(excerpted from another context)

The tunings are named for their fifth intervals flatted from the Pythagorean perfect fifth. However, relative to an electronic tuner oriented to equal temperament, the readings are two cents less flat. Note that the fractions are simplified and approximate.

0 cents flat - 1/11 comma meantone, equal temperament, standard

1 cents flat - 1/7 comma meantone

1.5 cents flat - 1/6 comma meantone

2 cents flat - Silbermann (2/11)

2.5 - 1/5 comma meantone

3 cents flat - 2/9 comma meantone

3.5 cents flat - 1/4 comma meantone or just "Meantone"

4 cents flat - 4/11 comma meantone

4.5 cents flat - 13/44 comma meantone

5 cents flat - Salinas 1/3 comma meantone

These temperaments may not be exactly correct but are stated in terms of what the ear and an electronic tuner can actually achieve using a one half cent increment. Use of the theoretical frequency ratios would yield much more complex, impractical numbers with many decimal places.

Note that actual tuning arrays for those temperaments with fractional numbers of cents in the fifth interval would show that every other fifth interval tuner setting is rounded up to whole cents as a practical matter. The 1/4 comma meantone is a prominent example of this.

The effort to achieve any half cent setting precisely would not be justified, even if possible. However, a strobe tuner is capable of incredible and uncompromising accuracy, if you think you can hear the difference and have a personal need for perfection in such things. We are talking precision here but not obsessive.

Actually, with caveats, a little tweaking of the tuning using a good ear can be superior in result, but the average person distinguishes differences in as much as 2 cent increments and can only make a mess of it or stray completely from the strict temperament into something entirely subjective. Use the tuner.

The syntonic comma is 22 cents, the denominator of the fraction, and the number of cents flat from the perfect fifth is the numerator of the fraction. Decimals are eliminated from the fractions by doubling both numerator and denominator, as in 13/44, actually 6.5 divided by 22.

4-5 cents flat is "too flat" and likely more theoretical than ever used in actual practice. The 1/4 comma is popular due to its perfect major third interval. The 2/9 is almost the same but moderates the flatness of the fifth interval. The 2/9 can also be read entirely in whole numbers of cents on a tuner readout (no rounding).

To make these relative to Pythagorean, with perfect fifths, all the above cents numbers for characteristic fifth interval would be two more cents flat. For example, the fifth interval in 1/4 comma meantone temperament is 5.5 cents flat relative to the perfect, Pythagorean fifth interval. When using an equal temperament tuner and A440 is +0, the fifth of E would be -3.5 on the tuner, since E in equal temperament is already two cents off the Pythagorean. The perfect fifth is 702 cents and equal temperament is 700 cents, a difference of 2 cents.

As you probably know, these temperaments in varying degree average the perfection of the major and minor third intervals, yet are most readily distinguished by the resulting uniform fifth intervals.

Other temperaments are known as "irregular", having inconsistent fifth intervals, yet also having the potential to close the circle of fifths for entirely chromatic playing, primarily by the piano. These temperaments are named for the historically credited proponent, Werkmeister III for example. Personally, I don't believe these apply to the autoharp, yet one important effort by Charles Whitmer in this general category is commonly used. Some intervals with less priority are allowed to be more out of tune so that a better sound can be achieved on other more important intervals. This tuning has a certain coarseness about it but meets its objective of being better than standard tuning. It is a personal tuning, but Charles has the talent and credibility to institutionalize it. In fact it is very close to Silbermann.

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