

# Chord Symbol Nomenclature

by Russell Schmidt

## learning the notational rules to understand the notes in each chord

In both sacred and secular settings, working musicians are likely to see compositions notated in a variety of ways:

- 1) Fully-notated music (as with most classical music, SATB hymns, etc.),
- 2) Lead sheets (as with many jazz and pop charts, showing a melody with chord symbols over the form),
- 3) Chord sheets (showing only the harmonic progression in chord symbols over the form),
- 4) Lyric sheets (showing lyrics, often times with basic chords or Roman numerals, but no indication of phrase lengths, number of beats each harmony should be played, etc.; these types of sheets assume the musicians already have at least some familiarity with the piece to be performed).

The prevalence of chord symbols in much of today's music makes knowing how to read them a necessity for performers. Consider it from this parallel perspective: a chemist simply needs to know that **Na** on the periodic table of elements represents **sodium**. In order to do one's job effectively in that world, there is a basic requirement that important symbols and abbreviations be memorized. Similarly, a working musician must know that **CΔ7** represents the notes **C**, **E**, **G**, and **B** (from bottom to top) in order to succeed in an environment where they will be reading chord symbols.

For those that do not understand chord symbol nomenclature, the intent of this handout is to explain the rules that govern how chord symbols are constructed and interpreted. It will also show, through various musical examples, which notes are actually present in the chord symbols found in lead sheets and chord sheets.

Let's start by looking at three of the most common types of jazz chord symbols, shown on the staff immediately below. Note that, for this initial set of three chords, we will examine them both from the perspective of traditional music theorists as well as working musicians (and how each group might refer to the chords).

The image shows a musical staff with three measures. The first measure is in 4/4 time with a key signature of one flat (Bb). It contains a C7 chord. The second measure is in 4/4 time with a key signature of one flat and contains a CΔ7 chord. Above this chord are three sub-labels: (C Maj7), (C Ma7), and (C M7). The third measure is in 4/4 time with a key signature of two flats (Bb, Eb) and contains a C mi7 chord. Above this chord are three sub-labels: (C-7), (C m7), and (C min7).

This chord is C dominant seventh or, as a working musician might more simply term it, "**C seven**". It will often be seen functioning as a **V7** chord in a "ii - V7 - I" progression. In traditional theory terms, this type of seventh chord would be labeled "**Mm**" (the 3rd, "E", being a Major 3rd above the root and the 7th, "Bb", being a minor 7th above the root).

This chord is C Major seventh or, as a working musician might term it, "**C Major seven**". It is often seen functioning as a **I** chord in a "ii - V7 - I" progression. In traditional theory terms, this type of seventh chord will be labeled "**MM**" (the 3rd, "E", being a Major 3rd above the root and the 7th, "B", being a Major 7th above the root).

This chord is C minor seventh or, as a working musician might term it, "**C minor seven**". It will often times function as a **ii** chord in a "ii - V7 - I" progression. In traditional theory terms, this type of seventh chord is labeled "**mm**" (the 3rd, "Eb", being a minor 3rd above the root and the 7th, "Bb", being a minor 7th above the root).

Having looked at those three basic chord types, and with an understanding that subtle changes in notation can have a big impact on the pitches present in a chord, let's examine the various rules and guidelines of chord symbol nomenclature that will help musicians put the correct notes in each chord.

### I. Understanding the foundational triads upon which more complex chords are built

At the top of the next page, you will find four common triads: Major, minor, augmented, and diminished. Additionally, a fifth example of a three-note harmony appears: the suspended (a.k.a. "sus" or "sus4") chord. Some music theorists disagree as to whether a sus4 chord is a triad or not; a more rigid interpretation of the term "triad" would define it as a harmony resulting only from the stacking of 3rds. The sus4 chord is instead the result of stacking a P4th interval (between the lowest and middle notes) and a Major 2nd interval (between the middle and highest notes). However, as it is still a very common three-note harmony, I have chosen to include the sus4 chord here with the other four triads.

