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## Section 1



# Fingerboard Chart and String Relationships

The term "open string" refers to the sound the string makes when no fingers are placed on the neck (finger board). Assuming the guitar is in tune, the sounds of the strings are as indicated on the chart at the left. In between F and G, G and A, A and B, C and D, and D and E, the notes are written as flats (G<sup>b</sup>, A<sup>b</sup>, B<sup>b</sup>, D<sup>b</sup>, E<sup>b</sup>); these same notes could also be called F<sup>#</sup> G<sup>#</sup>, A<sup>#</sup>, C<sup>#</sup>, D<sup>#</sup>. Notice also that every letter name is on every string *at least* once.

Eventually, if not already, you will find it advantageous to know the names of the notes on the neck. This seems to be quite a task to most people, but they can be memorized pretty easily if a systematic approach is used:

1) You must memorize the open string names (EADGBE)

2) Notice that the notes on the 1st and 6th strings are always the same letter names on identical frets.

3) Next, notice that the notes on the 5th fret (with the exception of the 3rd string - use the 4th fret for it) are the same as the open string notes on the next *higher* string (higher in *pitch* - the 1st string is the highest and the 6th string is the lowest.)

Example: on the 5th fret of the 6th string is A, the same sound as A open on the 5th string.

	E	L	2	Z	8/	F
						I
				3		I
À	Ĺ	2/	6		E	I

These notes on the 5th fret (3rd string – 4th fret) will be called the 1st reference points.

- 4) The notes on the 12th fret are the same letter names as the open strings (but an *octave* higher) and the notes starting from the 13th fret are identical to the notes starting from the 1st fret (but an octave higher). In other words, the same letter name notes are 12 frets apart on the same string. The notes on the 12th fret will be called the *2nd reference points*.
- 5) With just those 2 reference points it is easy to find any note on any string.
- Example: Try to find F<sup>#</sup> on every string. Starting with the 6th string, the reference points are A and E; ask yourself if F<sup>#</sup> is closer to A or E in the alphabet; it is closer to E, so counting up from E, you find F<sup>#</sup> on the 14th fret, remembering that the notes above the 12th fret have the same letter names as the notes 12 frets lower, you will find F<sup>#</sup> also on the 2nd fret.

Following this same system of thought for the 5th string, you start with your reference points D and A. Well,  $F^{\#}$  is pretty close to both D and A in the alphabet (remember the musical alphabet only goes up to  $G^{\#}$  and then you have A again); so you could count back from A or up from D and find  $F^{\#}$  on the 9th fret and then an octave higher (add 12 frets) on the twenty first fret (assuming your guitar has that many frets).

You could now continue and find  $F^{\#}$  on all the other strings in the same manner. With 15 minutes a day of practicing this system, arbitrarily picking any note and trying to find it on all strings, you should start to get the picture of the neck in your mind within a short time.

Notice that an Asus. is the same as a D chord with the 3rd lowered to the 2nd. For lack of a better name this will be called a D<sup>2</sup> chord. Also A7sus. and A9sus.= E7/11; A13sus. and A7/6sus.= E11.

Major 7th Chords (7) (maj 7) (M7) (1,3,5,7)





Dominant 7<sup>b9b5</sup> Chords (7<sup>b9b5</sup>) (13<sup>b5b7b9</sup>)

 $7^{b}9^{b}5$  chords without roots are the same as 7th chords whose root is a  $^{b}5$  higher, like  $E7^{b}9^{b}5$  without root =  $B^{b}7$ . So only  $7^{b}9^{b}5$  chords with roots will be listed here.



Dominant 7#9b5 Chords (7#9b5) (13b5b7#9)

The  $7^{\#}9^{b}5$  chords are the same as  $7/6^{b}5$  chords whose roots are a <sup>b</sup>5th higher. Also notice that if the 3rd is left out of the  $7^{\#}9^{b}5$  chord, the resulting chord will be the same as a m6 chord whose root is 3 frets higher, a 9th chord (with no root) whose root will be 2 whole steps lower, and also a m7<sup>b</sup>5 chord with the same root. Example:  $E7^{\#}9^{b}5(no 3rd) = Gm6 = C9 = Em7^{b}5$ .



Example:

Notice how the  $B^{b7\#5}$  sounds out of place here. If the #5 tone were replaced with a 5th, <sup>b</sup>5th or 6th tone, the chord would sound good.



# 3) Suppose in a song you encountered the following chords: C7 D7 Dm7 G7.



#### (The G7 may

be altered because it sounds as if it is going back to C which is a 4th higher). The  $D7^{#9+}$  chord brings up an important point; suppose you were playing these chords in a song backing up a singer; they would not necessarily work then, because the singer's melody might conflict with the chords. In a case like this, you must pay special attention to the TOP note in each chord.

The  $D7^{\#}9+$  chord in this example has the  $^{\#}9$  as its top note; a very common melody note is the 3rd of a chord. If the basic chord were D7 and the melody was  $F^{\#}$  (the 3rd of the chord), you could not use the  $D7^{\#}9^{\#}5$  chord because of the F note on top. So if you are playing substitute chords in a song, it would be wise if you were thoroughly acquainted with the melody. If you are playing chords behind an improvising soloist, you need not worry, if he is competent, as he will be able to hear your chords as you hit them, and play his solo accordingly; if he is not too experienced in soloing, it may help to get together beforehand on what you might do.

IV. Whenever a major or minor type chord is followed by a major, minor, or dominant type chord whose root is a 4th higher, you may divide the duration of the 1st chord in ½ and play a dominant chord with the same root for the 2nd ½ of the allotted time.



V. For a dominant type chord, you may play another dominant type chord whose root is a <sup>b</sup>5th higher. Once again this is usually done when the chord AFTER the dominant chord is either: 1-one whose root is a 4th higher, 2-one whose root is ½ step lower, 3-a minor type chord whose root is the same as the dominant chord. Once again, be careful with altered tones.