

The **MidiVolts Desktop** is a MIDI based 5 octave CV controller. The device contains 4 separate CV outputs with an associated Gate output. These CV outputs are called voices, and are named **VO**, **VI**, **V2**, **V3**. Each voice operates on the 1 volt per octave standard for eurorack and most hardware synthesizers. The device uses 6 different modes (**MONO**, **DUO**, **UNISON**, **POLY3**, **POLY4**, **CC**) to control each voice in different ways. See below for descriptions of each Mode. The device also contains a Midi to Clock output conversion and further customizations with SysEx midi messaging.

**MIDI IN Jack:** Connect MIDI Controller/ keyboard MIDI OUT to the MidiVolts Desktop MIDI IN (**Channel 1**).

**CV Jack:** 3.5 mm jack used to output 1 V/Oct Control Voltages. Due to the outputs low output impedance (5Ω), multiple oscillators may be connected to any CV and retain precise voltages.  
Max. Output Voltage: 5V

**MONO:** Monophonic Mode

- Voice 0 (VO)** is Pitch CV for the key pressed.
- Voice 1 (VI)** is Velocity of key pressed.
- Voice 2 (V2)** is Aftertouch of key pressed.
- Voice 3 (V3)** is CCI. Default: Mod Wheel.

**DUO:** Duophonic Mode

- Voice 0 (VO)** is Pitch CV for first key pressed.
- Voice 1 (VI)** is Pitch CV for second key pressed.
- Voice 2 (V2)** is Velocity of first key pressed.
- Voice 3 (V3)** is Velocity of second key pressed.

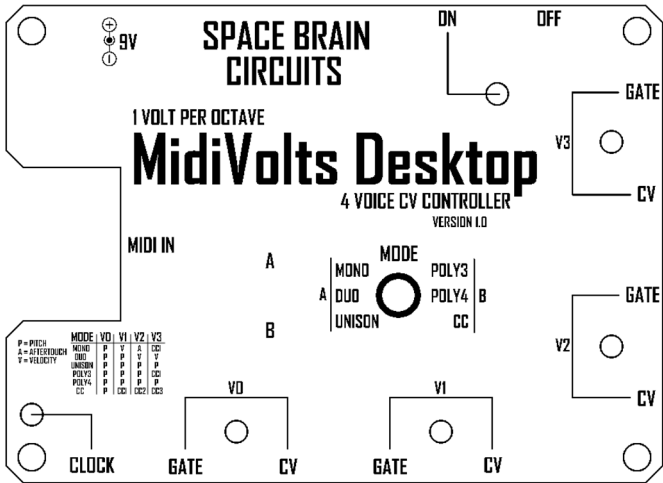
**UNISON:** Unison Mode

The purpose of this mode is to aid in the tuning of all connected oscillators.

- Voice 0 (VO)** is Pitch CV for the key pressed.
- Voice 1 (VI)** is Pitch CV for the key pressed.
- Voice 2 (V2)** is Pitch CV for the key pressed.
- Voice 3 (V3)** is Pitch CV for the key pressed.

**GATE Jack:** 3.5 mm jack used to output a 5V Gate Signal when a note has been pressed. (1KΩ Output Impedance)

**CLOCK Jack:** The device will begin outputting clock pulses when it reads a Start/ Continue message. (1KΩ Output Impedance)



Note: If more than the allowable amount of keys are pressed, the most recent pressed key will overwrite the previous, even if this key is still being held.

The following may be adjustable with Midi SysEx messages.

**Midi Channel :** 1 - 16

**CV Gain, CV Offset :** These are adjustable per voice.

**Pitch Bend Up, Pitch Bend Down :** Specify the number of semitones.

**CCI, CC2, CC3 :** May be assigned 0 - 127 as desired.

Please go to [github.com/spacebraincircuits/midivoltstodesktop](https://github.com/spacebraincircuits/midivoltstodesktop) for all operations and guide.

**9V DC Jack:** DC power supply not included.  
2.1 mm barrel plug (**Center Positive**)

**DIV Switch:** Determines which Mode is used to operate MidiVolts. Options selectable by first choosing which column the Mode will access, as assigned by the **A | B** switch.

**POLY3:** 3 Voice Polyphonic Mode

- Voice 0 (VO)** is Pitch CV for the first key pressed.
- Voice 1 (VI)** is Pitch CV for the second key pressed.
- Voice 2 (V2)** is Pitch CV for the third key pressed.
- Voice 3 (V3)** is CCI. Default: Mod Wheel.

**POLY4:** 4 Voice Polyphonic Mode

- Voice 0 (VO)** is Pitch CV for the first key pressed.
- Voice 1 (VI)** is Pitch CV for the second key pressed.
- Voice 2 (V2)** is Pitch CV for the third key pressed.
- Voice 3 (V3)** is Pitch CV for the fourth key pressed.

**CC:** Continuous Control Mode

- Voice 0 (VO)** is Pitch CV for the key pressed.
- Voice 1 (VI)** is CCI. Default: Mod Wheel.
- Voice 2 (V2)** is CC2. Default: 74.
- Voice 3 (V3)** is CC3. Default: 71.

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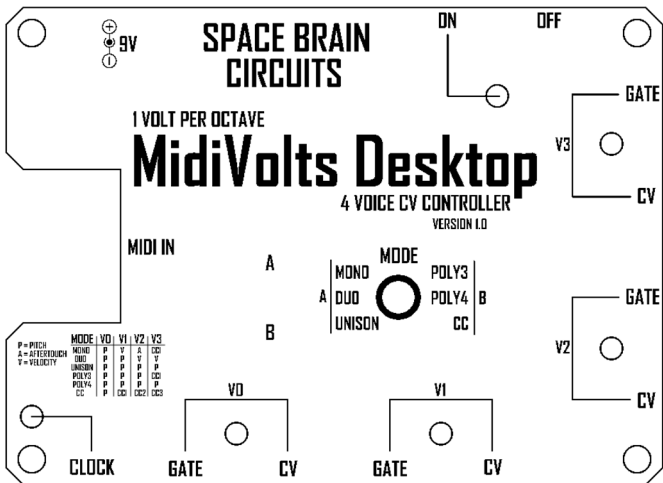
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USER MANUAL

# Mid!Volts Desktop

SPACE BRAIN CIRCUITS

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