

## PHILIP REES *LITTLE MCV* MIDI TO CV CONVERTER

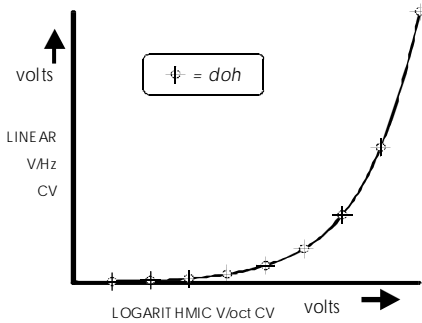
Philip Rees have been manufacturing respected high-performance, easy-to-use MIDI to CV converters since 1988.

Since then, significant advances in micro-controllers and data conversion chips have made it possible to produce a first-rate converter at a much lower cost.

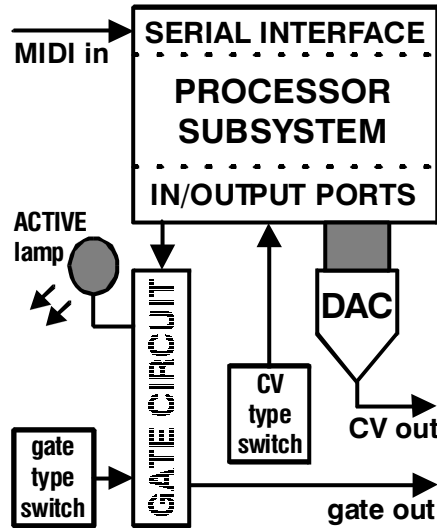
### V/oct and V/Hz control voltages

This up-to-date interface unit lets you use your MIDI keyboard, computer, sequencer or other MIDI master device to control your irreplaceable old analogue synths, with their fat bass sounds and friendly knobs.

CONTRAST OF LIN. AND LOG. LAW



The *Little MCV* responds fast and can generate control voltages for the common one-volt-per-octave (logarithmic VCO, as used by *Roland* and *Moog*) system and the so-called volts-per-hertz (linear VCO, as used by *Korg*) system. CV type is selected by a slider. The voltage law of the two types is contrasted in the graph above.



### Superb 16 bit resolution

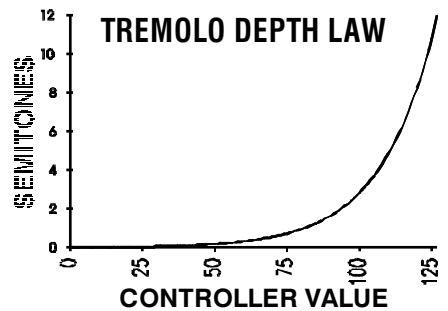
The use of a high quality, modern 16 bit DAC means that the logarithmic pitch CV output can be perfectly in tune across the full note range, with fine steps (a stunning 512 steps per semitone) for the firmware-implemented pitchbend, pitch vibrato and portamento. 16 bit conversion also lets the *Little MCV* generate an accurate linear CV of superlative stability over a very wide pitch range.

In V/oct mode, unlike other low cost units, the *Little MCV* responds properly to pitch over the full 128 semitone MIDI range. The CV output also has a wide range available: from -10V to +20V. A tuning preset adjustment is provided to set the V/oct offset or V/Hz slope. A trim preset lets you finely match your target instrument with respect to the slope for V/oct, or the offset for V/Hz.

### Smooth pitchbend, LFO, and portamento effects

The pitchbend firmware can use the full 14-bits of the MIDI pitchbend value. This combines with the 16-bit conversion to give clean stepless glissando if you have a suitable high resolution source of pitch wheel data. The default pitchbend range is plus-or-minus one octave. The standard MIDI 'pitchbend sensitivity' Registered Parameter is observed, so you can alter the bend range if required.

Under MIDI control, the *Little MCV* digitally generates a precise triangular low frequency oscillator (LFO) signal, which may be added to the CV output - to create a high quality pitch vibrato. The LFO depth is controlled by the product of the MIDI Modulation Wheel and a value derived from the Tremolo Depth Controller (see graph below). The LFO speed is conveniently set by MIDI Non-Registered Parameter Number 00.



The portamento (pitch-to-pitch glide) response is exponential and free of irregularities. The MIDI 'Portamento On/Off and Portamento Time' messages are observed.

### The best gate modes

The default trigger mode is multiple for legato playing, but you can change this via the Legato Footswitch MIDI message.

*Little MCV* defaults to last note priority, but overlapped notes are not lost, and hidden notes can restart when a more recent note is released - this is generally the most favoured algorithm. MIDI Controller Number 80 will switch over to highest note priority.

The three MIDI Sostenuato, Sustain and Hold 2 commands are all fully implemented.

A simple slide switch lets you choose between 5V positive, 10V positive and S-trig (negative current gate, *Moog* style) for the gate output.

The ACTIVE lamp indicates when the gate signal is asserted.

### Great package

You can easily set your *Little MCV* to receive on any of the sixteen MIDI channels using the straightforward front panel rotary control.

The *Little MCV* has a MIDI In DIN socket. The CV OUT and GATE OUT connections are standard quarter-inch jack sockets.

The case of the *Little MCV* is 109mm x 109mm x 40mm.

A mains power supply is built-in, obviating the need for an external adaptor. The integral mains lead comes with a plug. You can tell when the unit is powered-up as a power indicator lamp is provided. Power consumption is very low.

