

Diatonic Seventh Chords

Any diatonic triad may be embellished by adding a 7th above the root. The possibilities in a **major** key are as follows:

Chord:	I ₇	ii ₇	iii ₇	IV ₇	V ₇	vi ₇	vii ^o ₇
Quality:	MM	mm	mm	MM	Mm	mm	dm

The possibilities in a **minor** key are as follows:

Chord:	i ₇	ii ^o ₇	III ₇	iv ₇	V ₇	VI ₇	vii ^o ₇	also: v ₇	VII ₇
Quality:	mm	dm	MM	mm	Mm	MM	dd	mm	Mm

Although all these chords are theoretically possible, some occur with greater frequency than others. V₇, ii₇, vii^o₇ and their minor equivalents are the most frequent.

For all diatonic 7th chords, the voice-leading principles are simple:

- (1) The chord 7th is normally approached by step and resolves down by step.
- (2) The 5th may be omitted in which case the doubled note in a four-part texture should not be a tendency tone.

complete incomplete incomplete complete

ii₇ V₇ I ii₇ V₇ I

Notes on the individual diatonic 7th chords follow:

ii₇ (ii^o₇)

- Quality: mm in a major key; dm in a minor key.
- Progresses to V (as ii would normally progress).
- Often appears in 1st inversion. 2nd inversion is infrequent. 3rd inversion is very effective (I-II⁴₂-V₆).
- The chord 7th is often approached by a unison and a suspension figure results. This is because the chords that normally precede ii (I, IV, vi) contain the tonic pitch (the 7th of the ii). The suspended figure resolves when ii progresses to V.

vii^o₇

- Asymmetrical construction.
- Because it contains the leading tone it functions like a dominant.
- Resolves to I or dissolves to V.
- vii^o₂⁴ is rare.
- vii^o₅⁶ - I creates P5ths and is avoided.
- In the progressions vii^o₇ - I and vii^o₃⁴ - I₆, the chord 7th must be below the chord 3rd or the 3rd must be doubled in the I₆ in order to avoid P5ths.

P5ths P4ths (OK)

7th 3rd 3rd 7th

vii^o₃⁴ I₆ vii^o₃⁴ I₆

vii^o₇

- Symmetrical construction. Its root cannot be determined before it resolves. Its function is therefore potentially very ambiguous in terms of its function. The chord and all its inversions have the same sound.
- vii^o₇ resolves to i or dissolves to V.
- Use complete chords - no omissions, and no doublings.
- When resolving to I, use contrary motion. The voice containing the leading tone should move contrary to the other voices. Contrary motion is the rule even when the vii^o₇ is inverted. All notes should resolve stepwise. There are no common tones.
- Watch out for unequal 5ths when vii^o₅ resolves to i! The chord 7th must be in an inner voice.

Contrary motion

Unequal 5ths (OK - involves an inner voice)

Unequal 5ths (Bad - occurs between the outer voices)

vii^o₇ i vii^o₃ i₆ vii^o₅ i

IV₇ (iv₇)

- Quality: MM in major; mm in minor.
- Progresses to V, vii^o, or ii (as IV normally would).
- iv₇ - V will produce P5ths if the chord 7th is above the chord 3rd.

P5ths

P4ths (OK)

iv₇ V iv₇ V

vi₇ (VI₇)

- Quality : mm in a major key; MM in a minor key.
- Progresses to ii, IV, and V (as vi normally would).

I₇ (i₇)

- Quality : MM in a major key; mm in a minor key.
- The added 7th creates instability in an otherwise very stable chord.
- In major, the diatonic 7th above the tonic chord's root is also the leading tone. Since the tonic chord obviously does not function in a dominant capacity, this note is understood as a chord 7th that should resolve down by step and NOT as a leading tone which would resolve up by step.

leading tone

chord 7th

V I I₇ IV

iii₇ (III₇)

- Quality : mm in a major key; MM in a minor key.
- Progresses to vi or IV (as iii normally would).

7th Chords and the circle of fifths Sequence

Two rules must be followed so that good voice-leading is produced:

- (1) If the 7th chords are in root position, complete and incomplete chords should alternate.
- (2) If the 7th chords are inverted, either $\frac{6}{5}$ chords will alternate with $\frac{4}{2}$ chords OR $\frac{4}{3}$ chords will alternate with root position chords. In either case, all chords will be complete. The easy way to remember this rule is to simply hold common tones between consecutive 7th chords whenever possible.

Root Position 7th Chords

complete incomplete complete incomplete complete incomplete complete incomplete

I_7 IV_7 vii°_7 iii_7 vi_7 ii_7 V_7 I

$\frac{6}{5}$ Chords Alternating with $\frac{4}{2}$ Chords

$I_{\frac{6}{5}}$ $IV_{\frac{4}{2}}$ $vii^\circ_{\frac{6}{5}}$ $iii_{\frac{4}{2}}$ $vi_{\frac{6}{5}}$ $ii_{\frac{4}{2}}$ $V_{\frac{6}{5}}$ I

$\frac{4}{3}$ Chords Alternating with Root Position Chords

$I_{\frac{4}{3}}$ IV_7 $vii^\circ_{\frac{4}{3}}$ iii_7