

# FUNDAMENTAL HARMONY

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Lesson 11: Chromatic Chords Part 2

(Diminished 7th Chords, Augmented Sixth Chords and Neapolitan Chords)

## Fully Diminished & Half-Diminished

**Fully Diminished 7th Chord ( $\circ^7$ )**

has a **minor 3rd**, **diminished 5th** and a **diminished 7th** from the bass note (or stacked **minor 3rds**). They naturally occur (diatonic) as  $\text{vii}^{\circ 7}$  in minor keys

$\text{vii}^{\circ 7}$  in C minor

**Half-Diminished 7th Chord ( $\circ^7$ )**

has a **minor 3rd**, **diminished 5th** and a **minor 7th** from the bass. They naturally occur as  $\text{vii}^{\circ 7}$  in major keys and  $\text{ii}^{\circ 7}$  in minor keys

$\text{vii}^{\circ 7}$  C major

$\text{ii}^{\circ 7}$  in C minor

Diminished 7th chords are used primarily as leading note chords:

- to substitute or decorate the dominant chord
- to modulate to distant keys
- as a predominant chord (usually  $\text{vii}^{\circ 7}/V$  to  $V$ ) - dealt with in another lesson

J. S. Bach, Prelude I ('48 Preludes and Fugues', Book I)

2nd mvt, Symphony No.9 in E minor (New World) by Dvořák (9:24)

Db major: I V<sup>6</sup> vi I<sub>4</sub><sup>6</sup> ii<sup>°6</sup><sub>5</sub> I

## Diminished 7ths

- A Diminished 7th Chord consists of a **minor 3rd**, **diminished 5th** and a **diminished 7th** from the bass note (or stacked **minor 3rds**).
- Chord vii° in major keys and chords ii° and vii° in minor keys are naturally occurring (diatonic) diminished **triads**, so it's easy to make them into diminished 7th chords by adding a **diminished 7th** above the bass note.

**vii°7 in minor keys is the only time a diminished 7th chord is diatonic**

**vii°7 in C major**  
 Chromatic Chord  
 Ab ↑ m3  
 F ↑ m3  
 D ↑ m3  
 B ↑ m3

**vii°7 in C minor**  
 Ab ↑ m3  
 F ↑ m3  
 D ↑ m3  
 B ↑ m3

**ii°7 in C minor**  
 Chromatic Chord  
 Cb ↑ m3  
 Ab ↑ m3  
 F ↑ m3  
 D ↑ m3

## Resolving Diminished 7ths

- There are **three dissonant intervals** in a diminished 7th chord and they all seek a satisfactory resolution.

- As a result, diminished 7th chords tend to resolve to a **tonic chord**, which is why they also function like secondary dominants.

Start **Andante** Chopin, Nocturne in E flat, Op.9 No.2

*espress. p dolce etc.*

D-F-Ab-Cb

Eb major: I vii°<sub>3</sub> I

## Modulation & Diminished 7th Chords

- When the inversions of a diminished 7th chord are spelt differently (changed enharmonically) they create **new** diminished 7th chords.

Dim 7th on the leading note of Eb (major or minor)

Dim 7th on the leading note of F# (major or minor)

Dim 7th on the leading note of A (major or minor)

C major: I    vii<sup>o</sup>b<sup>7</sup>  
 Eb: vii<sup>o</sup><sub>2</sub><sup>6</sup>    V<sup>7</sup>    I

• Another way in which composers use the diminished 7th chord to modulate is to lower any one of its notes (except the 7th), to create a dominant 7th chord.

C: vii<sup>o</sup>b<sup>7</sup>    Eb: V<sup>7</sup>    I  
 Dim 7th on B

C: vii<sup>o</sup>b<sup>7</sup>    a: V<sup>7</sup><sub>4</sub>    I  
 Dim 7th on B

• Enharmonic equivalents of diminished 7th chords offer considerable scope for **modulation** when used as pivot chord.

Ist mvt from Beethoven's Pathétique Sonata (Grave)

G minor: i    V<sup>6</sup><sub>4</sub> i vii<sup>o</sup>7/VV    vii<sup>o</sup><sub>2</sub><sup>4</sup>    V vii<sup>o</sup><sub>3</sub><sup>4</sup> i<sup>6</sup>  
 vii<sup>o</sup><sub>2</sub><sup>4</sup>    V vii<sup>o</sup><sub>3</sub><sup>4</sup> enharm.  
 E minor: vii<sup>o</sup><sub>2</sub><sup>4</sup>    i<sup>6</sup><sub>4</sub>    V<sup>7</sup>    i<sup>6</sup><sub>4</sub>    V<sup>9</sup> V<sup>7</sup>.

Molto allegro e con brio

*p* *cresc.*    etc.

5:33

G minor: vii<sup>o</sup><sub>3</sub><sup>4</sup>  
 (F#-A-C-Eb enharm)  
 E minor:  
 (D#-F-A-C#)  
 could have modulated to E major too