

Diminished Scale Basics

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The octatonic scale rose to prominence in the music of early 20th Century composers like Stravinsky and Bartok. Olivier Messiaen also included it in his “modes of limited transposition. Jazz musicians use the term “diminished scale” instead of “octatonic scale,” presumably because it matches up well with diminished harmony. Diminished harmony can take on a few different forms, including a fully diminished 7th chord as well as a dominant 7th chord with a flatted 9th and sometimes additionally a raised 11th.



Notice that the 3-5-7-9 of the C7(b9) chord is itself a diminished 7th chord. This diminished subset is why these types of altered dominant chords can be thought of as diminished harmony.

The diminished scale itself is formed from an alternating series of half steps and whole steps. It is thought of as a symmetrical scale because each scale includes four “keys” before it repeats itself. In the example below, note that the scale could start on C, Eb, F#, or A, and have the exact same set of notes.¹



One of the really cool features of the diminished scale is that it includes every interval (minor and major 2nd, minor and major 3rd, perfect 4th, and tritone) and the major, minor, and diminished triads. You might have to hunt for all of these things, but they are in there. In every case, you will find each interval and triad four times. In the example above, for instance, you can find the C, Eb, F#, and A major triads. Having all of these shapes in the scale in four keys makes for a seemingly limitless array of possible lines that you can create.

¹ I have chosen to present the diminished scale beginning with a half step interval, but you could begin with a whole step.

One problem I have is determining what to call the “C diminished scale,” like we do with the major and minor scales (e.g., “C major scale”). Each pitch class appears in two of the three scales and the scales are symmetrical, so which one would be the “C diminished scale,” for example, is relatively ambiguous to me. I personally don’t refer to the scales with a particular root in mind; rather, I focus on the totality of the shape and where/how I want to use it.

Exercises for learning the diminished scale

Here are three relatively easy ways to practice the diminished scale, with the goal of simply gaining fluency of the scales (I only include one of the three scales...transpose each of the exercises on your own and play multiple octaves if you are able):

1. Playing the scale up and down – to hear the voice leading of the diminished correctly, place the half step as the pickup when you play the scale. You’ll have to stop at the top and start again, like this:



2. This permutation is a way to group the diminished scale. Sonny Stitt plays this sort of thing in his solo on “Eternal Triangle” on Dizzy Gillespie’s *Sonny Side Up* recording.



3. Playing the scale in thirds (skipping notes)



Harmonic applications of the diminished scale

Once we gain mastery of the scales, we turn our attention to implementing them in our playing and composing.

You can, of course, play the diminished scale over an actual diminished 7th chord:

The image shows a musical staff with a treble clef and a bass clef. The treble clef staff contains a diminished scale starting on C: C, D \flat , E \flat , F, G, A \sharp , B \sharp , C. The bass clef staff shows a C \circ 7 chord, which is a diminished triad (C, E \flat , G \flat) with a diminished seventh (B \flat), indicated by the label 'C \circ 7' above the notes.

Notice that, in order to begin on C, we use a different diminished scale. In this case, we are using the half step relationship as a sort of lower neighbor/leading tone into each of the chord tones of the diminished chord.

More commonly, we use it over a dominant 7th chord. In the example below, we see a C13(b9) chord with a diminished scale written above it.

The image shows three staves. The top staff is a treble clef containing a diminished scale starting on C: C, D \flat , E \flat , F, G, A \sharp , B \sharp , C. The middle staff is a treble clef showing a C13(b9) chord, which is a dominant triad (C, E, G) with a major seventh (B) and a diminished ninth (D \flat), indicated by the label 'C13(b9)' above the notes. The bottom staff is a bass clef showing the same C13(b9) chord.

Analyzing the notes of the scale and how they function over the given chord, we find the following relationships:

<u>Note</u>	<u>Function</u>
C	1 (root)
D \flat	b9
E \flat	#9
E	3rd
F \sharp	#11 (or b5)
G	5th
A	13th
B \flat	7th

The result is that we have all of the important chord tones (including the alteration(s)) and some additional color tones.

Perhaps the most important aspect of using the diminished scale is the beautiful descending voice leading that the scale offers when resolving from V-I. From C7 to F major, the Bb to A resolution is built in, but it extends upward in the scale, too, to involve the #9/^b9 combination. Here are those resolutions:

The image shows two musical staves in treble clef. The first staff is labeled 'C7(b9)' at the beginning and 'F Maj' at the end. It shows a descending scale starting on C4 (middle C), moving down through B3, Bb3, Ab3, G3, F3, E3, D3, C3. A bracket above the notes from Bb3 to C3 indicates a resolution. The second staff is also labeled 'C7(b9)' and 'F Maj'. It shows a similar descending scale, but with a different sequence of notes: C4, Bb3, Ab3, G3, F3, E3, D3, C3. A bracket above the notes from Ab3 to C3 indicates a resolution.

Some fun diminished shapes you might like

In addition to the basic scale shapes above, here are some shapes that you might like:

The first is something Charlie Parker played:

The image shows a single musical staff in treble clef, labeled 'C7(b9)'. It contains a sequence of notes: C4, Bb3, Ab3, G3, F3, E3, D3, C3. The notes are connected by stems, and there are some slurs and accents over the notes.

Next is a line that John Coltrane made famous during his “sheets of sound” era.

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An interesting possibility is to combine two major triads a tritone apart, like in this line:



The chromatic nature of the diminished scale lends itself to creating a myriad of shapes exploiting the half step. Here is a triplet-based line.



With some creative inspiration, you can create lots of cool shapes from the diminished scale. Ask yourself “what would X sound like” or “what would happen if I tried X” to find some shapes. You won’t like them all, but you’re guaranteed to find some shapes you dig...the possibilities are nearly endless!

Further resources for studying the pentatonic scale

I highly recommend *Understanding the Diminished Scale: A Guide for the Modern Player* by Walt Weiskopf. He includes a lot of really useful information, practice patterns, and etudes in his book.

Watch and listen to examples of the diminished scale in many “modern” jazz players and transcribe what you hear. Players from Charlie Parker to Michael Brecker used the diminished scale in a variety of interesting ways.