

THE BEATO BOOK 4.0

A CREATIVE APPROACH TO MUSIC THEORY
AND IMPROVISATION
FOR GUITAR AND OTHER INSTRUMENTS

BY RICK BEATO

THE BEATO BOOK

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This book is dedicated to my Mom and Dad.

Special thanks to my wife Nina and our three beautiful children Dylan, Lennon and Layla; my brothers and sisters Pat, Nancy, Mike, Lou, Ray and Jon; and my teachers and friends Steve Brown, Mick Goodrick, Glen Cummings, Paul Smith, Pat Ryan, Tom Wadsworth, Keith Williams and Ken Lanyon.

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I would also like to thank all of you out there that have supported me through this journey!

Rick

Author's Note

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CHAPTER 1

THEORY AND HARMONY



Chapter 1: Theory and Harmony

A thorough understanding of intervals is of the utmost importance in studying all types of music, as intervals are the building blocks of polyphonic music.

Each interval has vastly different sound characteristics and must be committed to memory aurally and visually.

Intervals can be sounded together (harmonically) or sequentially (melodically).

There are twelve intervals in the space of an octave.

Interval Names and Symbols

	Unison	m2	M2	m3	M3	P4	A4/d 5	P5	m6	M6	m7	M7	P8
$\frac{1}{2}$ steps	0	1	2	3	4	5	6	7	8	9	10	11	12

Key: m = minor
M = Major
A = Augmented
d = diminished
P = Perfect

Ex. 1

$\frac{1}{2}$ steps	0	1	2	3	4	5	6	7	8	9	10	11
	Unison	m2	M2	m3	M3	P4	A4 / d5	P5	m6	M6	m7	M7

Perfect

1st Unison

4th Fourths

5th Fifths

8th Octave

Augmented

Diminished

Major

Minor

Imperfect

2nds Seconds

7ths Sevenths

3rds Thirds

6ths Sixths

Perfect Intervals: Octave, Unison, Fifth, Fourth

become augmented when enlarged by a half step

become diminished when reduced by a half step

Imperfect Intervals: Second, Seventh, Third, Sixth

1) Major Intervals

become augmented when enlarged by a half step

become minor when reduced by a half step

2) Minor Intervals

become major when enlarged by a half step

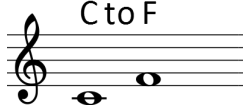
become diminished when reduced by a half step

Naming Intervals

To precisely identify an interval, generic interval classification must be made based on the number of letter names spanned. For Example:

Ex. 2

C to F



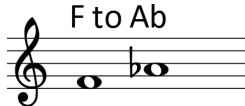
letter names			
C	D	E	F
1	2	3	4

a fourth = generic classification

4 letters spanned

Ex. 3

F to Ab



letter names		
F	G	A
1	2	3

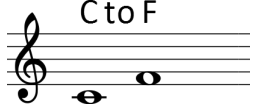
a third = generic classification

3 letters spanned

Once the generic classification has been determined, a more precise description (e.g., perfect, major, minor, diminished or augmented) can be made, based on the number of steps between the two pitches.

Ex. 4

C to F



C C# D D# E F 5 half steps = P4 perfect fourth

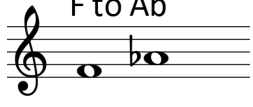
√ √ √ √ √

1 2 3 4 5

½ steps spanned

Ex. 5

F to Ab



F F# G Ab 3 half steps = m3 minor third

√ √ √

1 2 3

½ steps spanned

Ex. 6

Here are some more examples of intervals:

(D=Doubly)



P4 m7 M6 m2 DA 6 P5 d5 M3

Enharmonic Intervals

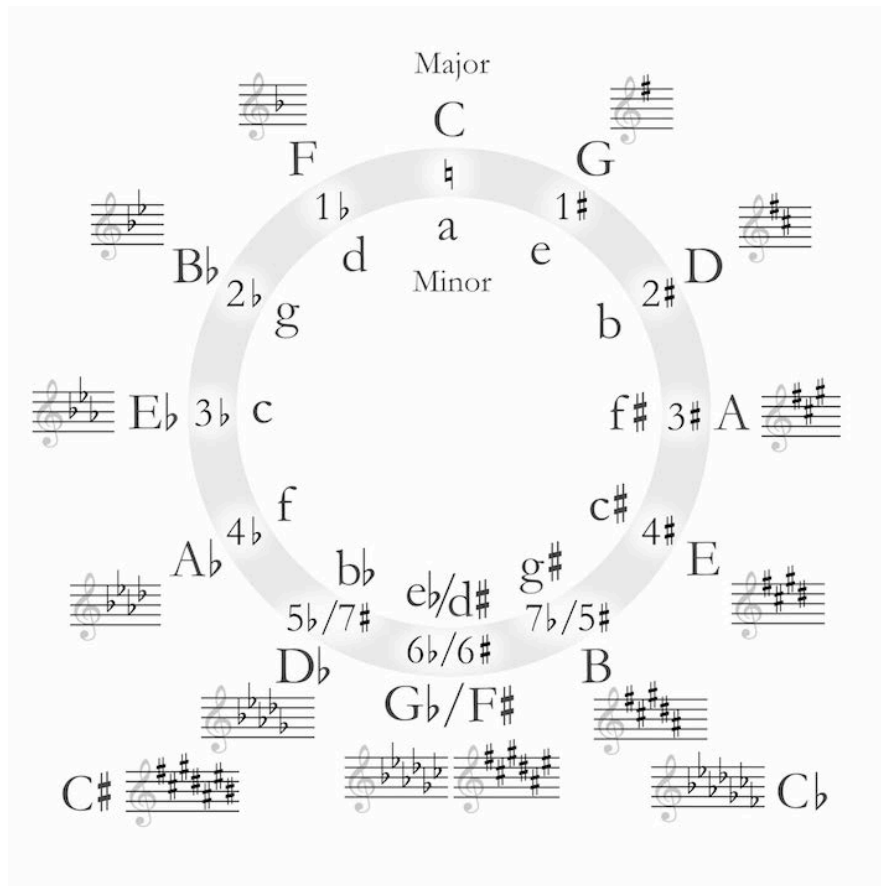
Interval types that contain an equivalent number of half steps but have different names (e.g., Augmented Second and Minor Third) are **enharmonically equivalent**. In other words, they are aurally identical but theoretically different.

Interval Characteristics

In Western Music, the tonal relationships within the range of one octave have been reduced to twelve equal intervals, the twelve notes of which comprise the chromatic scale, through the system of equal temperament. A chart of intervals comprised in an octave is below:

Interval	Characteristic
m2	Sharp Dissonance
M2	Mild Dissonance
m3	Soft Consonance
M3	Soft Consonance
P4	Consonance or Dissonance
TT	Neutral or Restless
P5	Open Consonance
m6	Soft Consonance
M6	Soft Consonance
m7	Mild Dissonance
M7	Sharp Dissonance
P8	Open Consonance

The Circle of Fifths



Order of Flats

Number of Flats - 0 1 2 3 4 5 6 7
Key - C F Bb Eb Ab Db Gb Cb

Order of Sharps

Number of Sharps - 0 1 2 3 4 5 6 7
Key - C G D A E B F# C#

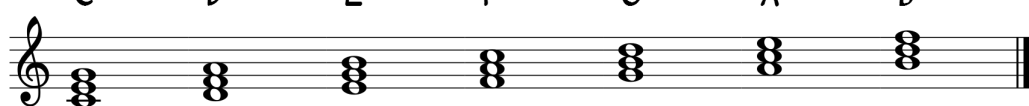
Chords and Their Formulas

Though there are many systems from which to build chords, tertian (third intervals) harmony is the most common in western music.

The stacking of two third intervals produces triads, the fundamental structures in tertian harmony. If these triads originate from one particular key center (signature) they are called diatonic triads. Triads may be built on every note of a particular scale. A seven note scale yields the same number of diatonic triads, not including suspensions which we will discuss later.

Diatonic Triads in C major

Ex. 8

	C	D-	E-	F	G	A-	B ^o
							
Roman Num.	I	ii	iii	IV	V	vi	vii ^o

Roman Numeral Symbols

upper case = major triad

lower case = minor triad

^o = diminished

+ = augmented

The Roman Numeral system employed has evolved for analysis of chord progressions and their relationship to a relative tonal center. Roman Numerals will be thoroughly discussed in an ensuing segment.

Building Diatonic Triads

The four basic diatonic triad categories are: major, minor, diminished and augmented

Interval Composition

Ex. 9



Interval composition for C major triad:

$\left. \begin{array}{l} \text{m3} \\ \text{M3} \end{array} \right\}$	=	C major	=	1	3	5
---	---	---------	---	---	---	---

Ex. 10



Interval composition for C minor triad:

$\left. \begin{array}{l} \text{M3} \\ \text{m3} \end{array} \right\}$	=	C minor	=	1	b3	5
---	---	---------	---	---	----	---

Ex. 11



Interval composition for C diminished triad:

$\left. \begin{array}{l} \text{m3} \\ \text{m3} \end{array} \right\}$	=	C dim	=	1	b3	b5
---	---	-------	---	---	----	----

Ex. 12



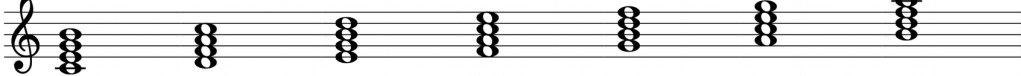
Interval composition for C augmented triad:

$\left. \begin{array}{l} \text{M3} \\ \text{M3} \end{array} \right\}$	=	C aug	=	1	3	#5
---	---	-------	---	---	---	----

Building Diatonic Seventh Chords

Seventh Chords are composed of three thirds stacked vertically.

Ex. 13

	<i>C^{MA7}</i>	<i>D⁻⁷</i>	<i>E⁻⁷</i>	<i>F^{MA7}</i>	<i>G⁷</i>	<i>A⁻⁷</i>	<i>B^{-7b5}</i>
C Major							
Roman Numeral	<i>I^{MA7}</i>	<i>ii⁷</i>	<i>iii⁷</i>	<i>IV^{MA7}</i>	<i>V⁷</i>	<i>vi⁷</i>	<i>vii^{7b5}</i>

	<i>C^{-MA7}</i>	<i>D⁻⁷</i>	<i>E^{b+MA7}</i>	<i>F⁷</i>	<i>G⁷</i>	<i>A^{-7b5}</i>	<i>B^{-7b5}</i>
C mel. minor							
Roman Numeral	<i>i^{MA7}</i>	<i>ii⁷</i>	<i>bIII^{+MA7}</i>	<i>IV⁷</i>	<i>V⁷</i>	<i>vi^{7b5}</i>	<i>vii^{7b5}</i>

	<i>C^{-MA7}</i>	<i>D^{-7b5}</i>	<i>E^{b+MA7}</i>	<i>F⁻⁷</i>	<i>G⁷</i>	<i>A^{bMA7}</i>	<i>B^{o7}</i>
C harm. minor							
Roman Numeral	<i>i^{-MA7}</i>	<i>ii^{7b5}</i>	<i>bIII^{+MA7}</i>	<i>iv⁻⁷</i>	<i>V⁷</i>	<i>bVi^{Ma7}</i>	<i>vii^{o7}</i>

The following reference chart includes both triad and seventh chords from major, melodic minor and harmonic minor. Roman numeral description and modal scale relationships have been included for study. "C" tonalities have been used in all instances.

Major Scale (Triads & Sevenths)

Ex. 14a

Triads

C

D-

E-

F

G

A-

B°

R.N.

I

ii

iii

IV

V

vi-

vii°

Ionian

Dorian

Phrygian

Lydian

Mixolydian

Aeolian

Locrian

Seventh

C^{MA7}

D-⁷

E-⁷

F^{MA7}

G⁷

A-⁷

B-^{7b5}

R.N.

I^{MA7}

ii⁷

iii⁷

IV^{MA7}

V⁷

vi⁷

vii^{-7b5}

Triads	maj	=	I, IV, V
	min	=	ii, iii, vi
	dim	=	vii°
Seventh	maj ⁷	=	I ^{maj7} , IV ^{maj7}
	min ⁷	=	ii ⁷ , iii ⁷ , vi ⁷
	dom ⁷	=	V ⁷
	min ^{7b5}	=	vii ^{7b5}

16

Natural Minor Scale

Ex. 14b

	C-	D^o	E^b	F-	G-	A^b	B^b
Triads							
R.N.	i	ii ^o	III	iv	v-	VI	VII
	Aeolian	Locrian	Ionian	Dorian	Phrygian	Lydian	Mixolydian

	C-7	D-7^{b5}	E^bMA7	F-7	G-7	A^bMA7	B^b7
Seventh							
R.N.	i ⁷	ii ^{7b5}	III ^{MA7}	iv ⁷	v ⁷	VI ^{MA7}	VII ⁷

Triads	maj	=	III, VI, VII
	min	=	i, iv, v
	dim	=	ii ^o
Seventh	maj ⁷	=	III ^{maj7} , VI ^{maj7}
	min ⁷	=	i ⁷ , iv ⁷ , v ⁷
	dom ⁷	=	VII ⁷
	min ^{7b5}	=	ii ^{7b5}

Melodic Minor Scale

Ex. 15

Triads

	C-	D-	E⁺	F	G	A[°]	B[°]
R.N.	i	ii ⁻	III ⁺	IV	V	vi [°]	vii [°]
	Melodic Minor	Dorian b2	Lydian augmented	Mixolydian #11 (Lydian b7)	Mixolydian b6	Locrian 2	Altered Dominant

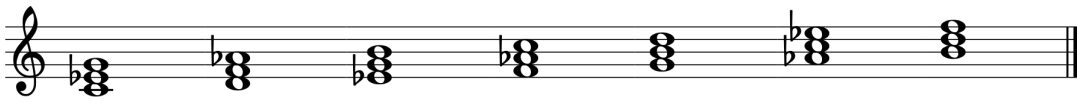
Seventh

	C-^{MA7}	D-⁷	E⁺^{MA7}	F⁷	G⁷	A-^{7b5}	B-^{7b5}
R.N.	i ^{MA7}	ii ⁷	III ^{MA7}	IV ⁷	V ⁷	vi ^{7b5}	vii ^{7b5}

Triads	maj	=	IV, V
	min	=	i, ii
	dim	=	vi [°] , vii [°]
	aug	=	III ⁺
Seventh	min ^{maj7}	=	i ^{maj7}
	min ⁷	=	ii
	dom ⁷	=	IV ⁷ , V ⁷
	min ^{7b5}	=	vi ^{7b5} , vii ^{7b5}
	aug ^{maj7}	=	III ^{+maj7}

Harmonic Minor Scale

Ex. 16

	C-	D ^o	E ^{b+}	F-	G	A ^b	B ^o
Triads							
R.N.	i-	ii ^o	III ⁺	iv	V	VI	vii ^o
	Harmonic Minor	Locrian nat. 6	Ionian augmented	Dorian #4	Phrygian Major	Lydian #9	Altered Dominant bb7

	C- ^{MA7}	D-7 ^{b5}	E ^{b+} MA7	F-7	G7	A ^b MA7	B ^o 7
Seventh							
R.N.	i ^{MA7}	ii ^{7b5}	III ^{+MA7}	iv ⁻⁷	V ⁷	VI ^{MA7}	vii ^{o7}

Triads	maj	=	V, VI
	min	=	i, iv
	dim	=	ii ^o , vii ^o
	aug	=	III ⁺
Seventh	maj ⁷	=	VI ^{maj7}
	min ^{maj7}	=	i ^{maj7}
	min ⁷	=	iv ⁷
	dom ⁷	=	V ⁷
	min ^{7b5}	=	ii ^{7b5}
	aug ^{maj7}	=	III ^{+maj7}
	dim ⁷	=	vii ^{o7}

Harmonic Major Scale

Ex. 17

	C_{maj}	D^o	E⁻	F⁻	G_{maj}	A^{b+}	B^o
Triads							
R.N.	I	ii ^o	iii	iv	V	VI ⁺	vii ^o
	Harmonic Major (Ionian b6)	Dorian b5	Phrygian b4	Lydian b3 (Melodic Minor #4)	Mixolydian b2	Lydian Augmented #2	Locrian b7
	C_{M7}	D-7^{b5}	E-7	F-_{maj7}	G7	A^{b+}_{maj7}	B^o7
Seventh							
R.N.	I _{maj7}	ii ^{7b5}	iii _{maj7}	iv- _{maj7}	V ⁷	VI ⁺ _{maj7}	vii ^{o7}

Triads	maj	=	I, V
	min	=	iii, iv
	dim	=	ii ^o , vii ^o
	aug	=	VI ⁺
Seventh	maj ⁷	=	I ^{maj7}
	min ^{maj7}	=	iv ^{maj7}
	min ⁷	=	iii ⁷
	dom ⁷	=	V ⁷
	min ^{7b5}	=	ii ^{7b5}
	aug ^{maj7}	=	VI ⁺ _{maj7}
	dim ⁷	=	vii ^{o7}

Double Harmonic Major Scale

Ex. 18

	C^{maj}	D^bmaj	E⁻	F⁻	G^{maj}^{b5}	A^b+	B^{sus}^{2b5}
Triads							
R.N.	I	II	iii	iv	V ^{b5}	VI ⁺	vii ^o
	Double Harmonic Major	Lydian #2 #6	Ultraphythgian	Hungarian Minor	Oriental	Ionian Augmented #2	Locrian bb3 bb7
	C^{maj7}	D^bmaj7	E⁻^{bb7}	F⁻maj7	G⁷^{b5}	A^b+maj7	D^b7/B
Seventh							
R.N.	I ^{maj7}	II ^{maj7}	iii ^{bb7}	iv ^{-maj7}	V ^{7b5}	VI ^{+maj7}	VII ^{4/2}

Triads	maj	=	I, II
	maj ^{b5}	=	V ^{b5}
	min	=	iii, iv
	dim	=	vii ^o
	aug	=	VI ⁺
Seventh	maj ⁷	=	I ^{maj7} , II ^{maj7}
	min ^{maj7}	=	iv ^{maj7}
	min ^{bb7}	=	iii ^{bb7}
	dom4/2	=	VII ^{4/2}
	dom ^{7b5}	=	V ^{7b5}
	aug ^{maj7}	=	VI ^{+maj7}

More About Seventh Chords

In case you did not understand some of the seventh chords already presented, let's review some basic seventh chord formulas.

Ex. 19

C_{Ma}7 =1 3 5 7	C7 =1 3 5 b7
C-7 =1 b3 5 b7	C-7b5 =1 b3 b5 b7
C°7 =1 b3 b5 bb7	C+Ma7 =1 3 #5 7
C-Ma7 =1 b3 5 7	C+7 =1 3 #5 b7
CoMa7 =1 b3 b5 7	C-7#5 =1 b3 #5 b7

Relative Major/Minor

Major and Minor scales are **Relative** when they share all seven pitches.

C Major...



...and it's relative minor, A Minor



Likewise, C Major is the relative major of A Minor.

Parallel Major/Minor

Major and Minor scales are **Parallel** when they share the same Root.

C Major...

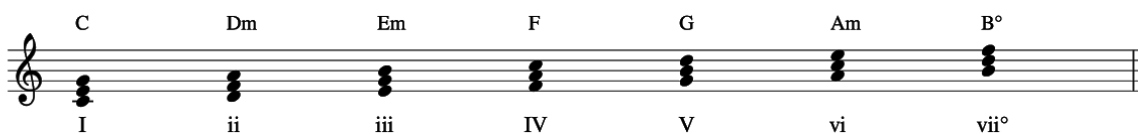


...and it's parallel minor, C Minor



Likewise, C Major is the parallel major of C Minor.

Diatonic Triads from C Major and C Minor



Chords for Songwriters

An expanded harmonic vocabulary includes secondary dominants, and chords derived from parallel minor scales.

Triads

Primary Chords	C I	Dm ii	Em iii	F IV	G V	Am vi	B° vii°
Sec. V		A V/ii	B V/iii	C V/IV	D V/V	E V/vi	
Sec. vii°		C#° vii°/ii	D#° vii°/iii	E° vii°/IV	F#° vii°/V	G#° vii°/vi	
Parallel Natural Minor	Cm i	D° ii°	Eb bIII	Fm iv	Gm v	Ab bVI	Bb bVII
Parallel Melodic Minor	Cm i	Dm ii	Eb+ bIII+	F IV	G V	A° vi°	B° vii°
Parallel Harmonic Minor	Cm i	D° ii°	Eb+ bIII+	Fm iv	G V	Ab bVI	B° vii°

Sevenths

Primary Chords	C ^{Maj7} I ^{Maj7}	Dm ⁷ ii ⁷	Em ⁷ iii ⁷	F ^{Maj7} IV ^{Maj7}	G ⁷ V ⁷	Am ⁷ vi ⁷	B ^{Ø7} vii ^{7b5}
Sec. V ⁷		A ⁷ V ⁷ /ii	B ⁷ V ⁷ /iii	C ⁷ V ⁷ /IV	D ⁷ V ⁷ /V	E ⁷ V ⁷ /vi	
Sec. vii ^{Ø7}		C# ^{Ø7} vii ^{Ø7} /ii	D# ^{Ø7} vii ^{Ø7} /iii	E ^{Ø7} vii ^{Ø7} /IV	F# ^{Ø7} vii ^{Ø7} /V	G# ^{Ø7} vii ^{Ø7} /vi	
Parallel Natural Minor	Cm ⁷ i ⁷	D ^{Ø7} ii ^{7b5}	Eb ^{Maj7} bIII ^{Maj7}	Fm ⁷ iv ⁷	Gm ⁷ v ⁷	Ab ^{Maj7} bVI ^{Maj7}	Bb ⁷ bVII ⁷
Parallel Melodic Minor	Cm ^{Maj7} i ^{Maj7}	Dm ⁷ ii ⁷	Eb ^{Maj7#5} bIII ^{Maj7#5}	F ⁷ IV ⁷	G ⁷ V ⁷	A ^{Ø7} vi ^{7b5}	B ^{Ø7} vii ^{7b5}
Parallel Harmonic Minor	Cm ^{Maj7} i ^{Maj7}	D ^{Ø7} ii ^{7b5}	Eb ^{Maj7#5} bIII ^{Maj7#5}	Fm ⁷ iv ⁷	G ⁷ V ⁷	Ab ^{Maj7} bVI ^{Maj7}	B ^{Ø7} vii ^{Ø7}

Summary of Chords from Major, Secondary Dominants, and Parallel Minor Scales

Triads

Primary Chords	C I	Dm ii	Em iii	F IV	G V	Am vi	B° vii°
Sec. V		A V/ii	B V/iii		D V/V	E V/vi	
Sec. vii°		C#° vii°/ii	D#° vii°/iii	E° vii°/IV	F#° vii°/V	G#° vii°/vi	
Parallel Natural Minor	Cm i	D° ii°	Eb bIII	Fm iv	Gm v	Ab bVI	Bb bVII
Parallel Melodic Minor			Eb+ bIII+			A° vi°	

Sevenths

Primary Chords	C ^{Maj7} I ^{Maj7}	Dm ⁷ ii ⁷	Em ⁷ iii ⁷	F ^{Maj7} IV ^{Maj7}	G ⁷ V ⁷	Am ⁷ vi ⁷	B ^{Ø7} vii ^{7b5}
Sec. V ⁷		A ⁷ V ⁷ /ii	B ⁷ V ⁷ /iii	C ⁷ V ⁷ /IV	D ⁷ V ⁷ /V	E ⁷ V ⁷ /vi	
Sec. vii ^{Ø7}		C# ^{Ø7} vii ^{Ø7} /ii	D# ^{Ø7} vii ^{Ø7} /iii	E ^{Ø7} vii ^{Ø7} /IV	F# ^{Ø7} vii ^{Ø7} /V	G# ^{Ø7} vii ^{Ø7} /vi	
Parallel Natural Minor	Cm ⁷ i ⁷	D ^{Ø7} ii ^{7b5}	Eb ^{Maj7} bIII ^{Maj7}	Fm ⁷ iv ⁷	Gm ⁷ v ⁷	Ab ^{Maj7} bVI ^{Maj7}	Bb ⁷ bVII ⁷
Parallel Melodic Minor	Cm ^{Maj7} i ^{Maj7}	Dm ⁷ ii ⁷	Eb ^{Maj7#5} bIII ^{Maj7#5}	F ⁷ IV ⁷		A ^{Ø7} vi ^{7b5}	
Parallel Harmonic Minor							B ^{Ø7} vii ^{Ø7}

Modal Mixture for Songwriters

There are 24 Major and Minor triads. These tables show how they each relate to C.

Borrowed from C Major

Major Triad	Relative Minor	Roman Numerals
C	Am	I / vi
F	Dm	IV / ii
G	Em	V / iii

Borrowed from C Minor

Major Triad	Relative Minor	Roman Numerals
E ^b	Cm	bIII / i
A ^b	Fm	bVI / iv
B ^b	Gm	bVII / v

Borrowed from Parallel Modes

Major Triad	Relative Minor	Roman Numerals	Borrowed from Parallel ____
D ^b	B ^b m	bII / bvii	Phrygian
D	Bm	II / vii	Lydian
G ^b	E ^b m	bV / biii	Locrian

Secondary V chords and their Relative Minors

Major Triad	Relative Minor	Roman Numerals	V/x
E	C [#] m / D ^b m	III / bii	V/vi
A	F [#] m / G ^b m	VI / bii	V/ii
B	G [#] m / A ^b m	VII / bvi	V/iii

Basic Triads

Triads contain three different pitches. Basic Triads are built by stacking pairs of third intervals. The lowest pitch in one of these stacks is called the Root. The pitch a third above the Root is called the Third, and the pitch a fifth above the Root is called the Fifth.



Triad Type	Interval: Root and Third	Interval: Third and Fifth	Interval: Root and Fifth	Formula
Diminished, d, °	m3	m3	d5	1 b3 b5
Minor, m	m3	M3	P5	1 b3 5
Major, M	M3	m3	P5	1 3 5
Augmented, A, +	M3	M3	A5	1 3 #5

Inversions are generated by changing which pitch appears in the low voice. A triad is in first inversion when the Third is in the low voice. A triad is in second inversion when the Fifth is in the low voice. A consequence of inversion is that the various intervals between the three voices (Low, Middle, and High) change.



Triad Type	Inversion	Interval: Low and Middle	Interval: Middle and High	Interval: Low and High	Formula
Diminished	1st	m3	A4	M6	b3 b5 1
Diminished	2nd	A4	m3	M6	b5 1 b3
Minor	1st	M3	P4	M6	b3 5 1
Minor	2nd	P4	m3	m6	5 1 b3
Major	1st	m3	P4	m6	3 5 1
Major	2nd	P4	M3	M6	5 1 3

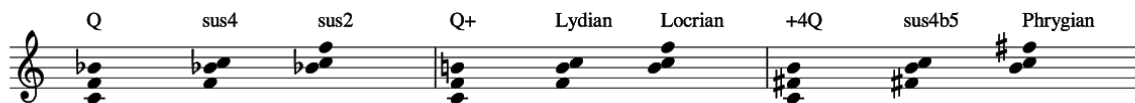
Advanced Triads

Advanced Triads are built by stacking pairs of fourth intervals. These are called Quartal triads.



Triad Type	Interval: Low and Middle	Interval: Middle and High	Interval: Low and High
Q	P4	P4	m7
Q+	P4	A4	M7
+4Q	A4	P4	M7

Each inversion is treated as its own unique triad, and its lowest note is reinterpreted as a new Root.

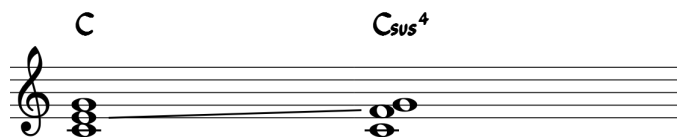


Triad Type	Inversion	Name	Formula	Interval: Low and Middle	Interval: Middle and High	Interval: Low and High
Q	1st	sus4	1 4 5	P4	M2	P5
Q	2nd	sus2	1 2 5	M2	P4	P5
Q+	1st	Lydian	1 #4 5	A4	m2	P5
Q+	2nd	Locrian	1 b2 b5	m2	P4	d5
+4Q	1st	sus4b5	1 4 b5	P4	m2	d5
+4Q	2nd	Phrygian	1 b2 5	m2	A4	P5

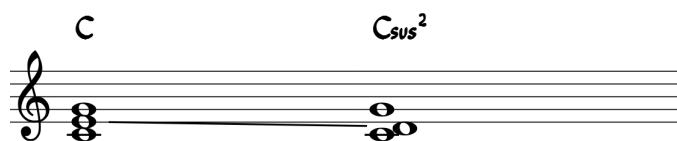
Suspended Triads and Other Three Note Structures

Suspended triads are triads in which one member, usually the third, has been raised or lowered one scale step.

Ex. 20a



Ex. 20b



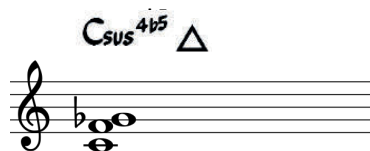
In example Ex. 20a the (E) moved one scale step (major scale) up to (F) creating a C suspended fourth triad. Example Ex. 20b the (E) moved down to a (D) creating a C suspended second triad. There are two other types of triads commonly used.

Ex. 21



The (E) of a C major triad is raised a whole step to (F#) to accommodate the #4 of a Lydian scale.

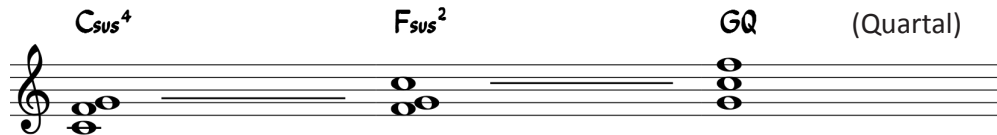
Ex. 22



The Sus4b5 triad is slightly different in that the fourth (F) is raised and the fifth (Gb) is flatted as in a Locrian scale.

In reality, certain suspensions such as sus2 or quartal voicing are simply inversions of sus4, Lydian or Locrian triads. It is because of their distinct sounds that I have chosen to name them in relation to their actual voicing.

Ex. 23



F_{sus}^2 is a 1st inversion of C_{sus}^4

GQ is a 2nd inversion of C_{sus}^4

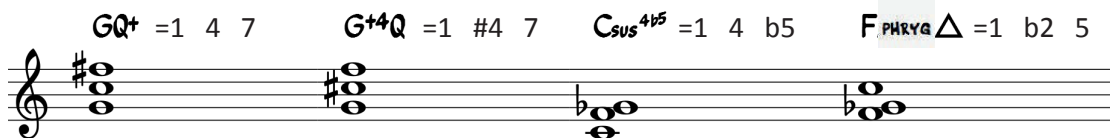
The Q (Quartal) represents a triad containing two perfect fourths.

Ex. 24 GQ = 1 4 b7



Here are some other symbols to know.

Ex. 25



Chord Scales

Major Scale Modes

Scale Degree	Mode	Relation to Major Scale							Most Common Use
I, I ^{maj7}	Ionian	1	2	3	4	5	6	7	Maj ⁷
ii, ii ⁷	Dorian	1	2	b3	4	5	6	b7	Min ^{7 (nat.6)}
iii, iii ⁷	Phrygian	1	b2	b3	4	5	b6	b7	Min ⁷ , MajΔ/7
IV, IV ^{maj7}	Lydian	1	2	3	#4	5	6	7	Maj ^{7(#11)}
V, V ⁷	Mixolydian	1	2	3	4	5	6	b7	Dom ⁷
vi, vi ⁷	Aeolian	1	2	b3	4	5	b6	b7	Min ^{7(b6)}
vii ⁰ , vii ^{7b5}	Locrian	1	b2	b3	4	b5	b6	b7	Min ^{7b5}

Melodic Minor Modes

Scale Degree	Mode	Relation to Major Scale							Most Common Use
i, i ^{maj7}	Melodic Minor	1	2	b3	4	5	6	7	Min ^{maj7}
ii, ii ⁷	Dorian b2	1	b2	b3	4	5	6	b7	Min ^{7 sus4b9}
bIII ⁺ , bIII ^{+maj7}	Lydian Aug.	1	2	3	#4	#5	6	7	Maj ^{7#4#5} , MajΔ/b6
IV, IV ⁷	Mixolydian #11	1	2	3	#4	5	6	b7	Dom ^{7b5}
V, V ⁷	Mixolydian b6	1	2	3	4	5	b6	b7	Dom ^{7b6}
vi ⁰ , vi ^{7b5}	Locrian Nat.9	1	2	b3	4	b5	b6	b7	Min ^{9b6}
vii ⁰ , vii ^{7b5}	Altered Dominant	1	b2	b3	b4	b5	b6	b7	Dom ^{7b9,#9,b5,#5}

Harmonic Minor Modes

Scale Degree	Mode	Relation to Major Scale							Most Common Use
i, i ^{maj7}	Harmonic Minor	1	2	b3	4	5	b6	7	Min ^{maj7} , oΔ/b7
ii ^o , ii ^{7b5}	Locrian Nat.6	1	b2	b3	4	b5	6	b7	Min ^{7b5}
bIII ⁺ , bIII ^{+maj7}	Ionian Aug.	1	2	3	4	#5	6	7	Maj ^{7sus4,#5}
iv, iv ⁷	Dorian #4	1	2	b3	#4	5	6	b7	Min ^{7(#11)}
V, V ⁷	Phrygian Major	1	b2	3	4	5	b6	b7	Dom ^{7sus4,b9,#5}
Vi, Vi ^{maj7}	Lydian #9	1	#2	3	#4	5	6	7	Maj ^{7#9,#11} , MajΔ/b9
vii ^o , vii ^{o7}	Altered Dominant bb7	1	b2	b3	b4	b5	b6	bb7	Dim ^{o7}

Miscellaneous Scales

Scale	Relation to Major Scale								Most Common Use
Tonic Diminished	1	2	b3	4	b5	b6	bb7	7	Dim ⁷ , MajΔ/b9
Dominant Diminished	1	b2	b3	b4	b5	5	6	b7	Dom ^{13,b9,#9,b5}
Whole Tone	1	2	3	#4	#5	b7	Dom ^{7,#5,b5}		
Augmented	1	#2	3	5	#5	7	AugΔ/7AugΔ		
Major Pentatonic	1	2	3	5	6	Maj ^(6,7)			
Minor Pentatonic	1	b3	4	5	b7	Min ^(7,11)			
Major Blues	1	2	b3	3	5	6	Dom ⁷ , Maj ^(6,7)		
Minor Blues	1	b3	4	b5	5	b7	Min ⁷ , Dom ^{7#9}		

Chord Families and Their Scales

Major⁷ Type

Maj ⁽⁷⁾ Type	Relation to Major Scale							Characteristics
Ionian	1	2	3	4	5	6	7	sus4
Lydian	1	2	3	#4	5	6	7	#4 (#11)
Lydian aug	1	2	3	#4	#5	6	7	#4, #5
Ionian aug	1	2	3	4	#5	6	7	sus4, #5
Major Petatonic	1	2	3	5	6			no 4 or 7
Major Blues	1	2	b3	3	5	6	b3, no4 or7	
Augmented	1	b3	3	5	#5	7	b3, #5	

Minor⁷ Type

Min ⁽⁷⁾ Type	Relation to Major Scale							Characteristics	
Dorian	1	2	b3	4	5	6	b7	6	
Phrygian	1	b2	b3	4	5	b6	b7	b2, 5, b6	
Aeolian	1	2	b3	4	5	b6	b7	b6	
Melodic Minor	1	2	b3	4	5	6	7	6, 7	
Dorian b2	1	b2	b3	4	5	6	b7	b2, 6	
Harmonic Minor	1	2	b3	4	5	b6	7	b6, 7	
Dorian #4	1	2	b3	#4	5	6	b7	#4, 6	
Minor Pentatonic	1	b3		4		5	b7	4(11)	
Minor Blues	1	b3		4	#4		5	b7	4, #4 (11, #11)

Minor^{7b5} Type

Min ^(7b5) Type	Relation to Major Scale							Characteristics
Locrian	1	b2	b3	4	b5	b6	b7	b2, b5
Locrian nat2	1	2	b3	4	b5	b6	b7	2, b5
Locrian nat6	1	b2	b3	4	b5	6	b7	b2, b5, 6

Dom⁷ Type

Dom ⁷ Type	Relation to Major Scale								Characteristics
Mixolydian	1	2	3	4	5	6	b7	sus4, b7	
Mixolydian #11	1	2	3	#4	5	6	b7	#4 (b5), b7	
Mixolydian b6	1	2	3	4	5	b6	b7	sus4, b6 (#5), b7	
Altered Dominant	1	b2	b3	b4	b5	b6	b7	b9, #9, b5, #5	
Phrygian Major	1	b2	3	4	5	b6	b7	sus4, #5, 5	
Dominant Diminished	1	b2	b3	b4	b5	5	6	b7	b9, #9, b5, 5, 13
Whole Tone	1	2	3	#4	#5	b7		#4, #5	
Major Pentatonic	1	2	3	5	6			no 4 or b7	
Minor Pentatonic	1	b3	4	5	b7			#9, no b7	
Major Blues	1	2	b3	3	5	6		b3, no b7	
Minor Blues	1	b3	4	#4	5	b7		#9, sus4, b5	

Diminished Type

Dim Type	Relation to Major Scale								Characteristics
Tonic Diminished	1	2	b3	4	b5	b6	bb7	7	9, 11, b13, 7
Altered Dominant bb7	1	b2	b3	b4	b5	b6	bb7		b9, 3, b13

Augmented Type

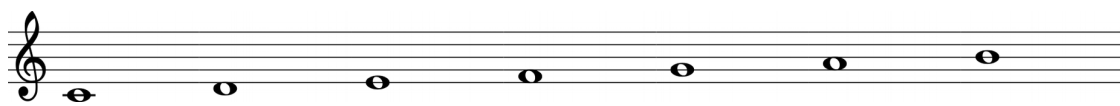
Aug Type	Relation to Major Scale						Characteristics
Whole Tone	1	2	3	#4	#5	b7	#4, #5
Augmented	1	#2	3	5	#5	7	#2, 5, #5, 7

Scale Degree Names and Basic Progressions

Scale degree names are commonly used in traditional harmonic analysis. It would be a good idea to become familiar with these terms for future reference in this text.

