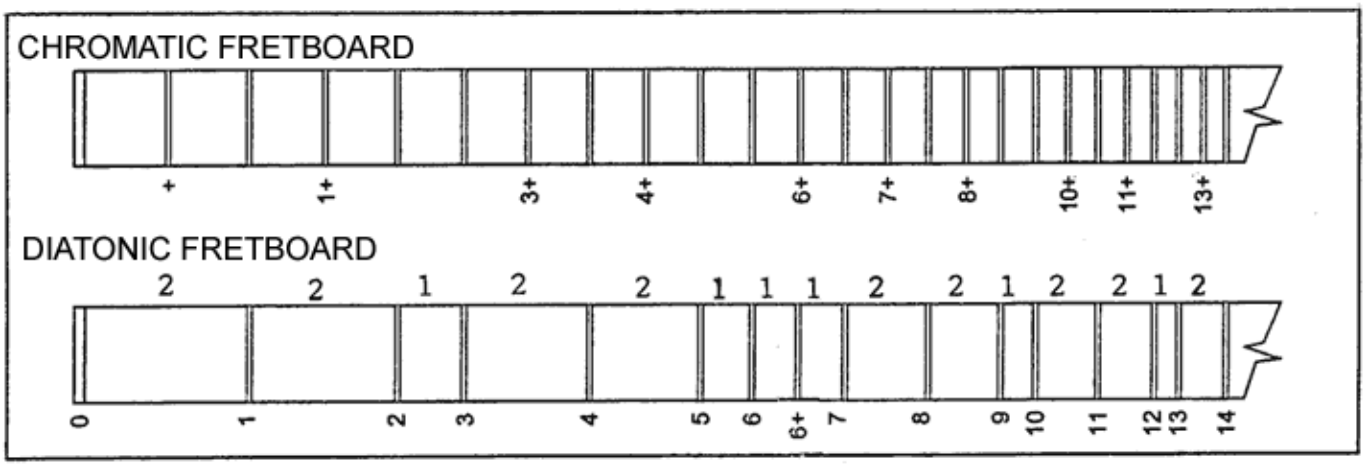
# GENERIC CHORD FINDER FOR THE MOUNTAIN DULCIMER 1-3-5 TUNINGS

Many folks today own mountain dulcimers that are designed for playing in higher or lower keys than those provided by the D, E or F tunings shown in our chord charts. These instruments can also be played using 1-3-5 tunings by selecting one to suit the voice range of the instrument. Rather than list all possible chord charts here, we felt it might be easier to provide information showing how a chart for a particular key could be prepared. As an example, let's show how we could make a chord chart for a G-B-D tuning.

Without getting into chord theory about why certain note combinations form particular chords, let's just say that it depends on the relative pitches of the notes that are selected. The difference in pitch between any two notes can be thought of in terms of half-tone separations. To explain that, we must look at the dulcimer fretboard. The illustration below shows two fretboards; the first is for a typical chromatic instrument like a guitar, having 12 notes per octave. By comparison, the second is an ordinary dulcimer fretboard with its diatonic, 7-note scale. Here, a 6+ fret has been added since that is a feature of most of today's dulcimers (and required for the 1-3-5 tuning.)




The chromatic fretboard shows a continuously decreasing spacing between frets from left to right as we move upscale, with no sudden, wide gaps like those that appear on the dulcimer. On the chromatic fretboard, the note produced on each and every fret is one half-tone higher or lower than the one on its neighboring fret. By contrast, the dulcimer fretboard shows a varying pattern of narrow and wide spacings between frets. The wide spacings (five per octave) represent the five missing chromatic notes. If we ignore the 6+ fret for the moment, we see that there are five "wide" gaps and two "narrow" gaps in each octave. As shown here the narrow gaps appear only between frets 2 & 3, 5 & 6, 9 & 10 and 12 & 13. The insertion of the 6+ divides the space between 6 and 7 into two more narrow gaps. These are all half-tones, corresponding to what we see on the chromatic fretboard. The wide gaps represent what are called whole-tones. By definition, one whole-tone equals two half-tones. To make this clear, the numbers "2" and "1" are shown along the top of the dulcimer fretboard to indicate half-tone spacings. These are the numbers we will be using in the calculation examples which are shown in the Generic Chord Finder .PDF file

The "Generic Chord Finder" included with this Learning Aid lists various kinds of chords that can be found on any 1-3-5 fretboard (hence the name "generic"). By following the instructions on the lower portion of the chart, you can convert any of these chord designations to a group of numbers which will be the tablature designation for the chord. If you wish to assign the chord a name, you will need to refer to note locations on a fretboard tuned to the key you are working with. In our example, this is the key of G, and the fretboard will appear like the one below:

| | 1 | 2 | 3 | 4 | 5 | 6 | 6+ | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 13+ | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | A | B | C | D | E | F | F# | G | A | B | C | D | E | F | F# | G |
| B | C# | D# | E | F# | G# | A | A# | B | C# | D# | E | F# | G# | A | A# | B |
| D | E | F# | G | A | B | C | C# | D | E | F# | G | A | B | C | C# | D |

Note: D# = Eb, G# + Ab, A# = Bb

Chart by John Sackenheim

This is how we are able to show that a 3/2/3 chord on this fretboard is really a C/Eb/G, or a C minor. Similarly the 2/3/3 chord translates to B/E/G, or E minor. Notice that the third possibility for forming a minor chord, according to the Chordfinder chart, is one that doesn't apply to treble fret #3 (there is no way to locate an (x-2) fret location on either the middle or bass string, since there is no 1+ fret).

If there are any questions about use of this Learning Aid, contact Merv Rowley at Daa4me@aol.com .

Merv Rowley

# Generic Chord Finder
## for 3-String Dulcimer Tuned 1-3-5

### MAJOR

| | | | |
|---|---|---|---|
| x | (x-1) | (x-2) | (x-5) |
| x | (x-2) | (x-1) | (x-5) |
| x | x | x | x |

### MINOR

| | | |
|---|---|---|
| x | (x-1) | (x-2) |
| (x-1) | x | (x-2) |
| x | x | x |

### DOMINANT 7th

| | | |
|---|---|---|
| (x-3) | (x+1) | (x-7) |
| (x-3) | (x-1) | (x-5) |
| x | x | x |

### DIMINISHED

| | | |
|---|---|---|
| (x-2) | (x-2) | (x+1) |
| x | (x-3) | x |
| x | x | x |

### AUGMENTED

| |
|---|
| (x-1) |
| (x-1) |
| x |

### FLATTED 5th

| | | |
|---|---|---|
| (x-1) | (x+1) | (x-9) |
| (x-3) | (x+1) | (x-7) |
| x | x | x |

### MAJOR 7th

| |
|---|
| (x-4) |
| (x-4) |
| x |

### NINTH

| |
|---|
| (x-7) |
| (x-7) |
| x |

### 7th SUS 4

| |
|---|
| (x-3) |
| (x-2) |
| x |

For any given treble fret number "x", the notes on the bass and middle strings, needed to form any particular chord, are shown as numbers that indicate how many half tones to add (+) or subtract (-) to find the frets on the other strings. Not every chord is possible on every treble fret location. For each chord pattern, the chord is named by the note shown underlined above.

EXAMPLE: I am tuned G-B-D and want to play a minor chord using treble fret #3. What are my choices? From the table above, there are two choices,

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| x | | 3 (C) | | (x-1) | | 2 (B) | |
| (x-1) | = | 2 (Eb) = Cm | or | x | = | 3 (E) | = Em |
| x | | 3 (G) | | x | | 3 (G) | |