## Chord Symbol Nomenclature

understanding the notes in each chord

C                      C mi (a.k.a. and and C- C m C min)                      C+                      C o (a.k.a. C dim)                      C sus (a.k.a. C sus4)

Occasionally, the word "TRIAD" will appear next to the basic symbol (as shown at right) as a way of more strongly indicating that *only* the sound of the triad is desired. This typically appears more in jazz charts than pop charts, as it is common for most jazz harmonies to be at least four-note harmonies. By being extra clear (through the addition of "TRIAD", with or without parentheses), the composer or arranger is trying to ensure that no 7th is mistakenly added to the chord.

C TRIAD                      C mi (TRIAD)                      C sus (TRIAD)

*One brief aside here, as can be seen above (particularly with minor chords), there are multiple ways of portraying certain common chord symbols. For example, a C minor seventh chord might be displayed as Cm7, Cmi7, Cmin7, or C-7. In fact, C-7 is particularly common, but somewhat confusing due to the fact that the "minus" symbol is also used to alter chord extensions (discussed on the next page). As another example, a C Major seventh chord may be shown as CΔ7, CM7, CMa7, or CMaj7. Although a challenge to have to memorize all the variations, it is a necessity due to the lack of standardized chord symbols between different publishers.*

### II. How the notation of extensions will impact the number of notes in the chord

Seventh chords are extremely common in jazz and popular music. In fact, the 7th is not considered a chord extension. *True* extensions (the 9th, 11th, and 13th) which appear to be part of the basic chord quality---meaning numbers attached to the original note name (or root) of the chord, not numbers found in possible, subsequent parentheses---include all lower odd numbers (root, 3rd, 5th, 7th, and so forth) unless otherwise indicated.

Some examples:

C mi<sup>7</sup>                      C mi<sup>9</sup>                      C mi<sup>11</sup>                      C mi<sup>13</sup>

Note that for each of these chords, the main symbol indicates an inclusive interpretation: For Cmi9, you need to include both the 7th and 9th (in addition to the foundational triad of root, 3rd, and 5th). For Cmi11, you need to include the 7th, 9th, and 11th (again, in addition to the foundational triad of root, 3rd, and 5th). And for Cmi13, you need to include all seven notes (from bottom to top): root, 3rd, 5th, 7th, 9th, 11th, and 13th.

But what if we don't want all those notes? Then we can add parentheses to the chord symbol, giving us "added tones". The added tones found in the parentheses do not have the same rule attached to them: they are not inclusive all the way back down to the root. Only the number *before* the first parenthesis is inclusive. So by providing symbols with added tones (as shown to the right), one can indicate precisely what notes are intended as part of a harmony.

C mi<sup>7(11)</sup>                      C mi<sup>9(13)</sup>

(does not include the 9th)                      (does not include the 11th)

In the first paragraph of this section, I implied the possibility of exceptions to these rules, that one should..."include all lower odd numbers (root, 3rd, 5th, 7th, and so forth) unless otherwise indicated." Two examples of such exceptions---different from the previous two examples in their reasons for not simply stacking 3rds---appear to the right.

C<sup>9</sup> sus                      C<sup>6</sup><sub>9</sub>

(does not include the 3rd)                      (does not include the 7th)

In the first example, there is no 3rd. It has been replaced by the "sus4". So from bottom to top the chord C<sup>9</sup> sus will include the root, 4th, 5th, 7th, and 9th (but no 3rd). For 6th chords---which will be explained in more detail a little later---the 6th takes the place of a 7th. So C<sup>6</sup><sub>9</sub> should include the root, 3rd, 5th, 6th, and 9th (but no 7th).

### III. Interpreting accidentals in chord symbols

Before we can determine how to alter notes in a chord to correctly reflect the impact of accidentals, we had best make certain we know what the "right" notes should be in the absence of accidentals. Let's start by looking at the extensions (and compare to musical examples shown below):

- 1) When "9" appears in a chord (without alteration), you should include a note a Major 9th (meaning a Major 2nd plus one octave) above the root.
- 2) When "11" appears in a chord (without alteration), you should include a note a Perfect 11th (meaning a Perfect 4th plus one octave) above the root.
- 3) When "13" appears in a chord (without alteration), you should include a note a Major 13th (meaning a Major 6th plus one octave) above the root. *[And it is worth mentioning here that when "6" appears in a chord (without alteration), you should include a note a Major 6th above the root. If the 6th and the 7th are both present in the same chord, it is usually best practice to label the 6th as a 13th, instead. It is more common to call that same note a 6th **only** if there is no 7th present in the harmony.]*

It is critical to understand that the underlying chord quality (Major seventh, minor seventh, etc.) has no impact whatsoever on these extensions. For example, the *unaltered* 9th on all the following chords is the same pitch: C9, Cmi9, CΔ9, C∅9, and CmiΔ9 all have D-natural as their highest note (as shown below). Only alterations---such as (#9)---will change these 9ths, not differences in the foundational chord quality.