Ex. 26

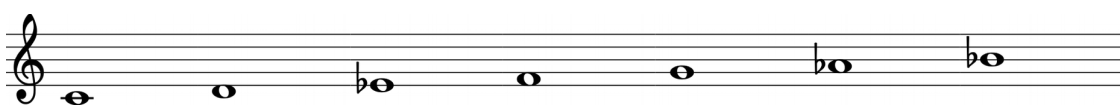
In C major

I	ii	iii	IV	V	vi	vii ^o
						
Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Leading Tone

These scale degree terms apply to all seven note scales with leading tones. In scales containing lowered seventh degrees, the Leading Tone is replaced by the Subtonic.

Ex. 27

In C Aeolian

i	ii ^o	III	iv	v	VI	VII
						
Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Subtonic

Basic Progressions

To better understand functional harmony, it should be divided into three basic subheadings from the terms above.

1. **Dominant Chords**: chords which contain the 5th and 7th degrees of the scale. V^7 , vii^{7b5} .

Ex. 28

Key of C $G^7 = V^7$ in C

1 2 3 4 5 6 7 1 2 3 4

Ex. 29

Key of C $B-7^{b5} = vii^{7b5}$ in C

1 2 3 4 5 6 7 1 2 3 4 5 6

Note: the 4th and 7th degrees are the least stable and therefore must be resolved.

2. **Pre-Dominant Chords**: chords which contain only 4th degree of the scale

Ex. 30

Key of C $F_{MA}^7 = IV_{MA}^7$ in C

1 2 3 4 5 6 7 1 2 3

Ex. 31

Key of C $D-7 = ii^{-7}$ in C

1 2 3 4 5 6 7 1 2

3. **Tonic Chords:** chords which do not contain the 4th degree of the scale

Ex. 32

Key of C
 $C_{MA}7 = I_{MA}7$ in C

1 2 3 4 5 6 7 1 2

Ex. 33

Key of C
 $E-7 = iii-7$ in C

1 2 3 4 5 6 7 1 2

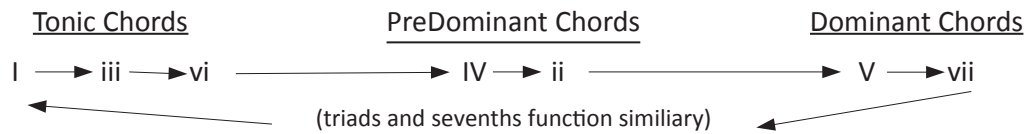
Ex. 34

Key of C
 $A-7 = vi-7$ in C

1 2 3 4 5 6 7 1 2 3 4 5

Here is a clearer chart (major key).

Ex. 35



In traditional harmony, the strongest and most common cadence patterns move clockwise through each group.

Ex. 36

Example 36 shows a progression in G major:

- D-7** (labeled *ii*⁷ and (Pre Dom.))
- G⁷** (labeled *V*⁷ and (Dom.))
- C_{MA}⁷** (labeled *I*_{MA}⁷ and (Tonic))

Ex. 37

Example 37 shows a progression in E major:

- E-7** (labeled *iii*⁷ and (Tonic))
- A-7** (labeled *vi*⁷ and (Tonic))
- D-7** (labeled *ii*⁻⁷ and (Pre Dom.))
- G⁷** (labeled *V*⁷ and (Dom.))
- C_{MA}⁷** (labeled *I*_{MA}⁷ and (Tonic))

In Ex. 35 there are two (or three if the progression is repeated) consecutive tonic chords. The particular sequence of chords within group should also be noted in Ex. 37 (I - iii - vi)

More About Roman Numeral Analysis

Roman Numerals are commonly used to describe chords within the diatonic chord systems. Here are definitions of the two elements used in Roman Numeral Analysis.

Exact Distance: Distinctions between basic triads are indicated by the following symbols:

Uppercase Roman Numerals for Major

Lowercase Roman Numerals for minor

(^o) and lower case Roman Numerals for diminished

(+) and upper case Roman Numerals for Augmented

Seventh chords use these symbols:

(Maj7) or (MA7) for chords containing a major seventh interval above the root and

(min7) indicating a minor seventh or (b7) interval above the root.

Secondary Dominant and Diminished Seventh:

The terms Secondary Dominant and Secondary Diminished Seventh chords refer to chords outside the diatonic key which momentarily modulate to another key.

Secondary Dominant Chords:

Example 38 shows the Secondary Dominant chords from the key of C major.

Ex. 38

	I	ii	iii	IV	V	vi	vii ^o
Cmajor =	C	D-	E-	F	G	A-	B ^o
Sec. Dom.'s		A ⁷	B ⁷	C ⁷	D ⁷	E ⁷	
		<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	
		ii	iii	IV	V	vi	


 not a stable enough resolution chord to have a Sec. Dom.

Basically, the Secondary Dom.⁷ chord is the Dom.⁷ chord in the key of the bottom Roman Numeral.

Ex. 39

I^{maj7} V^7 ii V^7
 ii Bottom Roman Numeral

A⁷ is the V⁷ chord in the key of D minor. So in reality, D-⁷ functions dually as the i⁷ chord in D minor and as the ii⁷ in major

Secondary Diminished Seventh Chords

Secondary Diminished Seventh Chords are leading tone seventh chords from the key of the denominator.

Ex. 40

I^{maj7} vii^{o7} ii vii^{o7} iii
 ii iii

The Secondary Diminished Seventh chords in the key of C are:

Ex. 41

	I	ii	iii	IV	V	vi	vii ^o
Cmajor =	C	D-	E-	F	G	A-	B ^o
Sec. Dim ^{o7}		C# ^{o7}	D# ^{o7}	E ^{o7}	F# ^{o7}	G# ^{o7}	
		vii^{o7}	vii^{o7}	vii^{o7}	vii^{o7}	vii^{o7}	
		ii	iii	VI	V	vi	

not a stable enough resolution chord to have a Sec. Dom.

Cycle of Fifth and Backcycling

The terms Cycle of Fifths and Backcycling are frequently mentioned in jazz theory. Here are the definitions and examples of each.

Cycle of Fifths

A progression that is most commonly associated with Dom7 chords (V7) whose roots move in descending fifths pattern.

Ex. 42



Back Cycling

Harmonic movement, usually from a minor key to the key center a fifth above.

Ex. 43



Back Cycles and the Cycle of Fifths are terms that are commonly used. Keep in mind, however, that both devices can be analyzed in other ways (secondary dominants).

Roman Numeral Analysis and Chord Scale Choice

I have included two common harmonic progressions for purposes of Roman Numeral Analysis and Chord Scale Choice. The key centers are circled. Capital letters are Major keys and subscript letters are minor keys.

Ex. 44a

(Ab) F-7 R.N. vi⁷ C.S. F aeolian	Bb-7 ii⁷ Bb dorian	Eb7 V⁷ Eb mixolydian	Ab_{MA}7 I_{MA}7 Ab ionian
Db_{MA}7 IV_{MA}7 Db lydian	(C) D-7 ii⁷ D dorian	G7 V⁷ G mixo.	C_{MA}7 I_{MA}7 C ionian
(Eb) C-7 vi⁷ C aeolian	F-7 ii⁷ F dorian	Bb7 V⁷ Bb mixolydian	Eb_{MA}7 I_{MA}7 Eb ionian
Ab_{MA}7 IV_{MA}7 Ab lydian	(G) A-7 ii⁷ A dorian	D7 V⁷ D mixo.	G_{MA}7 I_{MA}7 G ionian
A-7 ii⁷ A dorian	D7 V⁷ D mixolydian	G_{MA}7 I_{MA}7 G ionian	B-7 iii⁷ B phry.
(E) F#-7 ii⁷ F# dorian	B7 V⁷ B mixolydian	E_{MA}7 I_{MA}7 E ionian	(Ab) C7 V⁷ vi C alt. scale
F-7 vi⁷ F aeolian	Bb-7 ii⁷ Bb dorian	Eb7 V⁷ Eb mixolydian	Ab_{MA}7 I_{MA}7 Ab ionian
Db_{MA}7 IV_{MA}7 Db lydian	(B) C#-7 ii⁷ C# dorian	F#7 V⁷ F# mixo.	(Ab) C-7 iii⁷ C phrygian
Bb-7 ii⁷ Bb dorian	Eb7 V⁷ Eb mixolydian	Ab_{MA}7 I_{MA}7 Ab ionian	(f) G-7b5 ii⁷b5 G loc. #6
Bb-7 ii⁷ Bb dorian	Eb7 V⁷ Eb mixolydian	Ab_{MA}7 I_{MA}7 Ab ionian	Calt. V⁷ alt C phry. major

Ex. 44b

(d) E-7^{b5} A7^{alt} (Bb) C-7 F7

ii7^{b5} V7 ii7 V7

The scales you will provide

(Eb) F-7 Bb7 Eb^{MA}7 (Bb) Ab7

ii7 V7 I^{MA}7 bII7 Tritone-sub.

vi

Bb^{MA}7 (d) E-7^{b5} A7^{alt} D-7 (Ab) Bb-7 Eb7

I^{MA}7 (sub. for vi) ii7^{b5} V7 i7 ii7 V7

(F) A-7 D7 G-7 C7 (g) A-7^{b5} D7^{alt}

iii7 V7 ii7 V7 ii7^{b5} V7

(c) G7^{#5} C-7

V7 i7

(Bb) Ab7 Bb^{MA}7

bII7 vi I^{MA}7

(d) E-7^{b5} A7^{alt} (c) D-7^{b5} G7^{alt}

ii7^{b5} V7 ii7^{b5} V7

(Bb) C-7(b5) E7^{alt} Bb^{MA}7

ii-7(b5) V7 I^{MA}7

You may have noticed the Ab⁷ as being bII. The reason for this is because it (Ab⁷) is a tritone substitute (to be explained later, so don't panic) for D⁷ which is $\frac{V^7}{vi}$ in Bb Major. bII⁷ chords are interchangeable for V⁷ chords when resolving to their respective Tonic Major or Minor Chords (we will discuss this later in the book).

Basic Rules for Chord Substitutions

Following is a list of some basic rules for chord substitutions. The subsequent chapters contain additional rules to accommodate the flow of new material.

All chord substitutions may be broken down into three categories.

1. The bass note stays the same and the chord quality changes.

Ex. 45

$$F^{\text{maj}7} \longrightarrow F^7$$

2. The bass note changes but the chord quality stays the same.

Ex. 46

$$F^{7/\#5/b9/b5} \longrightarrow B^9$$

3. Complete chord replacement.

Ex. 47

$$B^{\text{maj}7} \longrightarrow G^{\text{maj}7}$$

Rule I:

For basic chords, any modal extension may be added.

Ex. 48

1. $G_-^7 \text{ (dor.)} = G_-^9 \longrightarrow G_-^{11} \longrightarrow G_-^{13}$
2. $D^7 \text{ (mix.)} = D^9 \longrightarrow D^{11} \longrightarrow D^{13}$
3. $Bb^{\text{maj}7} \text{ (lyd.)} = Bb^{\text{maj}9} \longrightarrow Bb^{\text{maj}7\#11} \longrightarrow Bb^{\text{maj}13}$

Any of these groups may also combine extensions such as $\longrightarrow G_-^{9/11/13}$.

Rule II: Major Chords

Substitute Major chords own mediant or submediant chord.

Ex. 49

$A^{\text{maj}7}$	sub.	$C\#_-^7 \text{ (mediant)}$		$C\#_-^7 = A^{\text{maj}9}$
		$F\#_-^7 \text{ (submediant)}$		$F\#_-^7 = A^6$

Rule III: Minor Chords

Substitute Relative Major or Dominant Minor

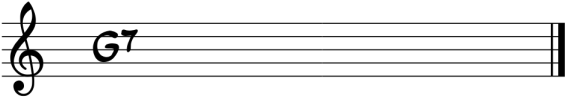
Ex. 50

D- ⁷	sub.	F ^{maj7} (relative major)	F ^{maj7}	= D- ⁹
		A- ⁷ (dom. Minor)	A- ⁷	= D- ^{9/11}

Rule IV: Dom.⁷ Chords (V⁷)

Substitute Dom. minor for Dom. major (must return to Dom. major). This is also called "twoing the five" because you are putting the ii⁷ chord before the V⁷. This is one of the most common substitutions found in Jazz (Bebop).

Ex. 51

orig. 

sub 

Also reverse works:

Ex. 52

orig. 

sub 

or 

or 

or 

Rule V: All Chords

Substitute any chord which has a root a tritone away from the original chord.

Ex. 53

orig. 

sub 

or 

or 

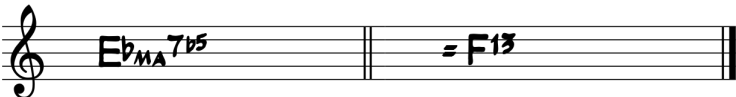
Or combine any lines but do not substitute for tonic chord (not yet!).

Rule VI: Dom⁷ Chords (V⁷)

Substitute maj^{7b5} or maj^{7#5} built on the subtonic (bvii) of the Dom. chord.

Ex. 54

orig. 

sub 1 

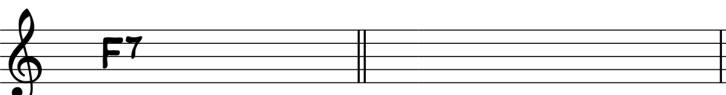
sub 2 

Both should be voiced in higher registers.

Rule VII: Dom⁷ Chords (V⁷)

Substitute min^{7b5} chord built on the mediant of the Dom⁷ chord.

Ex. 55

orig. 

sub 

(Chord should also be voiced in a higher register)

Rule VIII: Dom⁷ Chords (V⁷)

Substitute Dim⁷ chord built on bII of the Dom⁷ chord.

Ex. 56

orig. 

sub 

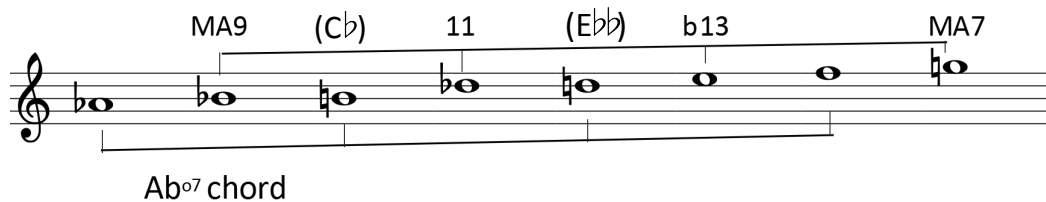
Also the other 3 symmetric dim⁷ chords and their extensions

Ex. 57

$$G^{7b9} = Ab^{o7}, B^{o7}, D^{o7}, F^{o7}$$

Extensions of Dim7 Chords

Ex. 58 Ab^{o7} (Tonic Diminished scale)



MA9 (Cb) 11 (Ebb) b13 MA7

Ab^{o7} chord

Ex. 59

$A\flat^{\circ 7}$

1 $b3$ $b5$ $bb7$ $MA7$ $MA9$ 11 $b13$

Extensions of Dim^7 chord.
(happens to be a Dim chord itself)

Rule IX:

V^7 chords may replace minors (secondary dominants) to set up a stronger harmonic cadence (tonicization).

Ex. 60

orig. I^{maj7} vi^7 ii^7 V^7

sub I^{maj7} A^7 $D-7$ G^7

I^{maj7} $\frac{V^7}{ii}$ ii^7 V^7

Rule X: Dom^7 (V^7) chords

Altered ($\#9$, $b9$, $\#5$, $b5$) Dom^7 chords may follow unaltered chords when resolving to their tonic. The reverse is not true. When moving towards the tonic, you need to go from less tension to more tension.

Ex. 61

orig. A^7 $A^{\#5\#9}$ D_{MA}^7

incorrect

no $A^{\#5\#9}$ A^7 D_{MA}^7

Rule XI: Dom7 (V7) Chords

Altered Dom7 chords can be used (even if not indicated) when the root of the chord is:

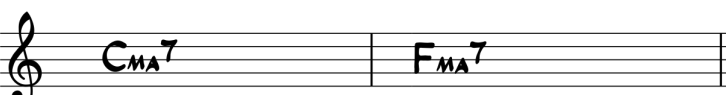
- | | | |
|--|--------------------|------------------------|
| 1. a 4 th higher (5 th lower): | A ^{7 alt} | D ^{maj7} |
| 2. ½ step lower | A ^{7 alt} | A ^{b maj7} |
| 3. a minor type with the same root | A ^{7 alt} | A ⁻⁷ |
| 4. ½ step higher | A ^{7 alt} | B ^{b maj7} In |

all other instances use Mixolydian or Mixolydian #11 scales.

Rule XII:

- A) When a Maj or Min chord is followed by a Maj, Min or Dom⁷ chord whose root is a 4th higher, you may insert a Dom⁷ of the same root for half the duration.

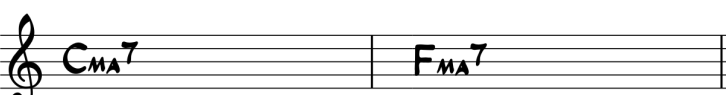
Ex. 62

orig. 

sub. 

You may also insert the ii⁷ chord of the V⁷ sub

Ex. 63

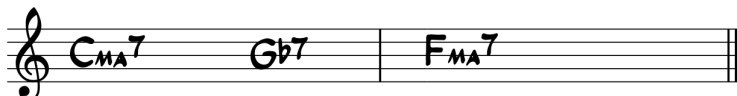
orig. 

sub 

B) You may also insert a Dom⁷ chord a tritone away for the same duration.

Ex. 64

orig. 

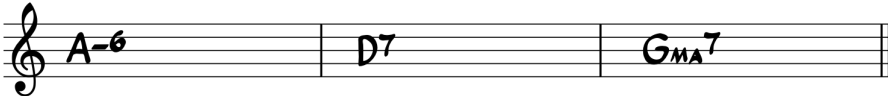
sub 

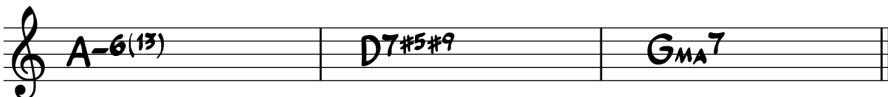
or 

Rule XIII

A min⁶ chord cannot be substituted for a min⁷ (ii-function) unless an altered Dom⁷ follows, thus increasing the harmonic tension of the progression.

Ex. 65

wrong 

O.K. 

Or in combination with tritone substitution

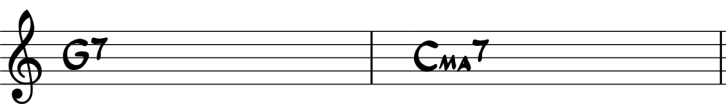
Ex. 66



Rule XIV:

Min^{7b5} chords may be inserted before Dom⁷ (V⁷) chords in major or minor keys.

Ex. 67a

orig. 
sub 

or

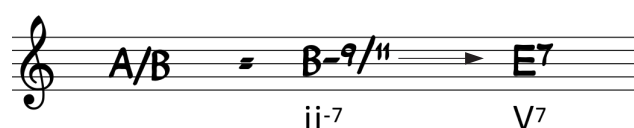
Ex. 67b

orig. 
sub 

Rule XV:

Dom¹¹ (V⁷) chords can function as dom⁷'s or min⁷'s (dorian/aeolian)

Ex. 68

 Key of E
 Key of A
 Key of b (Aeolian Function)

Rule XVI:

A $\text{bII}^{7\text{b}5}$ substitution for $\text{V}^{7\text{alt}}$ works because they both share the same scale.

Ex. 69

Two musical staves in treble clef. The first staff shows a D-7 chord, a G7#5#9 chord, and a CMA7 chord. Below the staff is the text "G altered scale = Ab melodic minor". The second staff shows a D-7 chord, a Db7b5 chord, and a CMA7 chord. Below the staff is the text "Db mixo. #11 scale = Ab melodic minor".

Rule XVII:

Secondary Dom⁷ and Dim⁷ chords may be inserted before their respective resolution chords.

Three musical staves in treble clef. The first staff is labeled "Ex. 70 orig." and shows a CMA7 chord, a D-7 chord, an E-7 chord, and an FMA7 chord. The second staff is labeled "sub." and shows a CMA7 chord, an A7 chord, a D-7 chord, a B7 chord, an E-7 chord, and an FMA7 chord. The third staff is labeled "or" and shows a CMA7 chord, a C#o7 chord, a D-7 chord, a D#o7 chord, an E-7 chord, and an FMA7 chord.

Rule XVIII:

It is common to insert two diatonic chords separated by a secondary dim⁷ chord in places of little harmonic motion.

Ex. 71

Two musical staves in treble clef. The first staff is labeled "orig." and shows a CMA7 chord followed by three whole notes marked with a slash and a dot. The second staff is labeled "sub." and shows a CMA7 chord, a D-7 chord, a D#o7 chord, and an E-7 chord. Below the staff are the Roman numerals: I^{maj7}, ii⁷, $\frac{\text{Vii}^{\text{o}7}}{\text{iii}}$, and iii⁷.

Rule XIX:

Maj^{7#5} and Maj^{7b5} chords can be subbed for any other chords from the same melodic minor scale.

Ex. 72 Eb^{maj7#5} for C^{-maj7} (3, 5, 7, 9) of C^{-maj7}
Eb^{maj7b5} for F¹³ (b7, 9, 3, 13) of F¹³

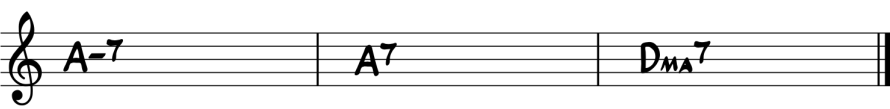
Rule XX: Symetrical Scales

- A) Diminished chords repeat every min3rd (4 frets) interval. Therefore, any of the four in the cycle may be substituted for another.
- B) Augmented Chords repeat every maj3rd (5 frets) interval, so the same rule applies.

Rule XXI: Dom⁷ Chords (V⁷)

Dom⁷ chords can be moved in min3rd cycles to intersect at cadence points.

Ex. 73

orig. 

sub. 1 

sub. 2 

sub. 3 

sub. 4 

Rule XXII: Modal Chords

Modal Chords can be interchanged (Modal Mixture) as long as the basic integrity of the chord remains intact.

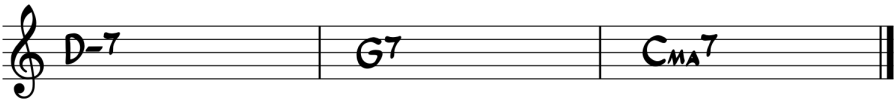
Ex. 74

G ^{maj7} (Ionian) orig.	G ^{maj7/6/9}
G ^{maj7} (Lydian) sub.	G ^{maj7/#11}
Bb ⁻⁷ (Dorian) orig.	Bb ^{-6/9}
Bb ⁻⁷ (Aeolian) sub.	Bb ^{-7/b6}

Rule XXIII:

The cycle of 5th's (descending) may be inserted for any length in a progression as long as the intersecting chord has either a V⁷ or a bII⁷ relationship to the resolution chord.

Ex. 75

orig. 

sub. 1 

sub. 2 

Rule XXIV

Bitonal chords from the Dominant Diminished scale can be subbed for one another.

Ex. 76

$G^{13/b9}$

$\frac{\text{Maj}\Delta}{\text{Bass}}$ sub	①	$\frac{G}{Ab}$	$\frac{Bb}{B}$	$\frac{Db}{D}$	$\frac{E}{F}$
	②	$\frac{Db}{G}$	$\frac{E}{Bb}$	$\frac{G}{Db}$	$\frac{Bb}{E}$
	③	$\frac{E}{G}$	$\frac{G}{Bb}$	$\frac{Bb}{Db}$	$\frac{Db}{Eb}$
	④	$\frac{Bb}{G}$	$\frac{Db}{Bb}$	$\frac{E}{Db}$	$\frac{G}{E}$

$\frac{\text{Min}\Delta}{\text{Bass}}$ sub	①	$\frac{G-}{Ab}$	$\frac{Bb-}{B}$	$\frac{Db-}{D}$	$\frac{E-}{F}$
	②	$\frac{Db-}{G}$	$\frac{E-}{Bb}$	$\frac{G-}{Db}$	$\frac{Bb-}{E}$
	③	$\frac{E-}{G}$	$\frac{G-}{Bb}$	$\frac{Bb-}{Db}$	$\frac{Db-}{Eb}$
	④	$\frac{Bb-}{G}$	$\frac{Db-}{Bb}$	$\frac{E-}{Db}$	$\frac{G-}{E}$

Rule XXV:

- A) When in a $\text{min } ii^{7b5} \quad V^7 \quad i^7$ progression, an altered Dom7 chord must be used.
- B) All secondary Dom⁷ (V^7) chords resolving to minor must have an altered V^7 chord

Ex. 77

$\text{I}^{\text{maj}7} \quad \frac{V^7}{ii} \quad ii^7 \quad V^7$

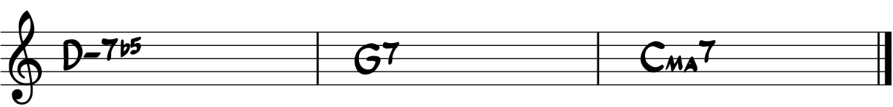
$Bb_{MA}^7 \quad G7^{\#5} \quad C-^7 \quad F^7$

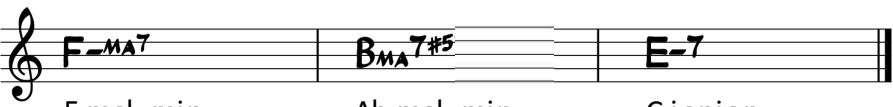
must be altered in some way
because it's resolving to $C-^7$

Rule XXVI:

Any chord can be replaced by another chord from its family.

Ex. 78

orig. 

sub. 

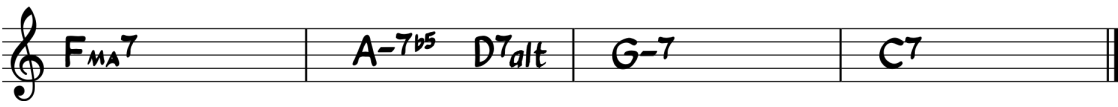
scale: F mel. min Ab mel. min C ionian

Rule XXVII

Dim⁷ chords that resolve to min⁷ chords one ½ step above can be replaced with a ii^{7b5} V^{7alt} progression from the key of the min⁷ chord.

Ex. 79

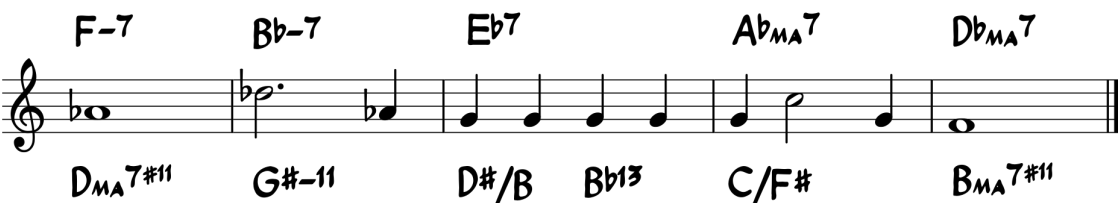
orig. 

sub. 

Rule XXVIII:

Any chord whose chord scale contains the melody notes of a particular measure can be substituted.

Ex. 80

orig. 

Rule XXIX

Triads and Sevenths (V⁷) over Dom or Tonic bass notes are very common.

Ex. 81

	I ^{maj7}	$\frac{V^7}{ii}$	ii	V ⁷
orig.				
sub.				

Triads Over Bass Notes

Triads over bass notes are used extensively in contemporary jazz and classical music. The triad can be of any quality (maj, min, dim, aug, sus, lyd or loc) and inversion.

Ex. 82a

G	Triad
F#	Bass Note



G Triad

F# Bass Note

Ex. 82b

A-	Triad
G#	Bass Note



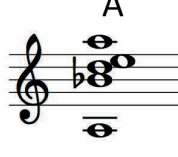
A- Triad 1st inversion

G# Bass Note

The seventh chord over a bass note looks like

this: **Ex. 83**

B ^b MA7b5
A



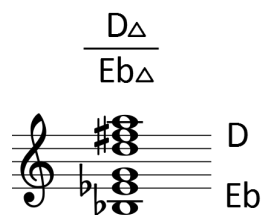
B^bMA7b5

A Bass Note

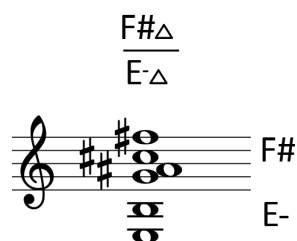
The seventh chord may be in any inversion as well.

The polychord differs from the triad over bass note by the presence of a triad or seventh chord on both the top and bottom.

Ex. 84a



Ex. 84b

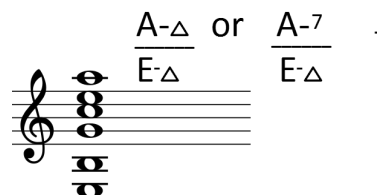


To indicate the presence of a triad, a Δ (triad) symbol should be used.

Seventh chords over triads or other seventh chords are impossible to sound simultaneously on the guitar because of the six string limit (on most guitars).

In some instances their effect can be achieved with a triad over triad or seventh chord over bass note.

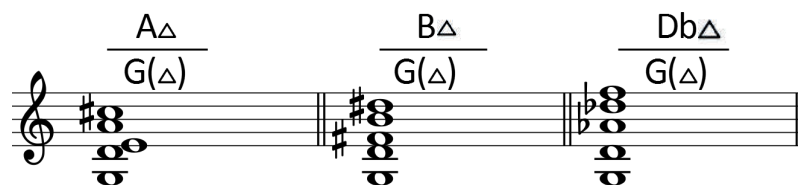
Ex. 85



The G of the E min chord dually functions as the third of Emin and the b7 of A-7.

Many times the root and fifth are sufficient in giving the sound of the bottom triad.

Ex. 86



Triads and Seventh Chords Over Bass Notes and Polychords

Key of C: C triads over C bass notes not included, because they are simply triads. The last row of generic chord names will help you when encountering these same relationships in other keys.

