

Chord Construction Workshop:

Part 2

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Photo by: Tom Felecy



In our last workshop, we learned to construct all inversions of the Dominant 7th chord by lowering a single note of a diminished chord. If you completed the homework (you did complete the homework didn't you?), you now know at least twenty ways to play any 7th chord. In this installment, we will learn to construct all the other 7th chord types by simple alterations to these dominant forms.

Building and Naming 7th Chords

In order to understand the conventions of modern chord symbols, it is first necessary to understand some of the theory and history of these chords. While we won't go into a full explanation of intervals and basic chord construction (there are plenty of basic theory books which do this quite well), we will look at some assumptions generally made regarding the construction of 7th chords.

The Dominant 7th Chord

When we call a chord Dominant or "V7" we are referring to the fact that this type of 7th chord was originally constructed from the 5th or dominant note of the major scale. In traditional music theory, each note of the diatonic major scale is numbered and named. Ascending the scale they are: I Tonic, II Super-Tonic, III Mediant, IV Sub-Dominant, V Dominant, VI Sub-Mediant, and VII Leading-Tone.

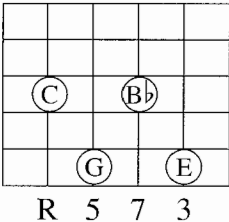
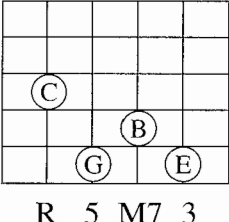
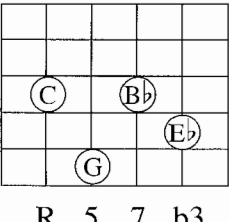
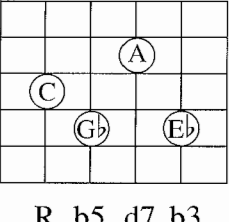
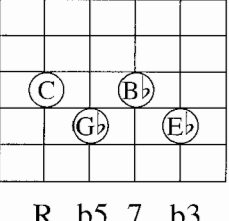
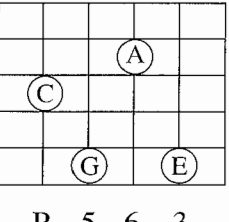
While 7th chords can be built from any note of the scale the "Dominant" is unique because it is the only one which contains both a Major 3rd and a minor 7th interval above the root. Between these two notes is the interval of a Tri-Tone giving the chord a slightly dissonant and restless quality. These notes also lie in half-step proximity to the Root and 3rd of the Tonic chord which gives the Dominant 7th a strong gravity towards the Tonic making it especially useful in tonal music. Hence Dominant 7th chords were in widespread use long before any of the other types of 7th chords and in the nomenclature of music it became common practice to assume any chord described as simply a 7th to be a Dominant 7th.

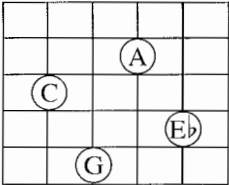
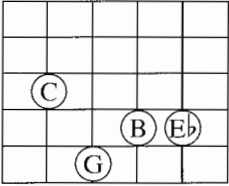
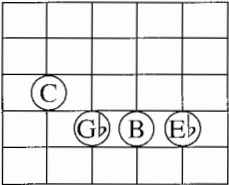
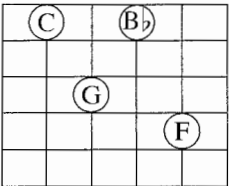
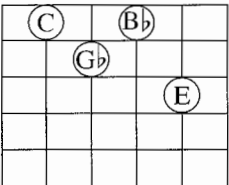
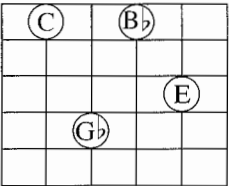
Other 7th Chords

As mentioned, other types of 7th chords can be built using different combinations of 3rd, 5th, and 7th intervals. Since the basic 7th chord represented by chord symbols like C7, F7, Bb7, etc., is assumed to be a Dominant 7th, it became necessary to differentiate the many other varieties of 7th chords which can be built. Hence we now have fifteen different 7th chord types. Some of the most commonly used are the Major 7th, Minor 7th, Diminished 7th, Half-Diminished 7th, Major 6th and Minor 6th. The rest are constructed by altering one of the notes from an existing form. This alteration is usually (though not always) indicated in the chord symbol after the number 7 (as in 7sus4, 7b5, Ma7#5, etc.).

Practical Application

Once we understand that the Dominant 7th family is our basic type of four-note chord, it is a simple matter of learning the alterations and how they affect the notes of the chord when they are applied. All other 7th chord types are constructed through chromatic modification of the intervals of the Dominant 7th. The following table shows the basic chord suffixes associated with 7th chords with an example of how it affects an actual chord (all examples were based on C7), followed by the name(s) of the chord (as commonly referred to by musicians) and the rules for building it.

