LESSON 7 TRANSPOSING AND THE CAPO

TRANSPOSING

Now that you know what a chord progression is (for example, G, C, D7) let's discuss something called "transposing". Briefly, this involves substituting one set of chords for another. You may want to do this if you find a song with chords you do not know. You can transpose the song into a key with chords that you know, and play in that key. Another reason to do this is that the song may not be in your voice range. The table below shows 10 common chord progressions, and will help to do "TRANSPOSING".

TRANSPOSING TABLE

	I	IV	V	Relative Minor
Major Key of A	A	D	E7	F#m
Major Key of C	C	F	G7	Am
Major Key of D	D	G	A7	Bm
Major Key of E	E	A	B7	C#m
Major Key of F	F	Bb	C7	Dm
Major Key of G	G	C	D7	Em
Minor Key of Am	Am	Dm	E7	
Minor Key of Dm	Dm	Gm	A7	
Minor Key of Em	Em	Am	B7	
Minor Key of Bm	Bm	Em	F7	

You can only transpose from a major to a major key, or from a minor to a minor key.

Suppose the song is written in the key of A. For example, the first version of "WHEN THE SAINTS GO MARCHING IN" at the end of this lesson is in the key of A. It uses A, D and E7. Suppose you want to play it in the key of D.

The table above helps to do this. You find the row for the original key of the song and the row for the key you want to transpose to:

A D E7 (row 1)
D G A7 (row 3)

You need to change each A chord to D, each (original) D chord to G and each E7 chord to A7.

Later in this lesson, some other aids to transposing will be introduced. Also there is a website that can do transposing automatically for you. Here it is: https://www.logue.net

The last page of this lesson has two songs in nine different keys. Given any one of the versions on that page, the other versions could be derived from the first version by transposing as described here.

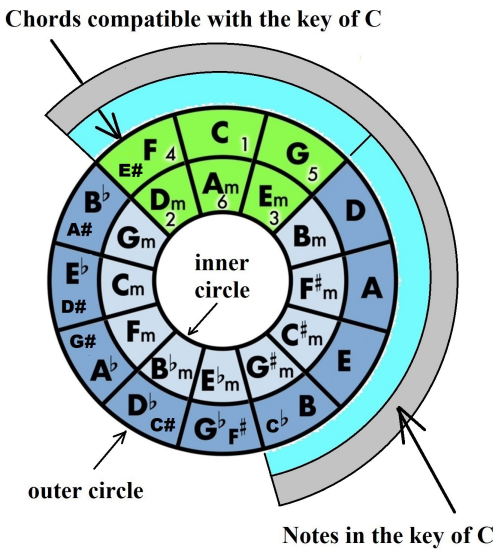
Note that at the end of the book there are two pages that have the actual chord diagrams for the ten chord progressions above. Those two pages could also serve as transposing tables for major and minor chords.

CIRCLE OF FIFTHS (CIRCLE OF CHORDS):

The transposing table (page 1 of this lesson) is derived from the circle of fifths (circle of chords). This information may be useful to some students for transposing and for other purposes. This information comes from this link:

Circle of Fifths Explained (For Guitar) **https://youtu.be/qF3mJzDulJ8**

Circle of Fifths



In a typical chord progression, there are three chords grouped together on the outer circle. Usually these three chords are . The first one carries the name of the key. It is chord 1. The other two chords are chord 4 (counterclockwise) and chord 5 (clockwise).

In addition there are also chords 2, 3 and 6. For the key of C, they appear in the shaded wedge. We will not discuss chord 7 ("diminished" chord) here.

In the example for the key of C, the wedge has:
F(4) C(1) G7(5) --- (C,F, G7 progression)
Dm(2) Am(6) Em(3)

Note: chord 5 is usually a seventh chord (here G7).
Note: some notes have two names, e.g. Gb = F#.

Now for a given key, chords 1, 2, 3, 4, 5, and 6 are compatible chords that work together well.

The numbers above come from the position of the notes in the do-re-mi ... scale. Two examples:

key of C:	C	D	E	F	G	A	B	C
	do	re	mi	fa	sol	la	ti	do
	1	2	3	4	5	6	7	8(1)

key of A:	A	B	C#	D	E	F#	G#	A
	do	re	mi	fa	sol	la	ti	do
	1	2	3	4	5	6	7	8(1)

On the outer circle, you can find the notes for a given key by starting one note counterclockwise from the key note and count that note and six more notes clockwise. For the key of C, the notes are F, C, G, D, A, E, B. Note: They are not in do-re-mi... order.