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\frac{Db}{C}$	$\frac{Db^{maj7}}{7}$ phrygian	b9, 11, b6	Phrygian Phrygian Major	$\frac{Maj\Delta}{Maj7}$
$\frac{Db-}{c}$	$\frac{Db-^{maj7}}{7}$ altered dominant	b9, 3, #5	Phrygian Major Altered Dominant	$\frac{Min\Delta}{Maj7}$
$\frac{Db^o}{C}$	$\frac{Db^{omaj7}}{7}$ dominant diminished	b9, 3, 5	Phrygian Major Dominant Diminished	$\frac{Dim\Delta}{Maj7}$
$\frac{Db^+}{C}$	$\frac{Db^{maj7\#5}}{7}$ dorian b2	b9, 11, 6	Dorian b2 Locrian nat 6	$\frac{Aug\Delta}{Maj7}$
$\frac{Db^{sus4}}{C}$	$\frac{Db^{maj7sus4}}{7}$ locrian or altered dom.	b9, b5, b6	Locrian Altered Dominant	$\frac{sus4\Delta}{Maj7}$
$\frac{Db^{lyd}}{C}$	$\frac{Db^{lydmaj7}}{7}$ phrygian	b9, 5, b6	Phrygian Phrygian Major	$\frac{Lyd.\Delta}{Maj7}$
$\frac{Db^{loc.}}{C}$	C Dom.Dim	b9, #11, 5		$\frac{Loc.\Delta}{Maj7}$
$\frac{D}{C}$	$\frac{D^7}{b7}$	9, #11, 13	Lydian (Augmented) Mixolydian #11 Dorian #9 Tonic Diminished	$\frac{Maj\Delta}{b7}$
$\frac{D-}{C}$	$\frac{D^{-7}}{b7}$	9, 11, 13	Ionian Dorian Mixolydian Meloidic Minor Ionian Augmented Tonic Diminished	$\frac{Min\Delta}{b7}$
$\frac{D^o}{C}$	$\frac{D^{-7b5}}{b7}$	9, 11, b6	Aeolian Mixolydian b6 Locrian nat 2 Harmonic Minor Tonic Diminished	$\frac{Dim\Delta}{b7}$
$\frac{D^+}{C}$	$C^{9/b5\ no3rd}$	9, #11, b7	Mixolydian #11 Dorian #4 Whole Tone	$\frac{Aug\Delta}{b7}$

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\frac{D^{sus4}}{C}$	$C^{6/9}$ no 3rd	9, 5, 13	Ionian Dorian Lydian Mixolydian Melodic Minor Mixolydian #11 Dorian #4 Pentatonic (Major)	$\frac{sus4\Delta}{b7}$
$\frac{D^{lyd}}{C}$	$C^{6/9/\#11}$ no 3rd	9, #5, 13	Lydian Augmented Ionian Augmented	$\frac{Lyd.\Delta}{b7}$
$\frac{D^{loc.}}{C}$	$\frac{Ab^{maj7/b5}}{3^{rd}}$	9, 5, b6		$\frac{Majb5}{3^{rd}}$
$\frac{Eb}{C}$	C^{-7}	b3, 5, b7	All minor scales without maj7	$\frac{Maj\Delta}{6}$
$\frac{Eb-}{C}$	C^{-7b5}	b3, b5, b7	Locrian Locrian nat 2 Locrian nat 6	$\frac{Min\Delta}{6}$
$\frac{Eb^o}{C}$	C^o7 Dim^7	b3, b5, bb7	Tonic Diminished (Altered Dom. bb7)	Dim^7
$\frac{Eb^+}{C}$	C^{-maj7} Min^{maj7}	b3, 5, 7	Melodic Minor Harmonic Minor	Min^{maj7}
$\frac{Eb^{sus4}}{C}$	C^{-7b6} aeolian	b3, b6, b7	Aeolian Altered Dominant	$Min^{7/b6/(#5)}$
$\frac{Eb^{lyd}}{C}$	C^{-13} dorian	b3, 6, b7	Dorian Type Melodic Minor	Min^{13}
$\frac{Eb^{loc.}}{C}$	$C^{o/b13}$	b3, #5, 13	Tonic Diminished	Dim^{b13}
$\frac{E}{C}$	$C^{maj7/\#5}$ Aug^{maj7}	3, #5, 7	Lydian Augmented	$Maj^{7/\#5}$
$\frac{E-}{C}$	C^{maj7} Maj^7	3, 5, 7	Ionian Lydian Major Pentatonic Major Blues	Maj^7
$\frac{E^o}{C}$	C^7 Dom^7	3, 5, b7	Mixolydian Mixolydian #11 Major Pentatonic Major Blues	Dom^7
$\frac{E^+}{C}$	C^+	1, 3, #5	Whole Tone	$Aug\Delta$

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\frac{E^{sus4}}{C}$	$C^{maj7/6}$	3, 6, 7	Ionian Lydian Lydian Augmented	Maj^{13}
$\frac{E^{lyd}}{C}$	Twelve tone	3, b7, 7	Chromatic Scale	
$\frac{E^{loc.}}{C}$	$C^{13 \text{ (no 5)}}$	3, 6, b7	Mixolydian Mixolydian #11 Dominant Diminished	Dom^{13}
$\frac{F}{C}$	$\frac{F}{5^{th}}$	3, 5, 7	Major Type	$\frac{Maj\Delta}{P5}$
$\frac{F-}{C}$	$\frac{F-}{5^{th}}$ Dom Tonic	b3, 5	Minor Type	$\frac{Min\Delta}{P5}$
$\frac{F^o}{C}$	$C^{maj7/\#5/sus4}$	4, #5, 7	Aeolian Harmonic Minor	$\frac{Dim\Delta}{P5}$
$\frac{F^+}{C}$	$C^{dor/b2}$	4, 6, b9	Dorian b2 Phrygian Phrygian Major	$\frac{Aug\Delta}{P5}$
$\frac{F^{sus4}}{C}$	CQ	4, b7	Dorian Mixolydian	Quartal
$\frac{F^{lyd}}{C}$	CQ+	4, 7	Ionian	Q. Aug
$\frac{F^{loc.}}{C}$	C^{loc}	4, b5	Locrian	
$\frac{F\#}{C}$	$C^{7/b9/b5}$	b5, b7, b9	Dominant Diminished Altered Dominant	$Dom^{b9/b5}$
$\frac{F\#-}{C}$	$C^{13/b9/b5}$	b9, 13, b5	Dominant Diminished	$Dom^{13/b9/b5}$
$\frac{F\#^o}{C}$	C^o	1, b3, b5	Tonic Diminished	$Dim\Delta$
$\frac{F\#^+}{C}$	$C^{9/b5}$	b5, b7, 9	Whole Tone	Dom^{9b5}
$\frac{F\#^{sus4}}{C}$	Twelve tone	b5, 7, b9	Chromatic Scale	
$\frac{F\#^{lyd}}{C}$	$C^{7/b9/b5}$	b5, 1, b9	Dominant Diminished Altered Dominant	$Dom^{7/b9/b5}$
$\frac{F\#^{loc.}}{C}$	$C^{maj7/\#11}$	b5, 7, 1	Lydian Lydian Augmented	$Maj^{7/\#11}$

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\frac{G}{C}$	C ^{MA9 no5th}	5, 7, 9	Ionian Lydian	Maj ^{9 no 5th}
$\frac{G-}{C}$	C ⁹	5, b7, 9	Mixolydian Mixolydian #11	Dom ⁹
$\frac{G^o}{C}$	C ^{7/b9}	5, b7, b9	Dominant Diminished	Dom ^{7/b9}
$\frac{G^+}{C}$	C ^{-maj7}	5, 7, b3	Melodic Minor Harmonic Minor	Min ^{maj7}
$\frac{G^{sus4}}{C}$	C ^{sus2}	5, 1, 2	Ionian Lydian	Sus2
$\frac{G^{lyd}}{C}$	Twelve tone	5, b9, 9	Chromatic Scale	
$\frac{G^{loc.}}{C}$	C ^{7/b9}	5, 1, b9	Dominant Diminished	Dom ^{7/b9}
$\frac{Ab}{C}$	C ^{-b6}	b6, 1, b3	Aeolian	Min ^{7/b6}
$\frac{Ab-}{C}$	C ^{omaj7/b13}	b13, 7, b3	Tonic Diminished	Dim ^{maj7/b13}
$\frac{Ab^o}{C}$	C ^{omaj7/9/b13}	b13, 7, 9	Tonic Diminished	Dim ^{maj7/9/b13}
$\frac{Ab^+}{C}$	C ^{MA#5}	#5, 1, 3	Whole Tone Lydian Augmented Ionian Augmented	Maj ^{#5}
$\frac{Ab^{sus4}}{C}$	C ^{(7)/b9/#9/#5}	#5, b9, #9	Altered Dominant	Dom ^{7/#5/b9/#9}
$\frac{Ab^{lyd}}{C}$	C ^{-9/b6}	b6, 9, b3	Aeolian	Min ^{9/b6}
$\frac{Ab^{loc.}}{C}$	Twelve tone	b6, b9, 9	Chromatic Scale	
$\frac{A}{C}$	C ^{13/b9}	13, b9, 3	Dominant Diminished	Dom ^{13/b9}
$\frac{A-}{C}$	C ¹³	13, 1, 3	Mixolydian	Dom ¹³
$\frac{A^o}{C}$	C ^o	1, b3, b5	Tonic Diminished	DimΔ
$\frac{A^+}{C}$	C ^{13/sus4/b9}	13, b9, 11	Dorian b2	(Min) Dom ^{13/sus4/b9}

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\frac{A^{sus4}}{C}$	$C^{6/9}$	6, 9, 3	Ionian Lydian	$Maj^{6/9}$
$\frac{A^{lyd}}{C}$	$C^{13/\#9}$	13, #9, 3	Dominant Diminished	$Dom^{13/\#9}$
$\frac{A^{loc.}}{C}$	$C^{-6/9}$	6, 9, b3	Dorian Melodic Minor	$Min^{6/9}$
$\frac{Bb}{C}$	$C^{9/11}$	b7, 9, 11	Mixolydian	$Dom^{9/11}$
$\frac{Bb-}{C}$	$C^{7/sus4/b9}$	b7, b9, 11	Dorian b2 Phrygian Phrygian Major	$Dom^{7/sus4/b9}$
$\frac{Bb^o}{C}$	C^{7b9}	b7, b9, 3	Dominant Diminished	$Dom^{7/b9}$
$\frac{Bb^+}{C}$	$C^{9/b5}$	b7, 9, #11	Mixolydian #11 Whole Tone	$Dom^{9/b5}$
$\frac{Bb^{sus4}}{C}$	C^{-11}	b7, b3, 11	Dorian Phrygian Aeolian	Min^{11}
$\frac{Bb^{lyd}}{C}$	$C^{7/sus4/3}$	b7, 3, 4	Mixolydian	$Dom^{7/sus4/3}$
$\frac{Bb^{loc.}}{C}$	$C^{7/\#9}$	b7, #9, 3	Dominant Diminished Altered Dominant	$Dom^{7/\#9}$
$\frac{B}{C}$	C^{maj7}	7, b3, b5	Tonic Diminished	Dim^{maj7} $\frac{Maj\Delta}{b9}$
$\frac{B-}{C}$	$C^{MA9/\#11}$	7, b3, b5	Lydian	$Maj^{9/\#11}$
$\frac{B^o}{C}$	$C^{maj7/9/sus4}$	7, 9, 11	Harmonic Minor	$\frac{Dim\Delta}{b9}$
$\frac{B^+}{C}$	C^{-maj7}	7, b3, 5	Melodic Minor Harmonic Minor	Min^{maj7}
$\frac{B^{sus4}}{C}$	$C^{maj7/\#11}$	7, 3, #11	Lydian Lydian Augmented	$Maj^{7/\#11}$
$\frac{B^{lyd}}{C}$	Chromatic scale	7, 11, #11	Chromatic Scale	
$\frac{B^{loc.}}{C}$	$C^{maj7/sus4}$	7, 3, 4	Ionian	$Maj^{7/sus4}$

Ex. 87

$$\frac{E}{C} = \frac{\text{Maj}\Delta}{b6} \quad (\text{min6 above E})$$

What we have is a major triad with its b6 in the bass. The b6 is in relation to the note E (above it). The interval on the bottom will always be that interval above the tonic of the triad (E in this case).

Now that you are thoroughly confused, let's look at it in a few more keys.

Ex. 88

$$\frac{E}{C} = \frac{\text{Maj}\Delta}{b6} \quad \text{Maj triad over its b6 in bass}$$

$$\frac{D}{Bb} = \frac{A}{F} = \frac{F\#}{D} = \frac{\text{Maj}\Delta}{b6}$$

These also all happen to be Maj^{7#5} chords as we can see.

Ex. 89

$$\frac{E}{C} = \frac{E, G\#, B}{C} = \begin{matrix} C & E & G\# & E \\ 1 & 3 & \#5 & 7 \end{matrix} = C^{\text{maj}7\#5}$$

In many cases I have indicated a mode name in the Chord Type column. The chord example is named in two ways:

$$\frac{Db}{C} \text{ for}$$

1. as a Db^{maj7} chord with C in the bass
2. as a C phrygian chord

Although I personally believe that all chords should be named in relation to their bass note (in the case of $\frac{Db}{C}$ it is a type of a C chord, not a Db^{maj7} chord in inversion) the other approach should also be recognized. The scales in the chord scale section are related to the bass note.

Ex. 90

$$\frac{Db}{C} = \begin{matrix} C \text{ phrygian} \\ C \text{ phrygian major} \end{matrix}$$

Reharmonization and Chord Substitutions

Before going into some actual reharmonizations, let's briefly discuss a few traditional substitute patterns.

Throughout the course of Jazz history, certain compositions have produced a variety of harmonic substitute patterns. Works such as "Giant Steps", "Countdown", "Ladybird" and "Blues for Alice" are all tunes which contain such harmonic substitutes.

The terms "Countdown Changes" or "Bird Blues" are examples of Jazz lingo referring to specific substitute patterns in today's jazz scene. Let's examine some traditional substitute patterns.

"Countdown Changes"

The tune "Countdown" by John Coltrane was first released on the album "Giant Steps" in 1959 on Atlantic SD-1311.

"Countdown" is based on the harmonic progression of a Miles Davis composition entitled "Tune Up". The basic principle of chord substitution is as follows:

Ex. 91

The diagram shows two musical staves. The top staff, labeled "Tune Up", has four measures with chords: D-7, G7, Cmaj7, and a fourth measure with a slash. Above the first three measures are Roman numerals: ii7, V7, and I maj7. The bottom staff, labeled "Countdown", has four measures with chords: D-7, Eb7, Abmaj7, B7, Emaj7, G7, and Cmaj7. Below the staff, a horizontal line with an arrow points from left to right, labeled "Depart" and "Return". Below this line, Roman numerals are listed: ii7, bIII7, bVI maj7, VII7, III maj7, V7, and I maj7.

ii⁷ V⁷ I^{maj7}
D-7 G7 C_MA7
 "Tune Up"
 D-7 Eb7 Ab_MA7 B7 Em_MA7 G7 C_MA7
 "Countdown"
 Depart —————> Return
 Roman Num.= ii⁷ bIII⁷ bVI^{maj7} VII⁷ III^{maj7} V⁷ I^{maj7}

This Progression may be inserted in any tune with a four bar ii-V⁷-I^{maj7} progression regardless of what the rhythm section is playing under it.

"Bird Blues"

A "Bird Blues" is a chord progression derived from the tune "Blues for Alice" by Charlie Parker. It is based on a twelve bar blues and uses a series of ii-V substitution.

Ex. 92a

orig.

Ex. 92b

sub.

Advanced Reharmonizations

To demonstrate advanced reharmonizations, I have tried to incorporate as many substitution rules as possible.

Additional rules will be presented throughout this section in order to address the new harmonic situations encountered. The type of tunes used for reharmonization fall into the categories of Blues, Rhythm Changes and two "Standard" Jazz forms. Because of the high concentration of Blues-form tunes, I will begin with more of its variations.

Blues

F Blues Basic

Three staves of musical notation in 4/4 time for F Blues Basic. The first staff contains F7, a repeat sign, a repeat sign, and a repeat sign. The second staff contains Bb7, a repeat sign, F7, and a repeat sign. The third staff contains G-7, C-7, F7 D7, and G-7 C7.

Substitution Characteristics

F Blues ①

Three staves of musical notation in 4/4 time for F Blues ①. The first staff contains F7, Bb7 B°7, C-7, and F7. The second staff contains Bb7, Bb7 B°7, F7/C, and D7alt. The third staff contains G-7, C-7, F7 D7alt, and G-7 C7.

1. Basic Bebop Blues

- B°7 in bar 2 is $\frac{vii^{o7}}{ii}$ going to the ii⁷ chord (c-7) in next measure. Rule XVII
- B°7 in bar 5 is actually an F°7 resolving to $\frac{F^7}{C}$. This is a common delayed resolution technique and is used many times in ii – V⁷ – I^{maj7} for the first 2 beats (or bars) of the I^{maj7} chord as demonstrated in this example.

Ex. 93

ii⁷ V⁷ i^o maj⁷ I maj⁷

G-7 C7 E/F = F oMA7 F MA7

F Blues ②

F7 Bb7 B o7 C-7 F7 F#-7 B7

Bb7 Bb-7 Eb7 F7/A D7alt

G-7 C7 Db-7 Gb7 F7 Ab7 Db7 Gb7

2. The second Blues is still a Bebop type blues with a few modifications.

- F#-⁷ to B⁷ in bar 3 is a tritone substitution in the key of Bb with its ii⁷ chord in front of it.

Rule XII part2

- Bb-⁷ to Eb⁷ in bar 6 is actually an Eb⁷ to F⁷ resolution with the supertonic chord (Bb-⁷) in front of the dominant. This brings up a new rule.

Rule XXX: Dom⁷ chords

Dom⁷ chords that resolve to Dom⁷ or Maj⁷ chord a whole step above.

Ex. 94a

Eb7(b⁹) F MA7 or F7 (F7/C)

	F mixolydian = Bb maj
Eb mix#11 = Bb melodic min	F ionian =
A alt. dom = Bb melodic min	D aeolian =
	D phrygian = Bb maj

F maj

A7alt D-7

Ex. 94b

Five musical staves showing chord progressions in treble clef. Each staff has two measures. The progressions are:

- Staff 1: $A7_{alt}$ to $Bb_{MA}7$
- Staff 2: $Eb7(b5)$ to $Bb_{MA}7$
- Staff 3: $A7_{alt}$ to $F_{MA}7$ or $F7$
- Staff 4: $Eb7$ to $A-7$
- Staff 5: $A7_{alt}$ to $A-7$

The main reason that these progressions work is because of the strong resolution tendencies of the Db, Bb and Eb ($b7^{th}$, 5^{th} and root) of the $Eb7$

Ex. 95a

Musical staff for Ex. 95a showing $Eb7$, F^{maj7} , and $(F7)$ with fingerings. Below are Roman numerals $bVII^7$, I^{maj7} , and (I^7) .

Ex. 95b

Musical staff for Ex. 95b showing $Eb7$ and Bb^{maj7} with fingerings. Below are Roman numerals IV^7 and I^{maj7} .

Ex. 95c

Musical staff for Ex. 95c showing $Eb7$, $A-7$, and a resolution from $Eb7$ to $A-7$ with fingerings. Below are Roman numerals IV^7 and I^{maj7} .

F Blues ③

Three staves of music for F Blues. Staff 1: F#7 B7 | E7 A7 | D7 G7 | C7 F7. Staff 2: Bb7 | E7_{alt} | F7 | A-7_{b5} D7_{alt}. Staff 3: G-7 | C7 | A7_{alt} D7_{alt} | G7_{alt} C7_{alt}.

3. The third Blues begins on the bII⁷ chord employing a cycle of 5th substitution (Rule XXIII) and is intersecting with the Bb⁷ chord in bar 5.
 - E^{7alt} is used in bar 6 as a tritone substitution for Bb^{7(b5)}
 - the turnaround A^{7alt} D^{7alt} G^{7alt} C^{7alt} is a III⁷ VI⁷ II⁷ V⁷ Dom⁷ cycle substitution for the usual I⁷ VI⁷ ii⁷ V⁷ progression.

Rule XXXI

Dom⁷ chords can replace either major or minors.

Ex. 96

Ex. 96 shows a chord substitution. The left staff contains C^{MA7} A⁷ | D⁻⁷ G⁷ ||. The right staff contains C⁷ A⁷ | D⁷ G⁷ ||. Below the left staff are the Roman numerals I^{maj7} VI⁷ ii⁷ V⁷. Below the right staff are the Roman numerals I⁷ VI⁷ II⁷ V⁷.

Rule XXXI cont.

Ex. 97

C_{MA}7 A-7 | D-7 G7
 I^{maj7} vi⁷ ii⁷ V⁷
 ↓ becomes ↓
 E-7 A7 | D-7 G7
 iii⁷ VI⁷ ii⁷ V⁷
 ↓ becomes ↓
 E7^{alt} A7^{alt} | D7^{alt} G7^{alt}
 III⁷ VI⁷ II⁷ V⁷

F Blues ④

F_{MA}7 E-7^{b9} A7^{alt} | D-7 G7 | C-7 F7
 B_b7 B_b-7 E_b7 | A-7 D7 | A_b-7 D_b7
 G-7 C7 | F7 D_b7 | A_b7 E_b7

4. Blues #4 is commonly called a "Parker (Bird) Blues" or "Altered Blues" as we discussed earlier.

The following turnaround is common in modern jazz.

Ex. 98

F7 D_b7 | A_b7 E_b7
 I⁷ bVI⁷ bIII⁷ bVII⁷

Any or all of the chords may be made maj⁷ if desired.

F Blues ⑤

4/4 F7 Eb7 D-7^{b5} G7^{alt} C-7 Eb7 Ab_{MA}7 B7

Bb7 Eb7 A-7 D7 Bb-7 Eb7^{alt}

Ab-7 Db7 F/C Db/C Ab^{sus4}/C C7^{alt}

5. Blues #5 uses some interesting devices beginning with the cadence:

Ex. 99

F7 Eb7 D-7^{b5} G7^{alt} C-7

At first it looks deceiving but at a closer glance it makes more sense. The Eb⁷ chord in bar one acts as a bII⁷ tritone substitute to D-^{7b5} (which is actually a substitute for Bb⁷⁽⁹⁾ in bar [Rule VII]).

The D-^{7b5} moves to G^{7alt} and then to C-⁷, a substitute for F⁷ (Rule IV). The next substitute is based on John Coltrane's "Countdown Substitutions" discussed earlier.

Ex. 100

C-7 Eb7 Ab_{MA}7 B7 Bb7

m3 Resolve m3 T.T. Sub. Resolve

Ex. 101

F/C Db/C Ab^{sus4}/C C7^{alt}

This turnaround is a dominant pedal point that works on a modal modulation principle.

F Blues ⑥

4/4 F *sus*⁴ | A *add*⁶ / F | E / F | G^b / F | A^b *sus*⁴ / F | F *sus*⁴ | F[#] _{MA} 7^{#5} | G-7^{b6} B^b / B F / C D^b / C A^b / C B^b / C

6. Blues #6 uses a tonic pedal (bars 1-7) as well as a dominant pedal for the turnaround

Ex. 102

F / C D^b / C A^b / C B^b / C

You should play through every progression to gain an aural familiarity of each. The smart musician will learn how to combine the progressions in different ways. In addition he / she will create new reharmonizations based on the rules previously stated. Remember, all of the measures between different progressions are interchangeable, provided the bassline and voice leading are logical.

Rhythm Changes

Rhythm Changes is a term coined for the chord progression of George Gershwin's "I Got Rhythm". The progression has provided a basis for many standard Bebop tunes. The most common harmonization of Rhythm Changes is:

Ex. 103

A

A

B

A

As you probably have noticed, the I^{maj7} VI⁷ ii⁷ V⁷ and iii VI⁷ ii⁷ V⁷ progressions comprise a large portion of this harmonic progression. That is why this progression is commonly referred to as a "Turnaround" progression. Here are some examples of substitute turnarounds which may be employed in the first four bars of any A section in Rhythm Changes.

Ex. 104

original	Bb_{MA}^7	G^7	$C-^7$	F^7	Bb_{MA}^7	($D-^7$)
①	Bb_{MA}^7	B^{o7}	$C-^7$	$C^{#o7}$	Bb_{MA}^7	($D-^7$)
②	$D-^7$	G^7	$C-^7$	F^7	Bb_{MA}^7	($D-^7$)
③	Bb_{MA}^7	D^b7	G^b7	B^7	Bb_{MA}^7	($D-^7$)
④	Bb_{MA}^7	G^b7	D^b7	E^b7	Bb_{MA}^7	($D-^7$)
⑤	Bb_{MA}^7	G^b7	D^b7	A^b7	Bb_{MA}^7	($D-^7$)
⑥	$D^{7(alt)}$	$G^{7(alt)}$	$C^{7(alt)}$	$F^{7(alt)}$	Bb_{MA}^7	($D-^7$)
⑦	Bb_{MA}^7	D^b7	C^7	B^7	Bb_{MA}^7	($D-^7$)
⑧	$D-^{7\#5}$	$B_{MA}^{7\#5}$	FQ/G	$F_{MA}^{\#5}$	Bb_{MA}^7	($D-^7$)
⑨	B_{MA}^7	D^b/G	$E^b_{MA}^7$	$A_{MA}^{7\#5}$	Bb_{MA}^7	($D-^7$)
⑩	Bb_{MA}^7	B^b/A^b	E^b/G	$G^{b o7}$	B^b/F	
⑪	B^b/A	$A^{b o7 \#13}$	FQ/G	D/F	B^b/F	
⑫	B^b/F	B/F	B^b/F	A/F	B^b/F	
⑬	B^b/F	G^b/F	$D^b_{sus^4}/F$	F^7_{alt}	B^b/F	
⑭	B^b/F	D^b/F	G^b/F	B/F	B^b/F	
⑮	B^b/F	G^b/F	D^b/F	E^b/F	B^b/F	
⑯	B^b	G/B^b	$G-/B^b$	F/B^b	B^b/F	
⑰	B^b	B/B^b	G^b/B^b	A^b/B^b	B^b/F	
⑱	CQ/D	AQ/B	$F^{\#}Q/G^{\#}$	E^bQ/F	B^b/F	
⑲	CQ/D	$F^{\#}/G$	$E^b_{sus^4}/C$	$D^b_{sus^2}/F$	B^b/F	
⑳	B^b/F	G/F	A/F	E/F	B^b/F	

Rule XXXII

When creating triad over bass note substitutes, pay particular attention to the movement and voiceleading of the upper triads. They should move in the strongest direction of resolution as if there were no bass note below.

Ex. 105

Diagram illustrating a sequence of chords and their voice leading:

Chords: Bb/F , Db/F , Gb/F , B/F

Measure rests: $m3$, V

Voice leading: $Db \rightarrow Gb = I(V)$, $Gb \rightarrow B = I(V)$

$Db \rightarrow Gb = V \quad I$
 $Gb \rightarrow B = V \quad I$
strong cadence of upper triads

You should also keep in mind the relationship of the bass note to the chords and how they move in terms of cadential direction.

Ex. 106a

Diagram illustrating a sequence of chords and their functional labels:

Chords: Bb , $C\#/G$, A/C , B/F

Functional labels: I , VI^7 , II^7 , V^7

Chord symbols: $G^{7/b5/b9}$, $C^{13/b9}$, $F^{7/b5/b9}$

Ex. 106b

Diagram illustrating a sequence of chords and their functional labels:

Chords: Bb/F , Db/F , Gb/F , B/F

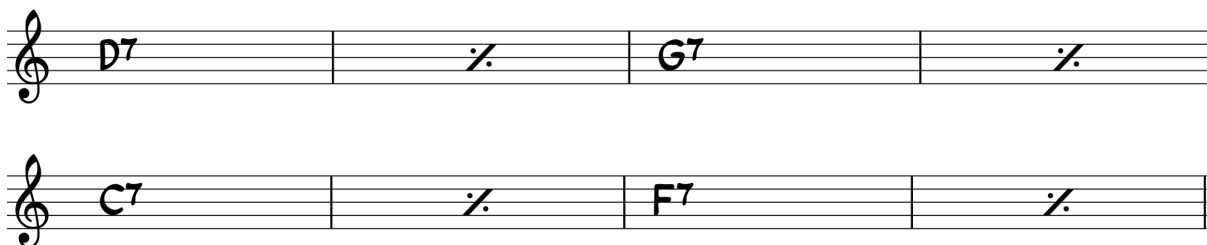
Functional labels: I , bIV , bVI , V^7

Chord symbols: $Db^{1st\ inv.}$, Gb^{maj7} , $F^{7/b5/b9}$

The Bridge of Rhythm Changes

The Bridge of Rhythm Changes uses a simple four chord cycle pattern over eight measures.

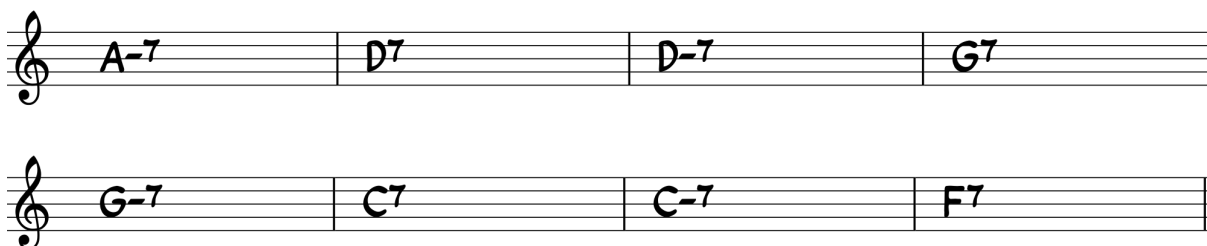
Ex. 107



Since there are many approaches to this progression, I have isolated a few of the most common.

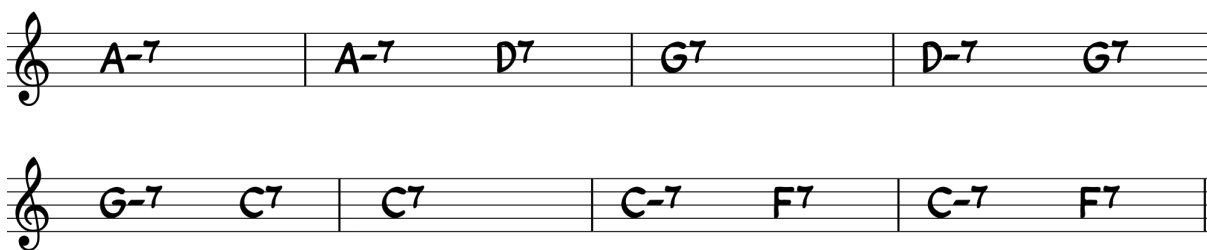
The ii⁷ V⁷ approach

Ex. 108a



also

Ex. 108b



You may use any combination of ii⁷ V⁷ as long as the V⁷ chord is returned to (Rule IV)

Next is an example which uses altered Dom⁷ chords.

Ex. 109

Staff 1: $D7_{alt}$ | --- | $G7$ | $D-7$ | $G7_{alt}$

Staff 2: $C7(b5)$ | $G-7$ | $C7_{alt}$ | $F7(b5)$ | $F7_{alt}(\#5/\#9)$ ||

Using Tritone Substitutions

Ex. 110

Staff 1: $A-7$ | $D7$ | $A\flat-7$ | $D\flat7$

Staff 2: $G-7$ | $C7$ | $F\sharp-7$ | $B7$ ||

Using the Cycle

Ex. 111

starts in same place

Staff 1: $D7$ | $G7$ | $C7$ | $F7$ | $B\flat7$ | $E\flat7$ | $A\flat7$ | $D\flat7$

Staff 2: $G\flat7$ | $B7$ | $E7$ | $A7$ | $D7$ | $G7$ | $C7$ | $F7$ ||

tritone away from C

finishes in correct spot

Any of these chords will also work.

Ex. 112

Chords	Mixolydian	Mixolydian #11	Altered Dominant
	$\underline{D^7}$	$\underline{D^{7b5}}$	$\underline{D^{7/\#5/b5/\#9/b9}}$
	$F\sharp-^{7b5}$	$A-^{maj7}$	$E\flat-^{maj7}$
	$A-^7$	$B-^{13b9}$	$F-^{13b9}$
	C^{maj7}	$C^{maj7\#5}$	$G\flat^{maj7\#5}$
		E^{7b6}	$A\flat^{7b5}$
		$F\sharp-^{9b5}$	$B\flat^{7b6}$
		$G\sharp^{7alt}$	$C-^{9b5}$

Ex. 113

<u>G⁷</u>	<u>G^{7b5}</u>	<u>G^{7/#5/b5/#9/b9}</u>
B ^{-7b5}	D ^{-maj7}	A ^{b-maj7}
D ⁻⁷	E ^{-13b9}	B ^{b-13b9}
F ^{maj7}	F ^{maj7#5}	C ^{b-maj7#5}
	A ^{7b6}	D ^{b7b5}
	B ^{-9b5}	E ^{b7b6}
	C ^{#7alt}	F ^{-9b5}

It's your job to figure out the substitute changes from the modal scales of both C⁷ and F⁷.

Using Triads Over Bass Notes

Ex. 114

Ex. 114 displays two staves of musical notation, each containing four measures of chords with bass notes. The first staff starts with a treble clef and contains the following chords: A^b/D, B^b_{sus}⁴/D, E/G, and A^{add9}/G. The second staff also starts with a treble clef and contains: F[#]/C, A^b_{sus}⁴/C, C_{MA}⁷/F, and F[#]_{sus}⁴/³. The notation uses standard musical symbols for accidentals, slash notation for bass notes, and subscript/superscript for extensions and alterations.