As to actual chord alterations, a sharp (ex., #11) or a plus sign (ex., +11) indicates a tone that should be raised a half-step higher than usual. In the case of a C chord with some type of "sharp 11", remember that an *unaltered* 11th would be F-natural, a Perfect 11th above the C-natural. But a C7(#11) chord would include F-sharp, as the 11th must be raised by one half-step.

Similarly, a flat (ex., b9) or a minus sign (ex., -9) indicates a tone that should be lowered by a half-step. In the case of an E chord with some type of "flat 9", remember that an *unaltered* 9th would be F-sharp, a Major 9th above the C-natural. But an E7(b9) chord would include F-natural, as the 9th must be lowered by one half-step. *[Note that the 9th in this case is not F-flat; the flat 9th of E7(b9) is an F-natural which has indeed been lowered one half-step beneath what the diatonic 9th should have been atop any E chord: an F-sharp.]*

And accidentals can function in different ways, depending on their exact location in a chord symbol. For example, if an accidental immediately follows the note name (A, B, C, D, E, F, G), which is to say the root of the chord, then that accidental impacts the item to its left, *changing that root*. In the first example below, the "sharp" in F#7 is attached to the note name "F". This is some sort of *F-sharp* chord; the sharp has no bearing on the 7th.

Any subsequent accidental, usually an accidental inside parentheses, impacts the item to its right, meaning that it relates to the chord tone that follows (most commonly an alteration of the 5th, 9th, 11th, or 13th). In the final example (bottom right), the first flat shown impacts the root, making it some sort of B-flat chord, as discussed in the previous paragraph. But the *second* flat shown is attached to the 9th, making the highest pitch a C-flat, not just a C-natural. So in the same chord symbol, Bb7(b9), you have two accidentals. But one flat impacts something to its left (the root), while the other accidental impacts something to its right (the 9th).

The next examples reaffirm a point made earlier: that the presence of a flat or sharp, altering the extensions of a chord symbol, does not always result in the affected pitch actually being displayed with that same accidental. When attached to an extension in a chord symbol, the accidental merely indicates that the note in question must be lowered or raised by one half-step, relative to what it would have been otherwise.

In the first example (below, to the right), the "flat 9" in F#7(b9) is a G-natural, not a G-flat. The diatonic 9th above the root (F-sharp) *would have been* G-sharp. But as this is a "flat 9" chord, the note is pulled down a half-step to G-natural. Of course, this exact same issue can also be present with alterations involving sharps. In the second example, the "sharp 11" in Db7(#11) is G-natural, not a G-sharp. The diatonic 11th above the root (D-flat) *would have been* G-flat. But as this is instead a "sharp 11" chord, that note is raised one half-step to G-natural. *Each altered extension (one a b9, the other a #11) is G-natural.*

#### IV. Final notational guidelines to consider

There are a few other rules to consider familiarizing yourself with regarding chord symbol nomenclature. It is important to understand these final few, particularly if one has aspirations as a composer/arranger, because when you begin to write your own music (and notate your own chord symbols), you'll want to follow the format that working musicians are most familiar with. If you don't follow such conventions, players will have a harder time reading your music. So what you hear performed by others won't necessarily be what you intended. Also, your fellow musicians may show less enthusiasm the next time you ask them to play your (new) music, remembering previous notational challenges. Don't reinvent the wheel! Follow these guidelines:

- 1) In general, if multiple notes are being added or altered in a chord---meaning more than one note is shown in parentheses after the basic part of the symbol---the higher numbered extension/alteration should be placed higher in those parentheses. A 13th should appear above an 11th, an altered 9th would appear above an altered 5th, and so forth. (See the first three examples, below.) Chords that break this rule are the "six-nine chords". These place the lower number in a higher location, perhaps to draw attention to the fact that these chords do not result strictly from the stacking of thirds. (See the fourth and fifth bars.)
- 2) As a related point, the only even numbers that should appear in most commonly-used chord symbols are the 6th (mentioned immediately above) and the "sus4". (See the sixth bar for an example of the latter.) One helpful way to think about these matters: "6" replaces "7" in 6th chords and "4" replaces "3" in suspended chords.
- 3) As shown in the seventh bar, harmonies may be displayed in inverted form (with some chord tone other than the root sounding as the lowest pitch) by placing the symbol over a different bass pitch. [*Note: The diagonal slash, as shown below in the seventh and eighth bars, is the best way to indicate this. However, most music notation software does not render that type of presentation in a way that is clear or visually convincing. Sometimes a horizontal line separating the chord from the desired bass pitch---stacking the two elements---is the clearest way to show the harmonic intent. But one should know that, historically, the horizontal line was used to separate two (stacked) chords, not just place a chord over a different bass pitch.*]
- 4) For more complex harmonies, chords may also be shown over a non-chord tone in the bass (a.k.a., a "foreign" bass pitch). Or two different chords may be stacked one atop the other, separated by a horizontal line, resulting in what is commonly termed a "polychord". (See the eighth and ninth bars for examples of these approaches.)

Do these first four pages present a plethora of rules that require memorization and assimilation? Yes, indeed they do. But don't be discouraged by the work that needs to be done. And take heart in the knowledge that the more chord symbols you grow to understand, the quicker and easier it becomes to learn other ones, so just keep at it!

To compare your growing knowledge of chord symbols against a standardized reference point, a chord glossary is found on the next three pages. You shouldn't necessarily strive to memorize every single one of those chords; instead review them to confirm you *understand the nomenclature rules* that define what notes are in each chord.

## CHORD SYMBOL GLOSSARY

These three pages show how to spell various harmonies using the correct chord symbol nomenclature guidelines. For those chords with multiple accepted symbols, only the first chord in each section will show all the alternate variations. As an example, CΔ9 will also be shown as CM9, CMa9, and CMaj9 at the beginning of the Extended Major Chords section. But subsequent related harmonies, such as CΔ9(#11) will not also appear as CM9(#11), CMa9(#11), and CMaj9(#11), even though those are all universally recognized and accepted symbols for the harmony in question. [This has been done in order to keep the layout manageable, as a harmony such as CmiΔ7 could conceivably have as many as **16** acceptable ways of being represented by chord symbols.]

### BASIC SEVENTH CHORDS:

C<sup>7</sup>
C<sup>7(b5)</sup>
C<sup>7(#5)</sup> (a.k.a. C<sup>+7</sup>)
C<sup>7sus</sup>

CΔ<sup>7</sup> (a.k.a. and CMaj<sup>7</sup> and CMa<sup>7</sup> and CM<sup>7</sup>)
CΔ<sup>7(b5)</sup>
CΔ<sup>7(#5)</sup> (a.k.a. and C+Δ<sup>7</sup> and C+Ma<sup>7</sup>)
CΔ<sup>7sus</sup>

Cmi<sup>7</sup> (a.k.a. and C-<sup>7</sup> and Cm<sup>7</sup> and Cmin<sup>7</sup>)
CmiΔ<sup>7</sup> (a.k.a. Cmi(Ma<sup>7</sup>))
C<sup>o7</sup> (a.k.a. Cdim<sup>7</sup>)
C<sup>o7</sup> (a.k.a. Cmi<sup>7(b5)</sup>)
C<sup>oΔ7</sup> (a.k.a. Cdim(Ma<sup>7</sup>))

### ADDITIONAL FOUR-NOTE HARMONIES:

C<sup>6</sup>
Cmi<sup>6</sup>
C(add<sup>9</sup>)
Cmi(add<sup>9</sup>)

### EXTENDED DOMINANT CHORDS:

C<sup>9</sup>
C<sup>7(#11)</sup> (a.k.a. C<sup>7(+11)</sup>)
C<sup>7(13)</sup>
C<sup>9(#11)</sup>
C<sup>9(13)</sup>
C<sup>7(#11)</sup> (13)
C<sup>13(#11)</sup>

The final two chords on this page merit some discussion here (even in a glossary). C11 and C13 are spelled correctly as they appear to the right. The way they are shown here abides by the rules governing chord symbol nomenclature. However, an unfortunate circumstance regarding these two symbols is that they have been used inaccurately by performers and a few publishers for some time, to the point that their meaning has grown muddled.

