



ELECTRONIC TUNERS

The best portable tuners have both a LCD with a "needle-like" display and lights to indicate sharp or flat, are chromatic (12 notes to the octave), have a recalibration button and have an input for an isolation pickup. Both displays are needed; the lights are visible in the dark and the LCD is visible in bright light. I like the KORG CA-30. It is inexpensive, small and has all these features. An isolation pickup sends a strong, steady signal to the tuner (especially in noisy environments) making reading of the tuner easier. I use mine every time I tune.

When taking your A-440 cycles/sec. tuned hammer dulcimer from your warm house to play in a cooler environment, your instrument will go about 4 cents (cents are the units used by electronic tuners to measure frequency) sharp for every 5 degrees Fahrenheit drop in temperature. What happens is the colder temperature causes the metal of the strings to contract thus making the strings tighter or sharp. The opposite happens when you bring your dulcimer to a place warmer than where you tuned it last. For every 5 degrees warmer, your instrument will go 4 cents flat because the strings stretch, causing your instrument to go flat. Therefore, for every 5 degrees change in temperature you would change your calibration 1 cycle/sec. so you would not have to do so much tuning. When it is colder--raise the calibration and when it is warmer--lower the calibration of A. For example, if you plan to play your dulcimer outside in the winter, and it is 20 degrees colder than in your house (where your instrument was in tune at A-440) then you would increase A to 444 cycles/sec. In reality, I change my calibration so that the upper-left side of my treble-bridge is in tune (because these strings are hardest to tune) and then tune the rest of the instrument. Before doing any recalibrating or tuning, first set-up your dulcimer and let it acclimate to the new temperature for at least a half-hour.

The advantage to changing the calibration when the temperature is different from the normal is that when you go back to normal temperatures your dulcimer will be close to in-tune. Also, the less times you tune and/or the less out of tune your dulcimer is when you tune, the better tuning you get, and it will stay in-tune longer.

Of course, I am assuming that you will be playing with other string instruments which act much the same way as your dulcimer. If you are playing with instruments that have a fixed tuning (i.e., harmonica or accordions) then you will have to keep your calibration at A-440.

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