SORE FINGERS SUMMER SCHOOLS

THE CIRCLE OF FIFTHS AND THE NASHVILLE NUMBERING SYSTEM

A Sore Fingers Workshop

Contents

Introduction

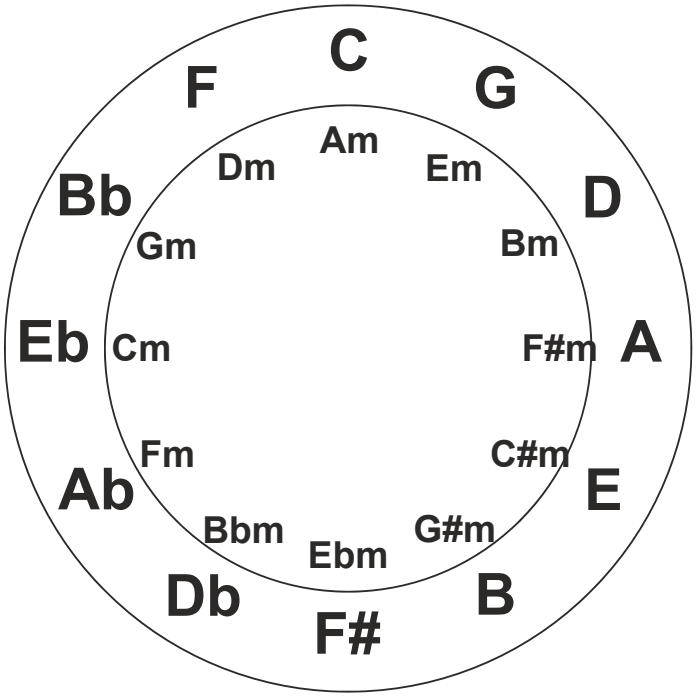
We are pretty fortunate in that Bluegrass and old Time music follows a fairly simple structure and many songs and tunes fall into the "Three chord Trick" category. So, when playing informally in a session, the leader calls out this one's in the key of "G", it's usually pretty simple to find out what the other two chords are without any deep knowledge of music theory.

There are thousands of popular songs that follow the three chord trick and getting to grips with the following notes will enable you play lots of stuff!

Both the circle of Fifths and the Nashville numbering system are tools that help with this process and help you find the three basic chord easily but also other chords that might be in the tune.

The Circle of Fifths

It's worth copying this page, cutting out the circle, laminate it and put it in your instrument case. It's useful to have at hand.



How to use the Circle of Fifths:

The outer circle shows the names of the major chords, the inner the relative minor chords.

The chords in both inner and outer circles are arranged clockwise in "Fifths" as follows (just a simple count) i.e. Root = C, count 5 steps: (1) **C**, (2) D, (3) E, (4) F, (5) **G**

In reverse, or counter clockwise, the chords are arranged in fourths i.e: Root = C, count 4 steps: (1) **C**, (2) D, (3) E, (4) **F**. Please note you always count up the scale, i.e. A, B, C, D, etc

This is an over simplified view, but I'm only aiming to get you started here.

As explained in the introduction, many songs and tunes only have three chords and those three common chords are the Root, Fourth and the Fifth.

So as we've already established in the circle, if the song is in the key of C, one of the other two chords is going to be G, in fact the next chord name moving around the circle in a clockwise direction. The other common chord, the fourth is the next chord name along the circle but in the counter clockwise direction in this case F.

What the circle does is remove the guesswork. If your song is in the key of D for example, the fifth chord is found next to the D in the clockwise direction, in this case A, and the fourth chord is found next to the D but in the counter-clockwise direction, in this case G.

Putting this to practical use. At a session the fiddler wants to play Turkey in the Straw in the key of A. You know it but in the key of G.

In the key of G, the other two chords will C and D. From the circle, you work out C is the fourth and D is the Fifth. To transpose those chords to the new key of A, refer to your circle to find the A chord name, and you quickly deduce that fourth chord C becomes D, and fifth chord G becomes E.

If the tune also contains a minor chord, it is most probably the relative minor. Find the Root, A – remember, we are playing Turkey in the Straw in A), the relative minor chord name is opposite in the inner circle, in this case F#m.

The Theory Behind the Counting

The count, 1, 2, 3, 4 and 5 doesn't come out of nowhere, it's based on a number of intervals between chords.

A few explanations are needed.

Each note (or chord) in scale is separated by a semi tone. That is the interval between tow note seperated by one fret on a guitar or any fretted instrument.

If you play the fifth string at the third fret on the guitar, you get a "C". One fret up and you get "C#". That is called a semi-tone. The table below shows the full chromatic scale in several popular keys.

