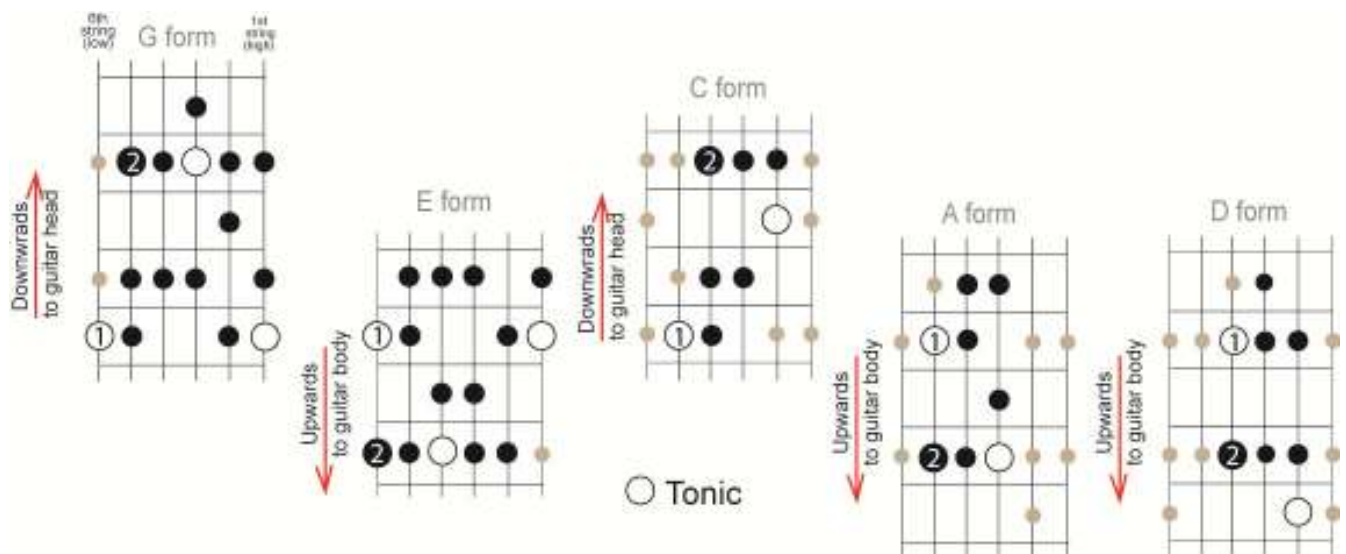


Guitar chords and scales

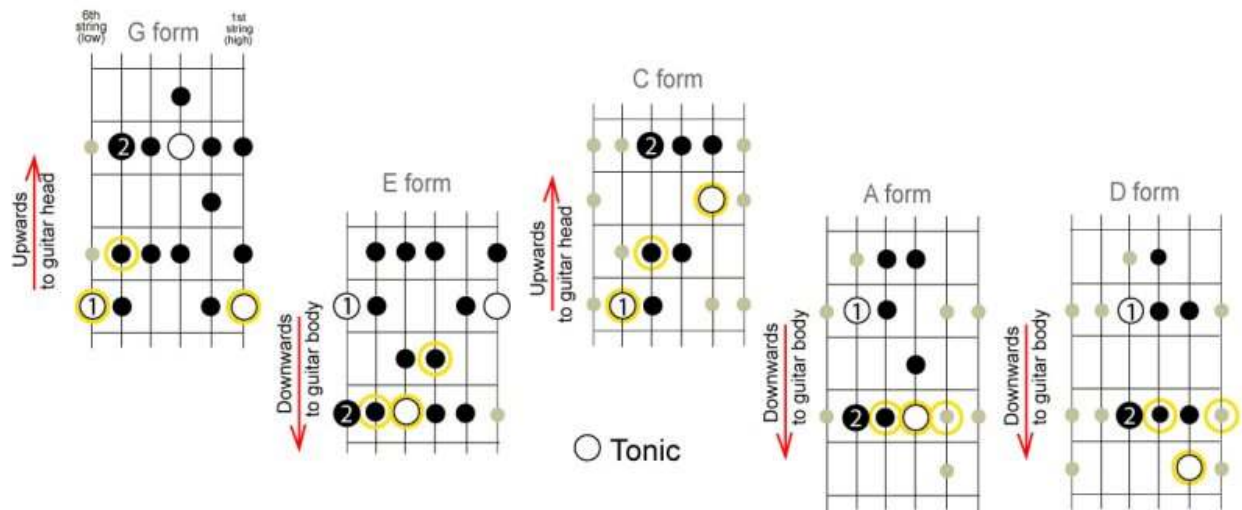
J. Chaurrette, December 2012

There are 5 different ways to play a major scale on the guitar. They each have a distinct pattern that can be played anywhere on the neck of the guitar. They are distinguished by the fact that the tonic (root or 1st note of the scale) starts on the 6th, 5th or 4th string and the subsequent notes are located downwards towards the head of the neck or upwards towards the body of the guitar. The tonic of the scale is identified by a white circle. Here are the five patterns:



Each position above shows a different way to play the major scale. These positions cover a range of 4 to 5 frets. The black dots cover either one octave or two. The grey dots are notes in the same scale either lower or higher and complete the position.

These five scale patterns are called positions 1, 2, 3, 4 and 5. Calling something as complicated as this no. 1, 2, 3, 4, and 5 does not provide any association to help you remember the patterns. Fortunately they can be named after the chord form that the first note belongs to providing a link between chord and scale. So they can be named the G form scale, E, C, A and D form scale which is much easier to remember and more practical because chords and scales belong together. The first chord of each major scale form defines 5 different chord shapes or forms and as you would guess they are the G, E, C, A and D form chords.



The notes circled in yellow show the open chord forms.

Why D form and not just D chord, because this D shape can be played up and down the neck, there is only one place on the neck that it can be called a D chord.

One way to practice the 5 different scale forms is to play the tonic first instead of starting on the 6th or top string. This way your ear will help you play an octave correctly and you can add the low or high notes easily to cover a 4 or 5 wide fret zone.

How does this help you be a better musician? It gives you more options; it allows you to play the same notes or chords on a different part of the neck which will be 1 or 2 octaves up or down. It opens up all the notes of the guitar to you. Nice eh?