C<sup>11</sup>
C<sup>13</sup>

Popular music publishers have been known to put the symbol C11 in vocal/piano folios when they really mean to indicate C9sus, a similar chord, but one with no "E" in it. And working musicians who come from more of a jazz tradition will sometimes treat C11 and C13 as though they are C9(#11) and C13(#11), respectively. But more knowledgeable performers (and composers/arrangers) understand how to interpret and use these two symbols appropriately (as shown here).

## Chord Symbol Nomenclature

understanding the notes in each chord

### EXTENDED DOMINANT CHORDS (continued):

27

Chord symbols:  $C7(b9)$  (a.k.a.  $C7(-9)$ ),  $C7(\#11)$ ,  $C7(13)$ ,  $C13(\#11)$ ,  $C7(\#9)$ ,  $C7(\#11)$ ,  $C7(13)$ ,  $C13(\#11)$

35

Chord symbols:  $C9(b5)$ ,  $C7(13)(b5)$ ,  $C9(13)(b5)$ ,  $C7(b9)$ ,  $C7(b9)(13)$ ,  $C7(\#9)$ ,  $C7(\#9)(13)$

42

Chord symbols:  $C9(\#5)$  (a.k.a.  $C+9$ ),  $C7(\#11)$ ,  $C9(\#11)$ ,  $C7(b9)$ ,  $C7(b9)(\#11)$ ,  $C7(\#9)$ ,  $C7(\#9)(\#11)$

49

Chord symbols:  $C9_{sus}$ ,  $C7(13)_{sus}$ ,  $C13_{sus}$ ,  $C7(b9)_{sus}$ ,  $C7(b9)_{sus}(13)$

(more commonly spelled as...  $G\emptyset^9/C$ )

[As the "sus4" equals the diatonic 11th, this is indeed *inclusive* from the 13th back down to the root]

### EXTENDED MAJOR CHORDS:

54

Chord symbols:  $C\Delta^9$  (a.k.a.  $CMaj^9$ ,  $CMa^9$ ,  $CM^9$ ),  $C\Delta^7(\#11)$ ,  $C\Delta^7(13)$ ,  $C\Delta^9(\#11)$ ,  $C\Delta^9(13)$ ,  $C\Delta^7(13)(\#11)$ ,  $C\Delta^{13}(\#11)$

61

Chord symbols:  $C\Delta^9(b5)$ ,  $C\Delta^7(13)(b5)$ ,  $C\Delta^9(13)(b5)$ ,  $C\Delta^7(\#9)(b5)$ ,  $C\Delta^7(\#9)(b5)(13)$

66

Chord symbols:  $C\Delta^9(\#5)$  (a.k.a.  $C+\Delta^9$ ),  $C\Delta^7(\#11)$ ,  $C\Delta^9(\#11)$ ,  $C\Delta^7(\#9)$ ,  $C\Delta^7(\#9)(\#11)$ ,  $C\Delta^9_{sus}$ ,  $C\Delta^7(13)_{sus}$ ,  $C\Delta^{13}_{sus}$ ,  $G^9/C$

(but rarely spelled this way...)

(more commonly spelled...)

### EXTENDED MINOR CHORDS:

74

Chord symbols:  $Cmi^9$ ,  $Cmi^7(11)$ ,  $Cmi^7(13)$ ,  $Cmi^{11}$ ,  $Cmi^9(13)$ ,  $Cmi^7(13)(11)$ ,  $Cmi^{13}$

EXTENDED MINOR CHORDS (continued):

(could also be spelled  
 as a polychord, a la...)

81  $C_{mi}7(\#11)$   $C_{mi}9(\#11)$   $C_{mi}7(\#11)^{13}$   $C_{mi}13(\#11)$   $\frac{D_{TRIAD}}{C_{mi}7}$

Musical notation for measures 81-84, showing four chords: Cmi7(#11), Cmi9(#11), Cmi7(#11)13, and Cmi13(#11). A polychord symbol D TRIAD / Cmi7 is shown to the right.