So how is the counting worked out:

Following the notes in the table, you will see that the number 1, 2, 3, 4 and 5 fall on certain chords and you can see the number of semi tones between them.

We can quickly work out that:

- Intervals between Root or 1 chord and 4th Chord is 5 semi-tones.
- Intervals between the root (1) and the 5th chord is 7 semi-tones.

So, the intervals between the numbers is generally 2 semi-tones except between numbers 3 & 4 and 7 & 8, where there is only one semi-tone.

This is a little bit of theory you need to learn and retain for future use! But, the more you relate the chords you are playing to these tables, the easier it will get. That's why it's useful to have these notes with you at a session or band practise.

Counting the semi-tones will tell you if the chord needs to be sharpened or flattened.

Let's put that into practice:

If we are playing in the key of "B", a straight count will give you a false result.

1 = B, 2 = C, 3= D, 4 = E and 5 = F. If you play those chords, things will not sound right because no account has been taken of the semi-tone intervals.

So, let's; start again and check the table:

1 = B + 2 semi-tones = 2 C# + 2 semi-tones D# + 1 semi-tone = E +2 semi-tones = F

Table of Intervals (semi-tones)

½	½	½	½	½	½	½	½	½	½	½	½
A	A#/Bb	B	C	**C#/Db**	**D**	D#/Eb	**E**	F	F#/Gb	G	G#/Ab	A
G	G#/Ab	A	A#/Bb	**B**	**C**	C#/Db	**D**	D#/Eb	E	F	F#	G
C	C#/Db	D	D#/Eb	**E**	**F**	F#	**G**	G#/Ab	A	A#/Bb	B	C
D	D#/Eb	E	F	**F#/Gb**	**G**	G#/Ab	**A**	A#/Bb	B	C	C#/Db	D
B	C	C#/Db	D	**D#/Eb**	**E**	F	**F#**	G	G#/Ab	A	A#/Bb	B
1	-	2	-	3	4	-	5	-	6	-	7	8
Major	**Minor Second**	**Major Second**	**Minor Third**	**Major Third**	**Perfect Fourth**	**Augmented Fourth Diminished Fifth**	**Perfect Fifth**	**Minor Sixth**	**Major Sixth**	**Minor Seventh Augmented Sixth**	**Major Seventh**	**Major**

You can also use the table to transpose a song/tune to another key. If you know the chords to a tune in the key of "G", you can quickly work out what chords you need to play if you want to transpose to the key of "A" for example.

So, in the key of "G", when you have to play a "C" chord, by following the column for the fourth chord, you can see which chord you should be playing in the key of "A". Simple

The Nashville Numbering System

If you've mastered the sections above, the Nashville Numbering System will seem completely logical. As long as you've registered the number of semi tone between each number, the rest is child's play!

So, to recap:

Between 1 and 2 - 2 semi-tones

Between 2 and 3 - 2 semi-tones

Between 3 and 4 – 1 semi-tone

Between 4 and 5 – 2 semi-tones

Between 5 and 6 - 2 semi-tones

Between 6 and 7 - 2 semi-tones

Between 7 and 8 – 1 semi-tone.

To save speaking in actual musical keys, this numbering system was developed and is widely used in Nashville studios to call chords. It's not unusual for musician to call out "four", "five" in the middle of song or a tune. The main advantage is that you can be any key.

The "one" chord represents the root chord, for example if we play in G then the root chord will be G (or 1).
The "two" chord would then be the A.
The "three" chord would be the B
The "four" chord would be the C
The "five" chord would be the D and so on!

If we play in C – then C becomes the root chord (or 1), the "two" chord would then be D, the "three" chord would then be E, the "four" chord would then be F, the "five" chord would then be G and so on.

Example

1 4 1

Will the Circle be unbroken, bye and bye Lord bye and bye

In the first line of this song we go from the one chord to the 4 chord and back to one.

Played in G that would be starting in G going to C and back to G Played in C that would be starting in C going to F and back to G

The most common chords in songs are 1, 4 & 5 – there are a lot of songs with just three chords. When the number 6 is mentioned it most often relates to the key's relative minor chord. You can find that chord using the Circle of Fifths diagram above.

The table below shows all the numbers for the principal chords in every key. You can also use this table to transpose from one key to another.

In some instances, the numbering will be expressed in Roman numerals:

I – IV – V – VI, etc.

	Nashville Number						
Key	1	2	3	4	5	6	7
A	A	B	C#	D	E	F#m	G#
B	B	C#	D#	E	F#	G#m	A#
C	C	D	E	F	G	Am	B
D	D	E	F#	G	A	Bm	C#
E	E	F#	G#	A	B	C#m	D#
F	F	G	A	Bb	C	Dm	E
G	G	A	B	C	D	Em	F#