

Chords from Scales

Deltadiatonics Twenty-First Century Harmony

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Arabic Numerals (Alterations to Scale)

○	Diminished		1	♭3	♭5	○	○
+	Augmented		1	3	♯5	+	+
▽	Minor		1	♭3	5	▽	⊗
△	Major		1	3	5	7	△

Chromatic Scale

Major Scale (all white keys)

I		II		III	IV	V	VI	VII
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Pentatonic Scale (all black keys)

	♯I	♭II		♯II _{EE}	♭III		♯IV	♭V		♯V	♭VI		♯VI	♭VII
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Model for the Diatonic Sequence of Triads in Major and all forms of Minor

Major	△	△	▽	▽	△	△	▽	○
Natural Minor	▽	▽	○	△	▽	▽	△	△
Melodic Minor	▽	▽	+	△	△	○	○	○
Harmonic Minor	▽	○	+	▽	△	△	○	○
Function in Scale	I	II	III	IV	V	VI	VII	

This model is realized on the staves below. Practice the block chord qualities in sequence with both the LH and RH separately as well as together.

Write in the letter names and quality symbol above each chord. Using the Diatonic Sequence Model and the block and arpeggio template practice the triadic harmony of the scales in all 12 keys.

Block & Arpeggio Template

Major

Natural Minor

Melodic Minor

Harmonic Minor

I II III IV V VI VII

The first example shows the seven pitches of the C major scale notated in whole notes and using the Arabic numerals 1-7. These notes use only white keys on a piano and employ another style of numbers, the Roman numerals I-VII. These numbers describe the position, or function, of a chord within the key. In between the whole notes we have the black keys notated as quarter notes. When combined with the white notes, and played from C to C an octave above, they form the twelve tone **chromatic scale** made up entirely of half steps. I have placed the black key tones in a large circle so we can readily see that there are two names for the same key as well as two function numbers (#I, \flat II etc.). This theoretical event is called **enharmonic equivalence, (EE)**. The same sound or pitch written two different ways is said to be written **enharmonically**. Walter Piston, in his book "Harmony" describes this as follows; "Whether it is proper to use one or the other is of grammatical significance; obviously for example, the seventh degree of the G major scale is F# and not G \flat ". We will also encounter **enharmonic key signatures** like D \flat major and C# major. In general the composers of today try to steer away from double flats and double sharps and try to notate music in the simplest way.

Therefore to eliminate confusion the number 7 is never used to represent a major or minor seventh chord. These two qualities contain perfect fifths (P5) and perfect fourths (P4) whereas the dominant contains the P5 and the tritone 5th (T).

Look at the number 7 in the circle in the first example. This 7 is represented by the Delta symbol Δ , the fourth letter of the Greek alphabet. Its intervallic distance from the tonic note C is a major seventh. When figured as a chord of the seventh it uses the Arabic figures 1, 3, 5, 7. In both classical analysis and jazz chord symbology the dominant chord is followed by the same Arabic numeral 7 ie. V7 or G7. However this seven, when viewed as an interval, is a minor seventh and when figured uses a flat seven, as in 1, 3, 5, \flat 7. In DELTADIATONICS© the use of the numeral 7 is reserved exclusively for the dominant. This reinforces Schoenberg's statement; "upon the potency of the dominant is based the interchangeability of major and minor." In other words it is the dominant that moves us to other regions in the circle of fifths therefore when we see that number we are alerted to an ever important harmonic change whether it be it modulatory or tonicizational.

The Seven Foundational Chords of the Seventh on "C"

These chord qualities can be found on the following diatonic scale degrees listed below.

Δ	Δ +	\boxtimes	7	∇	\emptyset	\circ
Δ	Δ +	\boxtimes	7	∇	\emptyset	\circ
I & IV in Major III & VI in Natural Minor VI in Harmonic Minor	III in Melodic Minor III in Harmonic Minor	I in Melodic Minor I in Harmonic Minor	V in Major VII in Natural Minor IV & V in Melodic Minor V in Harmonic Minor	II, III & VI in Major I, IV & V in Natural Minor II in Melodic Minor IV in Harmonic Minor	VII in Major II in Natural Minor VI & VII in Melodic Minor II in Harmonic Minor	VII in Harmonic Minor

The grid below reveals and compares the harmony of our entire diatonic system in one simple chart. You should apply your knowledge of the chords of the seventh and practice each sequence of chords found in major, natural minor, melodic minor and harmonic minor in all 12 keys using both block chord and arpeggio exercises. This study will build a solid technique, expand your knowledge of harmony, assist you in the analysis of most diatonic music and help you in your own compositional endeavors. The symbols, sequences, functions apply to all major and minor keys. Write the letter names and quality symbol above each chord. Using the Diatonic Sequence Model, practice the chords of the sevenths in all 12 keys. Use the Block & Arpeggio Model, of the first measure, and play all qualities in sequence with both the **LH** and **RH** separately as well as together.

Model for the Diatonic Sequence of Chords of the Seventh in Major and all Forms of Minor

Major	△	△	▽	▽	△	7	▽	∅
Natural Minor	▽ ^N	▽	∅	△	▽	▽	△	7
Melodic Minor	▽ ^M	⊗	▽	△ ⁺	7	7	∅	∅
Harmonic Minor	▽ ^H	⊗	∅	△ ⁺	▽	7	△	○
Function (position) in Scale	I	II	III	IV	V	VI	VII	

Block & Arpeggio Template

RH 1 2 3 5

LH 5 3 2 1

I II III IV V VI VII