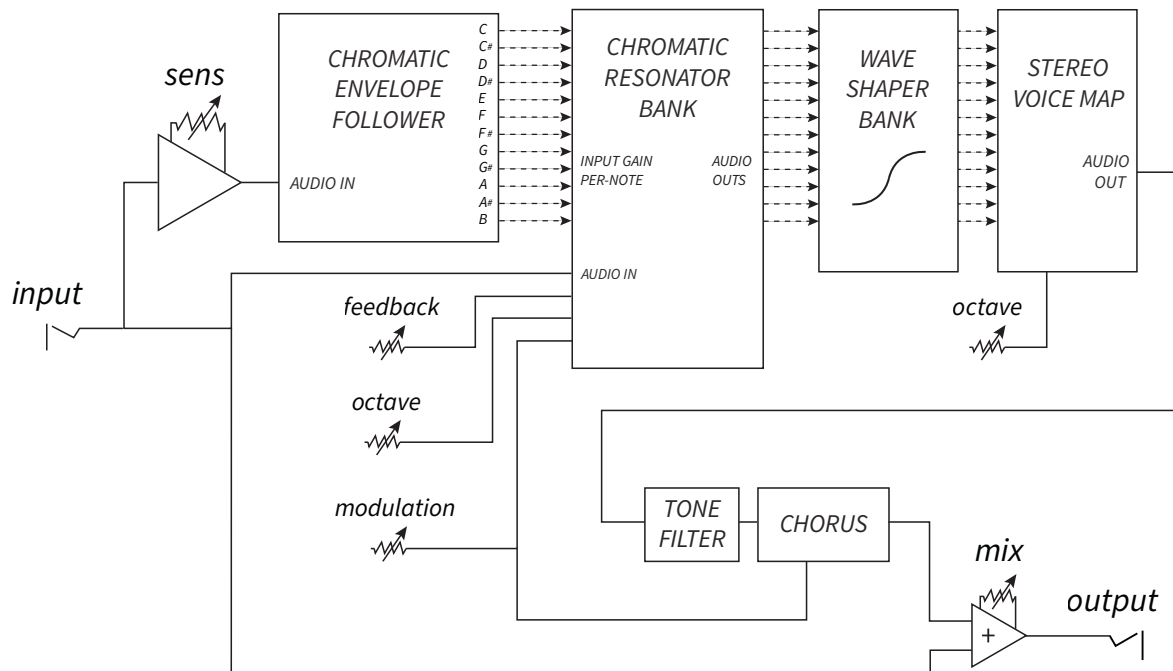
lower settings shorten decay and require stronger input to excite

octave - repositions the synth voices across octaves for evolving chord inversions and octave motion

octave LEDs - level meters for the 12 chromatic resonators, useful for dialing in the **sens** and **feedback** controls

SYNTH BYPASS - press to toggle effect on or off

SIGNAL FLOW DIAGRAM



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INTRO

rosetones creates a polyphonic synth voice that follows your playing. it listens to your notes and routes them through sympathetic resonators, creating blooming harmonic textures and evolving chords

at the center of **rosetones** is a 12-voice chromatic resonator bank that continuously analyzes the input signal and routes detected pitches into tuned delay lines. each pitch class excites a resonator that can sustain, swell, and interact with **feedback** to create dynamic harmonic movement. the twelve central LEDs display the signal level of each resonator in real time, showing how incoming notes are exciting the 12-voice bank. the result is part synthesizer, part acoustic resonance engine

the **octave** control shifts the active 12-note window across the keyboard range, redefining where the resonators are voiced while pitch detection remains unchanged. play a basic triad and adjust the octave control to re-voice the same notes into new inversions. a low bass line can drive higher voiced resonators, transforming weight into shimmer and contrast

modulation adds motion and depth to the resonator bank. **CHORUS** introduces subtle multi-voice detuning for ensemble-style width, while **VIBRATO** applies drifting pitch movement per synth voice. the **sens** and **feedback** controls shape how strongly notes excite the resonators and how long they sustain, ranging from short percussive resonance to evolving harmonic bloom

any equal-tempered instrument such as guitar, bass, or synthesizer can drive the resonator bank with natural tracking response. **MIDI** note messages allow precise pitch articulation layered over input audio, enabling harmonies that follow the timing and phrasing of your performance. percussive sources can reveal melodic structure, while sustained lines expand into harmonic space

rosetones can also function as a standalone sound source. with no input signal, higher **sens** and **feedback** settings allow the internal noise floor to excite and

sustain the resonators, producing a unique drone voice shaped by **octave**, **tone**, and **modulation**

additional features include selectable gain and bypass modes, full **MIDI** control of every faceplate function, and onboard preset storage. powered by a standard 9-volt center-negative supply, **rosetones** integrates seamlessly into pedalboards and studio setups

FEATURES

- 12-voice polyphonic sympathetic resonator engine
- pitch tracking range: C2–B5
- adjustable octave window for harmonic re-voicing
- selectable chorus and vibrato modulation modes with per-voice detune
- adjustable input sensitivity and feedback sustain
- fixed interval offset (unison through major 7th)
- selectable gain modes (low instrument, instrument, line level)
- selectable bypass modes (analog buffered or DSP trails)
- MIDI input for full parameter control and preset storage (9 slots)
- standard 9-volt, center-negative power supply compatibility
- housed in a single block of walnut, CNC routed, hand sanded & polished

SPECIFICATIONS

- 165mm x 140mm x 45mm
- ¼" TS jacks, instrument or line level compatible
- input impedance: 1M Ω
- output impedance: <1k Ω
- power supply: 9 VDC, center-negative
- current draw: 200mA
- 3.5mm MIDI input (Type B)
- analog buffered or DSP bypass
- soft-touch foot switches