Reharmonization of Standard Forms

Reharmonization No.1

sub	F-7 ^{b6}	B ^b -7 ^{b6}	C/D ^b	G/E ^b	A ^b _{MA} 7 ^{#5}
original	(F-7)	(B ^b -7)	(E ^b 7)	(A ^b _{MA} 7)	
	D ^b /C	G7 _{sus} ⁴	G/A ^b	A _{sus} ⁴ /A ^b	G _{sus} ⁴ /E
	(D ^b _{MA} 7)	(D-7)	(G7)	(C _{MA} 7)	(C _{MA} 7)
	G-7 ^{b6}	F-7 ^{b5}	A ^b _{MA} 7 ^{b5} /E ^b		A ^b °/E ^b
	(C-7)	(F-7)	(B ^b 7)		(E ^b _{MA} 7)
	C-7 ^{b6}	A-11	F [#] _{MA} 13	G _{MA} 7	B ^b -7
	(A ^b _{MA} 7)	(A-7)	(D7 _{alt})	(G _{MA} 7)	(B-7)
	C/D	B/D	G _{MA} 7 ^{b5}		G/C [#]
	(A-7)	(D7)	(G _{MA} 7)		(G _{MA} 7)
	F [#] -7 ^{b6}	F/B	B/A [#]	C7 _{alt}	
	(F [#] -7)	(B7)	(E _{MA} 7)	(A ^b 7 ^{#5})	
	F-13	B ^b -7 ^{b6}	G/E ^b	A ^b /G	
	(F-7)	(B ^b -7)	(E ^b 7)	(A ^b _{MA} 7)	
	D ^b /C	B/C [#]	G-7 ^{b6}		G/A ^b
	(D ^b _{MA} 7)	(C [#] -7)	(F [#] 7)	(C-7)	(B°7)
	B ^b -11	D ^b /E ^b	G/E ^b	G ^b /A ^b	G-7 ^{b5}
	(B ^b -7)	(E ^b 7)	(A ^b _{MA} 7)	(G-7 ^{b5})	(C7 _{alt})

Reharmonization No.2

sub	$Bb_{MA}7^{\#5}$	$A7_{alt}$	$Eb_{MA}9$	F_{sus}^4/A
original	($E-7^{b5}$)	($A7_{alt}$)	($C-7$)	($F7$)
	$F-7$ $F^{\#7}$ $B_{MA}7$ $D7$ $G_{MA}7$ $Bb7$ $Eb_{MA}7$ $Ab7^{b5}$			
	($F-7$)	($Bb7$)	($Eb_{MA}7$)	($Ab7$)
	Eb/D $G-6$ $C7^{b9}$ F_{MA}^{13} $Bb-7$ $Eb7$			
	($Bb_{MA}7$)	($E-7^{b5}$ $A7_{alt}$)	($D-7$)	($Bb-7$ $Eb7$)
	F^{odd9}/A $D7^{\#9}$ $G-7$ $G-7/C$ $Eb_{MA}7^{b5}$ Ab^{13b5}			
	($F_{MA}7$ $D7_{alt}$)	($G-7$ $C7$)	($A-7^{b5}$)	($D7_{alt}$)
	$Db7^{b5}$ $B_{MA}7^{\#5}$ $Eb_{MA}9$ $G-7^{b6}$			
	($G7_{alt}$)	∕	($C-7$)	∕
	$F^{\#}_{MA}7^{\#5}$ $F7_{sus}^4$			
	($Ab7^{b5}$)	∕	($Bb_{MA}7$)	∕
	$E-9/^{11}$ $C^{\#}_{MA}7^{b5}$ $D-11^{b5}$ $Ab-MA7$			
	($E-7^{b5}$)	($A7_{alt}$)	($D-7^{b5}$)	($G7_{alt}$)
	$F^{\#}_{MA}7^{\#11}$ $F/F^{\#}$ Bb/F B/F A/F $EQ/F^{\#}$			
	($C-7^{b5}$)	($F7^{b9}$)	($Bb_{MA}7$)	

Common Tone Reharmonization

Rule XXXII

Any melody note may be retained as a common tone (in any voice) for the purpose of reharmonization.

To demonstrate this, I have compiled a short list of possible harmonizations of the note C. Remember the note C may be in any voice.

Ex. 115

Root

C

C	C-	C ^o	C ⁺	C ^{sus4}	C ^{lyd}	C ^{loc}	C ^{maj7}	C ⁻⁷	C ⁷	C ^{-maj7}
C ^{7(sus4)}	C ^{-7b5}	C ^{o7}	C ⁺⁷	C ^{omaj7}	C ^{+maj7}	C ^{-7#5}				
$\frac{C}{Db}$	$\frac{C}{D}$	$\frac{C}{Eb}$	$\frac{C}{E}$	$\frac{C}{F}$	$\frac{C}{F\#}$	$\frac{C}{G}$	$\frac{C}{Ab}$	$\frac{C}{A}$	$\frac{C}{Bb}$	$\frac{C}{B}$
$\frac{C-}{Db}$	$\frac{C-}{D}$	$\frac{C-}{Eb}$	$\frac{C-}{E}$	$\frac{C-}{F}$	$\frac{C-}{F\#}$	$\frac{C-}{G}$	$\frac{C-}{Ab}$	$\frac{C-}{A}$	$\frac{C-}{Bb}$	$\frac{C-}{B}$
$\frac{C^o}{Db}$	$\frac{C^o}{D}$	$\frac{C^o}{Eb}$	$\frac{C^o}{E}$	$\frac{C^o}{F}$	$\frac{C^o}{F\#}$	$\frac{C^o}{G}$	$\frac{C^o}{Ab}$	$\frac{C^o}{A}$	$\frac{C^o}{Bb}$	$\frac{C^o}{B}$
$\frac{C^+}{Db}$	$\frac{C^+}{D}$	$\frac{C^+}{Eb}$	$\frac{C^+}{E}$	$\frac{C^+}{F}$	$\frac{C^+}{F\#}$	$\frac{C^+}{G}$	$\frac{C^+}{Ab}$	$\frac{C^+}{A}$	$\frac{C^+}{Bb}$	$\frac{C^+}{B}$
$\frac{C^{sus4}}{Db}$	$\frac{C^{sus4}}{D}$	$\frac{C^{sus4}}{Eb}$	$\frac{C^{sus4}}{E}$	$\frac{C^{sus4}}{F}$	$\frac{C^{sus4}}{F\#}$	$\frac{C^{sus4}}{G}$	$\frac{C^{sus4}}{Ab}$	$\frac{C^{sus4}}{A}$	$\frac{C^{sus4}}{Bb}$	$\frac{C^{sus4}}{B}$
$\frac{C^{lyd}}{Db}$	$\frac{C^{lyd}}{D}$	$\frac{C^{lyd}}{Eb}$	$\frac{C^{lyd}}{E}$	$\frac{C^{lyd}}{F}$	$\frac{C^{lyd}}{F\#}$	$\frac{C^{lyd}}{G}$	$\frac{C^{lyd}}{Ab}$	$\frac{C^{lyd}}{A}$	$\frac{C^{lyd}}{Bb}$	$\frac{C^{lyd}}{B}$
$\frac{C^{loc}}{Db}$	$\frac{C^{loc}}{D}$	$\frac{C^{loc}}{Eb}$	$\frac{C^{loc}}{E}$	$\frac{C^{loc}}{F}$	$\frac{C^{loc}}{F\#}$	$\frac{C^{loc}}{G}$	$\frac{C^{loc}}{Ab}$	$\frac{C^{loc}}{A}$	$\frac{C^{loc}}{Bb}$	$\frac{C^{loc}}{B}$

Db

Db ^{maj7}	$\frac{C}{Db}$	$\frac{F}{Db}$	$\frac{Ab}{Db}$	$\frac{C-}{Db}$	$\frac{F-}{Db}$	$\frac{C^o}{Db}$	$\frac{C^+}{Db}$	$\frac{C^{sus4}}{Db}$	$\frac{C^{lyd}}{Db}$	$\frac{C^{loc}}{Db}$
$\frac{F^{sus4}}{Db}$	$\frac{G^{sus4}}{Db}$	$\frac{F^{lyd}}{Db}$	$\frac{F\#^{lyd}}{Db}$	$\frac{F\#^{loc}}{Db}$	$\frac{G^{loc}}{Db}$	$\frac{A^o}{Db}$	$\frac{F\#^o}{Db}$			

D	D^7	D^{-7}	D^{-7b5}	D^{+7}	$\frac{C}{D}$	$\frac{F}{D}$	$\frac{Ab}{D}$	$\frac{C-}{D}$	$\frac{F-}{D}$	$\frac{A-}{D}$	$\frac{C^\circ}{D}$
	$\frac{C^+}{D}$	$\frac{A^\circ}{D}$	$\frac{F\#^\circ}{D}$	$\frac{C^{sus4}}{D}$	$\frac{F^{sus4}}{D}$	$\frac{G^{sus4}}{D}$	$\frac{C^{lyd}}{D}$	$\frac{F^{lyd}}{D}$	$\frac{F\#^{lyd}}{D}$	$\frac{F\#^{loc}}{D}$	$\frac{G^{loc}}{D}$

Eb	Eb^{MA13}	Eb^{-6}	Eb^{13}	$\frac{C}{Eb}$	$\frac{F}{Eb}$	$\frac{Ab}{Eb}$	Eb^{o7}	$\frac{C-}{Eb}$	$\frac{F-}{Eb}$	$\frac{A-}{Eb}$	$\frac{C^\circ}{Eb}$
	$\frac{C^+}{Eb}$	$\frac{A^\circ}{Eb}$	$\frac{F\#^\circ}{Eb}$	$\frac{C^{sus4}}{Eb}$	$\frac{F^{sus4}}{Eb}$	$\frac{G^{sus4}}{Eb}$	$\frac{C^{lyd}}{Eb}$	$\frac{F^{lyd}}{Eb}$	$\frac{F\#^{lyd}}{Eb}$	$\frac{C^{loc}}{Eb}$	$\frac{F\#^{loc}}{Eb}$
	$\frac{G^{loc}}{Eb}$										

E	E^{-7b6}	$E^{7\#5}$	$\frac{C}{E}$	$\frac{F}{E}$	$\frac{Ab}{E}$	$\frac{C-}{E}$	$\frac{F-}{E}$	$\frac{A-}{E}$	$\frac{C^\circ}{E}$	$\frac{C^+}{E}$	$\frac{A^\circ}{E}$
	$\frac{F\#^\circ}{E}$	$\frac{C^{sus4}}{E}$	$\frac{F^{sus4}}{E}$	$\frac{G^{sus4}}{E}$	$\frac{C^{lyd}}{E}$	$\frac{F^{lyd}}{E}$	$\frac{F\#^{lyd}}{E}$	$\frac{C^{loc}}{E}$	$\frac{F\#^{loc}}{E}$	$\frac{G^{loc}}{E}$	

F	F^{maj7}	F^{-7}	F^7	$\frac{C}{F}$	$\frac{Ab}{F}$	$\frac{C-}{F}$	$\frac{A-}{F}$	$\frac{C^\circ}{F}$	$\frac{C^+}{F}$	$\frac{A^\circ}{F}$	$\frac{F\#^\circ}{F}$
	$\frac{C^{sus4}}{F}$	F^{Sus4}	$\frac{G^{sus4}}{F}$	$\frac{C^{lyd}}{F}$	F^{lyd}	$\frac{F\#^{lyd}}{F}$	$\frac{C^{loc}}{F}$	$\frac{F\#^{loc}}{F}$	$\frac{G^{loc}}{F}$		

F#	$F\#^{maj7\#11}$	$F\#^{-7b5}$	$F\#^{o7}$	$F\#^{7b5}$	$\frac{C}{F\#}$	$\frac{Ab}{F\#}$	$\frac{F}{F\#}$	$\frac{C-}{F\#}$	$\frac{A-}{F\#}$	$\frac{F-}{F\#}$	$\frac{A^\circ}{F\#}$
	$\frac{C^{sus4}}{F\#}$	$\frac{F^{sus4}}{F\#}$	$\frac{G^{sus4}}{F\#}$	$\frac{C^{lyd}}{F\#}$	$\frac{F^{lyd}}{F\#}$	$F\#^{lyd}$	$\frac{C^{loc}}{F\#}$	$\frac{G^{loc}}{F\#}$			

G	$G^{maj7sus4}$	G^{-11}	G^{-11b5}	G^{7sus4}	$\frac{C}{G}$	$\frac{Ab}{G}$	$\frac{F}{G}$	$\frac{C-}{G}$	$\frac{A-}{G}$	$\frac{F-}{G}$	$\frac{C^\circ}{G}$
	$\frac{A^\circ}{G}$	$\frac{F\#^\circ}{G}$	$\frac{C^+}{G}$	$\frac{C^{sus4}}{G}$	$\frac{F^{sus4}}{G}$	G^{sus4}	$\frac{C^{lyd}}{G}$	$\frac{F^{lyd}}{G}$	$\frac{F\#^{lyd}}{G}$	$\frac{C^{loc}}{G}$	$\frac{F\#^{loc}}{G}$

Ab	Ab^{maj7}	Ab^{-7}	Ab^{+7}	$\frac{C}{Ab}$	$\frac{F}{Ab}$	$\frac{C-}{Ab}$	$\frac{A-}{Ab}$	$\frac{C^\circ}{Ab}$	$\frac{A^\circ}{Ab}$	$\frac{F\#^\circ}{Ab}$	$\frac{C^+}{Ab}$
	$\frac{C^{sus4}}{Ab}$	$\frac{F^{sus4}}{Ab}$	$\frac{G^{sus4}}{Ab}$	$\frac{C^{lyd}}{Ab}$	$\frac{F^{lyd}}{Ab}$	$\frac{F\#^{lyd}}{Ab}$	$\frac{C^{loc}}{Ab}$	$\frac{F\#^{loc}}{Ab}$	$\frac{G^{loc}}{Ab}$		

A	A^{-7}	$A^{7\#9}$	A^{o7}	A^{-7b5}	$\frac{C}{A}$	$\frac{Ab}{A}$	$\frac{F}{A}$	$\frac{C-}{A}$	$\frac{C^+}{A}$	$\frac{C^{sus4}}{A}$	$\frac{F^{sus4}}{A}$
	$\frac{G^{sus4}}{A}$	$\frac{C^{lyd}}{A}$	$\frac{F^{lyd}}{A}$	$\frac{F\#^{lyd}}{A}$	$\frac{C^{loc}}{A}$	$\frac{F\#^{loc}}{A}$	$\frac{G^{loc}}{A}$				

Bb	Bb^{MA9}	Bb⁻⁹	Bb⁹	Bb^{-9b5}	Bb^{o7}	$\frac{\text{C}}{\text{Bb}}$	$\frac{\text{F}}{\text{Bb}}$	$\frac{\text{Ab}}{\text{Bb}}$	$\frac{\text{C-}}{\text{Bb}}$	$\frac{\text{A-}}{\text{Bb}}$	$\frac{\text{F-}}{\text{Bb}}$
	$\frac{\text{C}^{\circ}}{\text{Bb}}$	$\frac{\text{A}^{\circ}}{\text{Bb}}$	$\frac{\text{F}\#\text{^{\circ}}}{\text{Bb}}$	$\frac{\text{C}^{+}}{\text{Bb}}$	$\frac{\text{C}^{\text{sus4}}}{\text{Bb}}$	$\frac{\text{F}^{\text{sus4}}}{\text{Bb}}$	$\frac{\text{G}^{\text{sus4}}}{\text{Bb}}$	$\frac{\text{C}^{\text{lyd}}}{\text{Bb}}$	$\frac{\text{F}^{\text{lyd}}}{\text{Bb}}$	$\frac{\text{F}\#\text{^{\text{lyd}}}}{\text{Bb}}$	$\frac{\text{C}^{\text{loc}}}{\text{Bb}}$
	$\frac{\text{F}\#\text{^{\text{loc}}}}{\text{Bb}}$	$\frac{\text{G}^{\text{loc}}}{\text{Bb}}$									

B	B^{7b9}	$\frac{\text{C}}{\text{B}}$	B^{-7/b5/b9}	$\frac{\text{F}}{\text{B}}$	$\frac{\text{Ab}}{\text{B}}$	$\frac{\text{A-}}{\text{B}}$	$\frac{\text{C-}}{\text{B}}$	$\frac{\text{F-}}{\text{B}}$	$\frac{\text{C}^{\circ}}{\text{B}}$	$\frac{\text{A}^{\circ}}{\text{B}}$	$\frac{\text{F}\#\text{^{\circ}}}{\text{B}}$
	$\frac{\text{C}^{+}}{\text{B}}$	$\frac{\text{C}^{\text{sus4}}}{\text{B}}$	$\frac{\text{F}^{\text{sus4}}}{\text{B}}$	$\frac{\text{G}^{\text{sus4}}}{\text{B}}$	$\frac{\text{C}^{\text{lyd}}}{\text{B}}$	$\frac{\text{F}^{\text{lyd}}}{\text{B}}$	$\frac{\text{F}\#\text{^{\text{lyd}}}}{\text{B}}$	$\frac{\text{C}^{\text{loc}}}{\text{B}}$	$\frac{\text{F}\#\text{^{\text{loc}}}}{\text{B}}$	$\frac{\text{G}^{\text{loc}}}{\text{B}}$	

Remember, this is just a list of easily nameable chord voicings.

As you can see, it is mind-boggling how many there are. Try to experiment voicing each one of these chords with the note C on top. This will give you a greater understanding of voice leading and increase your chord vocabulary tenfold.

Modal Harmony and Theory

I would like to begin this section on modal harmony and theory by recapping some points already covered.

1. In theory, any combination of modal tones over its tonic produces a modal voicing.

Ex. 116

a. = G dorian

b. = C alt. dom.

2. The construction of a modal voicing is dependent on the presence of two factors:
 - a) A clear definition of the chord's quality (maj, min, etc.) including the seventh if desired.
 - b) Emphasis of one or more distinguishing chord tones.

Ex. 117

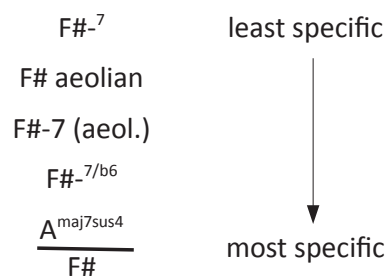
3. For comping purposes voicing families should be learned horizontally on the fingerboard.

Ex. 118

Each note of the voicing moves up the scale diatonically.

4. Labeling chords by mode is helpful to the improviser in that it provides the appropriate scale choice and a more descriptive harmonic interpretation.

Ex. 119

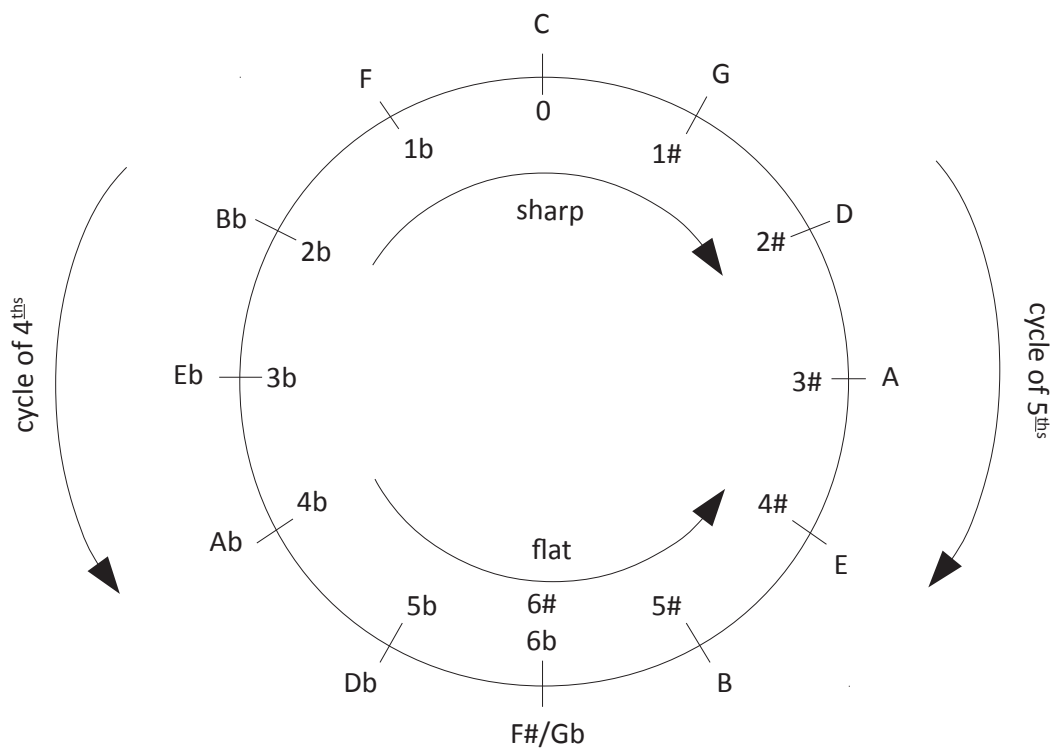


Sharp and Flat Direction Modal Modulation

Sharp and flat direction modal modulations, also known as upwards (sharp) and downwards (flat), occur when moving directly from one modal center to another. It can be better understood by using this chart:

Modal modulations can be used in place of more common modulation devices such as secondary Dom⁷, secondary Dim⁷ or chromatic mediant modulations.

Ex. 120



Sharp direction / upward modulation:

Moving modal center around the circle or adding sharps to naturals.

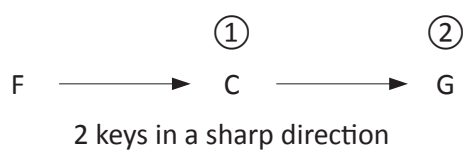
Flat direction / downward modulation:

Moving modal center counterclockwise or adding flats to naturals.

Upward Modulation

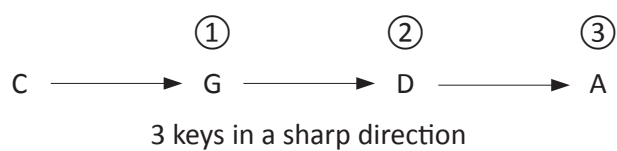
Ex. 121a

B^b/A = A Phrygian **G_{sus}⁴/E** = E Aeolian



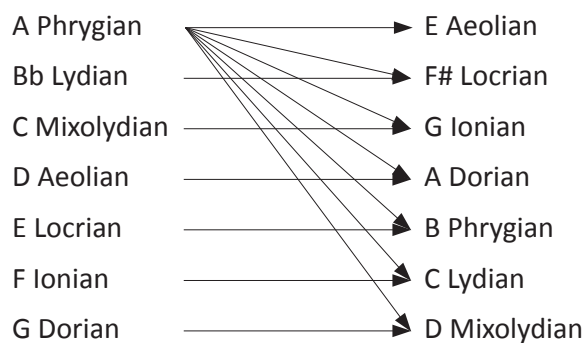
Ex. 121b

GQ/A = A Aeolian **Dly Δ** = D Lydian



Modulating from A Phrygian to E Aeolian (2 keys in a sharp direction) we can generate many more harmonic resolutions between the parent groups.

Ex. 122



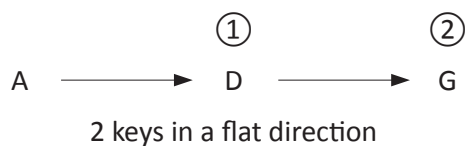
Also any combination of left to right movement as indicated from A Phrygian.

Downward Modulations

Ex. 123a

EQ/F# = F# Aeolian **Clyd^{add9}** = C Lydian

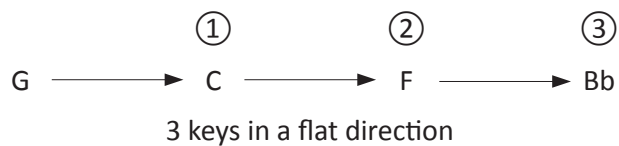
downward



Ex. 123b

A-13 = A Dorian **E^b/D** = D Phrygian

downward

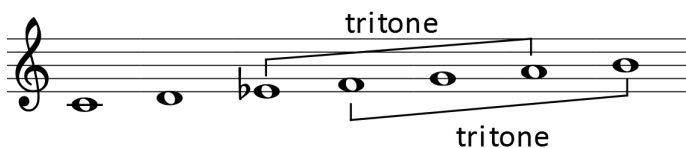


Before we go on, I want to remind you that these resolution tendencies are dependent on clear modal voicings.

Modal modulation between melodic minor scales tends to be more ambiguous than the major. This is caused by its inherent interval properties, chiefly the pair of tritones.

Ex. 124

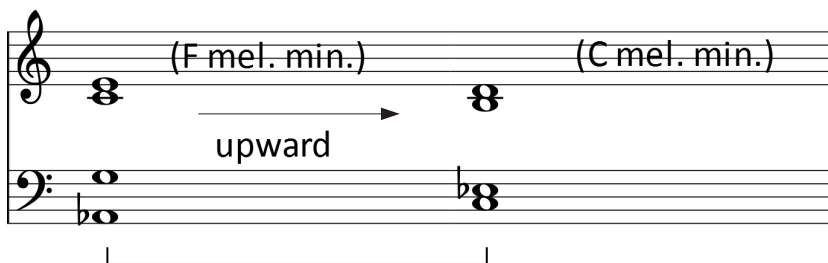
C melodic minor



Sharp Direction (Melodic Minor)

Ex. 125

C/A^b = Ab lyd. aug. **C-MA⁹** = C mel. min.

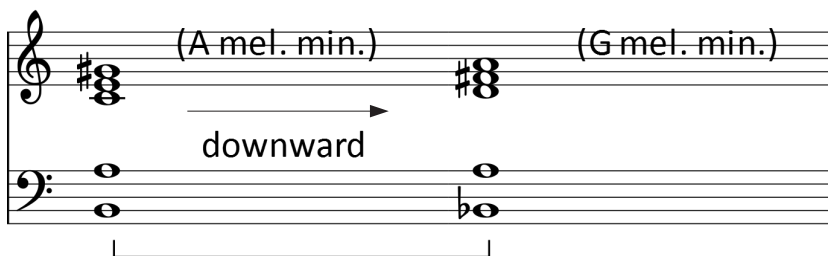


F mel. min. —————→ C mel. min. ①
 1 key in a sharp direction

Flat Direction (Melodic Minor)

Ex. 126

B dor. b2 **D/B^b** = Bb lyd. aug.



Resolution Tendencies Between Modal Groups

Resolution tendencies between modal groups (major to melodic minor for example) do not fit into a standard formula. They are related to voice leading rather than the internal structure of the two parent scales. Try these on the piano.

Ex. 129

(a.) (b.) (c.)

B phry. maj. *E loc.* *D alt. dom.* *G ael.* *A lyd. #9* *D loc.*

(d.) (e.) (f.)

C# phry. maj. *B dor.* *A ion. aug.* *G# loc.* *F# mel. min.* *E mix.*

Voice Leading

Voice leading is the interval movement of like voices between two chords. Good voice leading involves either common tone or stepwise motion of the voices while following natural resolution tendencies.

Ex. 130

Smooth voice leading is difficult to achieve on the guitar because of the large number of left hand chord forms involved.

Resolution

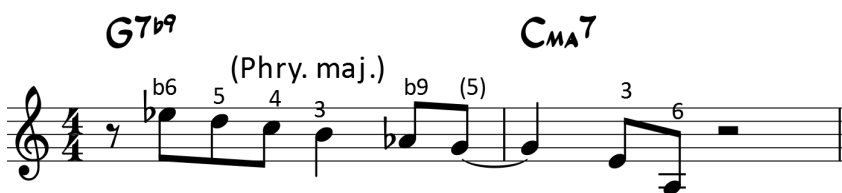
The term resolution implies a change from one chord to another. Half step resolution should be used whenever possible. Here is a chart of V^7 to I^{maj7} resolutions.

Ex. 131

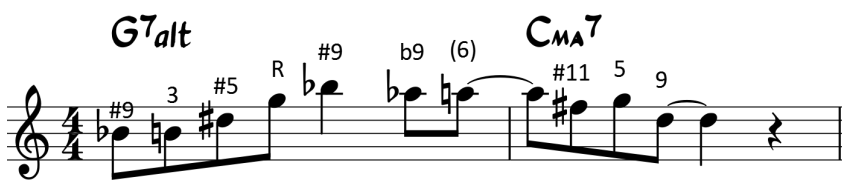
V^7	I^{maj7}
R	→ #5, #4, (6)
3	→ R, 6
5	→ R, 3
b7	→ 3, #4
9	→ #5, 7, (5)
11	→ 9, 7 both weak
13	→ 9, #4
b9	→ 5, 6
#9	→ 7, 6
b5	→ R, 9
#5	→ 9, 3

Here is a linear resolution example:

Ex. 132a

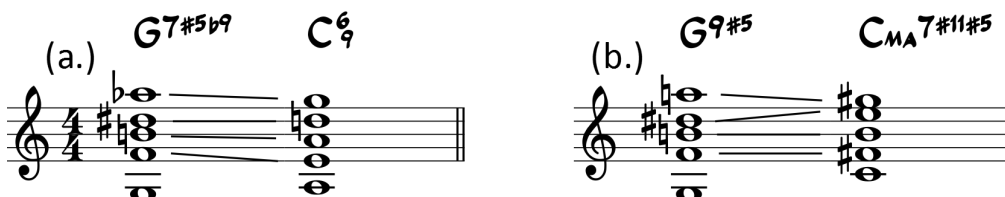


Ex. 132b



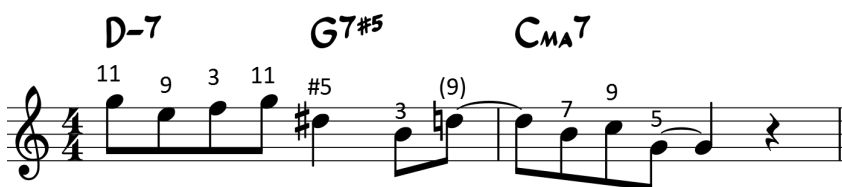
Harmonic resolution

Ex. 133



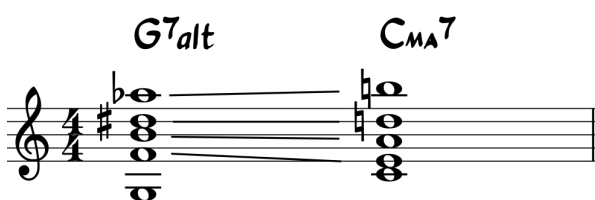
Resolution by skip is also effective when approached correctly.

Ex. 134



Harmonic resolution by skip

Ex. 135



Mirror Modal Equivalents

Here is an ascending C Ionian scale. It is constructed out of a specific pattern of intervals.



A mirror image of the ascending C Ionian scale is created by constructing a descending scale from C using the same series of intervals. This mirror image is a descending C Phrygian scale.



This unique relationship makes Ionian and Phrygian **Mirror Modal Equivalents**.

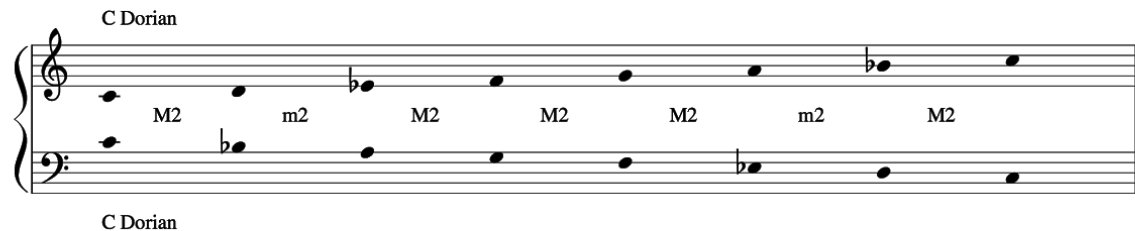
This process can be extended to every mode of the Major scale, resulting in three pairs of modes. They are:

Ionian - Phrygian

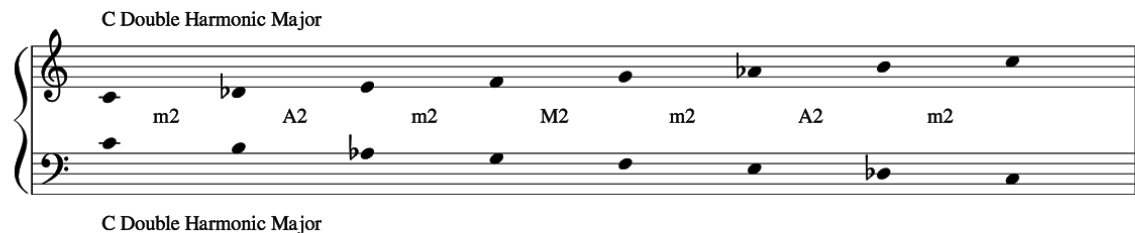
Lydian - Locrian

Mixolydian - Aeolian

The remaining mode, Dorian, is **reflective** because of its palindromic interval pattern. This causes Dorian to be its own Mirror Image when it is reflected.



Another example of a reflective scale is the Double Harmonic Major scale.



Here the seven modes of the Major scale are paired with their Mirror Modal Equivalent, and arranged in order of brightness. The ascending modes move from bright (Lydian) to dark (Dorian). The descending modes move from dark (Locrian) to bright (Dorian).

C Lydian

C Locrian

C Ionian

C Phrygian

C Mixolydian

C Aeolian

C Dorian

C Dorian

Bright → Dark

Lydian	Ionian	Mixolydian	Dorian
Locrian	Phrygian	Aeolian	Dorian

Dark → Bright

Melodic Minor: Mirror Modal Equivalents

The modes of Melodic Minor also include three pairs of mirror modal equivalents, and one reflective mode.

Melodic Minor	Dorian b2
Lydian Augmented	Altered Dominant
Mixolydian #11	Locrian Natural 2
Mixolydian b6	Mixolydian b6

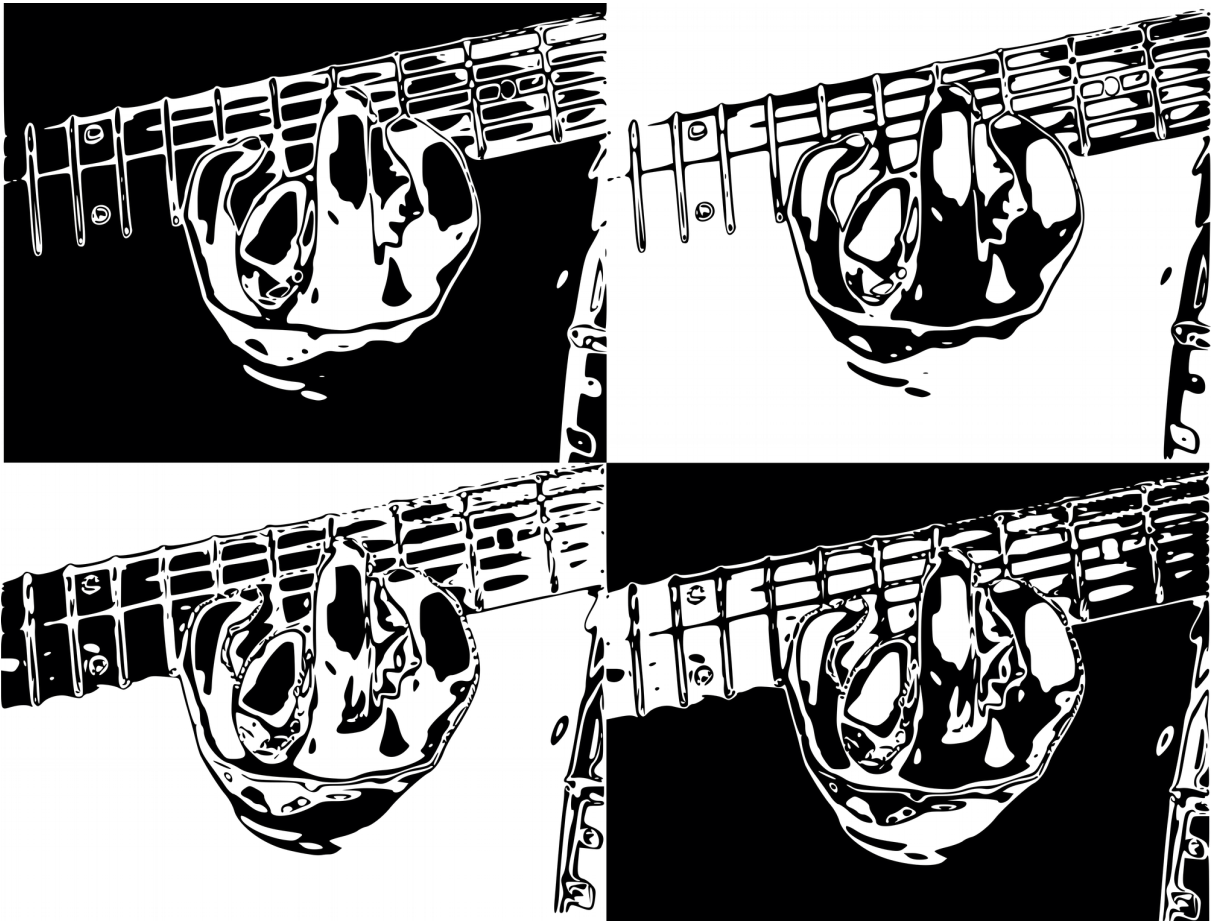
Harmonic Minor and Harmonic Major: Mirror Modal Equivalents

The modes of Harmonic Minor transform into the modes of Harmonic Major when reflected, and vice-versa.

