



# Chord Construction Workshop:

## Part 3

By: Rick Stone

### Introduction:

This is the third in a series of workshops outlining a method of chord construction which allows anyone—from novice to advanced player—to build every possible voicing and inversion of any namable chord on the guitar. If you've done your homework you've created twenty dominant 7th chords by chromatically altering the five common diminished 7th forms (See Issue #19) and then applied chromatic alterations to build all of the common four-note chords: 7, Ma7, mi7, o7, mi7b5, 6, mi6, mi(Ma7), o(Ma7), 7sus4, 7b5, 7#5, Ma7b5, Ma7#5 and mi7#5 (See Issue #20).

### Review:

You should now have your own book of some 300 chord forms and inversions. You've probably noticed that some of them sound better than others. In general, I prefer to let students discover for themselves what works and try not to get bogged down in too many rules. However, a few guidelines can be helpful. You'll notice that the problematic voicings usually fall into one of the following two categories.

### Minor 9th Intervals:

Watch out for minor 9th intervals. A common problem occurs when the Root is in the melody of a Ma7 chord. Except in dominant 7th chords, where they're used as a tension note, minor 9ths can sound very dissonant.

### Low Interval Limits:

When the bottom note of the chord falls below 5th string C it begins to sound like a bass note. The strongest bass notes are usually the root and 5th of the chord. The 3rd and 7th can be effective bass notes, particularly in solo playing, but be careful not to clash when working with other instruments.

Now we're ready to see how color tones like 9ths, 11ths and 13ths are used in four-note voicings.

### Adding a 9th to a four note chord using the 9 for 1 substitution:

When spelling a 9th chord, it is customary to spell up in 3rds: Root-3rd-5th-7th-9th. On the guitar, this type of close voicing is usually impossible to play. Luckily, the drop-2 and drop-3 voicings we have already learned can easily be converted to 9th chords. The common arranging practice when writing for four voices is to replace the root with the 9th (referred to as a 9 for 1 substitution). This works because the bass typically plays the root, and even in the absence of the root, the chord is still recognizable by its musical context.

Substituting 9 for 1 on a drop-2 C7 chord with the 5th in the lead gives us this common C9 voicing.

*(Fingerings are suggested only)*

Example 1:

Likewise, the “9 for 1” substitution can be performed on all other types of 7th and 6th chords.

**Example 2:**

Example 2 displays eight chord diagrams and their corresponding musical notation on a single staff. The diagrams are: Cmaj9 (x x 1 3 2 2), Cm9 (x x 1 3 3 3), C6/9 (x x 1 1 3 3), Cm(6/9) (x x 1 2 3 4), Cm9(maj7) (x x 1 4 2 3), Cm9b5 (x x 1 3 4 2), Cdim(add9) (x x 1 2 4 3), and C9(sus4) (x x 1 1 1 1). The musical notation shows the chords in various positions and voicings on a treble clef staff.

**Altering the 9th:**

On Dominant 7ths, the 5th and/or 9th may also be raised or lowered by a half-step. When naming 9th chords, a 7th is assumed. When altering the 9th, however, it is necessary to first name the chord as a 7th followed by the altered 9th indication. (This eliminates the confusion that would result if you meant B7b9 but wrote Bb9 which the player would interpret as a Bb chord with a 9th.)

**Example 3:**

Example 3 displays nine chord diagrams and their corresponding musical notation on a single staff. The diagrams are: C7(b9) (x x 1 3 2 4), C7(#9) (x x 1 2 4 3), C9(b5) (x x 1 2 3 1), C9(#5) (x x 1 2 3 4), C7(#9,#5) (x x 1 2 3 3), C7(b9,b5) (x x 1 2 1 1), C7(#9,b5) (x x 1 2 3 1), C7(b9,#5) (x x 1 2 1 4), and C7(sus4,b9) (x x 2 3 1 4). The musical notation shows the chords in various positions and voicings on a treble clef staff.

**Substituting the 13th for the 5th**

When a 6th is used in a Major or minor chord it replaces the 7th. The 13th, however, is mainly used on Dominant 7th chords where it is considered an extension. When building a 13th chord, the 7th must be present, and the 13th usually replaces the closest expendable chord tone: the 5th. The 13th chord often contains an implied 9th and can also be used in conjunction with other alterations, most commonly b9, #9 or Sus4. Although rare, the 13th is occasionally used on Major and minor chords as well.