Chord Suffix	Example	Description
7	 <p>R 5 7 3</p>	<p>Dominant 7th</p> <p>Also known as the V7, this chord is created by building up Root 3rd 5th 7th starting on the 5th or dominant note of the major scale. Hence the C7 chord illustrated here contains a Bb note as its 7th because it originates in the key of F major.</p>
MA ⁷ △ ⁷	 <p>R 5 M7 3</p>	<p>Major 7th</p> <p>The easiest way to build this chord is to simply raise the 7th of a Dominant 7th by a half-step.</p>
Mi ⁷ -7	 <p>R 5 7 b3</p>	<p>Minor 7th</p> <p>Simply lower the 3rd of your 7th chord by half-step</p>
O ⁷ Dim ⁷	 <p>R b5 d7 b3</p>	<p>Diminished 7th</p> <p>Lower the 3rd 5th and 7th a half-step, forming a diminished triad with a diminished 7th interval (sometimes spelled enharmonically as a 6th).</p>
Ø ⁷ Mi ⁷ (b5)	 <p>R b5 7 b3</p>	<p>Half-diminished 7th or Minor 7 (b5)</p> <p>Lower the 3rd and 5th a half-step, forming a diminished triad with a minor 7th- hence the name "half-diminished."</p>
6 MA ⁶ △ ⁶	 <p>R 5 6 3</p>	<p>6th or Major 6th</p> <p>The 6th replaces the 7th. The easiest way to do this is to simply lower the 7th by a half-step.</p>

Chord Suffix	Example	Description
<p>Mi⁶ -6</p>	 <p>R 5 6 b3</p>	<p>Minor 6th</p> <p>The 6th replaces the 7th (see previous page) and the chord becomes minor by lowering the 3rd.</p>
<p>Mi(MA⁷) Mi(Δ⁷) -(Δ⁷)</p>	 <p>R 5 M7 b3</p>	<p>Minor (MA7)</p> <p>The chord becomes minor by lowering the 3rd one half-step, while the 7th becomes Major by raising it a half-step.</p>
<p>Dim(MA⁷) O(Δ⁷) Dim(Δ⁷)</p>	 <p>R b5 M7 b3</p>	<p>Diminished (MA7)</p> <p>The triad becomes diminished (lower the 3rd and 7th by a half-step) and the 7th becomes major (raise the 7th a half step)</p>
<p>7_{sus}4</p>	<p>3rd Fret</p>  <p>R 5 7 4</p>	<p>Dominant 7 suspended 4th</p> <p>Raising the 3rd by a half-step creates a suspended 4th.</p>
<p>7(b5) 7(#11)</p>	<p>3rd Fret</p>  <p>R b5 7 3</p>	<p>Dominant 7 b5</p> <p>Chromatic alteration of the 5th down one half-step. Because this chord has a “Lydian” nature, some musicians prefer to call it a #11 and spell it accordingly.</p>
<p>7(#5) +7</p>	<p>3rd Fret</p>  <p>R #5 7 3</p>	<p>Dominant 7 #5 or Augmented 7th</p> <p>Chromatic alteration of the 5th up one half-step (forming an Augmented triad with a 7th)</p>

Chord Suffix	Example	Description
MA7(b5) MA7(#11) △7(b5) △7(#11)	<p>3rd Fret</p> <p>R b5 M7 3</p>	Major 7 b5 Sometimes referred to as a Major 7 #11 chord, this chord is built by raising the 7 th by a half-step (making it Major) and lowering the 5 th by a half-step.
MA7(#5) △7(#5)	<p>3rd Fret</p> <p>R #5 M7 3</p>	Major 7 #5 Raise the 7 th by a half-step (making it Major) and the 5 th .
Mi7(#5) -7(#5)	<p>3rd Fret</p> <p>R #5 7 b3</p>	Minor 7 #5 Lower the 3 rd by a half-step (making the chord minor) and raise the 5 th .

Assignment

You now have the necessary tools for building all types of 7th chords and inversions on all string sets. Using the twenty Dominant 7th chords you created in the last lesson, analyze each one and apply all alterations as demonstrated with the above C7 chord.

Coming Attractions

In our next workshop we will look at how 9^{ths}, 11^{ths} and 13^{ths} are added to existing four-note 7th chords.

Rick Stone is active as a performer and educator in the New York City area. He has performed and/or recorded with Kenny Barron, Barry Harris, Junior Cook, Ralph Lalama, Eric Alexander, Dennis Irwin, Billy Hart and Hal Galper at venues including Carnegie Hall, Weill Recital Hall, The Blue Note and The Smithsonian Institute. Rick holds a B.M. from Berklee College of Music and an M.A. from the Aaron Copeland School of Music at Queens College, and has received several NEA Jazz Performance Fellowships and an IAJE Award for Outstanding Service to Jazz Education. He currently teaches at Hofstra University, Jazzmobile, Brooklyn Conservatory of Music and Harbor Cultural Center.

The Rick Stone Quartet: Far East with Kenny Barron (Jazzand JCD002) available at Tower Records or send check or M.O. for \$15 plus \$2 shipping & handling to Jazzand.

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