The following chart provides all the 3-note chords that correspond to the notes of the F major scale. The notes of the chords are chosen by starting on a note then skipping the next note, keeping the third note, then skipping the next note and keeping the fifth note. For example, the F chord of the F major scale has the notes F, A and C, so we skipped the A and B notes.

Chords from the F major scale

F - G - A B \flat - C - D - E F

1 2 3 4 5 6 7 1

F **Gm** **Am** **B \flat** **C** **Dm** **E $\frac{1}{2}$ -dim**

The most important characteristic of chords is whether they are major or minor. The chords of a major scale are made of major and minor chords. All songs in the Western world are played in a major scale or a variant of it. Our ear can be easily trained to detect a major chord and a minor chord. This is very helpful if you want to learn a song by ear instead of having to go out and buy the partition.

Open string form (playable only at the head)

G form E form C form A form D form

Closed string form (playable anywhere on the neck)

G form E form C form A form D form

You are probably wondering why there are X's on the 6th string of the C and A form chord and on the 6 and 5th string of the D form chord. The X indicates that the note is not to be played. In the case of the C form chord (open form) you could play the note on the 3rd fret which is a G since the G is also a note in the chord. However, a C chord should always start with a C, if it doesn't it is known as an inversion and depending on which note is played first it will be the 1st or second inversion. The first inversion is indicated with an uppercase 6 or C⁶ and the second inversion as uppercase 6 and lowercase 4 or C⁶₄. The first inversion is also known as C/E or C slash E indicating that the E is played first. Many songs have chords with a first or second inversion, it can be hard to detect and looking for that chord maybe difficult if an inversion is not suspected.

In the case of the A form open chord the 6th string cannot be played at all because it is not a part of the chord. The chord should start on the open 5th string which is the A.

In the case of the D form open chord the 6th and 5th strings are normally not played and you start on the open 4th string which is a D. However you could start on the 6th string which is an F# and that is the first inversion D⁶ or D/F# and you can also start on the 5th string which is an A forming the 2nd inversion or D⁶₄ or D/A.