GETTING STARTED

POWER CONNECTION

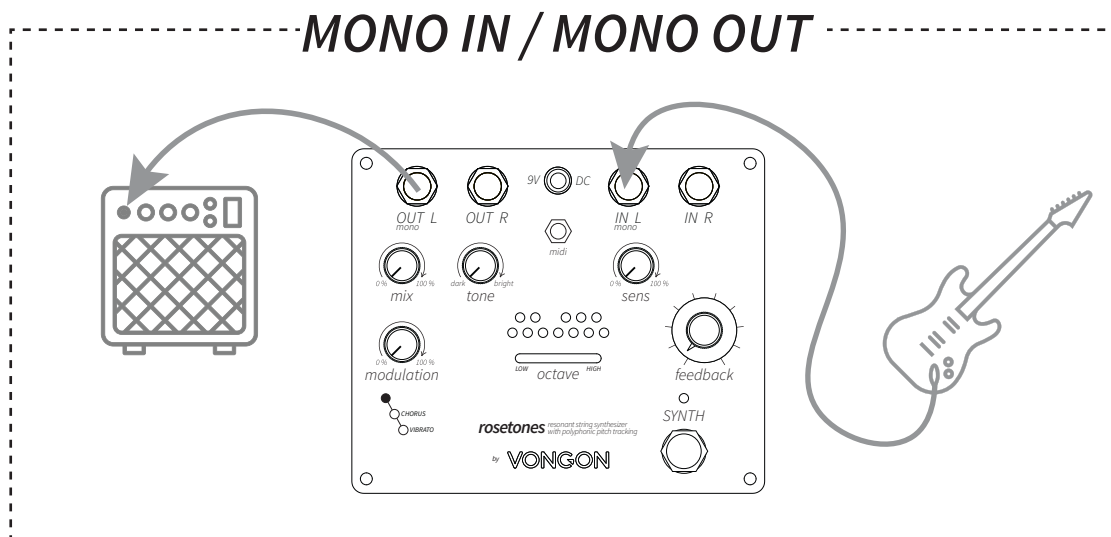
power **rosetones** with a standard effect pedal power supply that provides at least 200mA of current. the power input is protected from reverse polarity and over-voltage power supplies

POWER REQUIREMENTS:

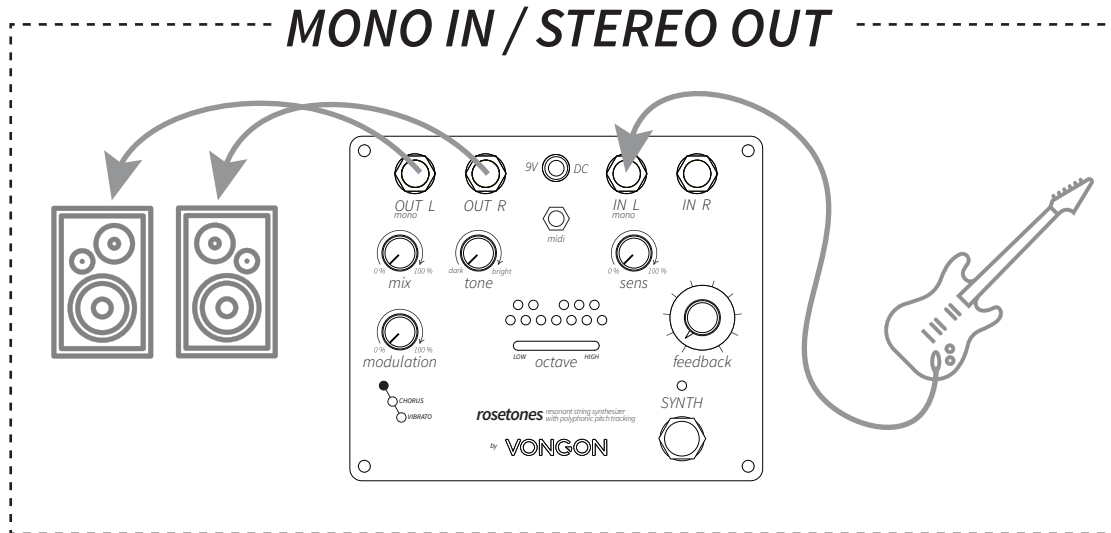
9 VDC, Center Negative, 200mA or greater

AUDIO CONNECTION

connect your instrument with 1/4" TS cables. **rosetones** is compatible with both mono and stereo sources



AUDIO CONNECTION (continued)



HOW ROSETONES WORKS

incoming audio is analyzed by 48 chromatically tuned detection filters spanning C2 to B5. all octaves of each chromatic note are summed into one envelope follower per pitch class (for example, all C notes are treated as one). this determines how much signal is routed into each tuned resonator voice, allowing the output to follow the harmonic shape of your input

rosetones is calibrated to standard concert pitch (A4 = 440 Hz). for best tracking and harmonic alignment, ensure your instrument is properly tuned before use