Harmonic Minor Modes	Harmonic Major Modes
Harmonic Minor	Mixolydian b2
Locrian Natural 6	Lydian b3 (Melodic Minor #4)
Ionian Augmented	Phrygian b4
Dorian #4	Dorian b5
Phrygian Major	Harmonic Major
Lydian #9	Locrian bb7
Altered Dominant bb7	Lydian Augmented #2

CHAPTER 2

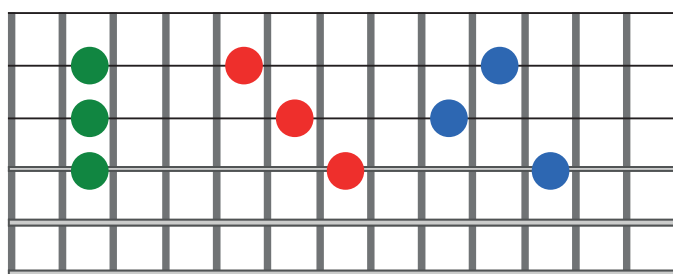
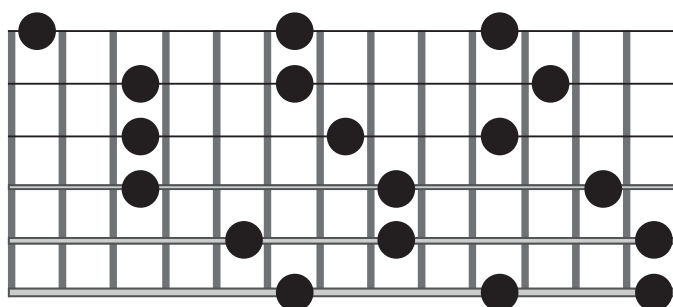
CHORD FORMS



Chapter 2: Chord Forms

Triad (and Suspension) Chord Forms

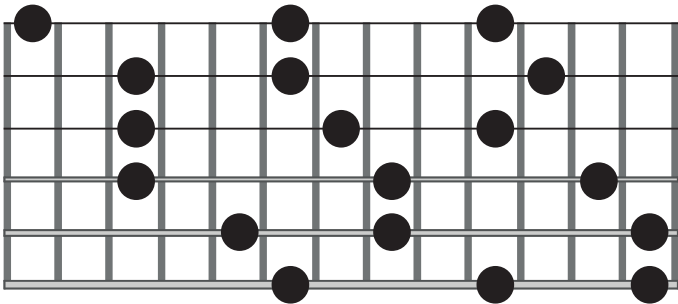
The diagrams of triadic shapes are intended for harmonic and melodic use. Practice moving horizontally and vertically between shapes. This will acclimate your left hand to the fret spacing of the individual shapes.



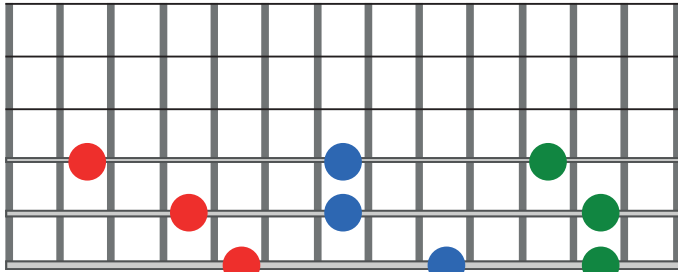
- : Root position
- : 1. Inversion
- : 2. Inversion

Major Triads

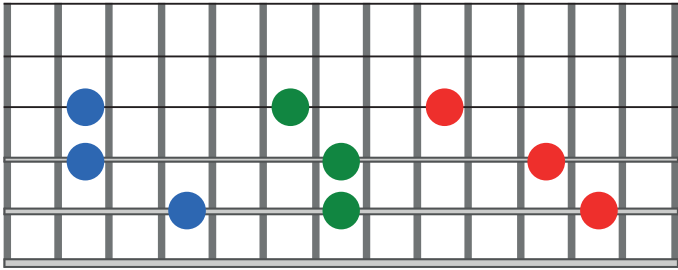
Major Triads



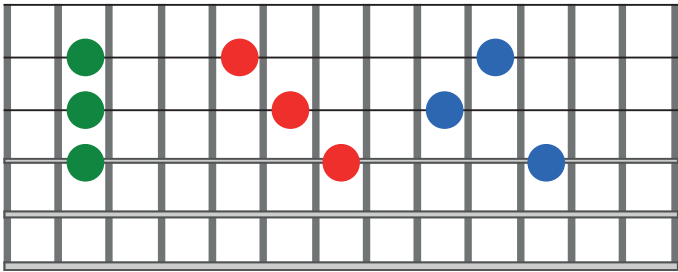
stringset E-A-D



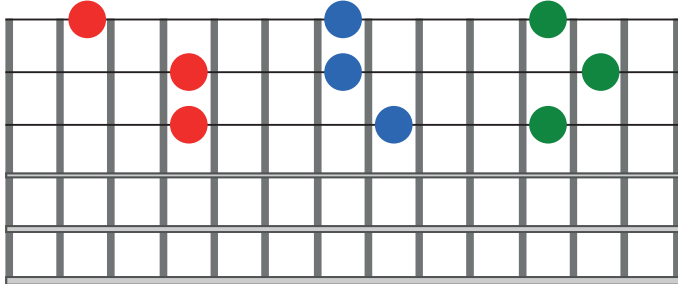
stringset A-D-G



stringset D-G-B

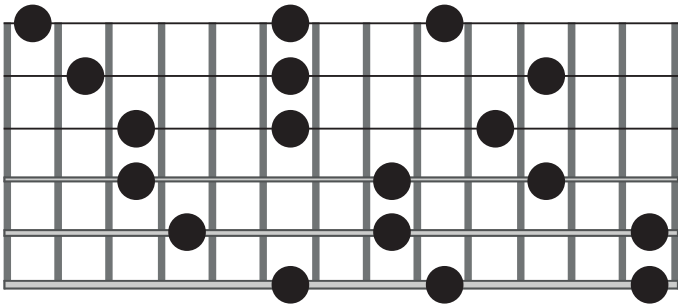


stringset G-B-E

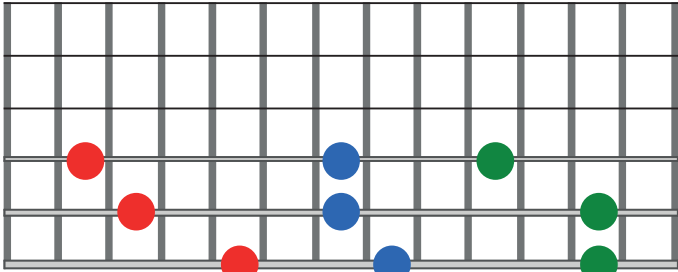


Minor Triads

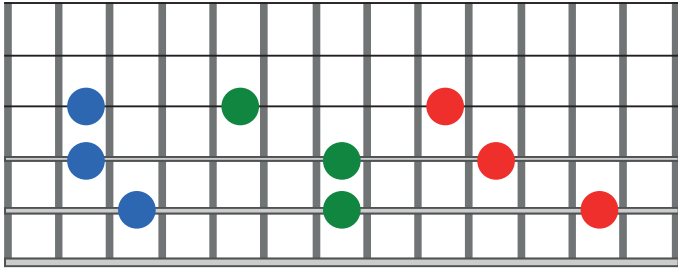
Minor Triads



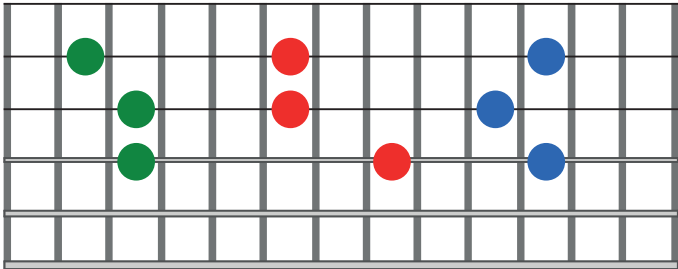
stringset E-A-D



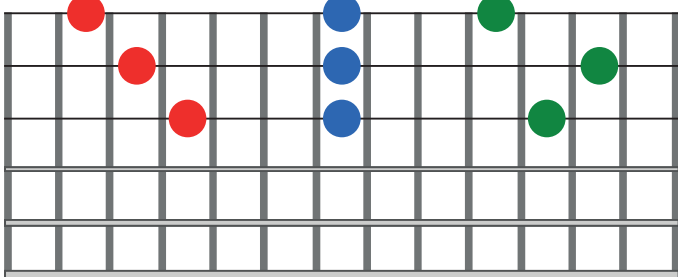
stringset A-D-G



stringset D-G-B

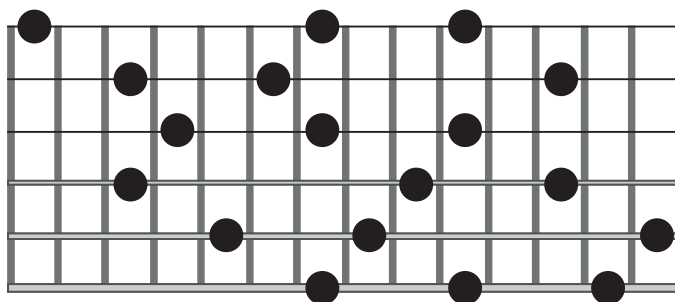


stringset G-B-E

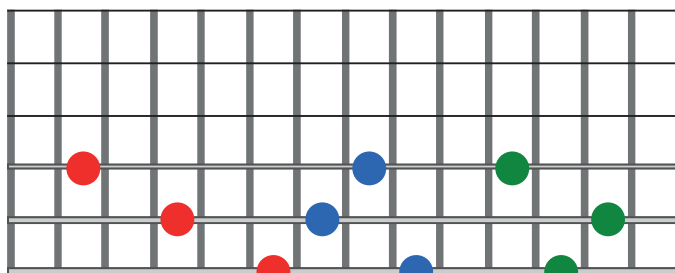


Diminished Triads

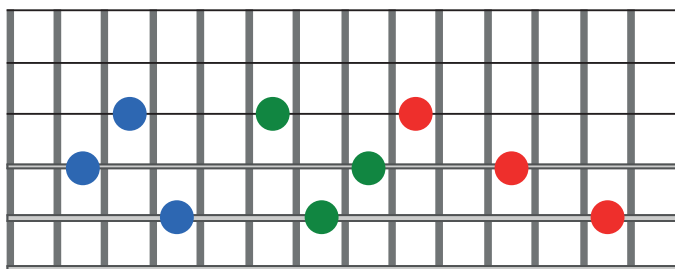
Diminished Triads



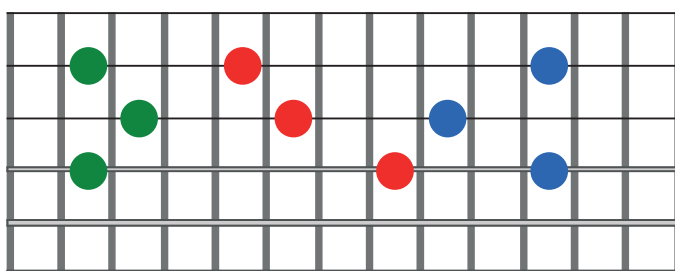
stringset E-A-D



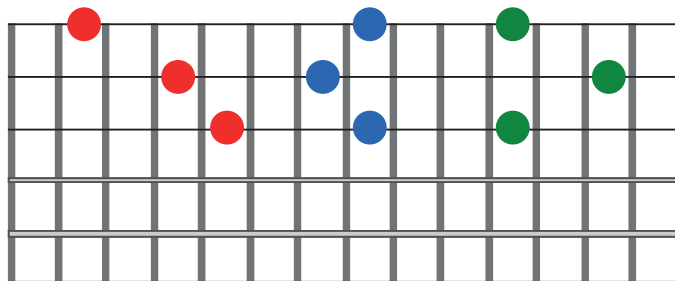
stringset A-D-G



stringset D-G-B

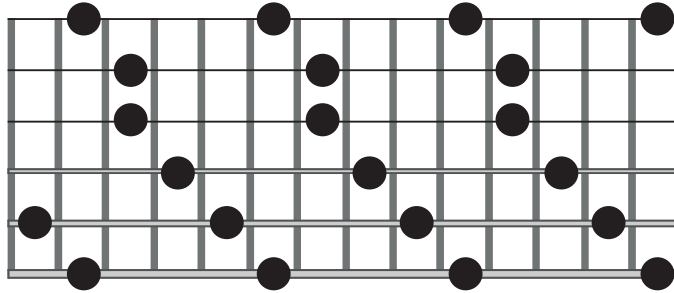


stringset G-B-E

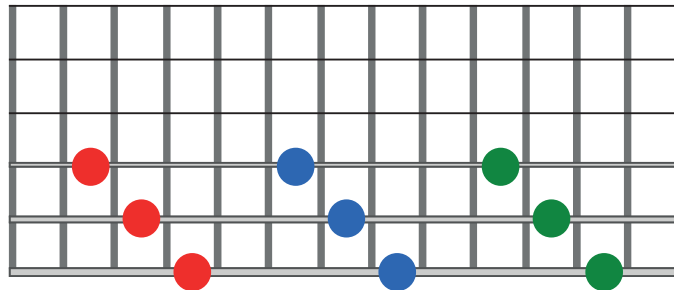


Augmented Triads

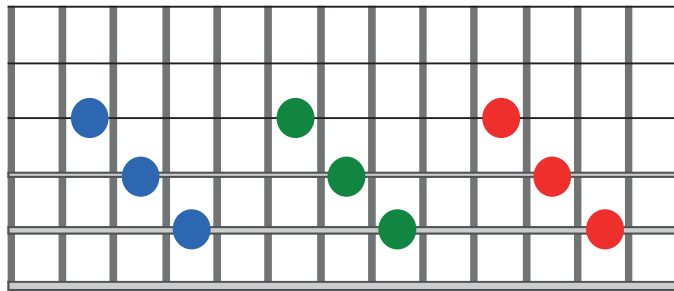
Augmented Triads



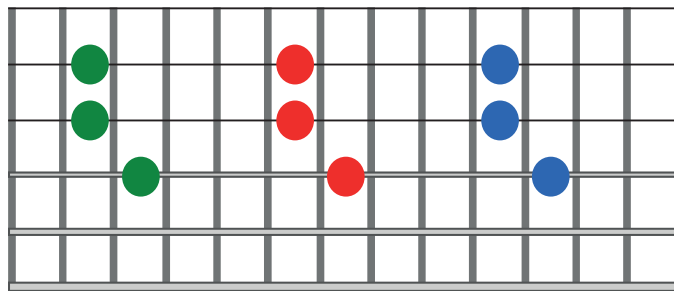
stringset E-A-D



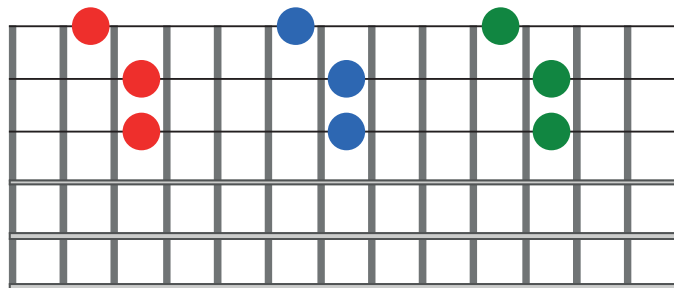
stringset A-D-G



stringset D-G-B

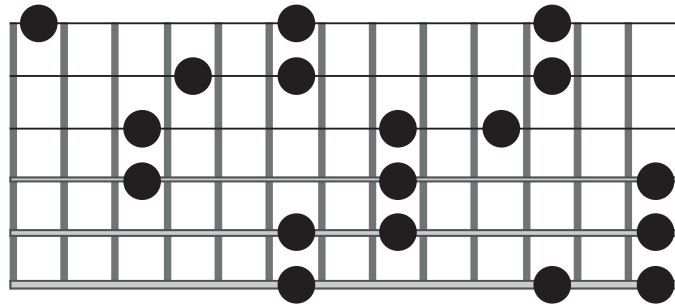


stringset G-B-E

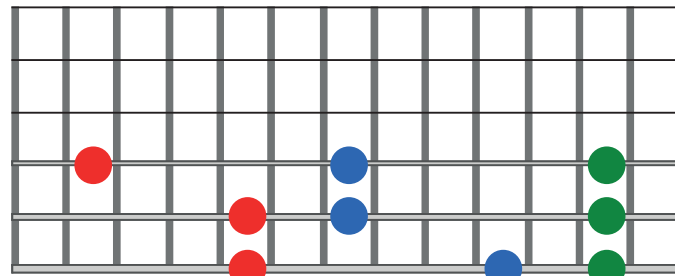


Suspended Triads

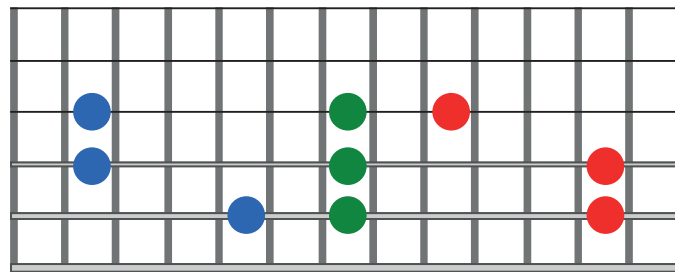
Suspended Triads



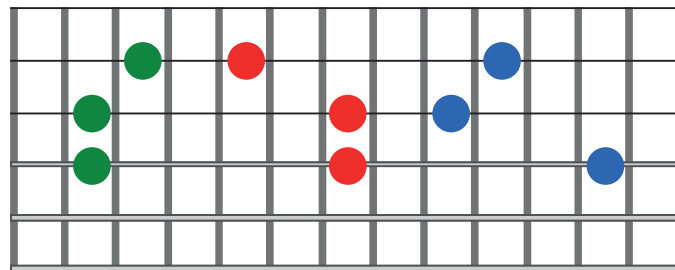
stringset E-A-D



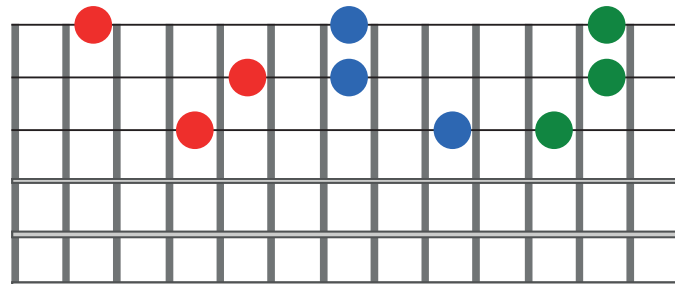
stringset A-D-G



stringset D-G-B

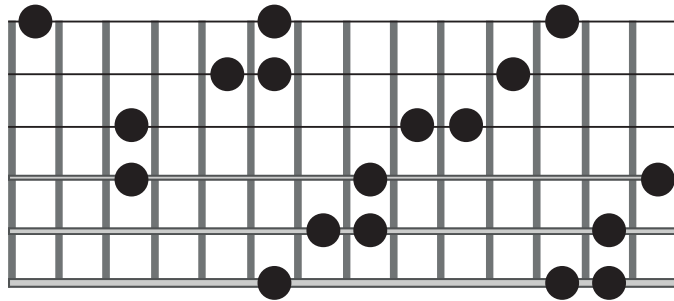


stringset G-B-E

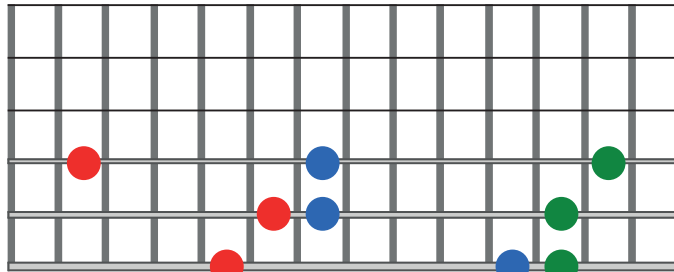


Lydian Triads

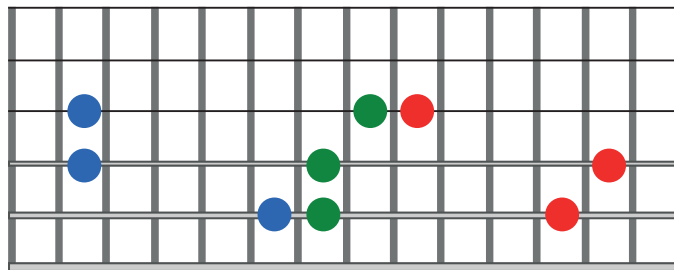
Lydian Triads



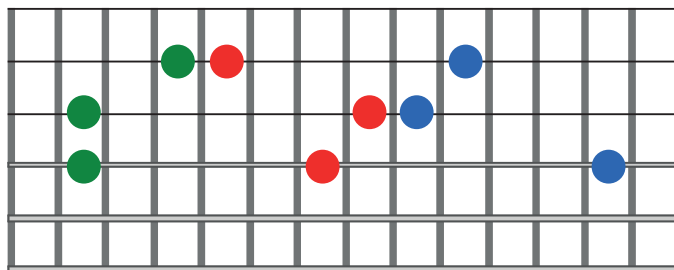
stringset E-A-D



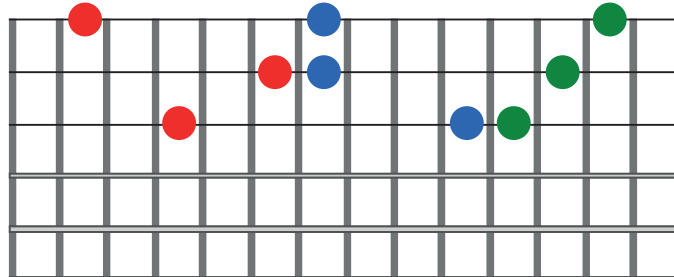
stringset A-D-G



stringset D-G-B

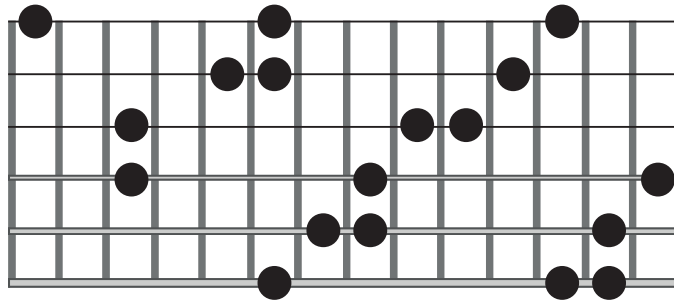


stringset G-B-E

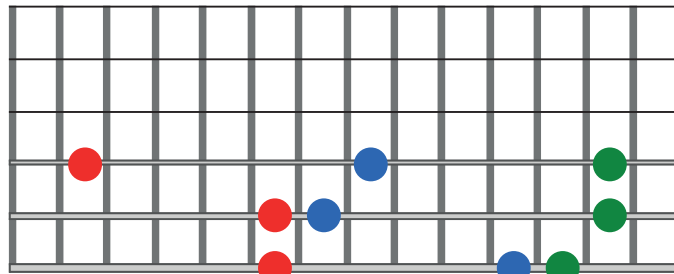


Locrian Triads

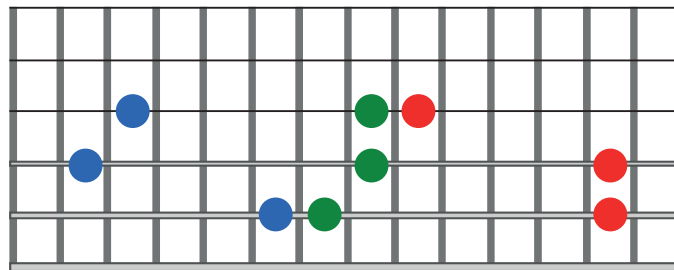
Locrian Triads



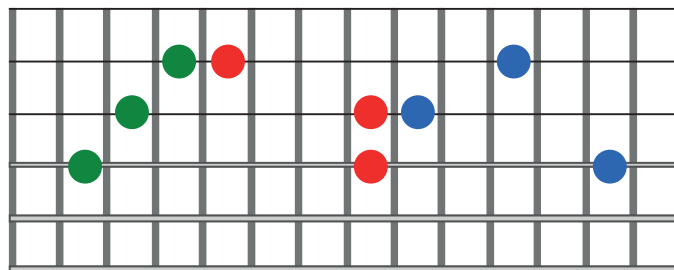
stringset E-A-D



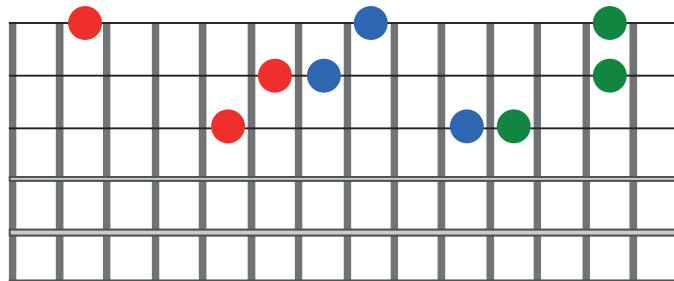
stringset A-D-G



stringset D-G-B



stringset G-B-E

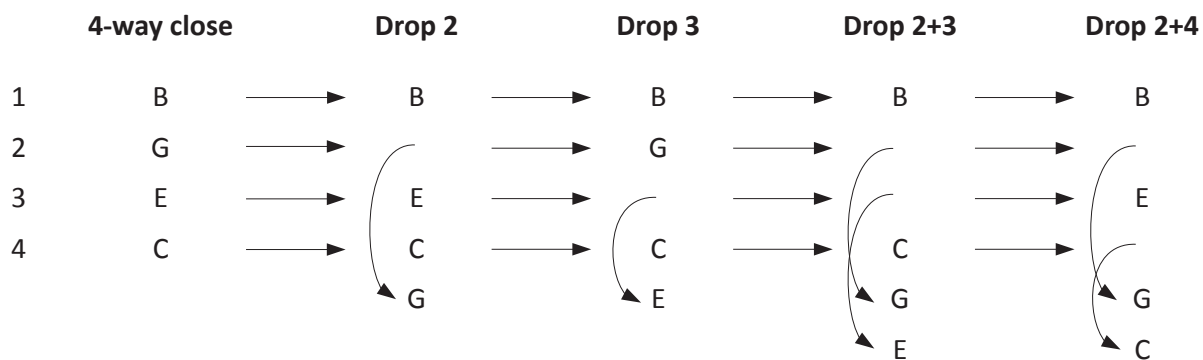


Drop Voicings

Drop Voicings are commonly used on the guitar because its tuning does not permit easily reached 4-way close structures. A Drop voicing reorders the chord providing a more usable inversion.