**Example 4:**

Example 4 displays seven chord diagrams and their corresponding musical notation on a single staff. The diagrams are: C13 (x x 1 2 2 4), C13 (x x 1 2 3 1), C13(b9) (x x 1 2 1 4), C13(#9) (x x 1 2 3 4), C13(sus4) (x x 1 1 1 4), Cmaj13 (x x 1 1 2 2), and Cm13 (x x 1 1 3 4). The musical notation shows the chords in various positions and voicings on a treble clef staff.

**“11 for 3” Substitution**

Natural 11ths on Dominant chords usually replace the 3rd (functioning as a Sus4). On minor chords, it can replace either the 3rd or the 5th. Natural 11ths are not used on Major chords.

**Example 5:**

Example 5 displays six chord diagrams and their corresponding musical notation on a single staff. The diagrams are: C11 (x x 1 1 1 1), Cm11 (x 1 3 1 4 x), Cm11 (x 1 1 1 2 x), Cm11 (x x 1 3 4 1), Cm11(b5) (x 1 2 1 4 x), and Cm11(b5) (x x 4 2 3 1). The musical notation shows the chords in various positions and voicings on a treble clef staff.

## Adding the Raised 11th

Raised 11th's occur on Dominant and Major chords where they replace the 5th (functioning as a b5). They can occur in combination with other alterations on Dominant chords. If the Dominant contains a 13th, the #11 can replace the 3rd. They don't occur on minor chords. The #11 can replace the 3rd. They don't occur on minor chords.

Example 6:

Diagram 1: C<sup>9</sup>(#11) (Fingering: x x 1 2 3 1)

Diagram 2: Cmaj<sup>9</sup>(#11) (Fingering: x x 1 3 2 1)

Diagram 3: C<sup>6/9</sup>(#11) (Fingering: x x 1 1 2 1)

Diagram 4: C<sup>7</sup>(#9,#11) (Fingering: x x 1 2 3 1)

Diagram 5: C<sup>13</sup>(#11) (Fingering: x x 2 1 1 4)

Diagram 6: C<sup>13</sup>(b9,#11) (Fingering: x x 4 2 3 1)

## Adding bass notes:

After building your chord forms and their alterations you'll find that many can be enhanced by the addition of a root or 5th on a lower string.

## Ranges and other voicing considerations:

As you add upper extensions consider their placement relative to the guide tones (the 3rd and 7th of the chord). 9ths and 13ths usually sound best in the upper voices or when they can be clustered below a guide tone (a 9th below the 3rd, a 13th below the 7th, etc.). The 11th can work almost anywhere in the voicing. You don't want a tension note to sound so low that it implies a completely different chord. A simple rule of thumb is to avoid putting upper extension notes below the 4th string.

## Recapitulation:

Armed with this system, you now have the knowledge to build any nameable chord you encounter. For demonstration purposes, I have tried to stick with the less problematic voicings and inversions, however I encourage you to build all of the possible voicings for every chord and decide for yourself which ones work. There's no better way to learn about harmony. Remember to always listen!

### Bio:

Rick Stone is active as a performer and educator in the New York City area. He has performed and recorded with Kenny Barron, Barry Harris, Junior Cook, Ralph Lalama, Eric Alexander, Dennis Irwin, Billy Hart and Hal Galper at venues including Carnegie Hall's 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, Harbor Cultural Center, and the Jazz In July Workshop at Univ. of Mass./Amherst.

### Gear:

Guitar: Bill Comins 18" Classic Archtop. Amps: Musicman RD112-65, Fender Deluxe, Polytone Mini-Brute II. Strings: D'Addario Chromes; .014, .018, .026, .035, .045, .056. Picks: Dugain.

### Recordings:

Rick Stone Quartet: Far East with Kenny Barron (Jazzand JCD002) available at Tower or send check for \$15 plus \$2 shipping & handling to Jazzand, 12 Micieli Place, Brooklyn, NY 11218.

### Booking info:

Rick Stone is available for concerts and clinics. For more information call: 718-972-1220, e-mail: [jazzand@inch.com](mailto:jazzand@inch.com), or visit his website at: <http://www.inch.com/~jazzand>