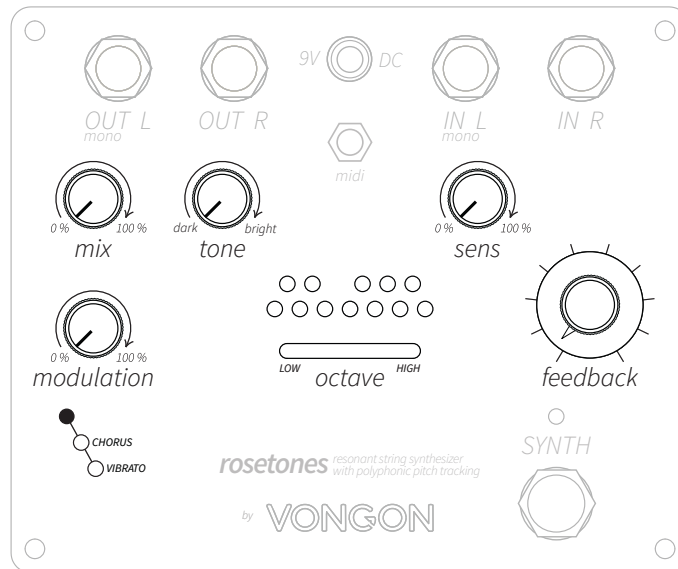
each resonator voice is a tuned feedback delay line that behaves like a piano string with its damper lifted. when the input audio contains energy near its tuning, that “string” begins to ring. higher levels increase intensity through a smooth saturating stage that prevents harsh clipping

sens and **feedback** work together. higher **feedback** increases sustain and requires less input energy, so sens can be set lower. higher sens can be paired with lower **feedback** for shorter, more controlled response

in stereo operation, lower notes are positioned left and higher notes right, creating a pitch-based stereo image. adding chorus mirrors the voice panning and reduces the perceived stereo spread

PRIMARY CONTROLS

overview of primary controls



SENS – adjusts input sensitivity to the pitch detection engine. higher settings increase responsiveness to lighter playing and raise the level feeding the resonator bank. lower settings reduce sensitivity and tracking response

FEEDBACK – controls the amount of resonator feedback. higher settings increase sustain and intensity of the synthesized tones. lower settings produce shorter more percussive responses

OCTAVE – shifts the active 12 note window across the keyboard range. this selects the octave region tracked by the resonators. in stereo operation it also repositions voices within the stereo field

MIX – blends dry input signal with the synth output. fully counterclockwise is dry only. fully clockwise is synth only

PRIMARY CONTROLS (continued)

TONE – adjusts brightness of the synth output. turn counterclockwise for darker softer response. turn clockwise for increased high frequency presence

MODULATION – sets modulation depth applied to the synth. selected mode determines modulation character. you can use either mode independently or both at the same time when both mode LEDs are lit

CHORUS – applies subtle multi voice detuning for widened ensemble tone

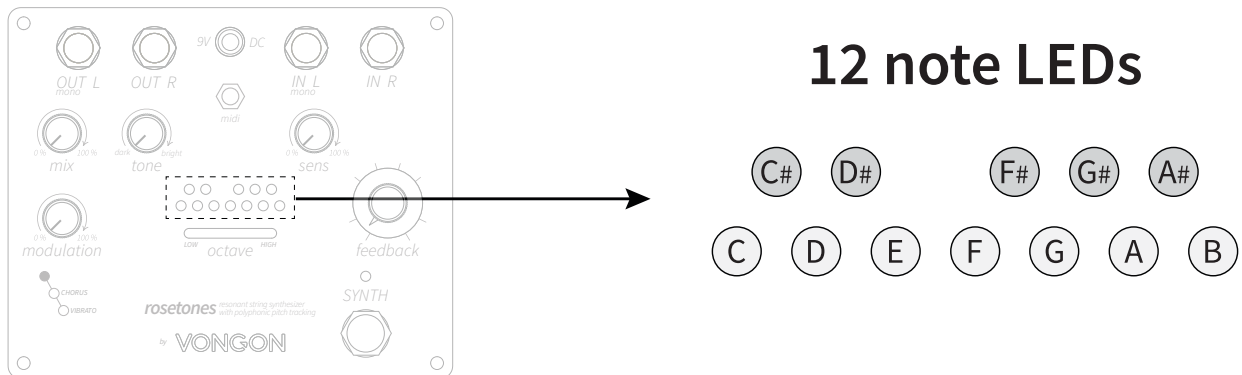
VIBRATO – drifting pitch detune applied per synth voice for slow evolving movement

OCTAVE LEDs

the 12 LEDs represent the chromatic resonators within the active octave window. each LED indicates the signal level of its corresponding resonator

when a pitch is detected the matching resonator is excited and its LED illuminates. a C played in any octave within the tracking range (C2 → B5) will light the C LED