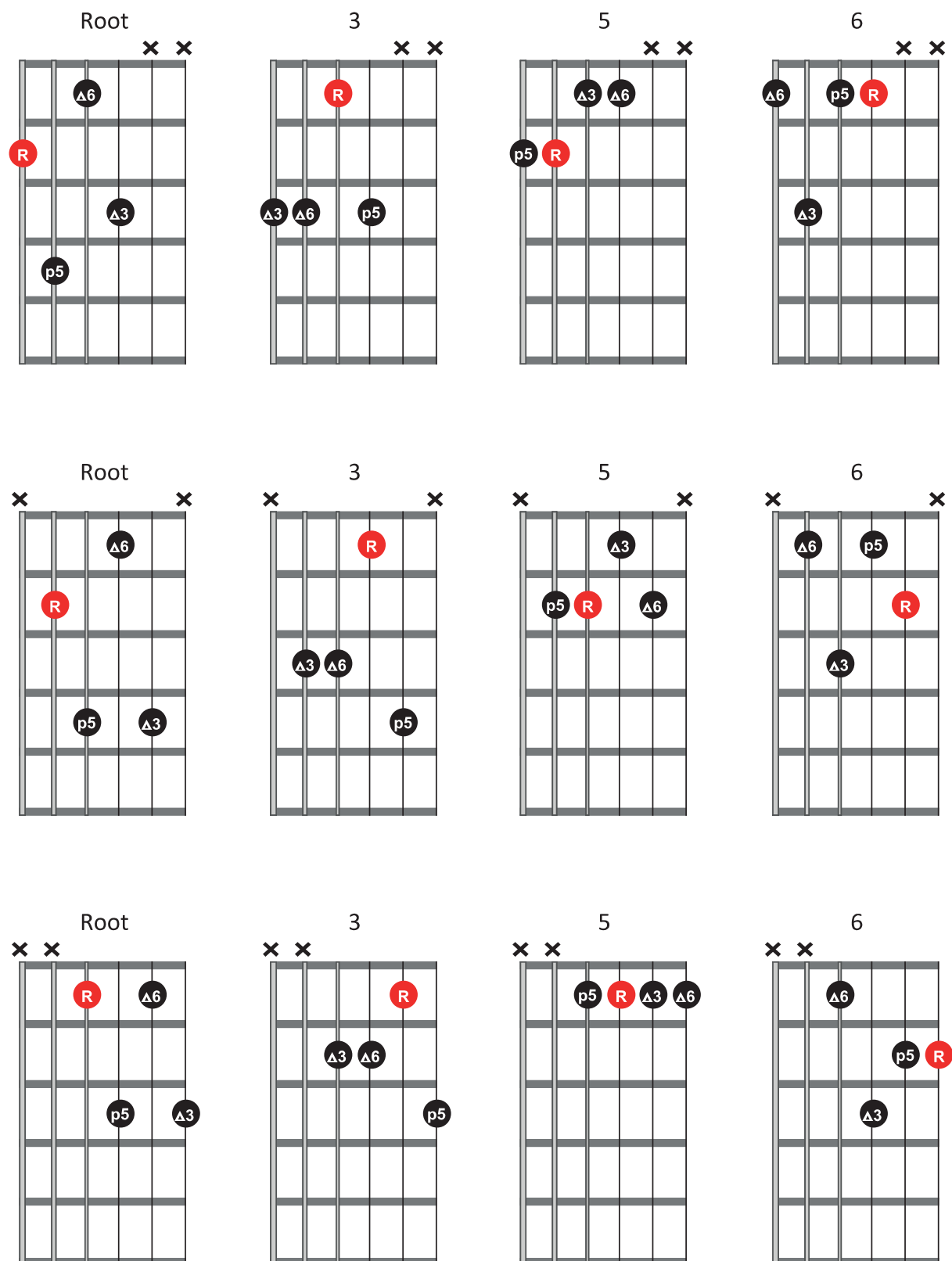
Voicings of Cmaj⁷

Ex. 136

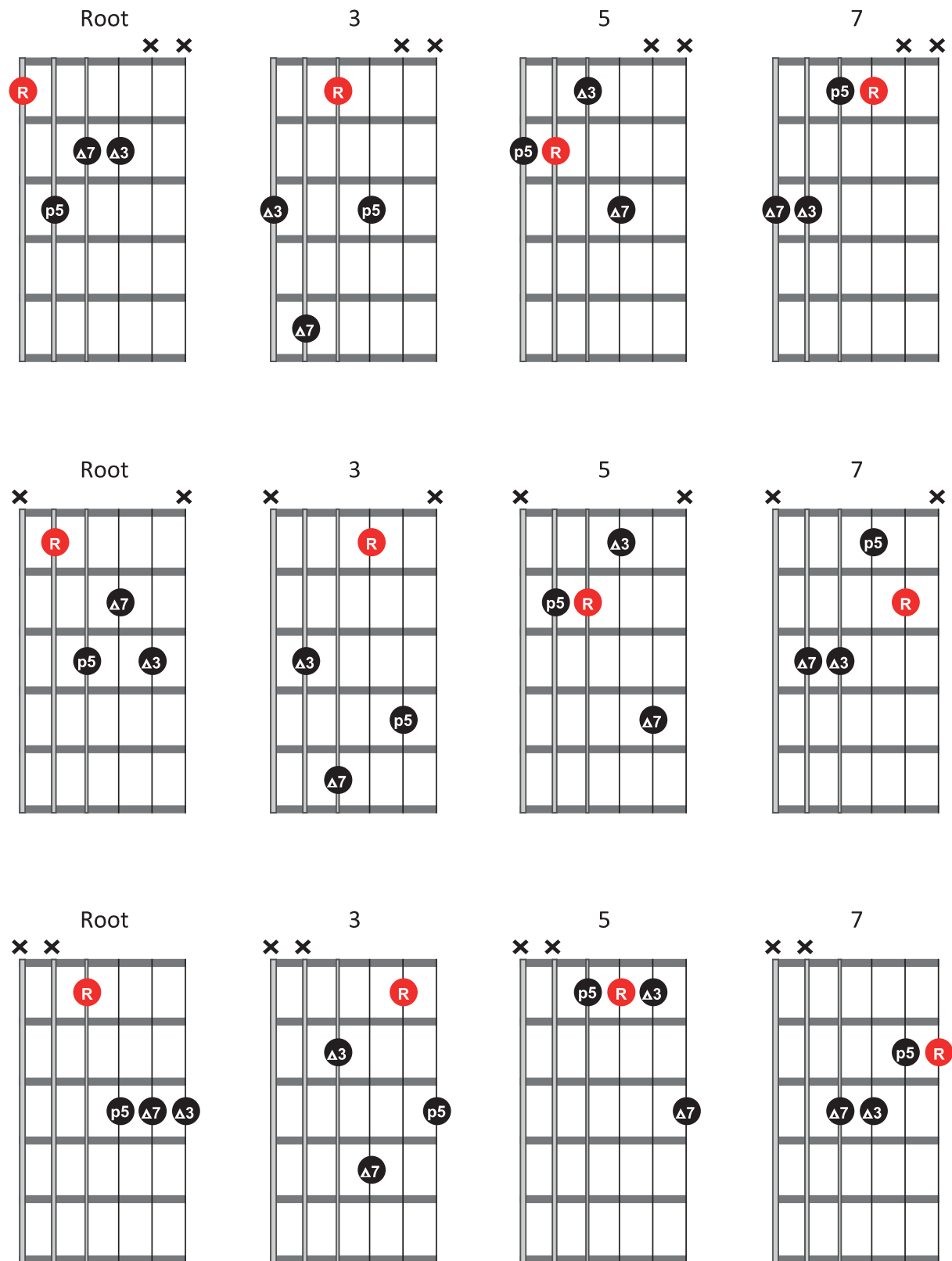


Drop 2

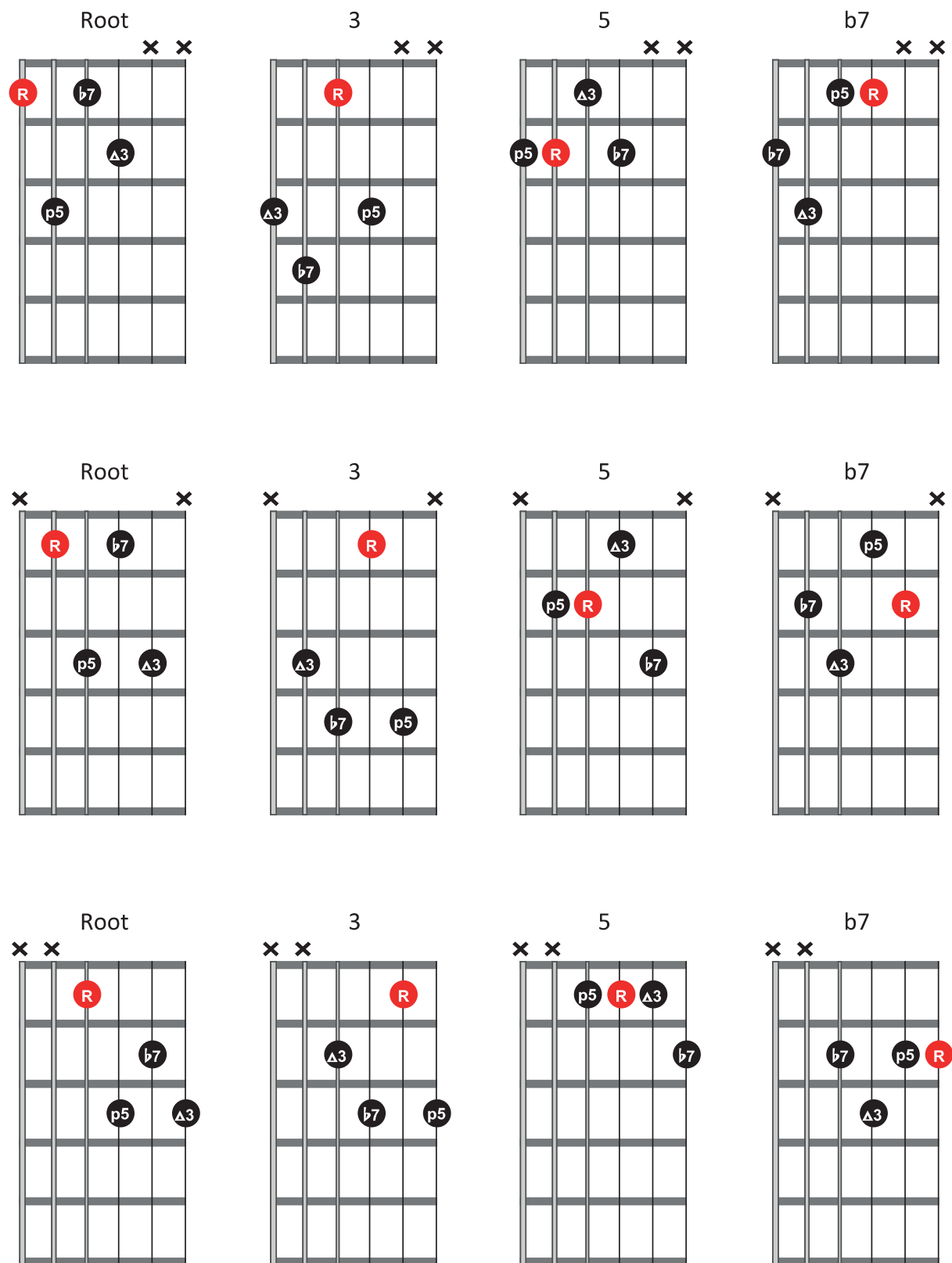
*Maj*⁶



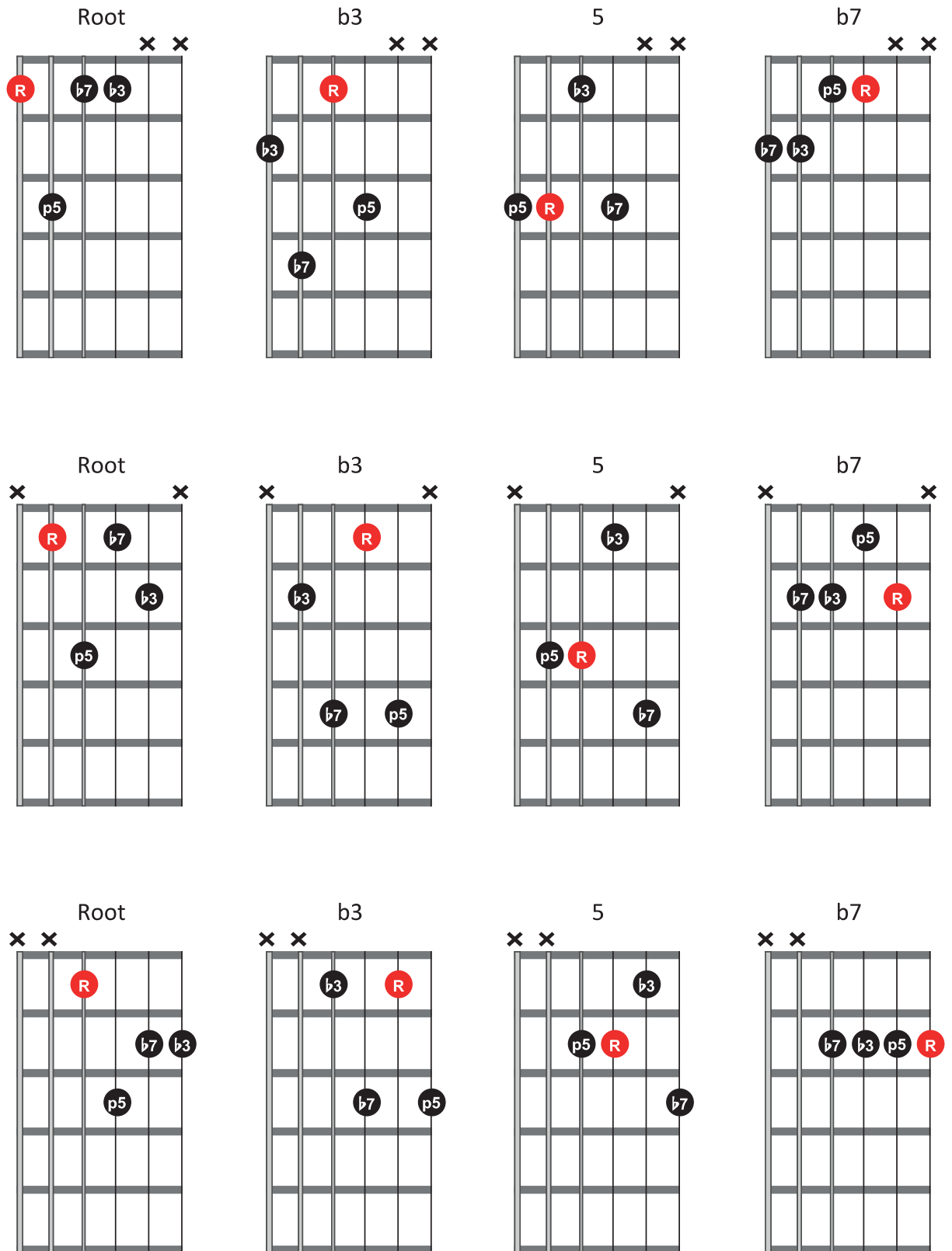
*Maj*⁷



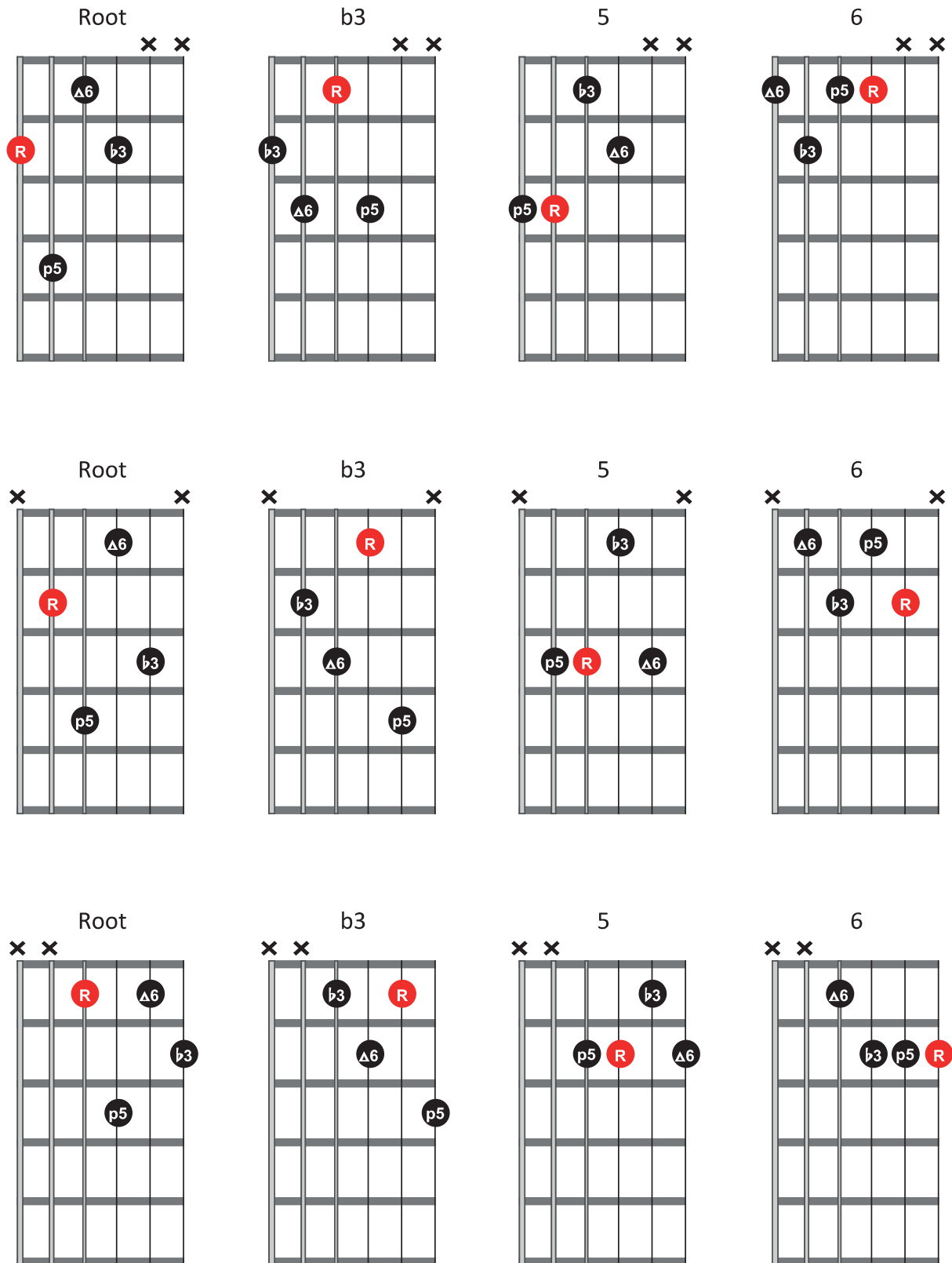
Dom⁷

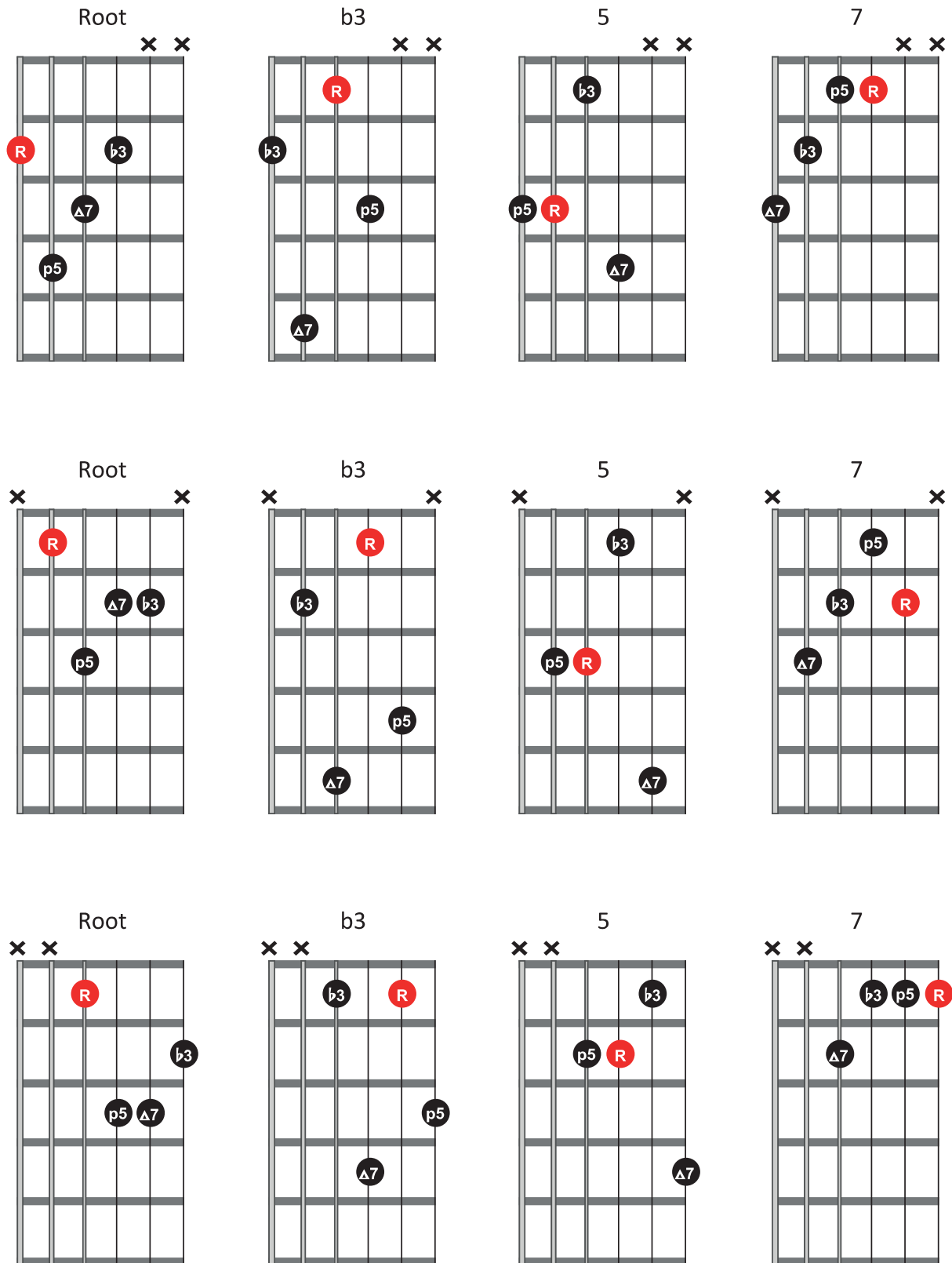


*Min*⁷

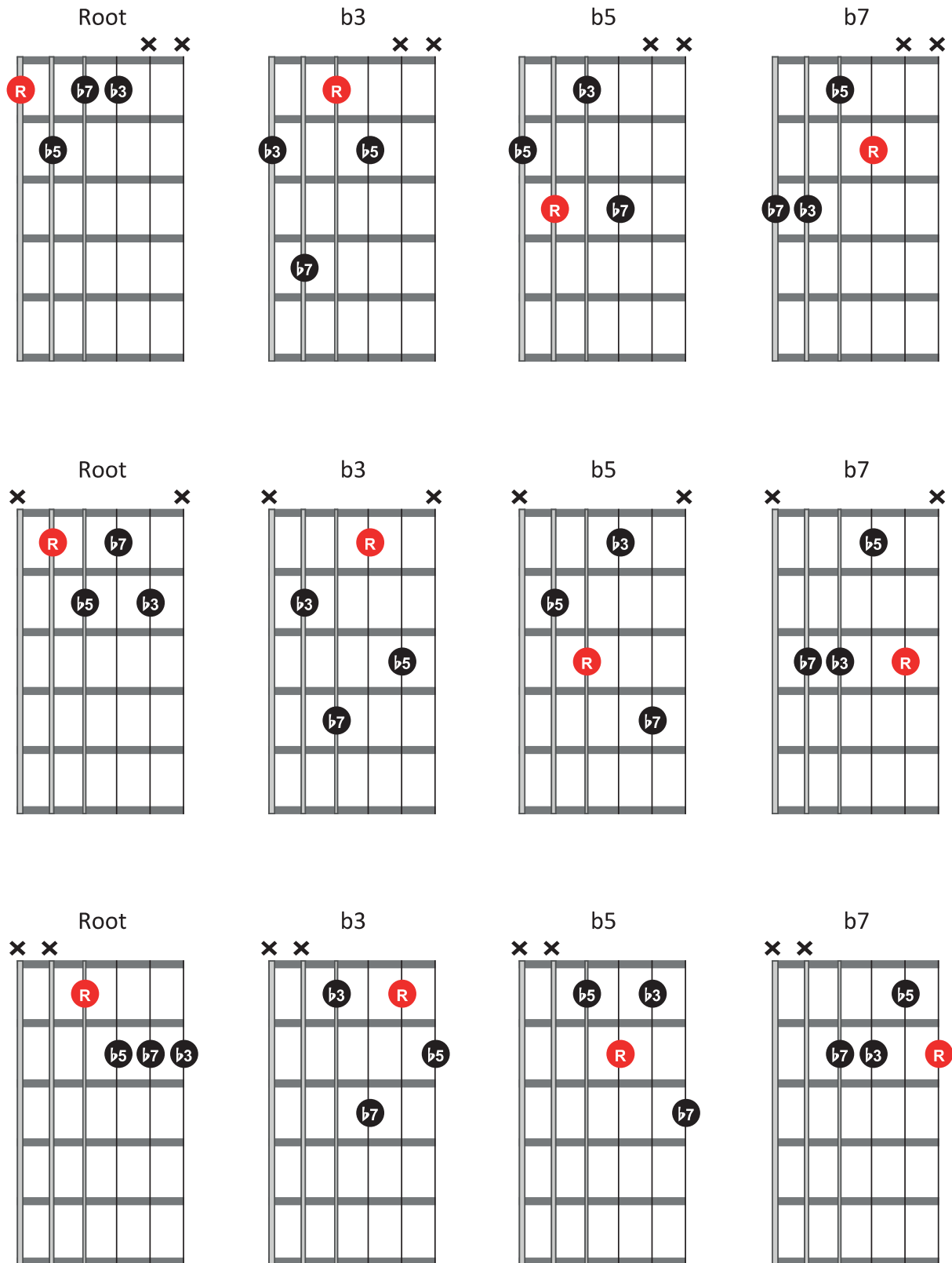


*Min*⁶

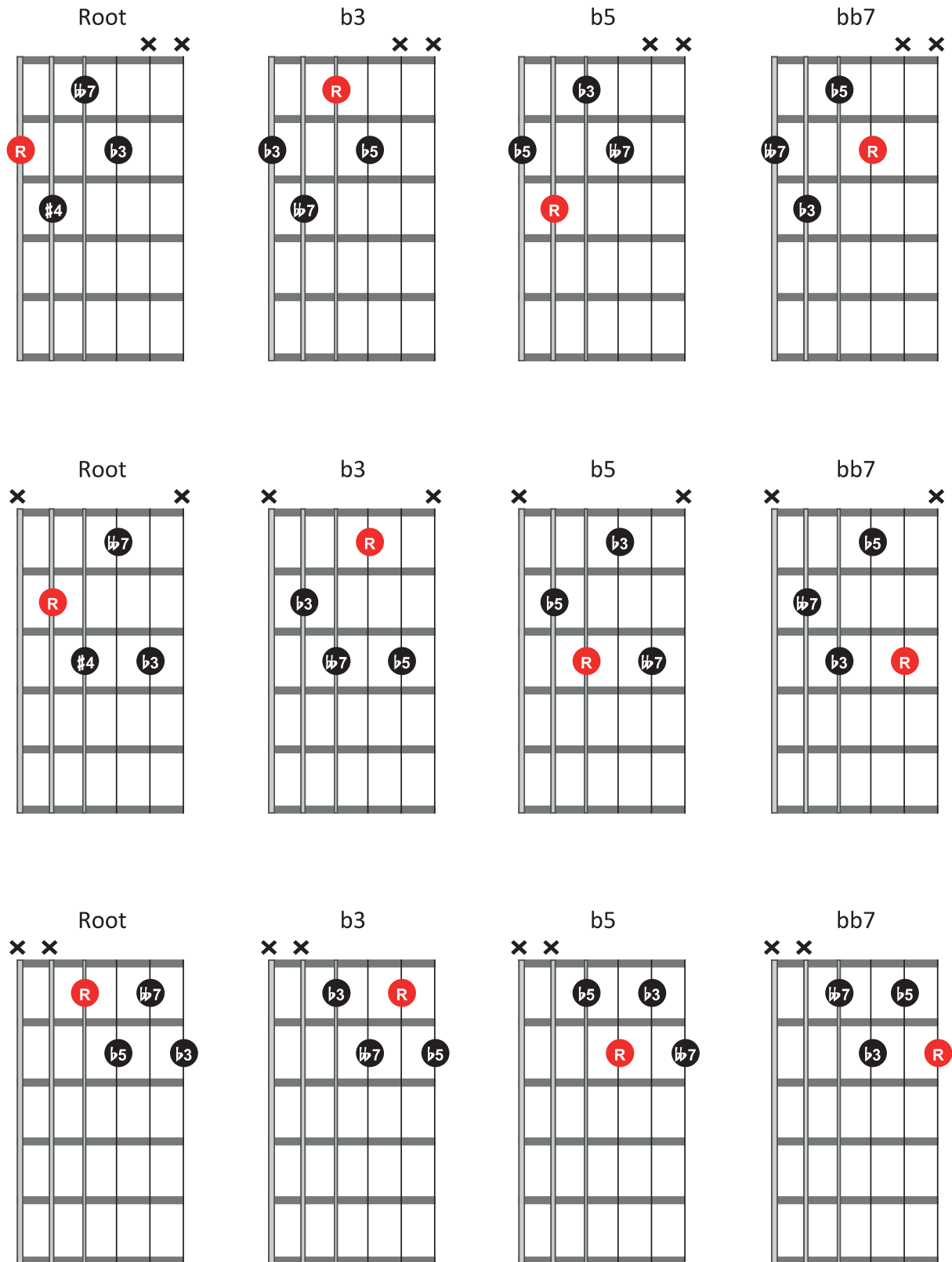


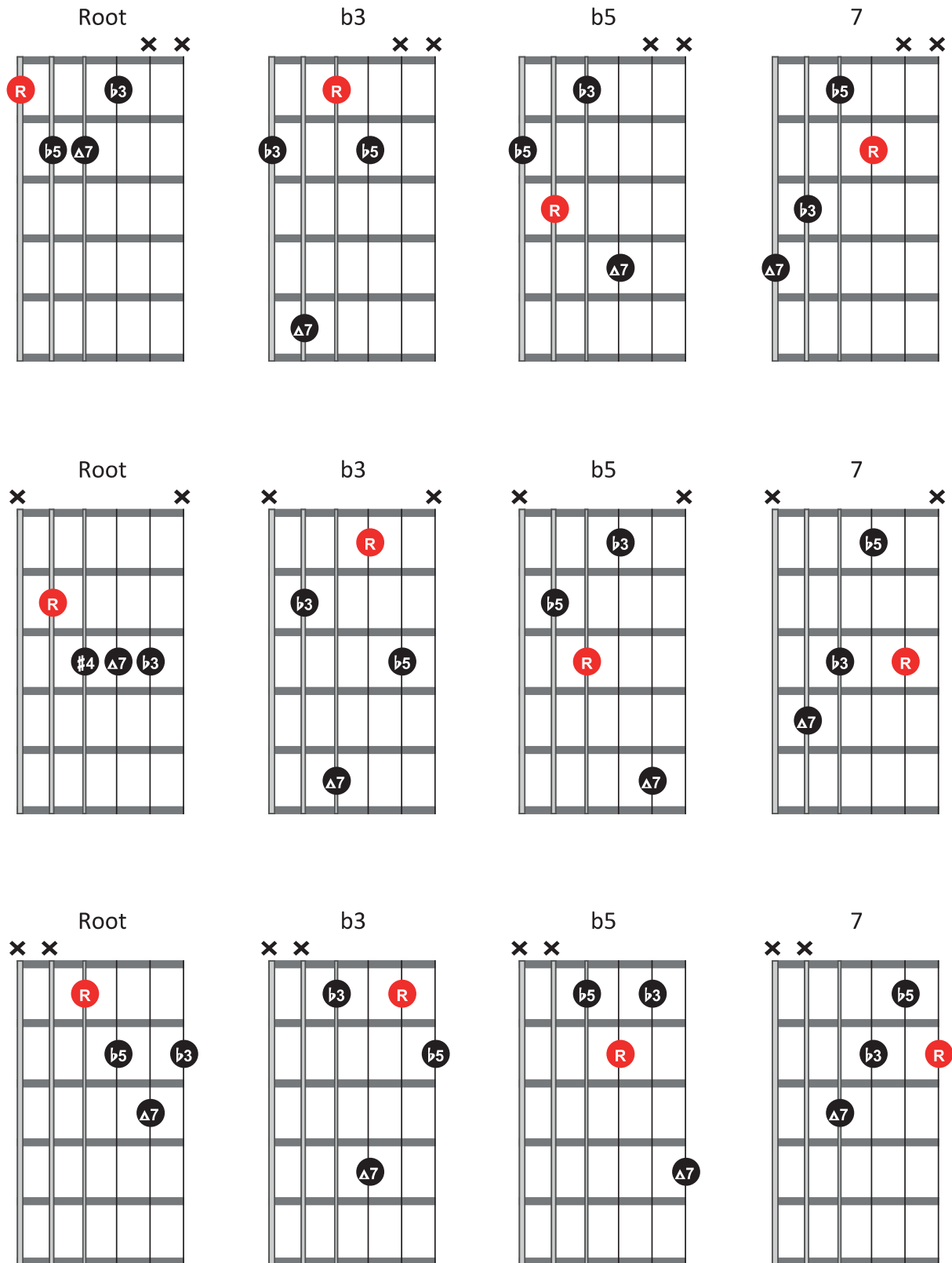


Min^{7b5}

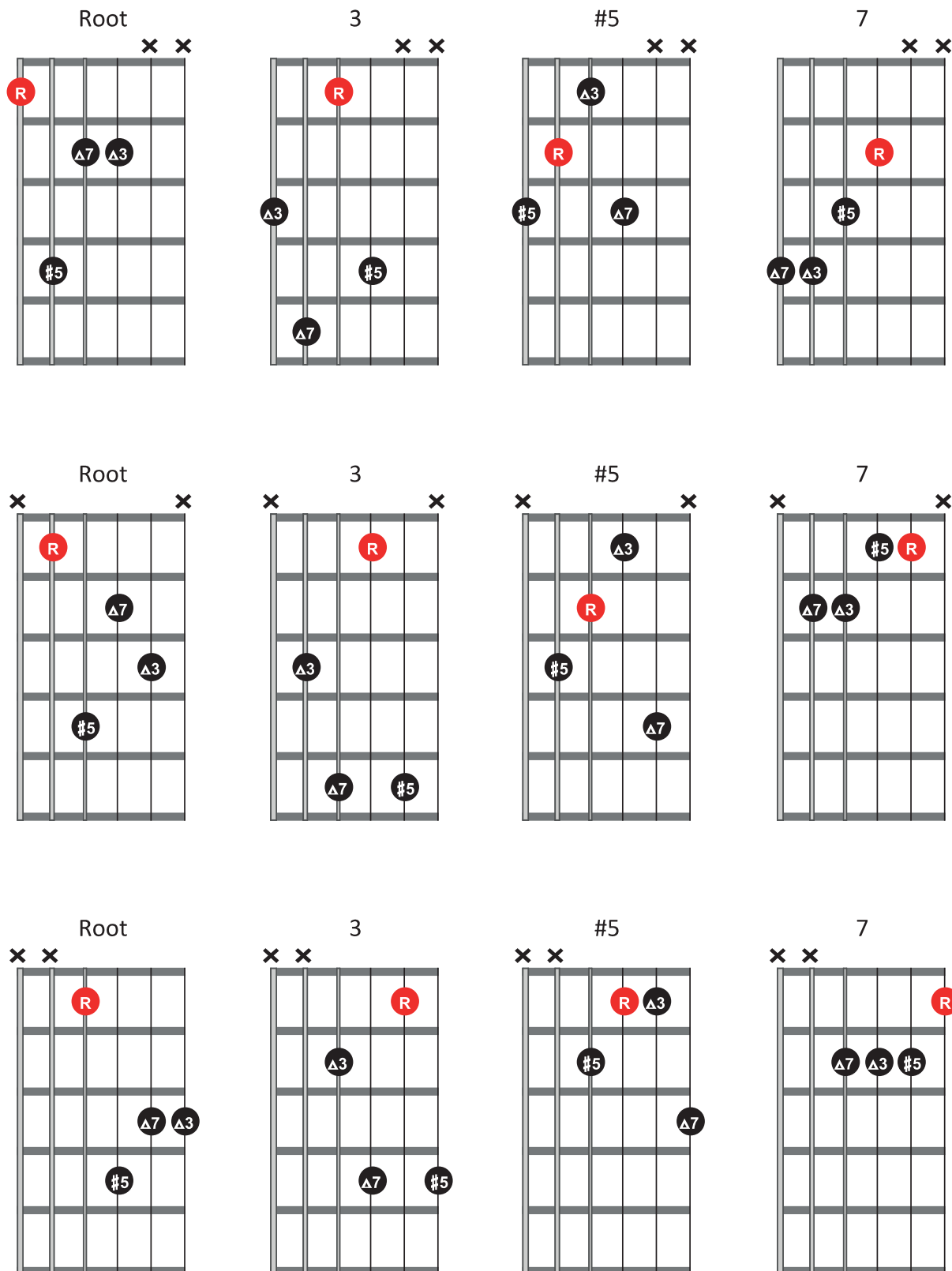