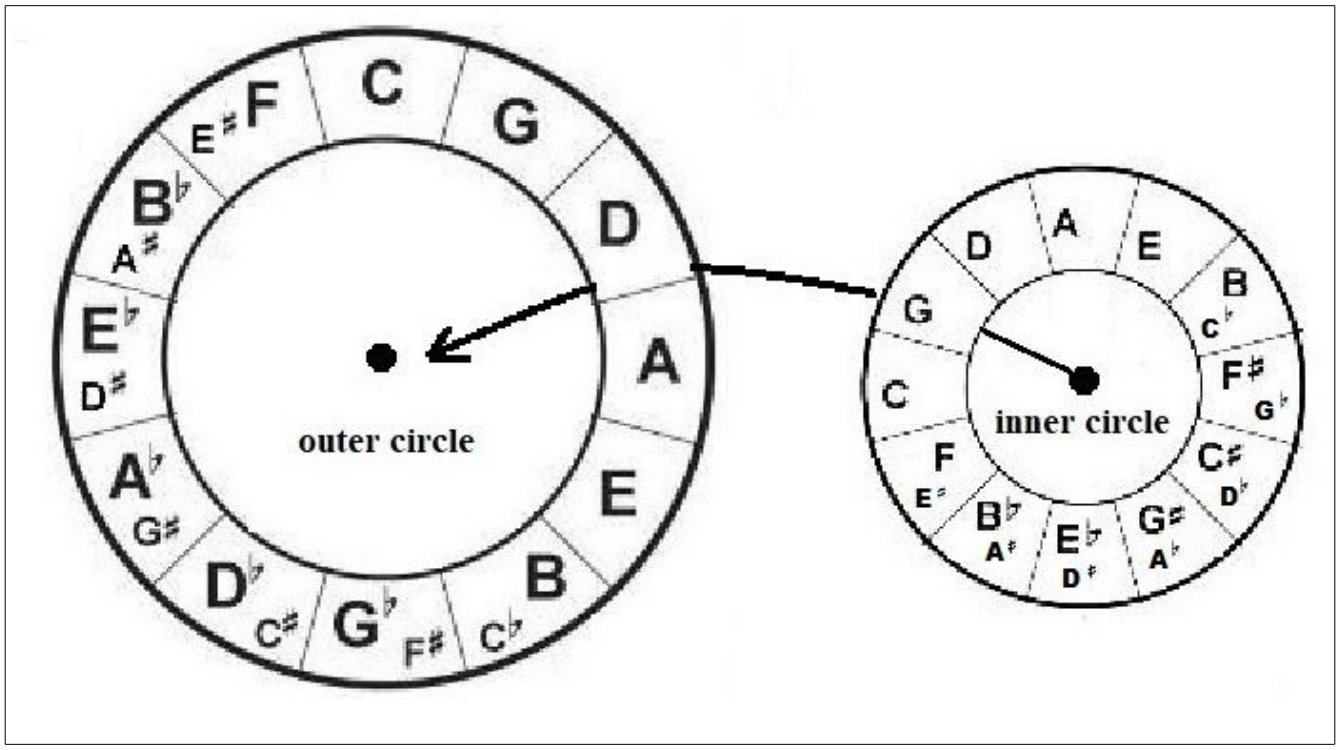
Each key has its own wedge with its own chords 1-6.

Each major key has a minor key called it's relative minor. Both keys use the exact same notes. The relative minor key for a major key appears just inside the major key on the inner circle. So Am is the relative minor key for the key of C.

Another property of the circle is that you can determine the number of sharps or flats in a key (its key signature). The key of C has no sharps or flats. As you go clockwise around the circle, add one sharp per key. As you go counterclockwise from C add one flat.

TRANSPOSING USING THE CIRCLE OF FIFTHS

For most purposes, the chart on the first page of this lesson is sufficient for transposing. The circle below is more complete. The circle can also be used for transposing. An advantage of this circle for transposing is that the notes/chords for common progressions are grouped together, for instance, C, F, G7. Here is a set of two identical circles and a description for using them for transposing. The entries on the two circles are notes. In addition, each entry represents chords built with the given note as base. Hence the note C represents C, Cm, C7, etc.