LEDs may remain lit after the input signal stops depending on feedback settings

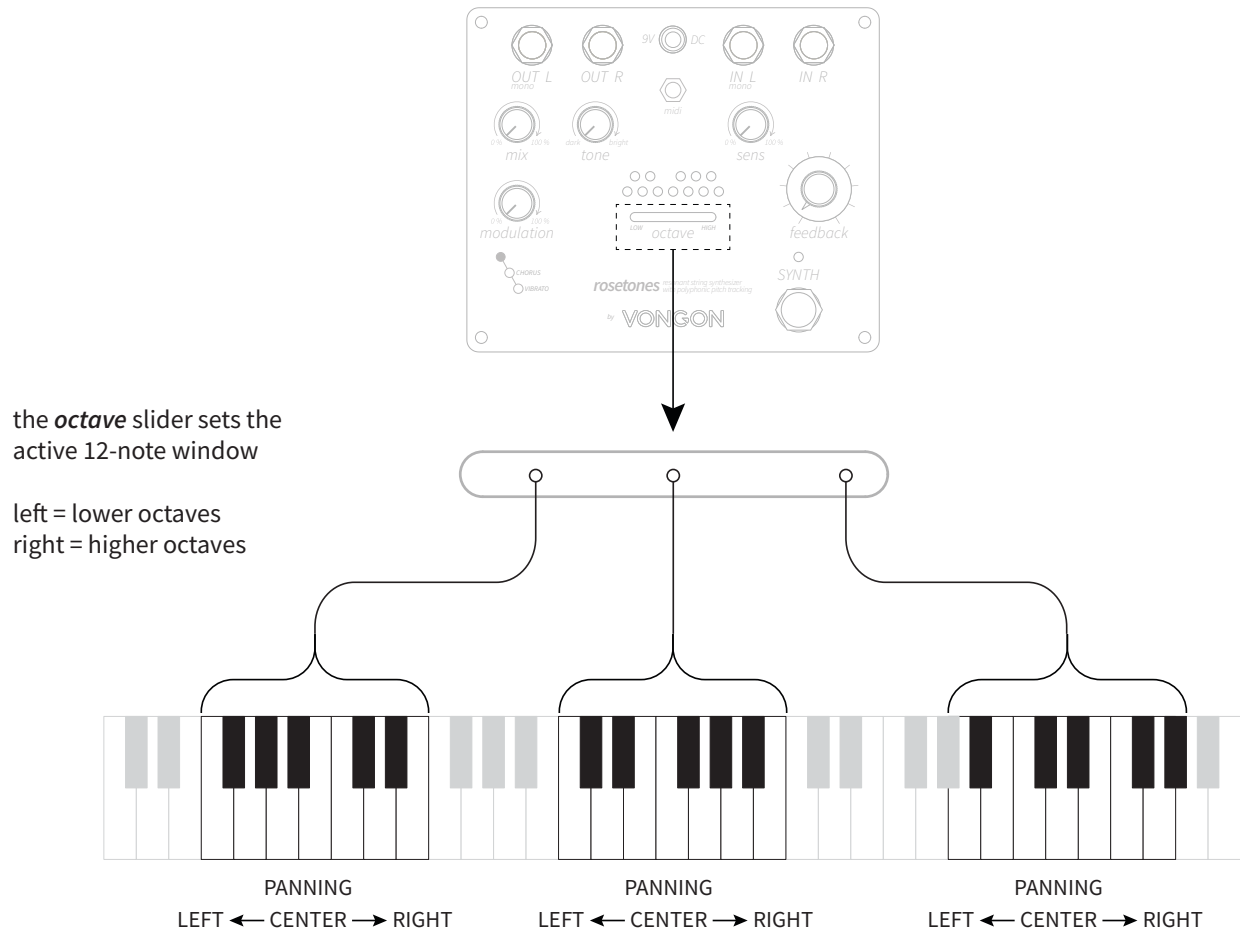


OCTAVE SLIDER

the octave slider selects the active 12 note window tracked by the resonators. moving the slider shifts this window up or down the keyboard in semitone steps

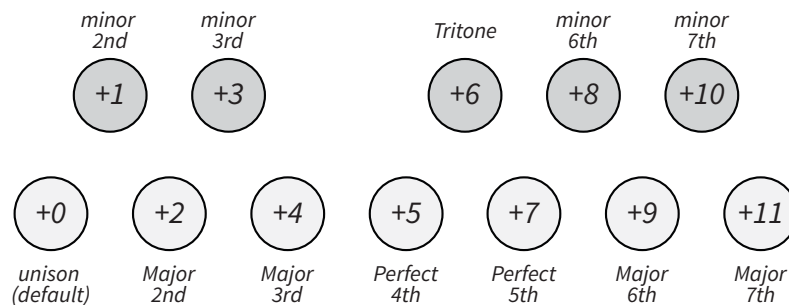
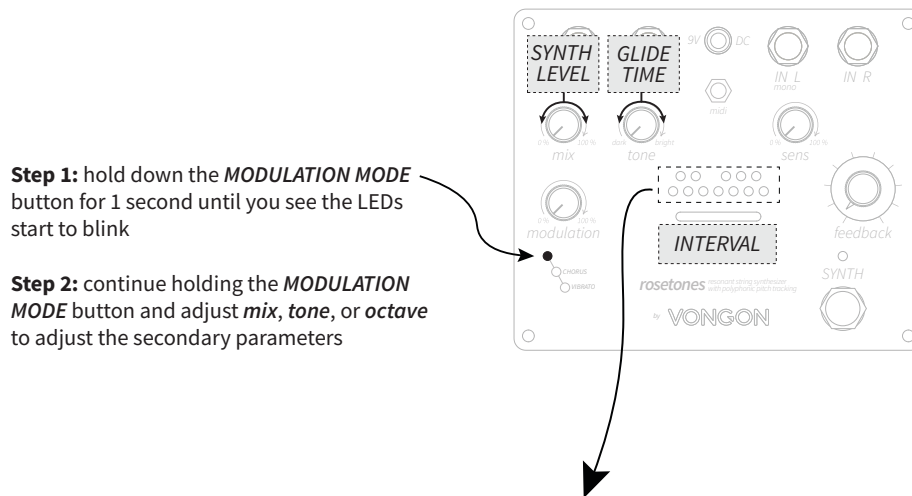
rosetones always detects notes across its full tracking range from C2 to B5. the slider does not change detection. it sets the octave register where the resonators will sound

in stereo operation the selected window also defines voice placement across the stereo field. lower notes are positioned left and higher notes right



SECONDARY CONTROLS

access additional sound design controls following the steps shown below. these settings are remembered between power cycles and can be saved into presets



SYNTH LEVEL (MIX Knob) – adjusts overall level of the synth output before the mix control. high input levels may cause resonators to clip. reduce this control to prevent distortion. default setting is 12:00

GLIDE TIME (TONE Knob) – sets transition time during octave jumps when adjusting the octave slider. higher settings produce faster more immediate shifts. lower settings introduce slower glide between octave positions. default setting is 12:00

INTERVAL (OCTAVE Slider) – applies a fixed pitch offset to all resonators. interval is selected in semitone steps from unison to major 7th as shown above. default setting is unison