Dim⁷

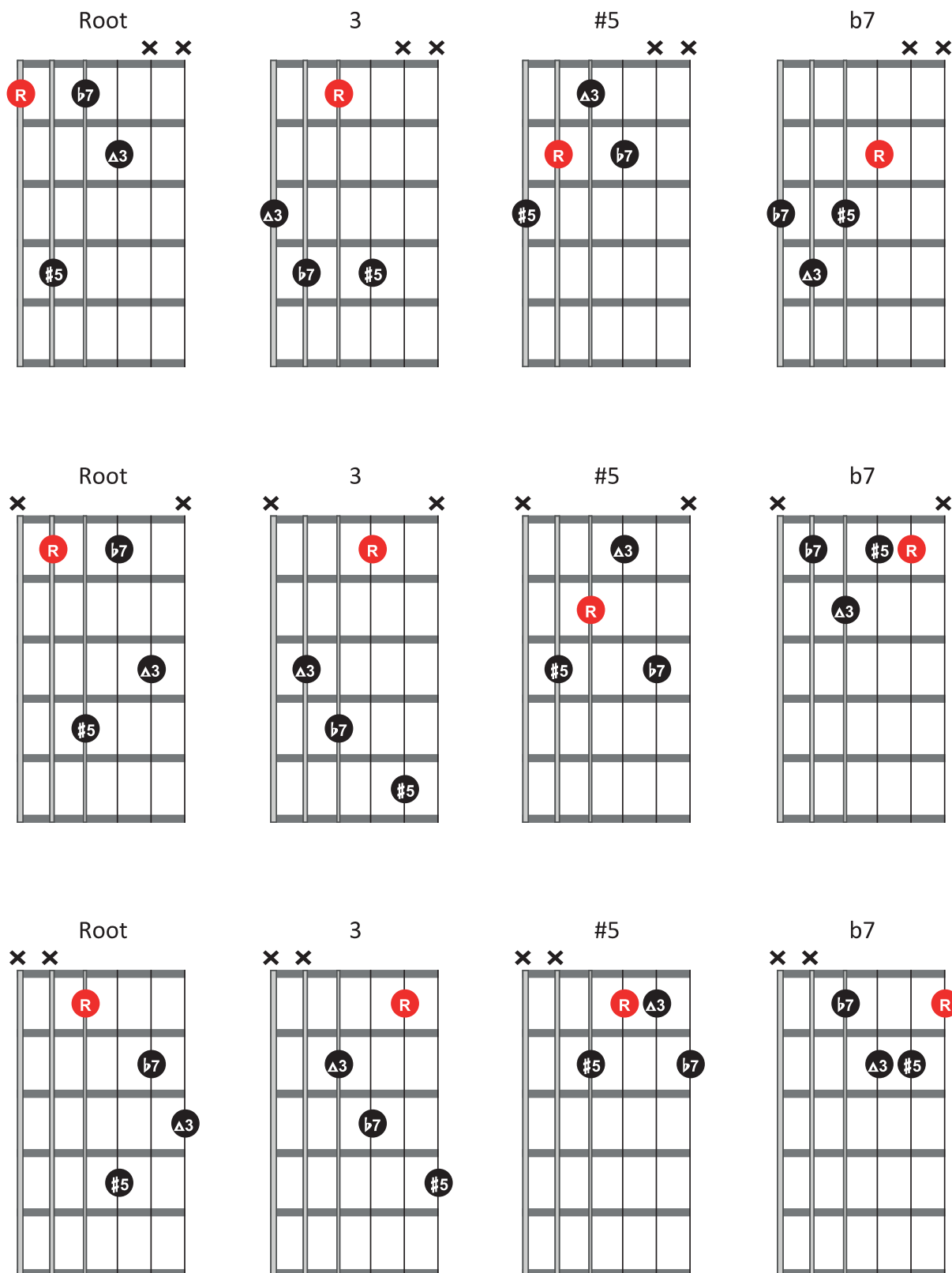




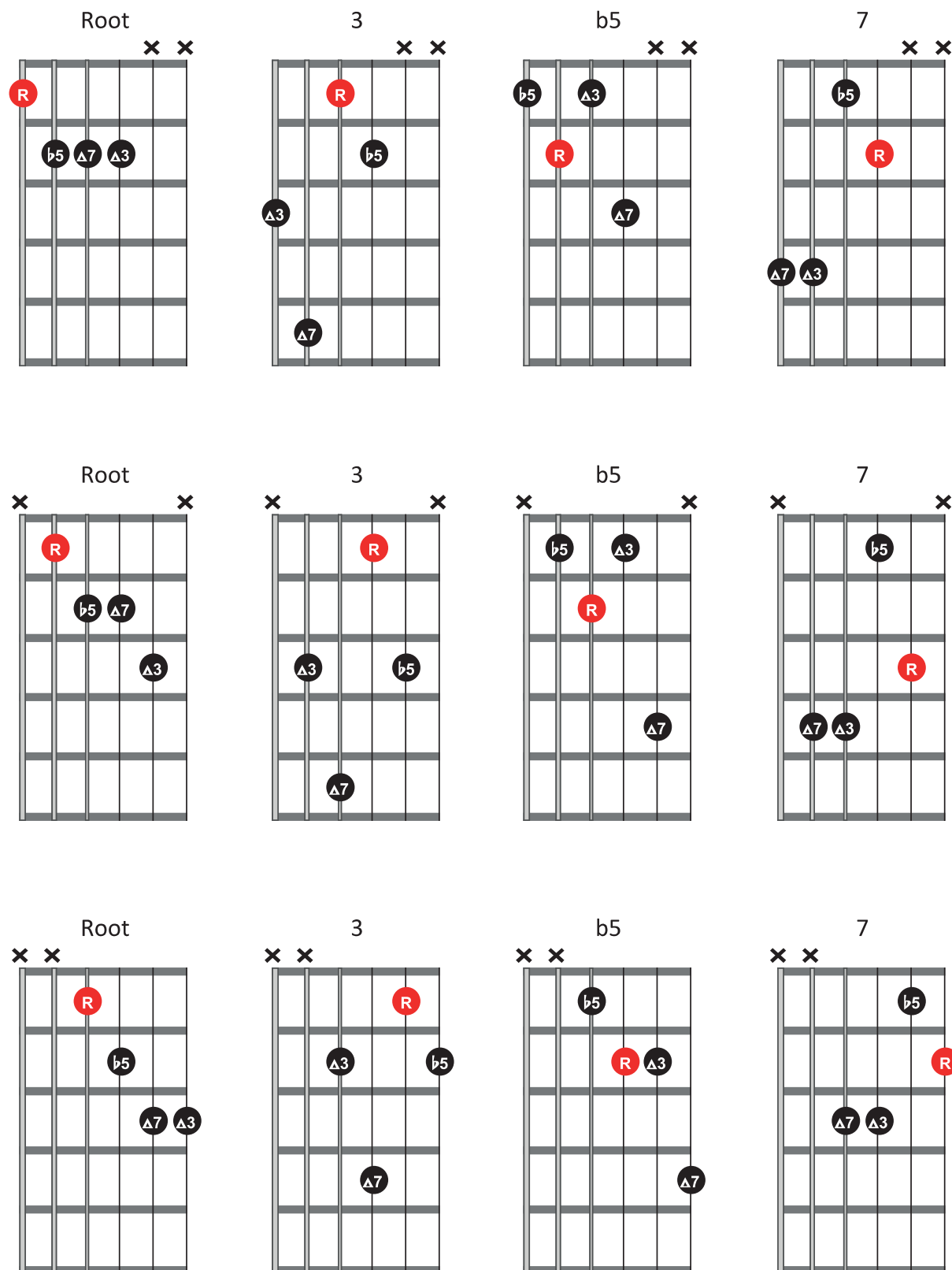
Aug^{maj7}



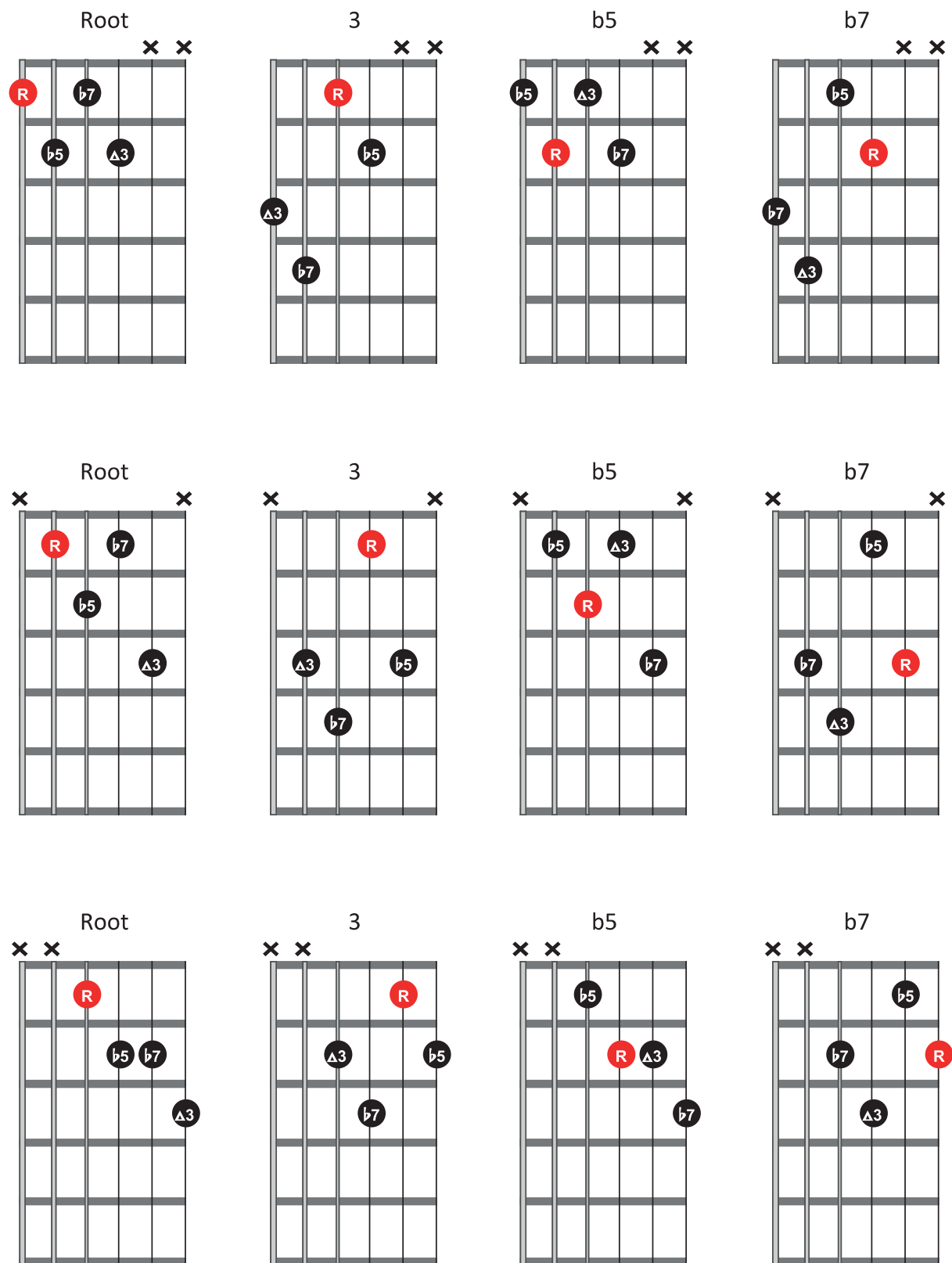
Aug⁷

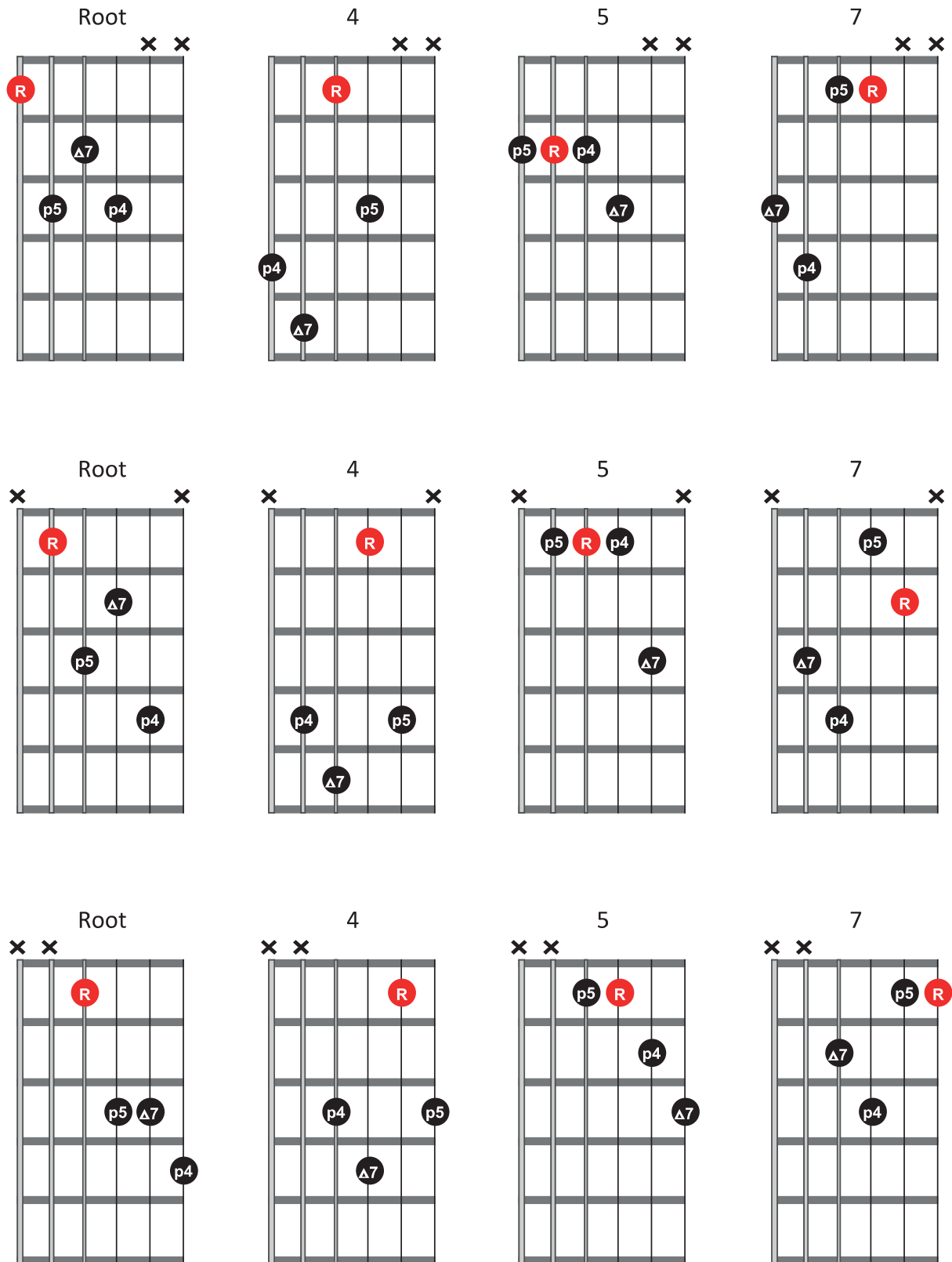


Maj^{7b5}

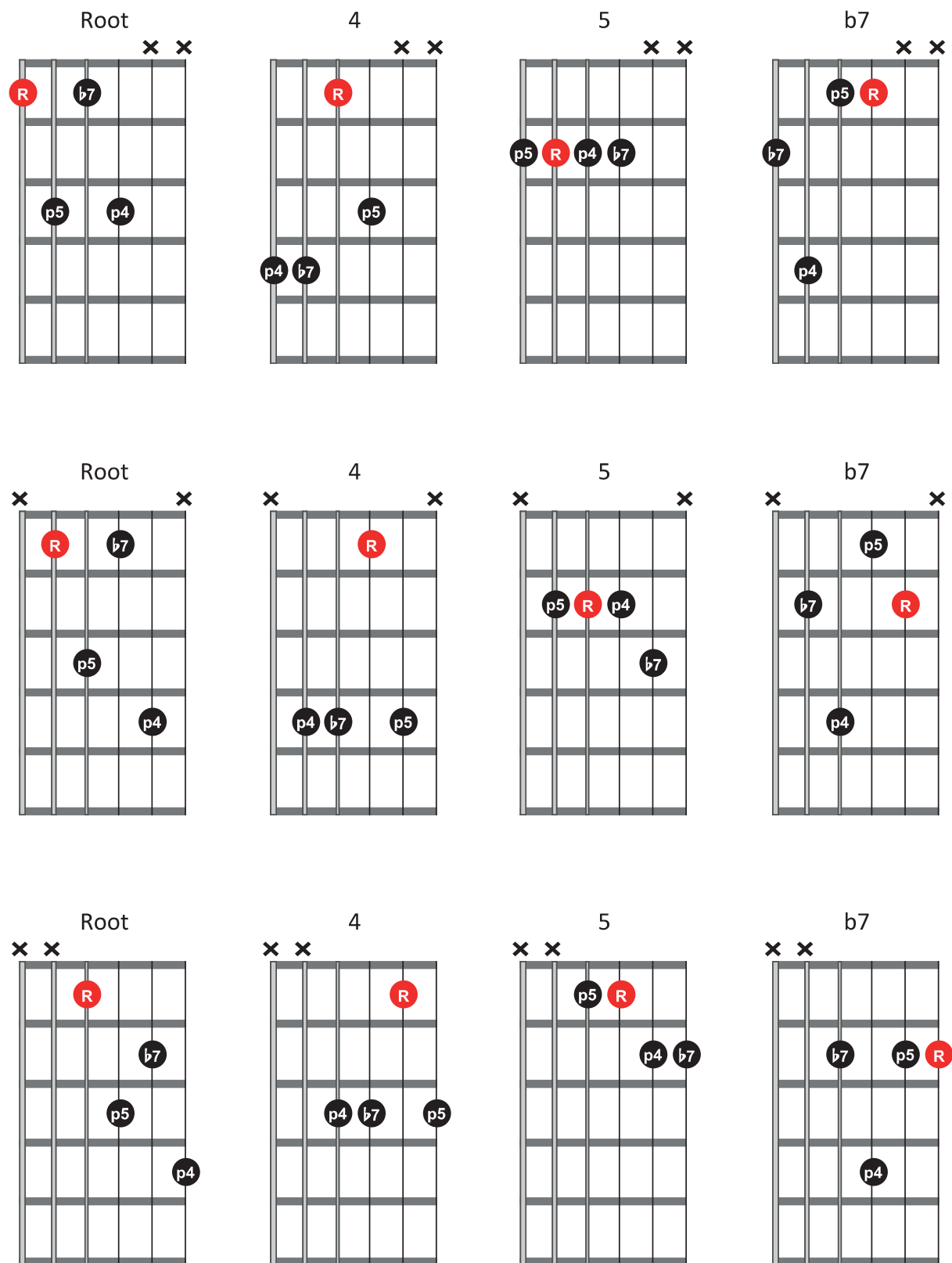


Dom^{7b5}

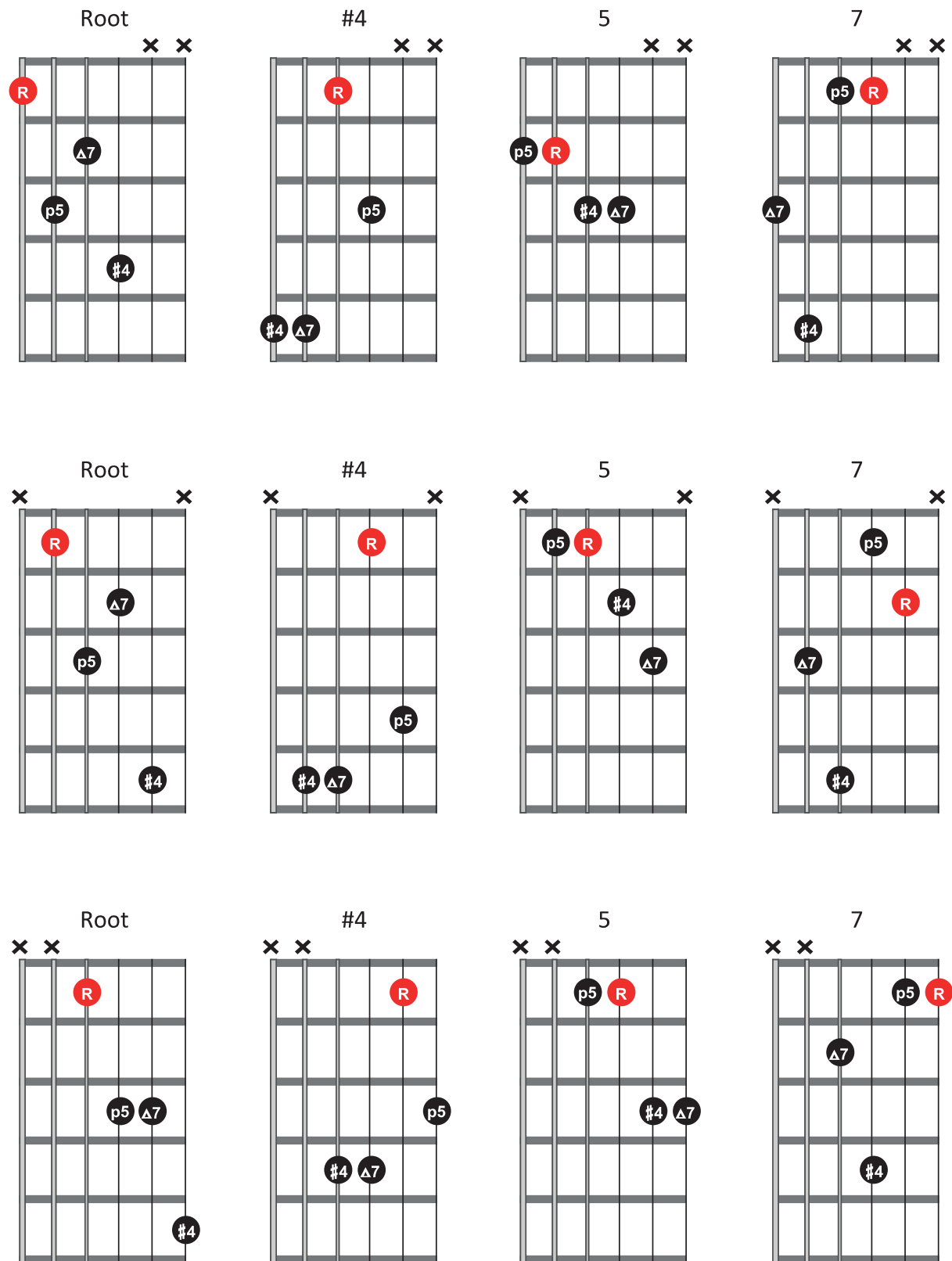




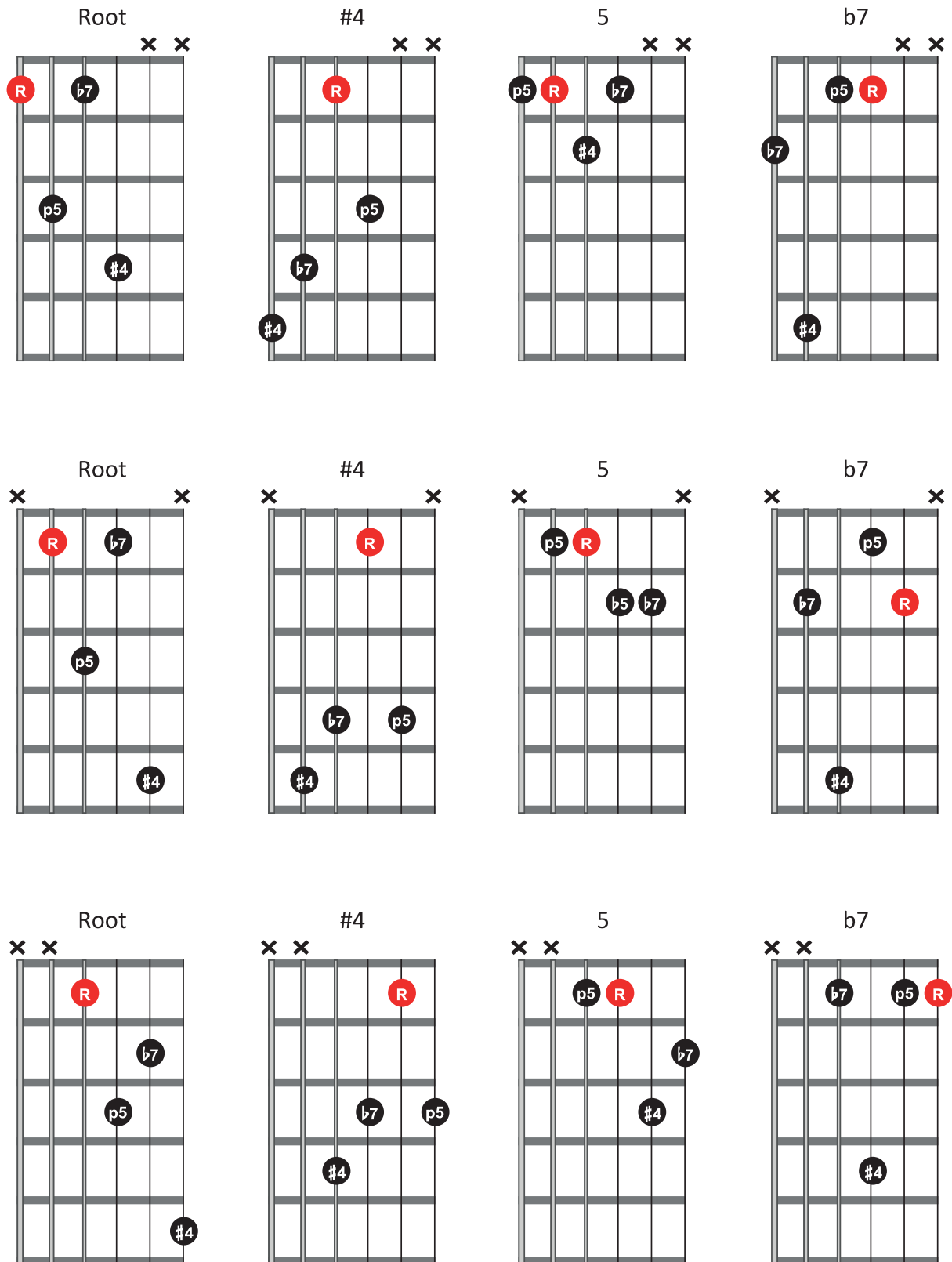
Dom^{7sus4}

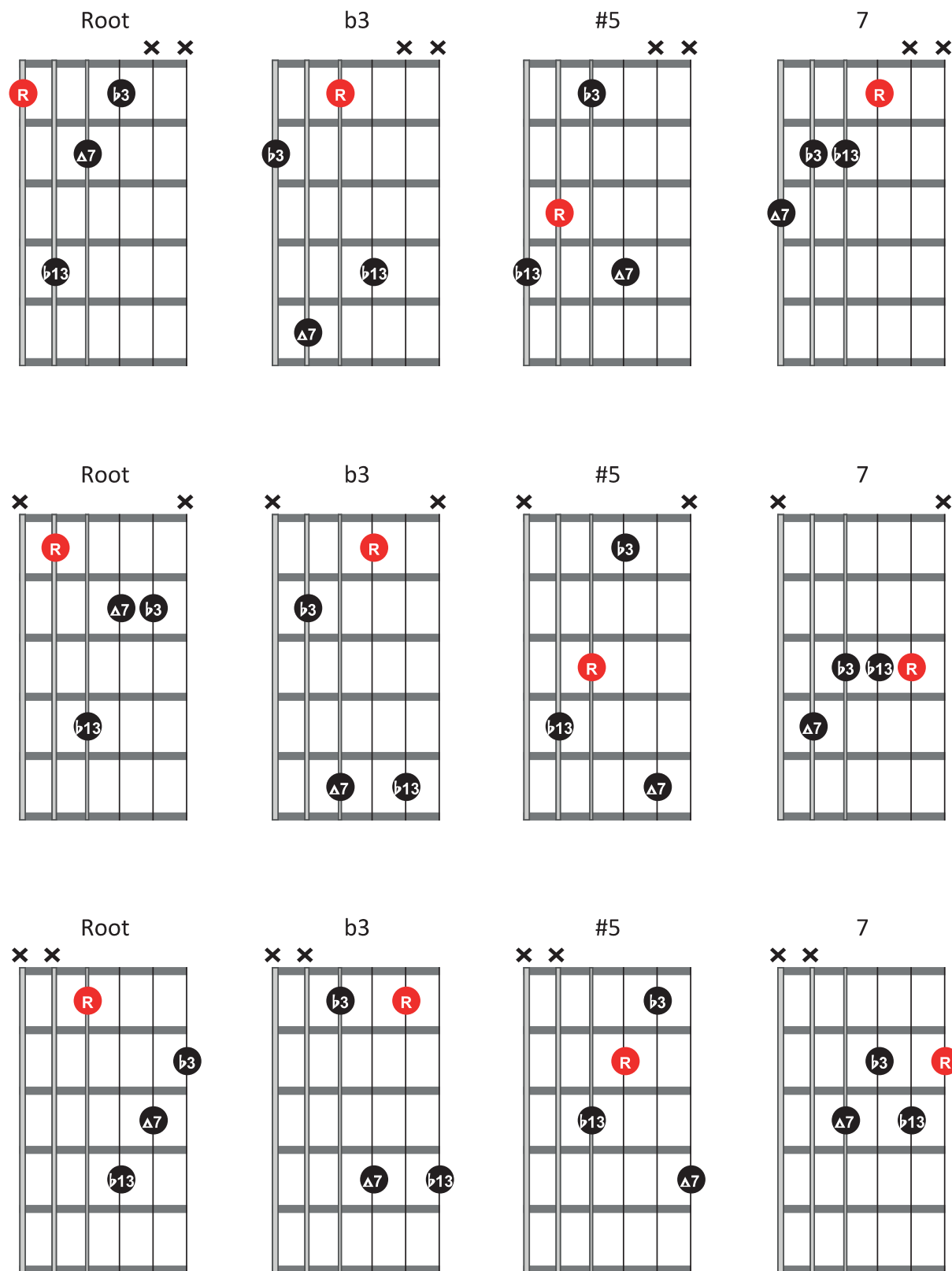


Lydian^{maj7}



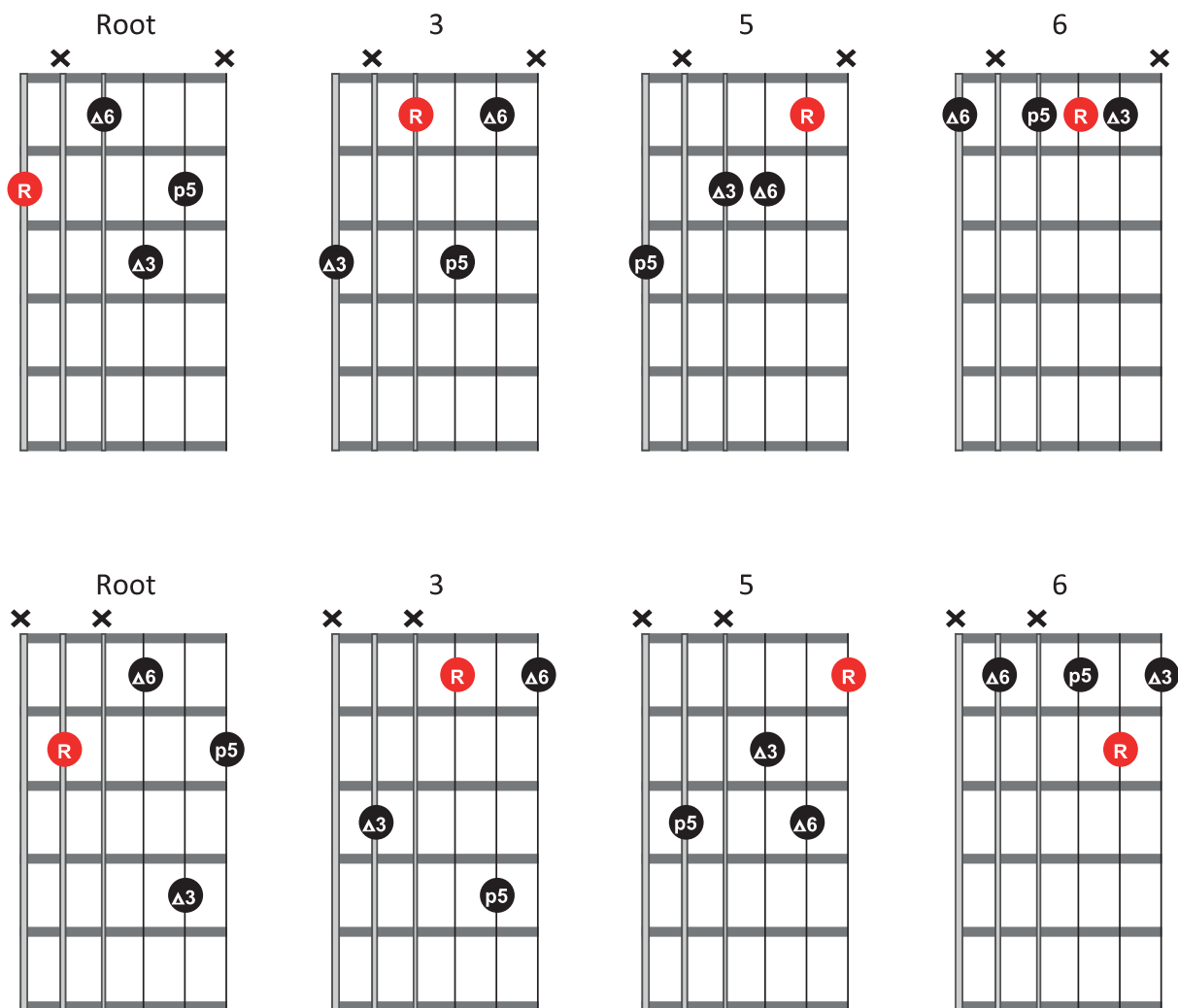
Lydian^{Dom7}