The distinction between major and minor depends on the interval between the first two notes of the chord, if the interval is a major third which is 4 **fret-steps** (or frets) on the guitar it is a major chord, and if it is a minor chord it is 3 fret-steps. A fret-step is often called a semi-tone or a half-step. I find this terminology confusing and if you are playing the guitar every fret moves you up or down by a semi-tone so why not call them fret-steps. The interval between the 1st and 3rd note is a perfect fifth or 7 fret-steps and is the same for a major or minor chord.

Because the notes of the major scale are separated by different intervals, when you form a chord by starting on any note and skipping every subsequent note you get a pattern of chords, major, minor, minor, major, major, minor and diminished, and this applies to any major scale. For example the C major scale will have the chords C, Dm, Em, F, G, Am and Bdim.

So once you figure the key of the song which is not that difficult because it is often the first or last chord played then when you hear the other chords of the song most of them will likely belong to the scale of that key and they will be familiar to you.

Chord notes

1 3 3 5 5 7

Falling fifth sequence
1-4-7-3-6-2-5

Major scale chords



1 Maj

2^m min

3^m min

4 Maj

5 Maj

6^m min

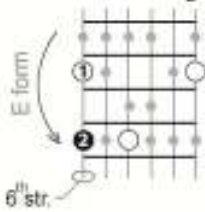
7^ø 1/2 dim

Scale positions

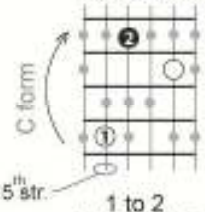
1 to 2 higher string



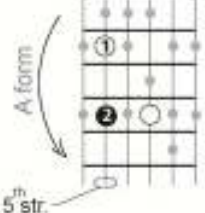
1 to 2 same string



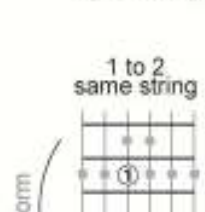
1 to 2 higher string



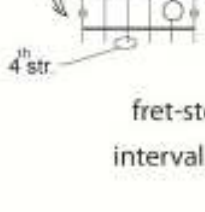
1 to 2 same string



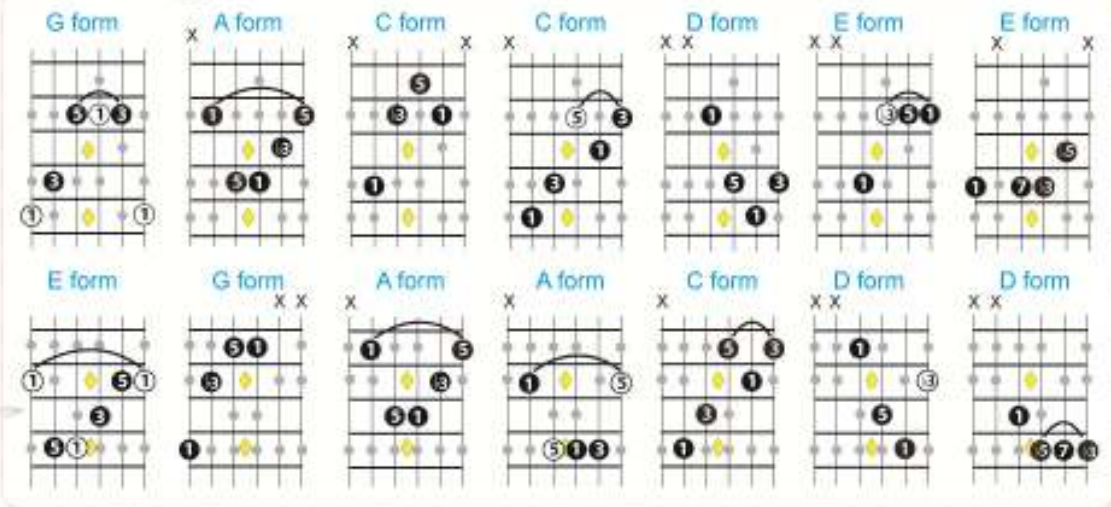
1 to 2 higher string



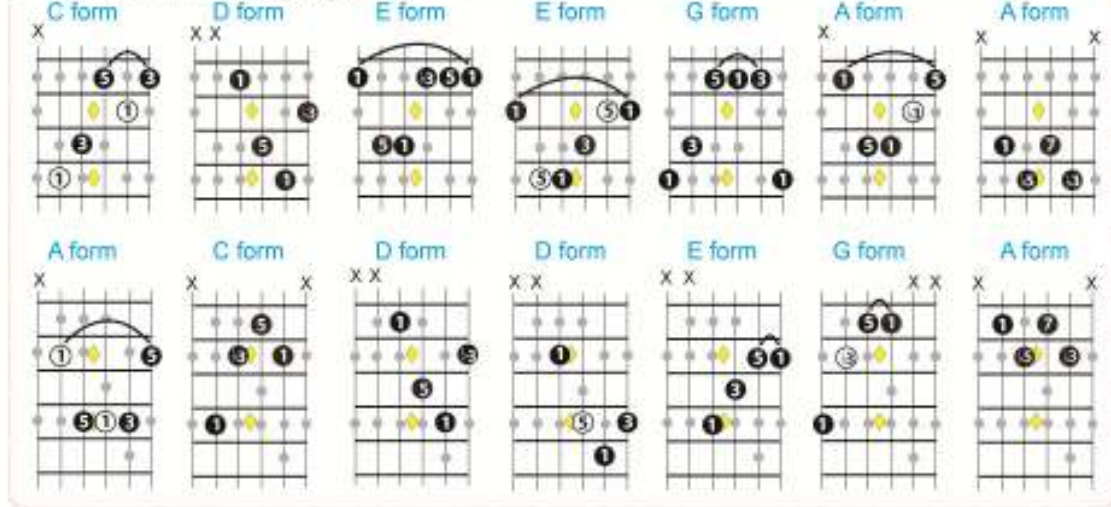
1 to 2 same string



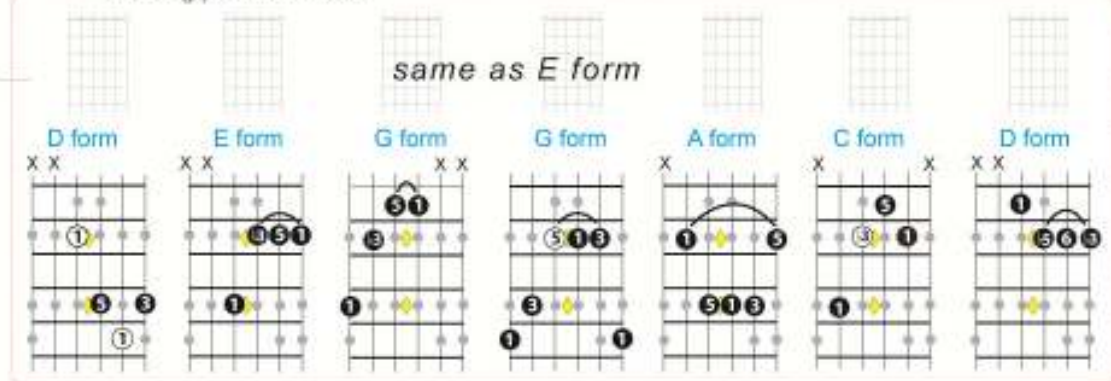
6th string position chords



5th string position chords



4th string position chords



intervals P1- m2- M2- m3- M3 - P4- TT- P5- m6 - M6 - m7- M7 - P8
fret-step length 1 2 3 4 5 6 7 8 9 10 11 12
interval notation 1- b2 - 2 - b3 - 3 - 4 - b5 - 5 - b6 - 6 - b7 - 7 - 1

There are also many minor scales that are derived from the major scale.

Major and minor scales



C - Major (all styles)

1- ♭2 - 2 - ♭3 - 3 - 4 - ♭5 - 5 - ♭6 - 6 - ♭7 - 7 - 1

C major

Characteristic: the basic scale of Western music

1	2	3	4	5	6	7	1
C	D	E	F	G	A	B	C

A - Natural minor (pop and rock)

1- ♭2 - 2 - ♭3 - 3 - 4 - ♭5 - 5 - ♭6 - 6 - ♭7 - 7 - 1

A minor (natural)

Characteristic: same as the major scale, starts on the 6th

1	2	♭3	4	5	♭6	♭7	1
A	B	C	D	E	F	G	A

A - Harmonic minor (Spanish, latin and classical)

