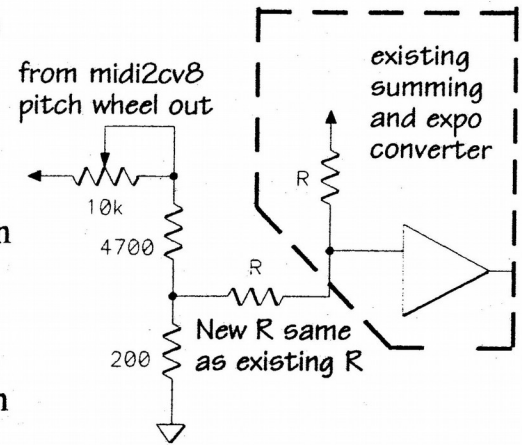
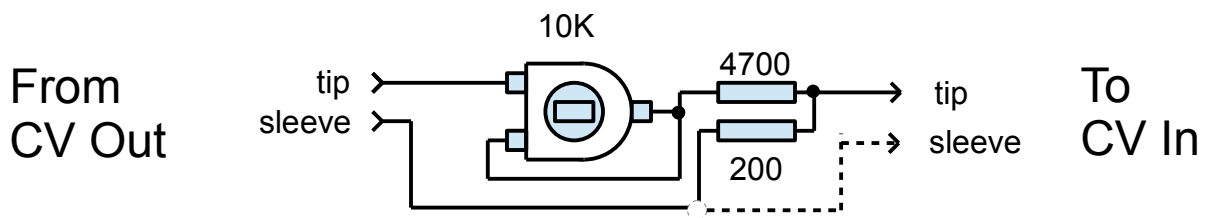


CV Attenuator

Pitch Wheel voltages must be greatly attenuated before using them for pitch bend. Without attenuation each increment represents a semi-tone. This produces the neat effect of allowing the pitch wheel to be played like a quantized theremin, but it's not what most people have in mind for pitch wheels. The attenuation network shown in the illustration will scale pitch wheel voltages to a more usable one or two semitone total range. In the process, the quantization steps are also attenuated to about 1.5 cents each - below the generally accepted limen of perception of 3 cents. In other words, no zipper.



Ex. 1 – MIDI2CV8 kit manual, page 25



Ex. 2 – Special Purpose Patch Cord, CV Attenuator

The example above is one way the parts of the Pitch Wheel CV attenuator circuit can be wired in a special purpose patch cord. An easy way to realize this is to build the parts, point to point connected as shown in the example, on a strip of perfboard, mid-cable and covered with tubing or in a tiny box.

Within a system, it is not necessary to wire the sleeve of the output (To CV In).

Also, in a system such as the P9700S, the “new” R (ex.1), an added summing circuit input resistor, is not needed when the module has more than one CV input, ie Fc2 on the VCF.