BOOT CONFIGURATIONS

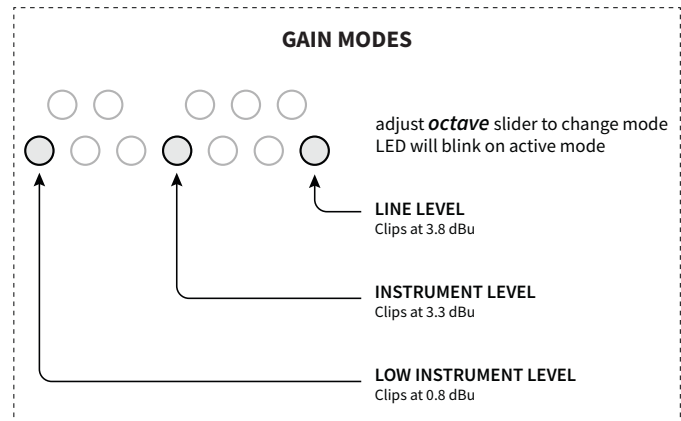
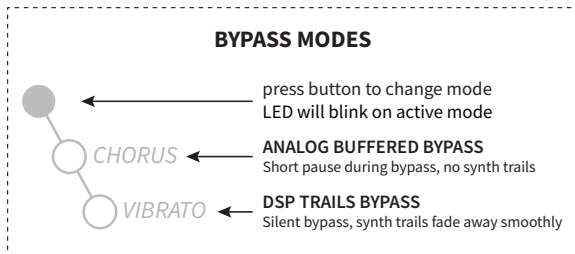
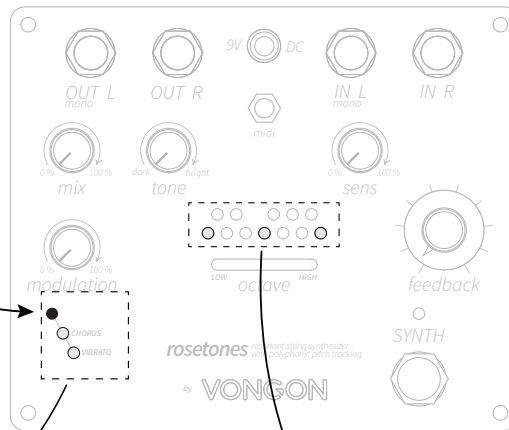
boot configuration mode provides access to bypass type and input gain settings.
 selected options are remembered between power cycles

Step 1: apply power while holding the **MODULATION MODE** button for 1 second until you see the LEDs shown start to blink

Step 2: you are now in **BOOT CONFIG** mode and you can release the **MODULATION MODE** button

Step 3: adjust modes shown below

Step 4: power cycle the pedal to save



MIDI

the **MIDI** input provides remote control of all parameters on the faceplate, and access to 9 onboard user preset slots. see implementation details below

MIDI ADAPTER

use a 3.5mm **TYPE B** style **MIDI** adapter. if you're unsure which type of adapter to use, you can reach out to us directly (support@vongon.com)

MIDI CHANNEL

by default, **rosetones** listens to **MIDI** channel 1. you can change the **MIDI** channel by following the steps below

1. power on the pedal while holding the **BYPASS** foot switch and continue holding until the purple **BYPASS LED** starts blinking
2. now send a **MIDI** CC message on the desired channel. the LED will stop blinking and the pedal will now listen to messages on that **MIDI** channel. this setting will be remembered between power cycles

MIDI PRESETS

rosetones has 9 onboard user preset slots that can be read and written to via **MIDI PROGRAM CHANGE (PC)** messages

EXAMPLE SAVE/LOAD PRESET 1:

- **SAVE PRESET 1:** adjust pedal to desired sound, send a **MIDI PC# 11**. that sound is now saved into preset slot #1
- **LOAD PRESET 1:** send a **MIDI PC#1** message, the pedal will recall the sound stored in preset slot #1

PRESET	LOAD PRESET	SAVE PRESET
1	PROGRAM CHANGE #1	PROGRAM CHANGE #11
2	PROGRAM CHANGE #2	PROGRAM CHANGE #12
3	PROGRAM CHANGE #3	PROGRAM CHANGE #13
4	PROGRAM CHANGE #4	PROGRAM CHANGE #14
5	PROGRAM CHANGE #5	PROGRAM CHANGE #15
6	PROGRAM CHANGE #6	PROGRAM CHANGE #16
7	PROGRAM CHANGE #7	PROGRAM CHANGE #17
8	PROGRAM CHANGE #8	PROGRAM CHANGE #18
9	PROGRAM CHANGE #9	PROGRAM CHANGE #19

MIDI CONTROL CHANGE (CC) PARAMETERS

when the pedal receives **MIDI CONTROL CHANGE (CC)** messages on its assigned **MIDI** channel, it will internally set parameters to the new CC value. manually adjust the faceplate parameter to reset the value to the physical faceplate control

MIDI MESSAGE	PARAMETER	VALUE
MIDI CC #13	BYPASS	0-63: OFF , 64-127: ON
MIDI CC #14	MODULATION MODE	0-42: CHORUS , 43-85: VIBRATO , 86-127: CHORUS + VIBRATO
MIDI CC #80	MIX	0-127
MIDI CC #81	SYNTH LEVEL	0-127
MIDI CC #82	TONE	0-127
MIDI CC #83	GLIDE TIME	0-127
MIDI CC #84	MODULATION	0-127
MIDI CC #85	SENS	0-127
MIDI CC #86	FEEDBACK	0-127
MIDI CC #87	OCTAVE	0-127
MIDI CC #90	INTERVAL	0-127

MIDI NOTE MESSAGES

rosetones responds to **MIDI NOTE ON** and **NOTE OFF** messages. a midi note opens the matching pitch class resonator and boosts **feedback** according to the **sens** control

midi notes can be layered over input audio to create resonant melodic effects. rhythmic sources such as drum beats work particularly well