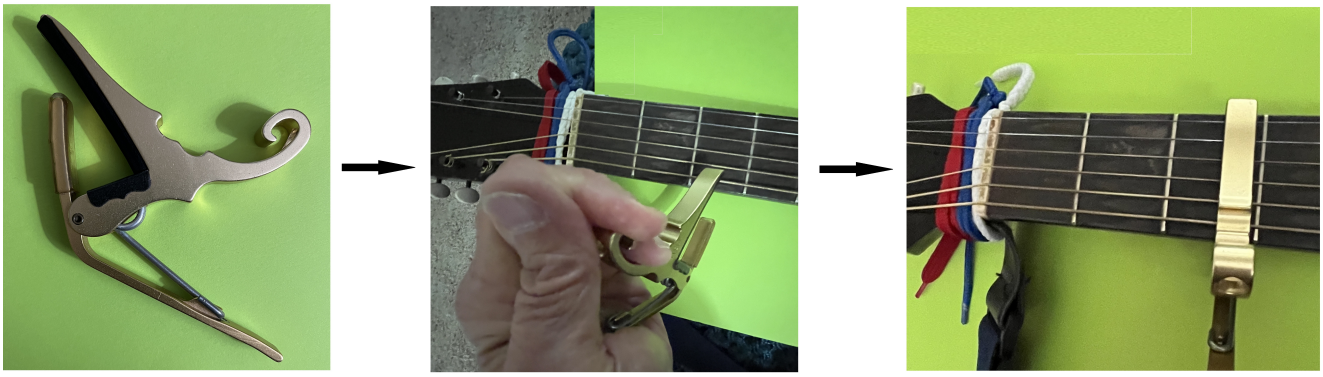


Cut out the inner circle and pin it to the outer circle, so it can rotate. On the outer circle, select the original key the song is written in. Rotate the inner circle to align the new key with the original key. New and old chords will now align on the two circles. For instance, to transpose from the key of E to the key of D, align E on the outer circle with D on the inner circle. Now E will be aligned with D, A will align with G, and B (B7) will align with A (A7). So in the original song, change E to D, A to G, and B7 to A7.

THE CAPO

You may want to play a song written in a key (e.g key of F) that you do not know (you don't know the chord fingering shapes for that set). You may, however, know the chord shapes for a different set of chords (e.g. the key of D).

You can use the chord shapes that you know by using the "capo". This device clamps on the neck of the guitar at some fret, and holds all six strings against that fret, thus raising the pitch of each string by the same amount. If you want to lower the pitch of a song, you can't move the capo below the "zero-th" fret (the nut). However, if the capo is on the twelfth fret, the chord is the same as if there is no capo, but an octave higher. Therefore, if you want to lower the pitch, you can count down from the twelfth fret. Below is one version of a capo. There are others.



Now if you play some chord shapes, say for the key of D, with the capo on some fret, the chord you are playing has been raised to some other chord. For instance, if the capo is on fret 3 as shown in the pictures above, then the chord you play with a D chord shape is three half steps above D, or F chord. This idea of "steps" is discussed next.

INTERVAL (STEPS) BETWEEN NOTES IN THE SCALE

This chart shows the interval or steps between notes in the scale. (Some notes have two names.)

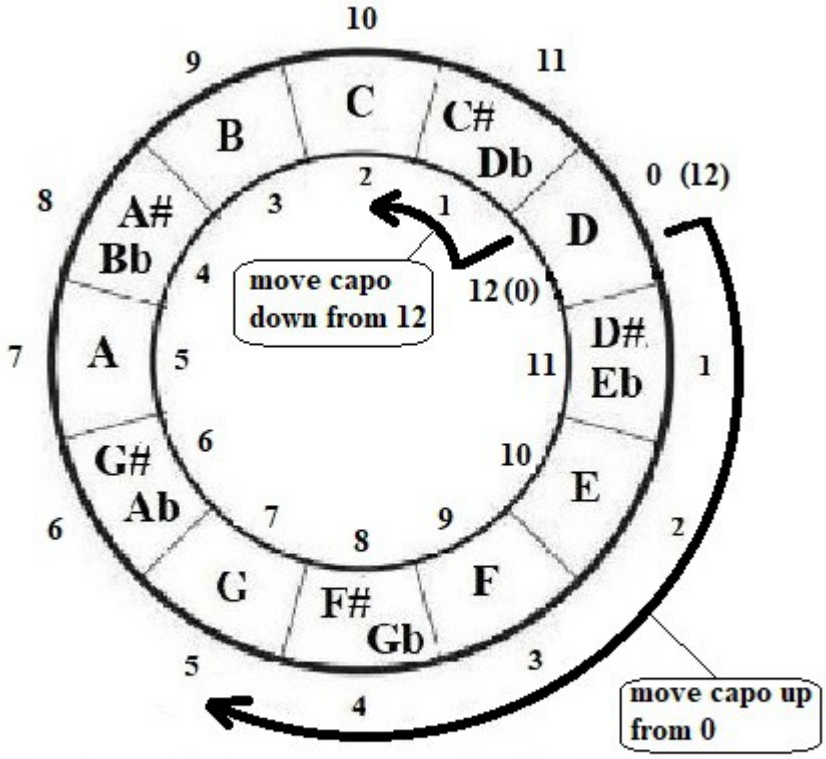
```
A-A#-B-C-C#-D-D#-E-F-F#-G-G#-A
   |       |     |       |     |
  Bb      Db    Eb      Gb    Ab
```

There is one half-step (or guitar fret) between notes in music. It helps to remember that between B-C and between E-F, there is only one half-step (underlined above).

