

# 1. The Diminished Scale

The eight note (octatonic) diminished scale is a remarkable and abundant source of expressive and compelling harmonic content. These eight notes, presented in a wide variety of settings and contexts, offer jazz musicians, arrangers, and composers an enormous amount of colorful, tension filled, and functional harmonic and melodic vocabulary. Few scales contain such an abundant variety of embedded chord qualities, including major, minor, and diminished triads, and a wide range of seventh chords, such as the dominant-seventh, dominant-seventh flattened-fifth, minor-seventh, half-diminished, and diminished-seventh chord qualities, all with various extensions.

The diminished scale, like the diminished-seventh chord, divides the octave into four equal parts of a minor third each. Each minor third division contains a consistent pattern of a half-step and a whole-step, or a whole-step and a half-step. As such, it is a uniform, symmetrical scale. Uniformity means that there is no particular point of reference defining a specific note of importance or stability. By itself the scale is atonal and harmonically neutral. When used in the context of tonal progressions, however, it adds the tension and color that makes functional chord progressions more interesting and compelling.

There are two fundamental diminished scales defined by music theory: the whole-half and the half-whole. The whole-half diminished scale, such as the C whole-half diminished scale, starts with a whole-step followed by a half step (Example 1). This whole step/half step pattern repeats every minor third. The half-whole diminished scale, such as the C half-whole diminished scale, starts with a half-step followed by a whole step (Example 2). This half step/whole step pattern repeats every minor third.

Since there are twelve notes that each of these two scale patterns can begin from, there are actually a total of twenty-four possible diminished scales: twelve whole-half and twelve half-whole diminished scales.<sup>1</sup>



**Example 1: C Whole-Half Diminished Scale**



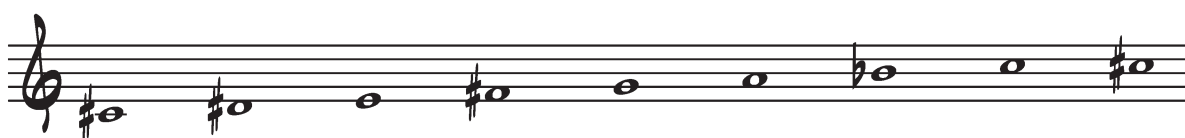
**Example 2: C Half-Whole Diminished Scale**

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<sup>1</sup> To see all 24 whole-half and half-whole diminished scales, and their associated chords, see Appendix A and Appendix B.

There are, however, only *three* basic transpositions (or keyboard patterns) of the whole-half diminished scale that one would need to know to master all twenty-four diminished scales. We can build a whole-half diminished scale on C, C#, and D to form each of these three basic scale transpositions. Eight scales are embedded in each of these three whole-half diminished scales.

The C whole-half diminished scale (Example 1), for example, has the D half-whole, Eb whole-half, F half-whole, Gb whole-half, Ab half-whole, A whole-half, and B half-whole diminished scales embedded within it. The C# whole-half diminished scale (Example 3) also gives rise to the Eb half-whole, E whole-half, F# half-whole, G whole-half, A half-whole, Bb whole-half, and C half-whole diminished scales. The D whole-half diminished scale (Example 4) also gives rise to the E half-whole, F whole-half, G half-whole, Ab whole-half, Bb half-whole, B whole-half, and C# half-whole diminished scales.



**Example 3: C# Whole-Half Diminished Scale**



**Example 4: D Whole-Half Diminished Scale**

As long as you work toward the mastery of each of these three basic whole-half diminished scale transpositions or keyboard patterns, you will have access to all twenty-four diminished scales. You must also, however, practice starting a whole-half and a half-whole diminished scale from any of the eight notes within each of these three basic pathways. This will give you access to the appropriate scale when a relevant chord appears.

Almost everything in this book will refer to one of these three whole-half diminished scale transpositions or keyboard patterns: the C whole-half diminished scale (Example 1), the C# whole-half diminished scale (Example 3), and the D whole-half diminished scale (Example 4). Again, remember that each of these three basic keyboard patterns, embodies a total of eight embedded diminished scales, each beginning on one of its eight notes.

All note, scale, and chord spellings that are used in this book, however, may not be technically correct as defined by music theory. Although an effort is made to spell scales and chords correctly and in ways that show their resolutions according to key and harmonic context, spellings, and the use of enharmonics, are often chosen to promote ease of reading and understanding. Double flats and double sharps, accordingly, tend to be avoided, unless they are necessary or helpful for notational reasons.<sup>2</sup>

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<sup>2</sup> Keep in mind that a diminished seventh chord contains a diminished fifth and a diminished seventh interval. Accordingly, if you want to understand the formation and the correct spelling of a diminished seventh chord, start with a dominant-seventh chord, and lower the third, fifth, and

Consider also that chords and scales that are based on black keys should be understood and labeled with their root (for chords) or starting note (for scales) as a sharp and, alternately, as a flat. In other words, the diminished seventh chord on the note C#, for example, could also be understood and labeled as a Db diminished seventh. The C# whole-half diminished scale could also be understood as a Db whole-half diminished scale.

#### Practice Tips:

1. Start with one of the three basic diminished scale keyboard patterns and then mentally organize and practice all eight diminished scales embedded within the basic scale pattern (the four whole-half diminished scales and four half-whole diminished scales). Do this for each of the three diminished scale keyboard patterns.

2. If you are a pianist, practice the three basic diminished scale keyboard patterns with two hands an octave or two apart. For fingering, the scales can be played comfortably using only 1, 2, and 3, and keeping the thumb off of the black keys. The scales can be played over the range of one to four octaves; whatever is comfortable and manageable. The three basic diminished scale keyboard patterns for two hands, with fingerings, are given in Appendix C.

3. Pianists can also practice the keyboard patterns with the hands a minor third apart, a major sixth apart, and a minor tenth apart. The three patterns can also be played as double notes, or thirds. For the most part, 1-3 and 2-4 will work for the scales in thirds. Diminished scales in double notes is an approach that Bill Evans used regularly in his embellishment of composed melodies, fills, and improvised solos.

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seventh by one half-step. This will, in many cases, produce a double flat if the fifth and/or the seventh are already flatted. So C7, for example, with C, E, G, and Bb, would become C, Eb, Gb, and Bbb when spelled correctly.