→ sound example: [MIDI WITH DRUM MACHINE](#)

rosetones can function as a sound source without audio input. it does not excite the resonators with a triggered noise burst like typical resonator synths. instead at higher sens and feedback settings the internal noise floor can excite and sustain the resonators

→ sound example [MIDI SYNTH](#)

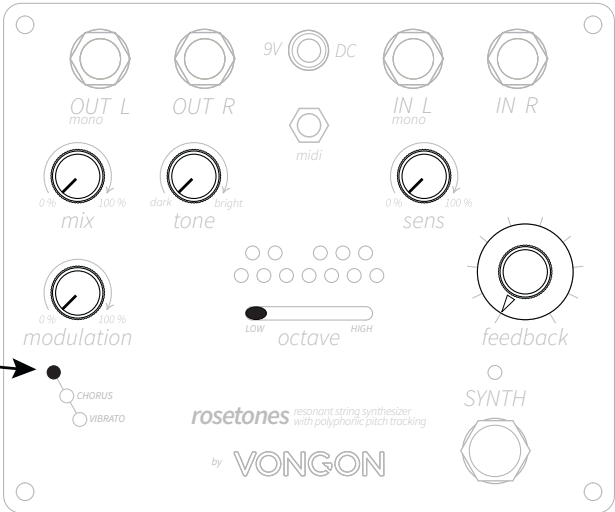
FACTORY RESET

reset all **rosetones** settings by performing a factory reset. this will restore all settings remembered between power cycles - such as the **SYNTH LEVEL**, **GLIDE TIME**, **INTERVAL**, and **BOOT CONFIGURATIONS**. saved presets remain unchanged

Step 1: set all knobs and the **octave** slider to minimum.

Step 2: apply power while holding the **MODULATION MODE** and hold for 2 seconds

Step 3: the **CHORUS** and **VIBRATO** LEDs will blink rapidly to confirm the reset



SOUND EXAMPLES

examples of how to use **rosetones** with guitar, synthesizer, and **MIDI**

DOWNLOAD SOUND EXAMPLES (MP3)

→ http://docs.vongon.com/rosetones_audio_examples.zip

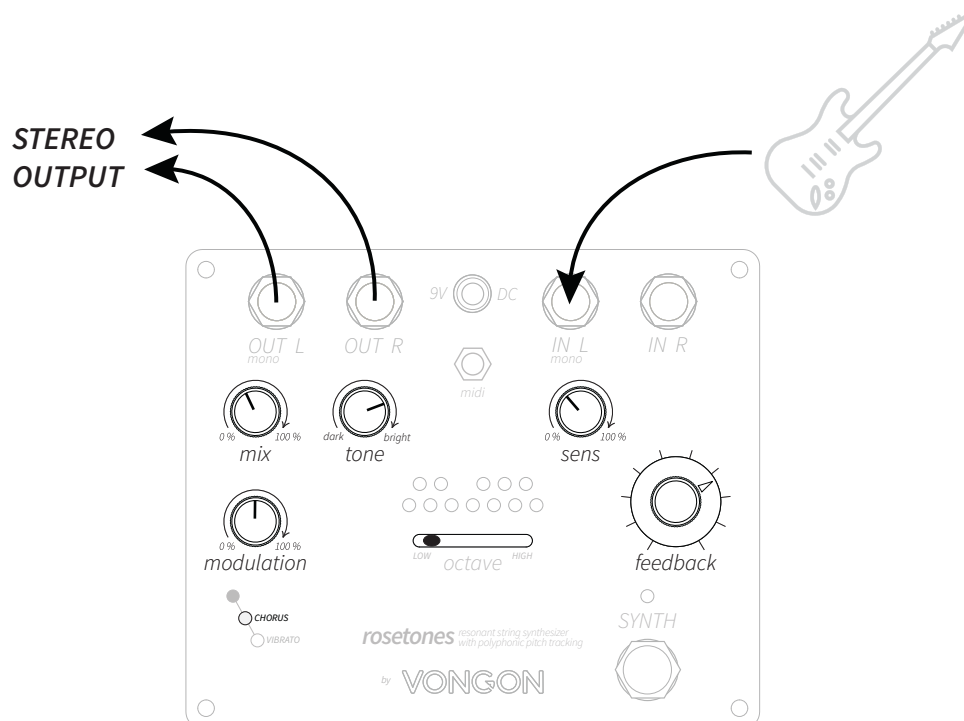
1. AMBIENT GUITAR

a great starting point for exploring **rosetones** on guitar

with the **octave** set low and **feedback** turned up, the resonator voices decay slowly into a spacious wash similar to a delay pedal with long repeats. sustained chords bloom and overlap, forming evolving harmonic layers

SIGNAL PATH:

guitar → **rosetones** → stereo output



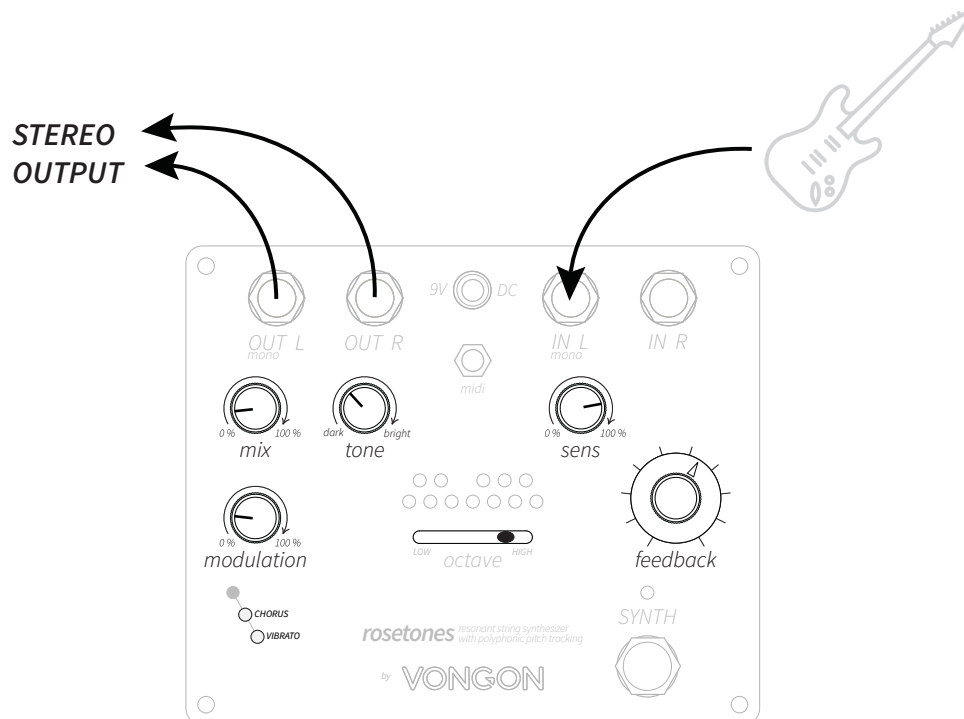
2. GUITAR FLUTES

with the **octave** set high, you can create a flute-like voice that follows your chords

in this example, listen to how **rosetones** initially tracks the guitar. after a couple of chords, as the guitar line continues downward, the synth voices begin to rise instead, creating a rich, full-bodied contrast

SIGNAL PATH:

guitar → **rosetones** → stereo output



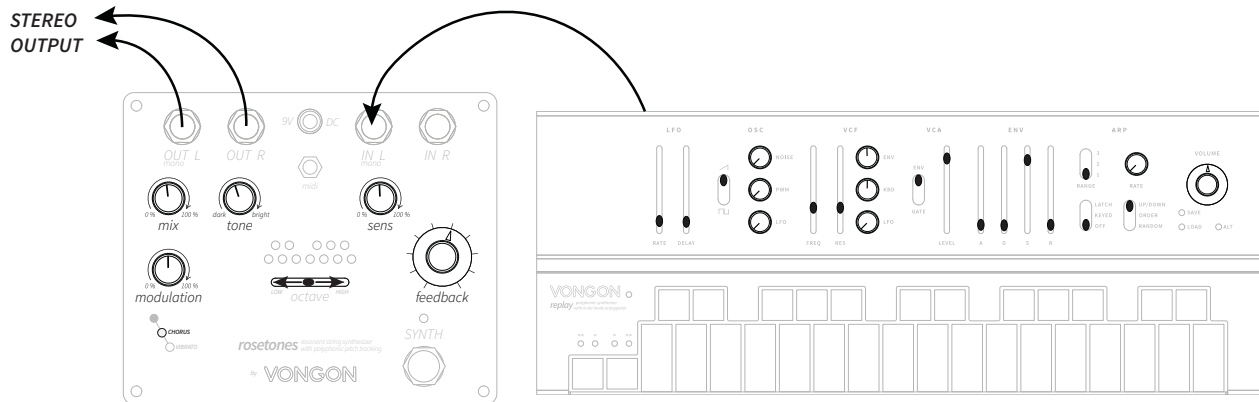
3. SYNTH WITH OCTAVE

rosetones works great with synths like **VONGON *replay***

in this example, a basic sawtooth patch provides a flat, static foundation while *rosetones* adds width, motion, and dimension. sweep the **octave** control to hear the resonators re-voice the harmony into higher and lower registers

SIGNAL PATH:

replay → *rosetones* → stereo output



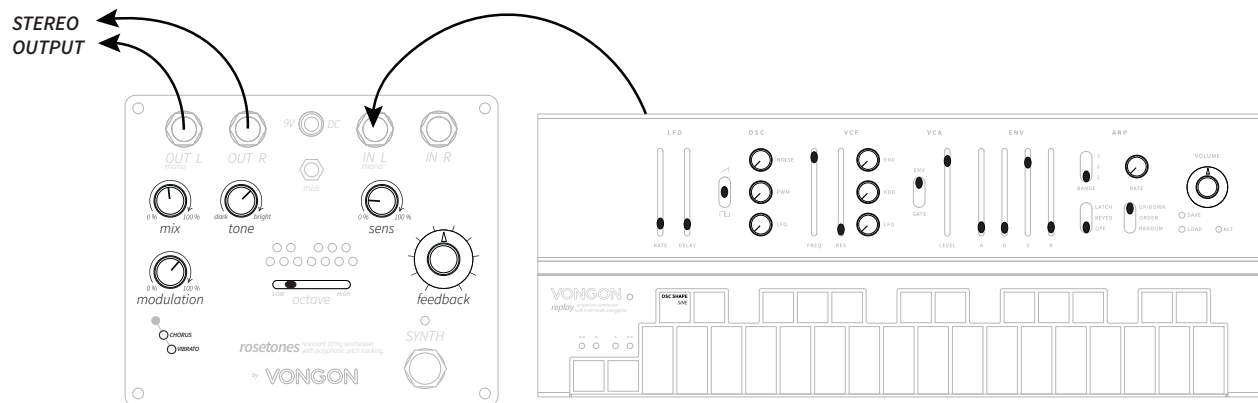
4. SINE SYNTH

in this example, we use a simple sine-wave patch as the input

rosetones tracks the sine-wave notes with clarity and precision. use the **sens** control to fine-tune how quickly the **rosetones** voices respond and bloom