1- ♭2 - 2 - ♭3 - 3 - 4 - ♭5 - 5 - ♭6 - 6 - ♭7 - 7 - 1

A minor (harmonic)

Characteristic: same as natural minor, sharp the 7th

1	2	♭3	4	5	♭6	7	1
A	B	C	D	E	F	G#	A

A - Melodic minor (jazz)

1- ♭2 - 2 - ♭3 - 3 - 4 - ♭5 - 5 - ♭6 - 6 - ♭7 - 7 - 1

A minor (melodic)

Characteristic: same as harmonic, sharp the 6th

1	2	♭3	4	5	6	7	1
A	B	C	D	E	F#	G#	A

And the chords that are derived from these scales are shown in the following figures.

Minor (harmonic) scale chords



Falling fifth sequence
1-4-7-3-6-2-5

$\bar{1}^m$
min

$\bar{2}^{\circ}$
dim

$\bar{3}^+$
aug

$\bar{4}^m$
min

$\bar{5}$
Maj

$\bar{6}$
Maj

$\bar{7}^{\circ}$
dim

(or 1/2-dim 7)

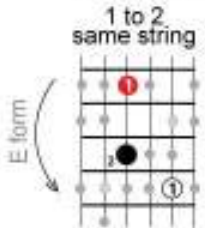
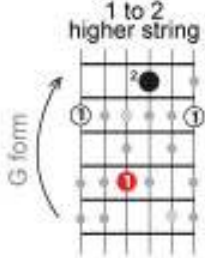
(or 1/2-dim 7)

Scale positions

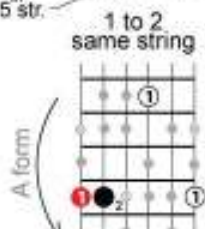
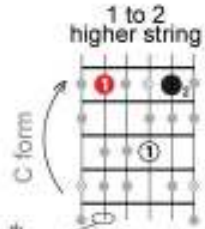
6th string position chords

5th string position chords

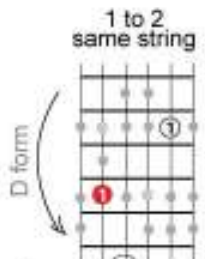
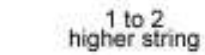
4th string position chords



E form x x	E form x x	G form x x	A form x	C form x	C form x	D form x x
D form x x	D form x x	E form x x	G form x x	A form x	A form x	D form x x



A form x	A form x	C form x	D form x x	E form x	E form x	A form x
G form x x	A form x	C form x	C form x	D form x x	D form x x	E form x x



same as E form

C form x x	D form x x	D form x x	E form x x	G form x	A form x	A form x
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Note: the scale note pattern for each form is the same as the pattern of the major scale except that it starts on the sixth note of the scale and the seventh note is sharpened, this is the definition of the minor harmonic scale. Half diminished seventh chords are sometimes used instead of full diminished since often the full diminished chord is not playable.

Minor (melodic) scale chords



Falling fifth sequence
1-4-7-3-6-2-5

$\bar{1}^m$
min

$\bar{2}^o$
min

$\bar{3}^+$
aug

$\bar{4}^m$
Maj

$\bar{5}$
Maj

$\bar{6}$
dim

$\bar{7}^o$
dim

(or 1/2-dim 7)(or 1/2-dim 7)

Scale positions

1 to 2 higher string

G form

1 to 2 same string

E form

6th string position chords

E form	G form	G form	A form	C form	D form	D form
D form	E form	E form	G form	A form	A form	D form

5th string position chords

1 to 2 higher string

C form

5th str.

1 to 2 same string

A form

5th str.

A form	A form	C form	D form	E form	E form	G form
G form	A form	C form	C form	D form	D form	E form

4th string position chords

1 to 2 higher string

D form

4th str.

1 to 2 same string

D form

4th str.

same as E form

C form	D form	D form	E form	G form	G form	A form
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Note: the scale note pattern for each form is the same as the pattern of the major scale except that it starts on the sixth note of the scale and the seventh and sixth note is sharpened, this is the definition of the minor melodic scale. Half diminished seventh chords are sometimes used instead of full diminished since often the full diminished chord is not playable.