



## WHAT ARE KEY SIGNATURES

Music contains twelve distinct notes or pitches, each twelve notes or pitches can be positioned over many octaves. However most music melodies do not use all of the available twelve notes or pitches within a specific melody. Typically only seven of the twelve note or pitches are regularly used for a chosen melody. To identify which main seven notes are used for a melody a key signature is used. The addition of the sharp or flat note in a piece of music is shown by adding the sharp or flat symbol at the start of each ledger line, the order of adding these symbols (sharp # or flat b) follows the order of notes as detailed in the circle of fifths.



### KEY SIGNATURE ORDER OF SHARPS:

**Sharps:** For sharps the order from left to right in the written music notation is F-sharp, C-sharp, G-sharp, D-sharp, A-sharp, E-sharp, and B-sharp.

### EXAMPLES OF DETERMINING SHARP KEY SIGNATURES USING THE GIVEN ORDER OF SHARPS

For key of E, go down one full step to D, then count all of the sharps from the beginning of the order of sharps sequence until you get back to D sharp, F-sharp, C-sharp, G-sharp, D-sharp. Therefore key of E has four sharps.

For key of D, go down one full step to C, then count all of the sharps from the beginning of the order of sharps sequence until you get back to C sharp, F-sharp, C-sharp. Therefore key of D has two sharps.

For key of F#, go down one full step to E, then count all of the sharps from the beginning of the order of sharps sequence until you get back to E sharp, F-sharp, C-sharp, G-sharp, D-sharp, A-sharp, E-sharp. Therefore key of F# has six sharps

Repeat above steps for all other Sharp Keys.

### KEY SIGNATURE ORDER OF FLATS:

**Flats:** For sharps the order from left to right in the written music notation is: B-flat, E-flat, A-flat, D-flat, G-flat, C-flat, and F-flat.

### EXAMPLES OF DETERMINING FLAT KEY SIGNATURES USING THE GIVEN ORDER OF FLATS

For key of Bb go to B, then count all of the flats from the beginning of the order of flats sequence until you get back to until you get back to flat you have chosen and add one more, B-flat, E-flat. Therefore key of Bb has two flats.

For key of Ab go to A, then count all of the flats from the beginning of the order of flats sequence until you get back to flat you have chosen and add one more B-flat, E-flat, A-flat, D-flat. Therefore key of Ab has four flats.

For key of Cb go to C, then count all of the flats from the beginning of the order of flats sequence until you get back to flat you have chosen and add one more B-flat, E-flat, A-flat, D-flat, G-flat, C-flat, and F-flat. Therefore key of Cb has seven flats.

Repeat above steps for all other Flat Keys.

### Useful Mnemonic for remembering the order of Sharps and Flats

Father Charles Goes Down And Ends Battle

The above is a useful mnemonic for remembering the order of sharps and flats, because it is a palindrome!

To get the order of flats, just say it backwards: **Battle Ends And Down Goes Charles' Father**

### LOCATING RELATIVE MINOR:

Step back 3 half steps. E.G. for C Major, step back 3 half steps to A. Therefore Relative minor of C Major is A Minor. A relative key has the same number of Sharps or Flats as the Major Key.

**Major Chords:** consist of three notes, a root, a major third and a perfect fifth (**1 – 3 – 5** which refers to the Major scale degrees ).

**Minor Chords:** triad minor chord is **1 - b3 - 5**, which refers to the Minor scale degrees.

**Seventh chords:** consist of a 4 note chord, for this chord you need to **lower or flatten the 7<sup>th</sup>** note a semi-tone.

**Diminished chords:** are formed by combining the root, flattened third (minor third) and flattened fifth of the major scale (**1, b3, b5**).

**Suspended Chords:** (or Sus Chords) are chords where the **3rd** has been replaced by a **2nd** or (more usually) the **4th**.

### The Roman numerals represent the steps of a music scale, either major or minor.

From each step of the scale, a *triad* or a basic chord in *root position* can be built. These triads are also called "Diatonic" ('diatonic' simply means 'within a key').

- **Capital numbers:** *I II III IV V VI VII* represent the Major chords.
- **Small letter numbers:** *i ii iii iv v vi vii* represent the Minor chords.

If we build chords on every step in the scale (called Diatonic Harmony), **all the major scales** will be made up of the following chord shapes:

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**I - ii - iii - IV - V - vi - vii° and back to I (or VIII)**  
(The little circle ° means that the chord is diminished.)

Using the above sequence for example a C major scale yields these chord shapes:

**C – Dm – Em – F – G – Am – B dim, and back to C**

(**Red** Notes/Positions = popular chords in most music [Side note: 1<sup>st</sup>, 5<sup>th</sup> and 7<sup>th</sup> Fret on a guitar for same shape chord, e.g. E shape] )

**Any natural minor scale** will yields these chord shapes:

**i - ii° - III - iv - v - VI - VII - (i)**

Using the above sequence for example an A minor scale, the chords are:

**Am – B dim. – C – Dm – Em – F – G - Am**

Moving from one chord of a scale to another chord in that scale is call a chord progression.

The most popular chord progression for many Western melodies is 1, 4, 5; this means chords associated with the scale positions 1, 4 and 5. So for the simple scale of C major, this would be the chords C, F and G. There are many other chord progressions, see the link 'Transposition and Chord' tables on the Visibly Sound webpage, to view other progressions.

**Often** you can come across progressions that are not part of a simple chord progression: These can comprise of the Relative Minor of the **1<sup>st</sup>, 4<sup>th</sup> and 5<sup>th</sup> chords**, a Seventh of the 5<sup>th</sup> chord, plus Major Chords for the associated Relative Minors, and possibly one chord based on the note a whole step down from the root note. Relative minors are 3 half steps or semitones below the note you start on.

Eg. Following above suggestions, for **C maj**, chord sequence could comprise of **C (Am) & (Amaj)** and possibly 1 step back from **C (A# / Bb)**, **F (Dm) & (Dmaj)** **G (G7) & (Em) & (Emaj)**. Sometimes also a Minor 7<sup>th</sup> for the 2<sup>nd</sup> note of the chord **(F min 7<sup>th</sup>)**