SIGNAL PATH:

replay → **rosetones** → stereo output



5. MIDI WITH DRUM MACHINE

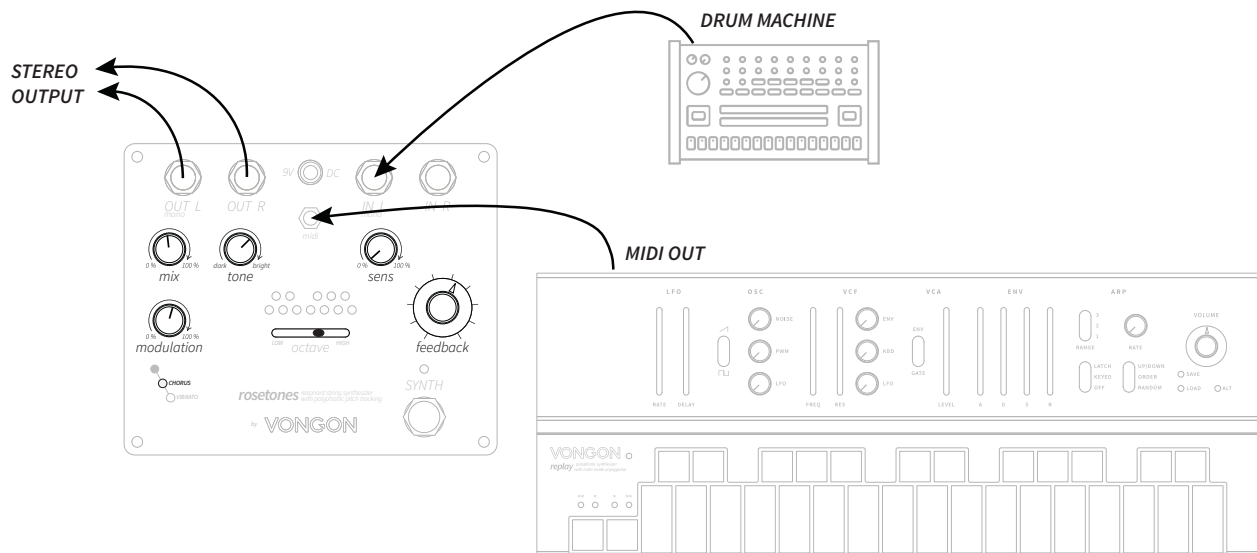
this is our favorite setting!

send a drum machine into **rosetones** and turn **sens** to zero so no automatic pitch detection occurs. then connect a MIDI keyboard such as **VONGON replay** to **rosetones** and play the resonators directly

the notes you perform are voiced by the timing and dynamics of the drum machine, creating synth textures that lock tightly to the rhythm and accents of your track

SIGNAL PATH:

drum machine → **rosetones** → stereo output
replay (MIDI out) → **rosetones (MIDI in)**



6. MIDI SYNTH

use **rosetones** as a standalone synth by allowing its internal noise floor to excite the resonators

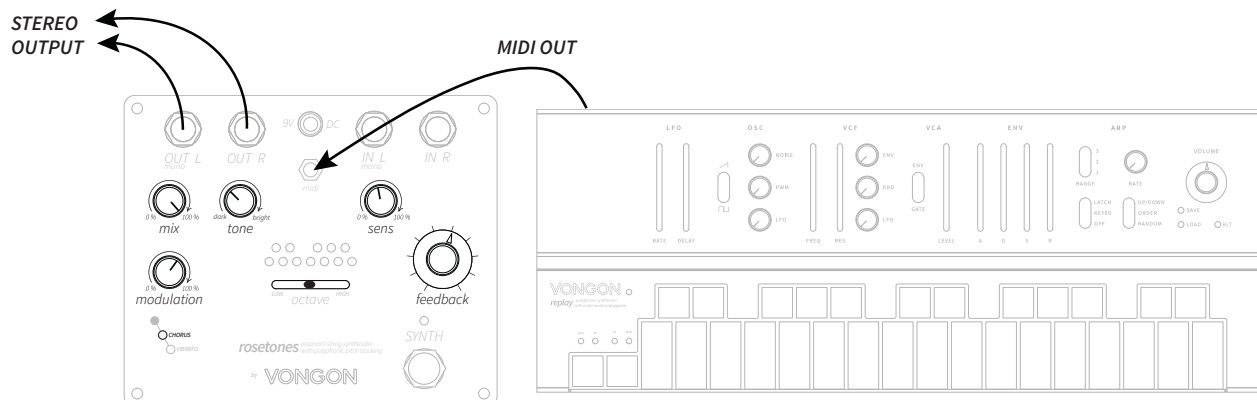
when receiving MIDI note messages, the **sens** control acts as a feedback boost while a note is held. in this way, **sens** and **feedback** work together to shape different envelope responses and sustain characteristics

the active 12-note window is defined by the **octave** slider, so all octaves of a given note on your **MIDI** keyboard trigger the same pitch within **rosetones**. in this example, we sweep the **octave** slider to create dramatic pitch shifts in the track

SIGNAL PATH:

rosetones → stereo output

replay (MIDI out) → **rosetones (MIDI in)**



EXTENDED WARRANTY & SUPPORT

VONGON will repair or replace any malfunctioning product within one year from the purchase date. problems resulting from modification or misuse may void this warranty. this warranty applies only to the original owner of the product - proof of purchase is required. we will happily diagnose and repair any VONGON product, even if it is out of warranty - shipping and repairs are at the owner's expense

CONTACT

please feel free to reach out with any questions or concerns
support@vongon.com

CHANGE LOG

VERSION	DATE	DESCRIPTION
V1.0	FEB 25, 2026	Initial commit