There are two half-steps (frets) between every other non-sharped note pair on the first line, for instance between A and B. This sequence of notes repeats, and the first line of the chart above will be rolled into a circle to help with capo placement. The next page has this circle.

A CAPO PLACEMENT CIRCLE

Here is that interval information wrapped into a circle.



To use key of D shapes to play in the key of G, capo on fret 5.
To use key of D shapes to play in the key of C, capo on 10.
(fret 10 is 2 frets down from 12)

To use chord shapes in the key of X to play in the key of Y, use the above circle.

1. **On the outer circle, select X (chord shapes in key of X are to be used);**
2. **Count N steps clockwise on the circle to Y.**
3. **Put the capo on fret N.**

For example, to use key of D shapes to play in the key of G, count clockwise from D to G (5 steps) and put the capo on fret 5. Now when you use a D chord shape, you are playing a G chord. When you use the A7 shape, you are playing a D7 chord. And when you are using a G chord shape, you are playing a C chord.

Note that if you wanted to use key of D shapes to play in the key of C (pitching down from C), you would need to count around clockwise from D to C (10 steps) and place the capo on fret 10. This is equivalent to counting around counter-clockwise from D to C (5 steps) and moving the capo to fret 10. Note that placing the capo on a very high fret may cause a tinnier sound.

You can now cut out this circle and paste it behind the big transposing circle from about three pages back. You now have a two sided big circle and a one sided small circle (from previous page) to use for transposing and capo placement.

On this page, the transposing rules are used for nine different keys to the following songs:

WHEN THE SAINTS GO MARCHING IN (6 CHORD SETS)

A **O WHEN THE SAINTS GO MARCHING IN** **E7** **O WHEN THE SAINTS GO MARCHING IN** **A D** **O LORD I WANT TO BE IN THAT NUMBER** **A E7 A** **WHEN THE SAINTS GO MARCHING IN**	**E** **O WHEN THE SAINTS GO MARCHING IN** **B7** **O WHEN THE SAINTS GO MARCHING IN** **E A** **O LORD I WANT TO BE IN THAT NUMBER** **E B7 E** **WHEN THE SAINTS GO MARCHING IN**
C **O WHEN THE SAINTS GO MARCHING IN** **G7** **O WHEN THE SAINTS GO MARCHING IN** **C F** **O LORD I WANT TO BE IN THAT NUMBER** **C G7 C** **WHEN THE SAINTS GO MARCHING IN**	**F** **O WHEN THE SAINTS GO MARCHING IN** **C7** **O WHEN THE SAINTS GO MARCHING IN** **F Bb** **O LORD I WANT TO BE IN THAT NUMBER** **F C7 F** **WHEN THE SAINTS GO MARCHING IN**
D **O WHEN THE SAINTS GO MARCHING IN** **A7** **O WHEN THE SAINTS GO MARCHING IN** **D G** **O LORD I WANT TO BE IN THAT NUMBER** **D A7 D** **WHEN THE SAINTS GO MARCHING IN**	**G** **O WHEN THE SAINTS GO MARCHING IN** **D7** **O WHEN THE SAINTS GO MARCHING IN** **G C** **O LORD I WANT TO BE IN THAT NUMBER** **G D7 G** **WHEN THE SAINTS GO MARCHING IN**

GREENSLEEVES (3 CHORD PROGRESSIONS)

AM C G EM **ALAS MY LOVE, YOU DO ME WRONG,** **AM E** **TO CAST ME OFF DISCOURTEOUSLY.** **AM C G EM** **FOR I HAVE LOVED YOU SO LONG,** **AM E7 AM** **DELIGHTING IN YOUR COMPANY.**	**DM F C AM** **ALAS MY LOVE, YOU DO ME WRONG,** **DM A** **TO CAST ME OFF DISCOURTEOUSLY.** **DM F C AM** **FOR I HAVE LOVED YOU SO LONG,** **DM A7 DM** **DELIGHTING IN YOUR COMPANY.**	**EM G D BM** **ALAS MY LOVE, YOU DO ME WRONG,** **EM B** **TO CAST ME OFF DISCOURTEOUSLY.** **EM G D BM** **FOR I HAVE LOVED YOU SO LONG,** **EM B7 EM** **DELIGHTING IN YOUR COMPANY.**