85  $C_{mi}\Delta^9$   $C_{mi}\Delta^7(11)$   $C_{mi}\Delta^7(13)$   $C_{mi}\Delta^{11}$   $C_{mi}\Delta^9(13)$   $C_{mi}\Delta^7(\#11)^{13}$   $C_{mi}\Delta^{13}$

Musical notation for measures 85-91, showing seven chords: CmiΔ9, CmiΔ7(11), CmiΔ7(13), CmiΔ11, CmiΔ9(13), CmiΔ7(#11)13, and CmiΔ13.

(another candidate for  
 polychordal treatment...)

92  $C_{mi}\Delta^7(\#11)$   $C_{mi}\Delta^9(\#11)$   $C_{mi}\Delta^7(\#11)^{13}$   $C_{mi}\Delta^{13}(\#11)$   $\frac{B_{mi}7}{C_{mi}(TRIAD)}$

Musical notation for measures 92-95, showing four chords: CmiΔ7(#11), CmiΔ9(#11), CmiΔ7(#11)13, and CmiΔ13(#11). A polychord symbol Bmi7 / Cmi(TRIAD) is shown to the right.

EXTENDED DIMINISHED CHORDS:

96  $C_{\circ}7(add^9)$   $C_{\circ}7(add^{11})$   $C_{\circ}7(add^{b13})$   $C_{\circ}7(\#11)^9$   $C_{\circ}7(\#9)^{b13}$   $C_{\circ}7(\#11)^{b13}$   $C_{\circ}7(\#11)^9$   $C_{\circ}7(add\Delta^7)$

Musical notation for measures 96-103, showing eight chords: C°7(add9), C°7(add11), C°7(addb13), C°7(#11)9, C°7(#9)b13, C°7(#11)b13, C°7(#11)9, and C°7(addΔ7).

[Note enharmonic  
 spelling here]

104  $C_{\circ}\emptyset^9$   $C_{\circ}\emptyset^7(11)$   $C_{\circ}\emptyset^7(13)$   $C_{\circ}\emptyset^{11}$   $C_{\circ}\emptyset^9(13)$   $C_{\circ}\emptyset^7(\#11)^{13}$   $C_{\circ}\emptyset^{13}$

Musical notation for measures 104-110, showing seven chords: C°∅9, C°∅7(11), C°∅7(13), C°∅11, C°∅9(13), C°∅7(#11)13, and C°∅13.

111  $C_{\circ}\emptyset^7(\#11)^{b13}$   $C_{\circ}\emptyset^9(\#11)^{b13}$   $C_{\circ}\emptyset^7(\#11)^{b13}$   $C_{\circ}\emptyset^{11}(\#11)^{b13}$

Musical notation for measures 111-114, showing four chords: C°∅7(#11)b13, C°∅9(#11)b13, C°∅7(#11)b13, and C°∅11(#11)b13.

115  $C_{\circ}\Delta^9$   $C_{\circ}\Delta^7(11)$   $C_{\circ}\Delta^7(\#11)^{b13}$   $C_{\circ}\Delta^{11}$   $C_{\circ}\Delta^9(\#11)^{b13}$   $C_{\circ}\Delta^7(\#11)^{b13}$   $C_{\circ}\Delta^{11}(\#11)^{b13}$

Musical notation for measures 115-121, showing seven chords: C°Δ9, C°Δ7(11), C°Δ7(#11)b13, C°Δ11, C°Δ9(#11)b13, C°Δ7(#11)b13, and C°Δ11(#11)b13.

ADDITIONAL FIVE- and SIX-NOTE HARMONIES:

(or shown in poly-  
 chordal form...)

122  $C_9^6$   $C_9^6(\#11)$   $C_{mi}9^6$   $C_{mi}9^6(11)$   $C_{mi}9^6(\#11)$   $\frac{D_{TRIAD}}{C_{mi}(TRIAD)}$

Musical notation for measures 122-125, showing five chords: C9^6, C9^6(#11), Cmi9^6, Cmi9^6(11), and Cmi9^6(#11). A polychord symbol D TRIAD / Cmi(TRIAD) is shown to the right.