

## Notes on Millennia TCL-2 Detented Pot Option

To aid the mastering engineer in recalling previous compressor setups, Millennia offers a detented potentiometer option for the TCL-2. This document explains what the option is and, just as importantly, what the option is not.

Firstly, this option was born of requests by customers to be able to recall previous setups quickly and accurately. Having 'clicks' on potentiometers is a tried and true method to recall previous settings. Using recall sheets, you can recreate settings that have been previously used, and you can also use them for default settings to expedite new mastering project setups.

Incorporating detented potentiometers into your workflow is easy. Once you are satisfied with the settings, write down the potentiometer setting and you can recall later. This is the purpose and use of the detented potentiometer option.

The stepped potentiometer option offers channel-to-channel (L/R) matching accuracy of 0.5dB from a minimum compression ratio (1.8:1 to 2.2:1) up to the more extreme compressions (6:1 to 8:1) in the range of about 0 to +20dBu (approximately). Beyond these settings, it is impractical to find an ideal match of potentiometer tapers and optoisolator curve performance. Hence, a TCL-2 with stepped potentiometers will only be verified to 0.5dB matching performance within the above stated parameters. At limiting ratios, channel-to-channel matching cannot be guaranteed.

At ratios above 8:1, the TCL-2 is acting more like a limiter and can very well go into over-compression, a trait of feedforward compressor topology. If you think the TCL-2 is over-compressing, back off on the ratio a bit and/or lower the threshold.

For best results with detented pots, set each channel independently, then enable the stereo link button to have the compressor track in stereo.