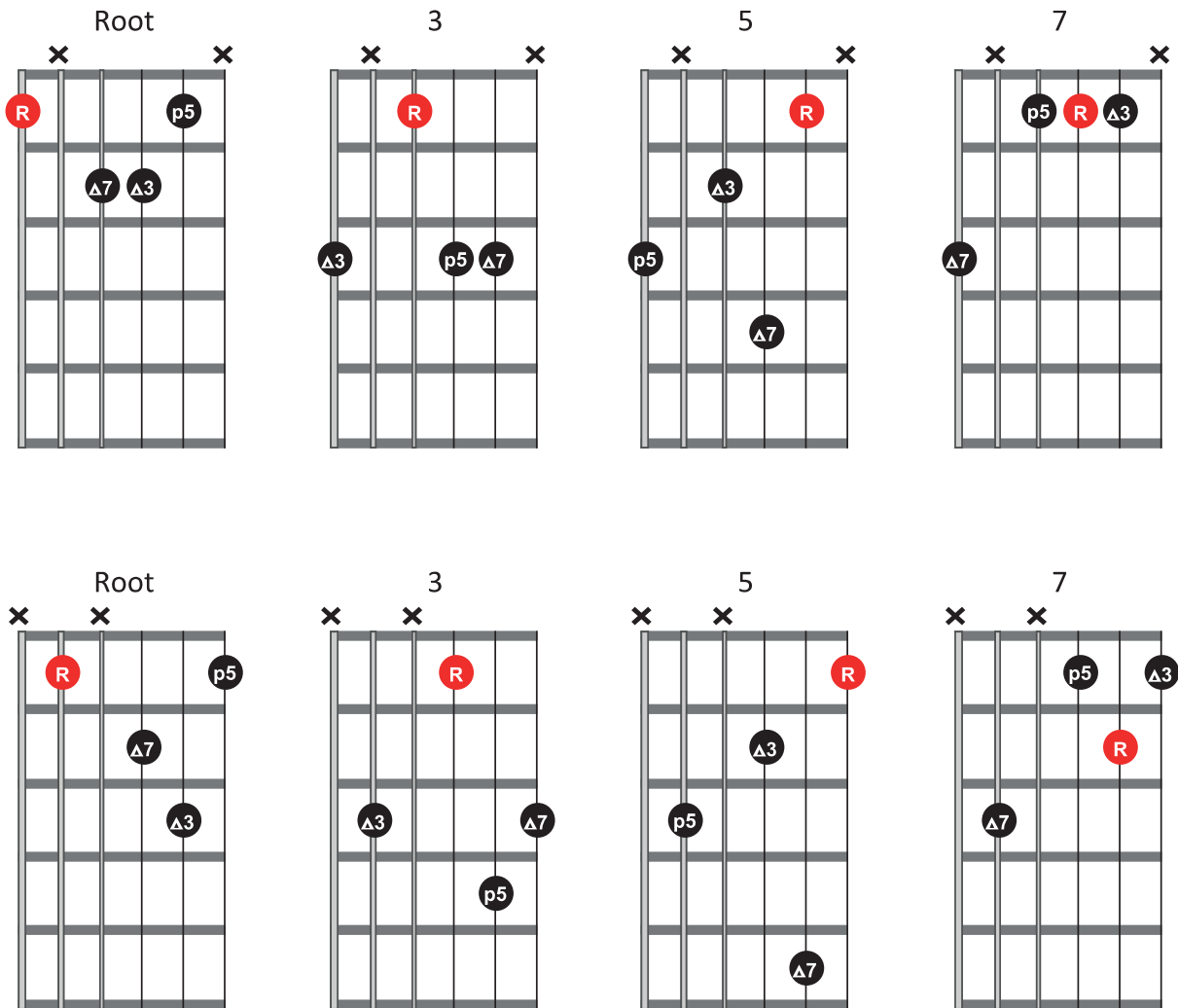


Drop 3

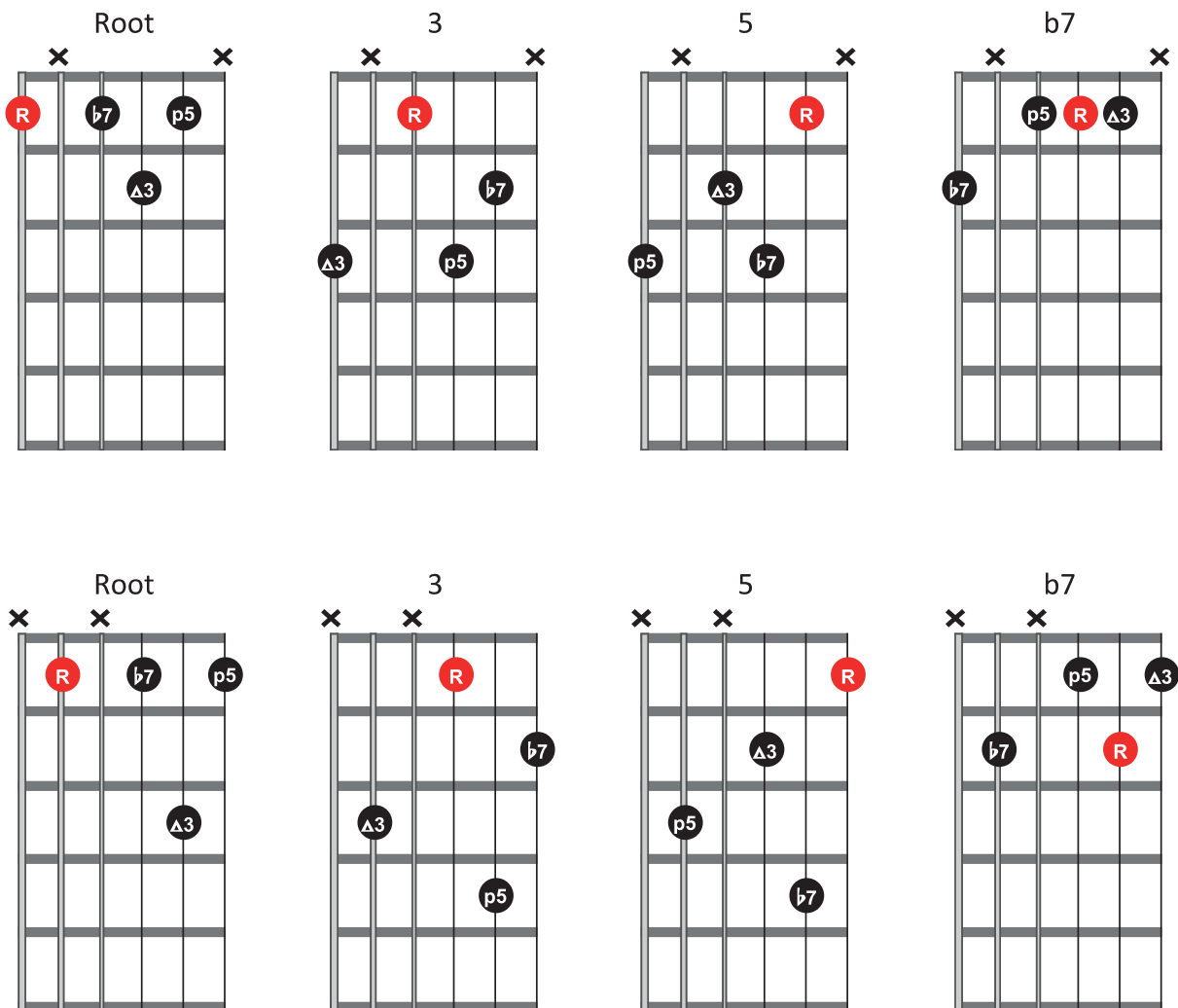
*Maj*⁶



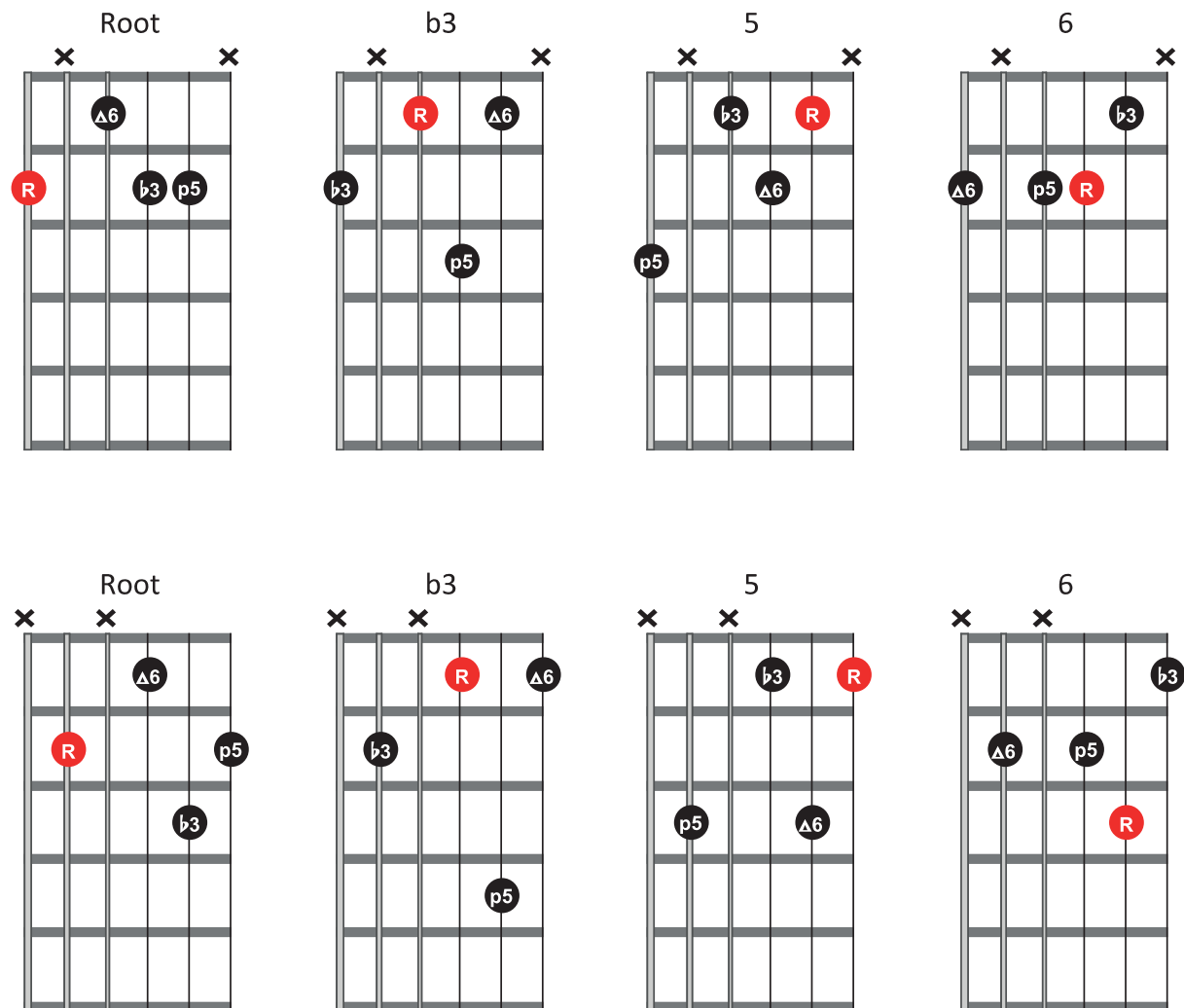
Maj⁷



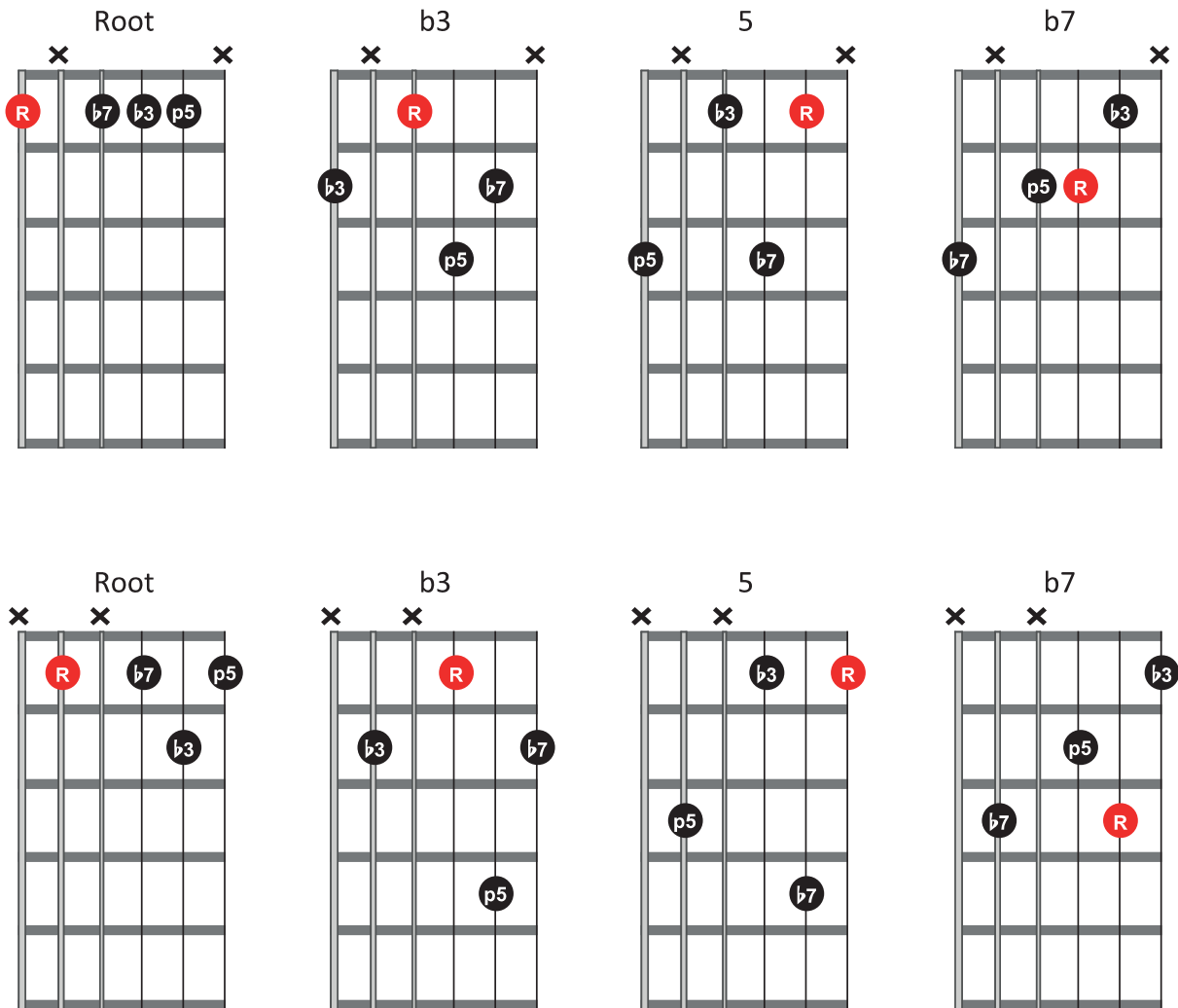
Dom⁷

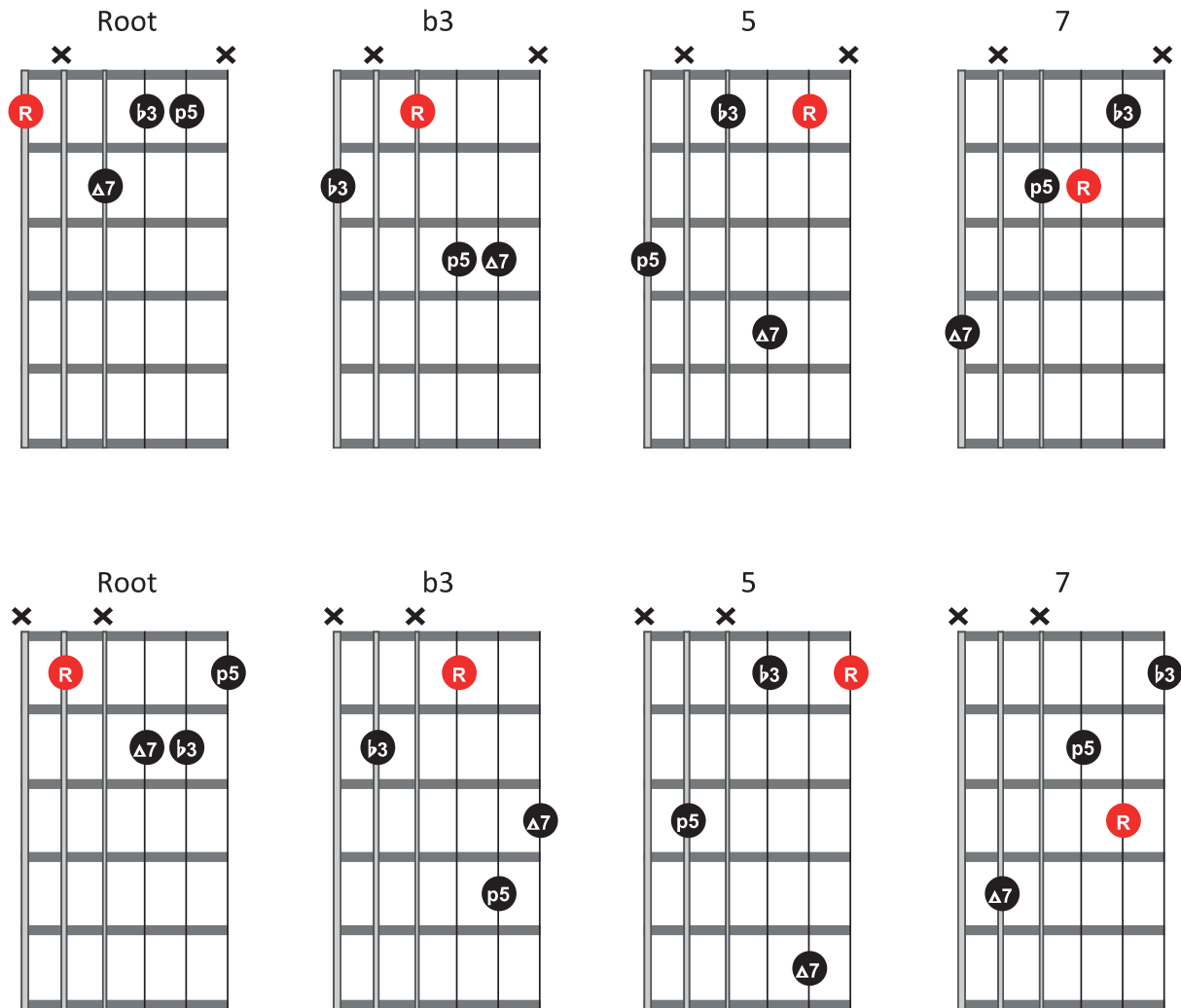


*Min*⁶

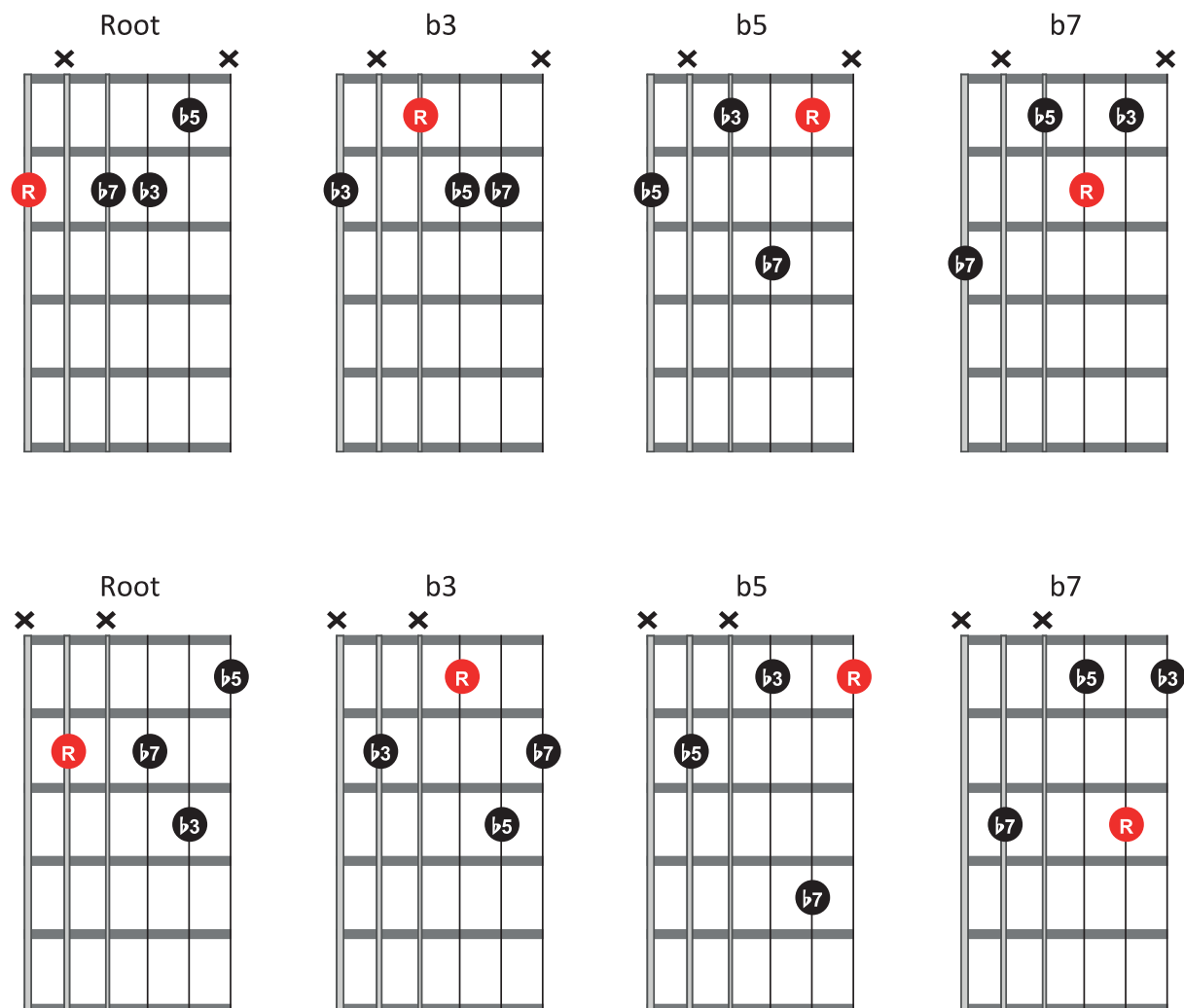


*Min*⁷

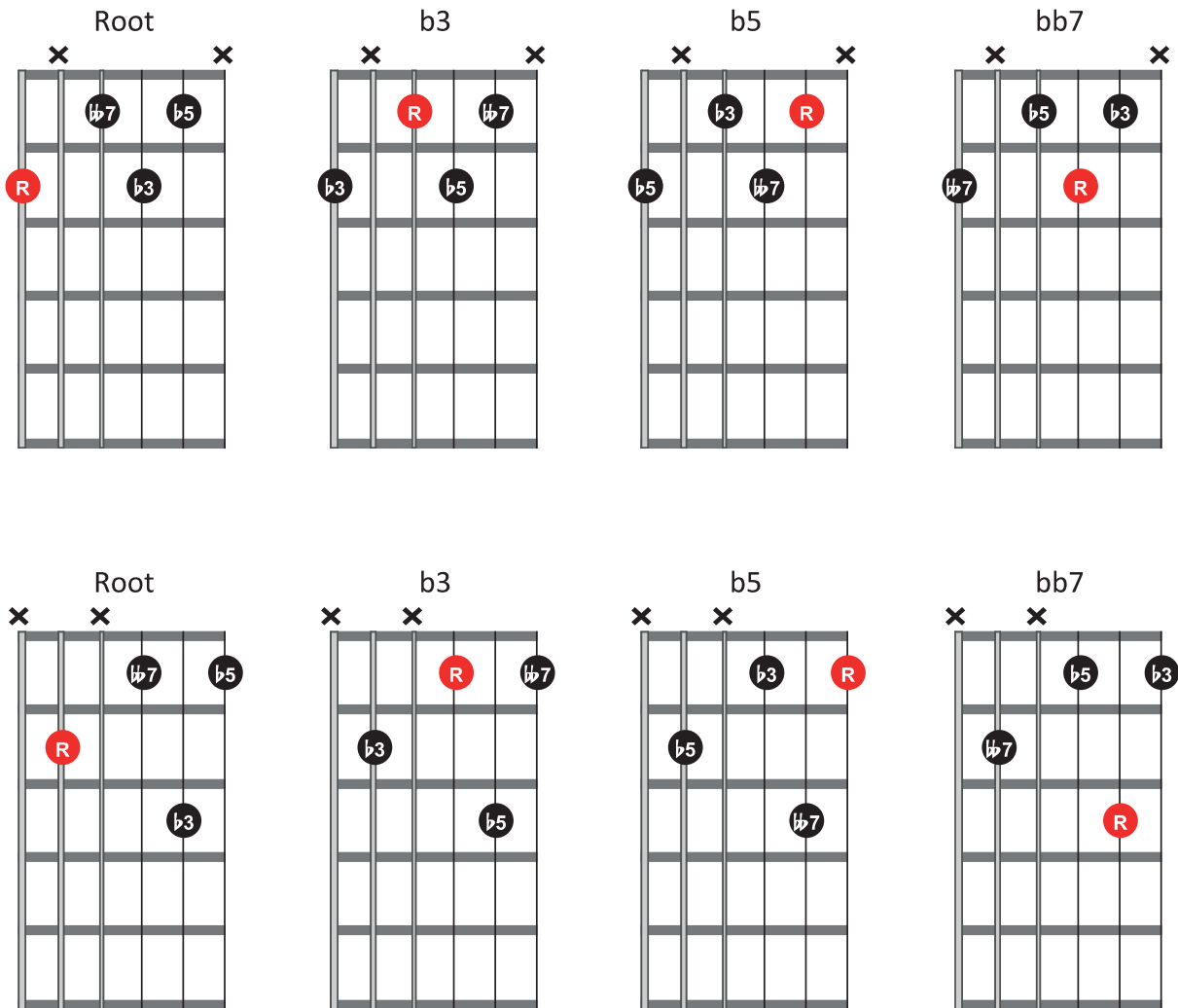


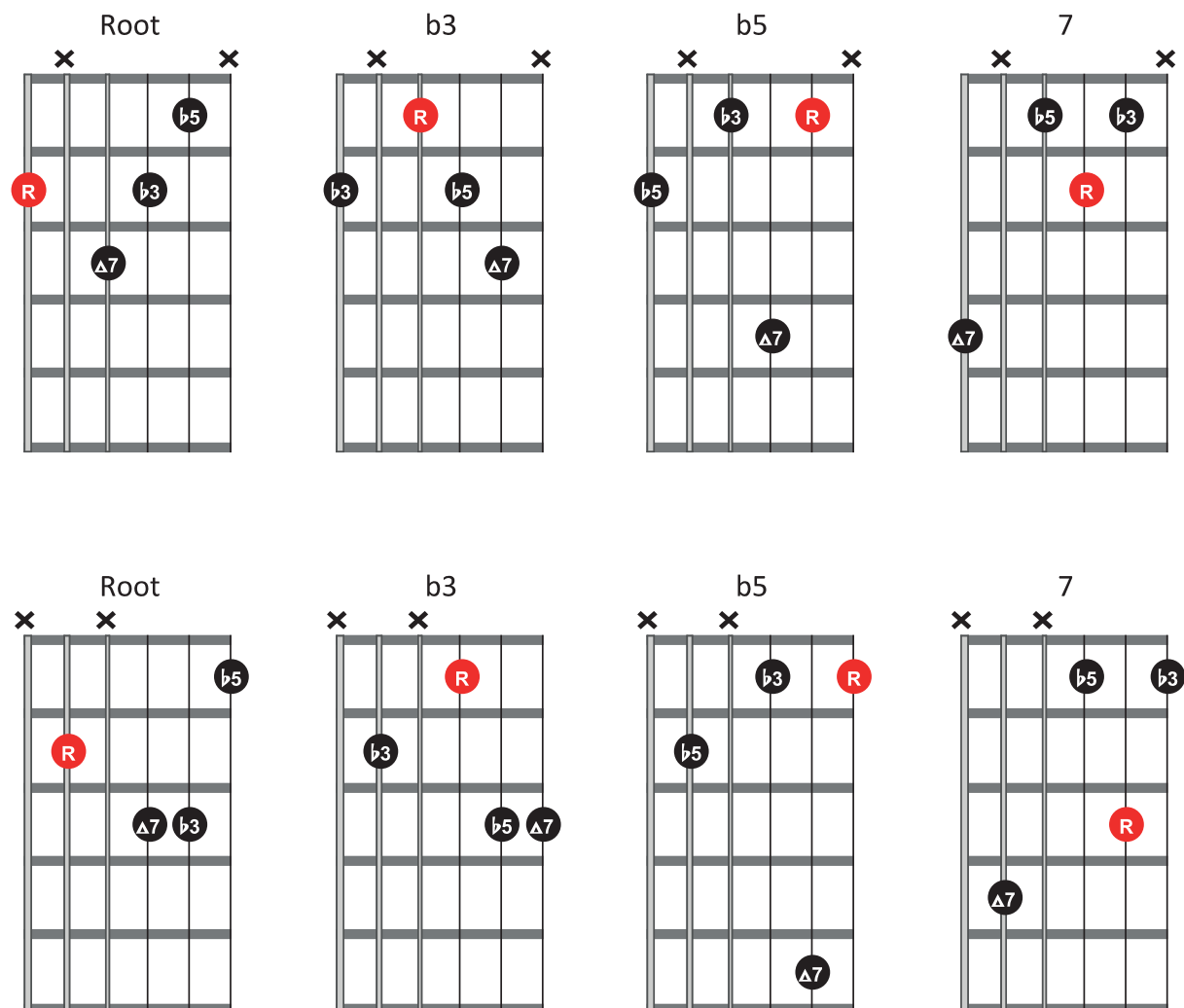


Min^{7b5}

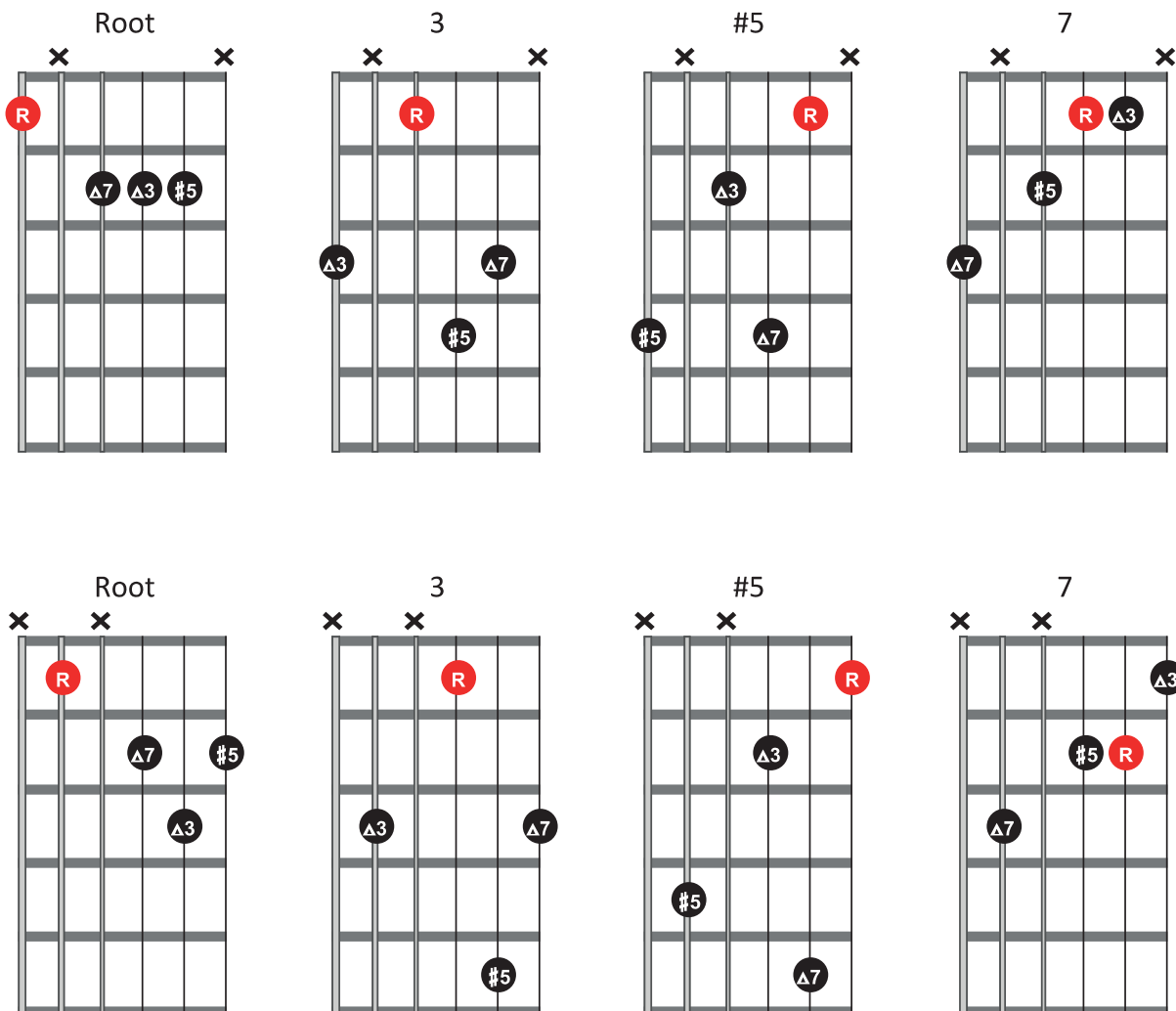


Dim⁷

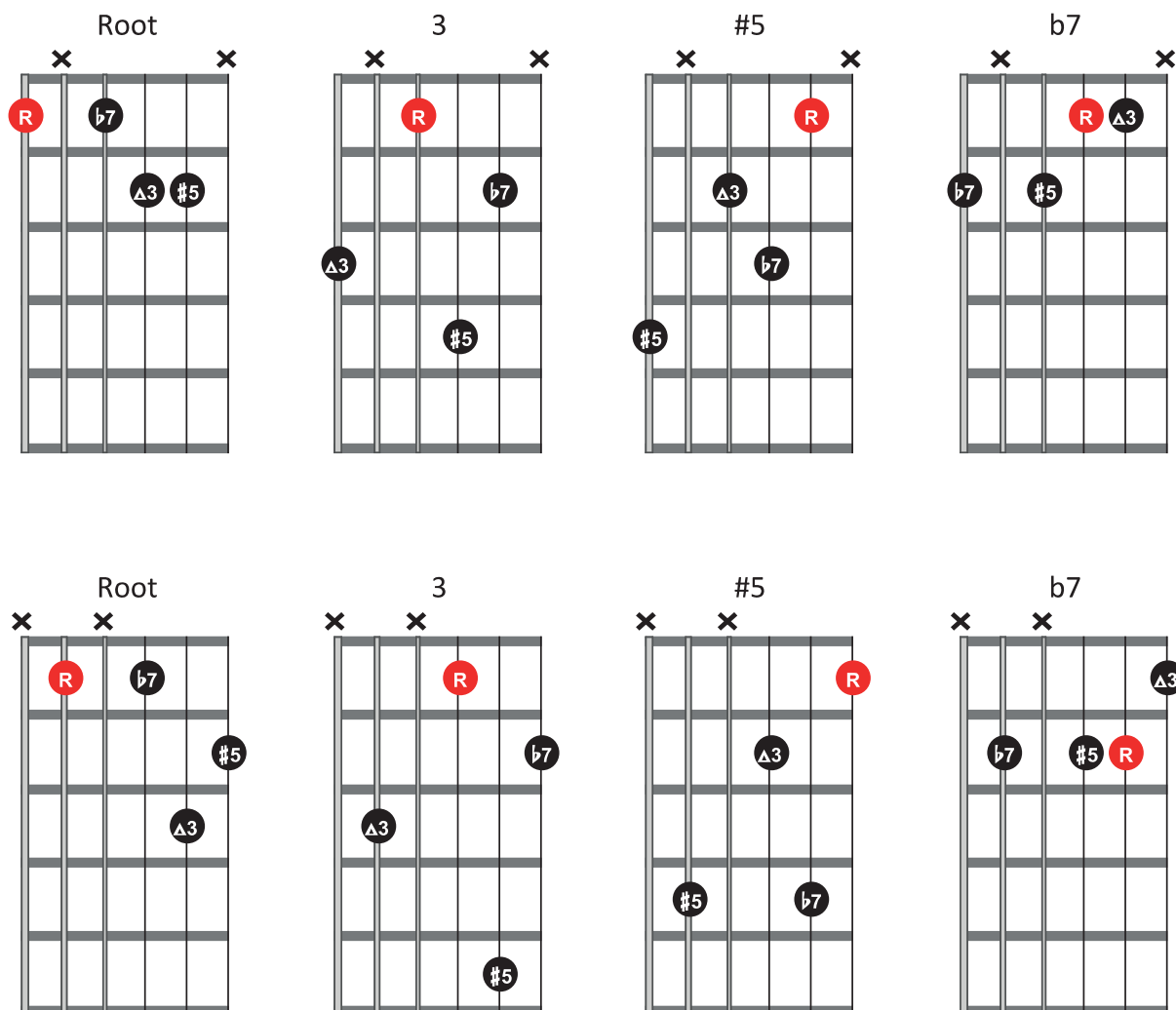




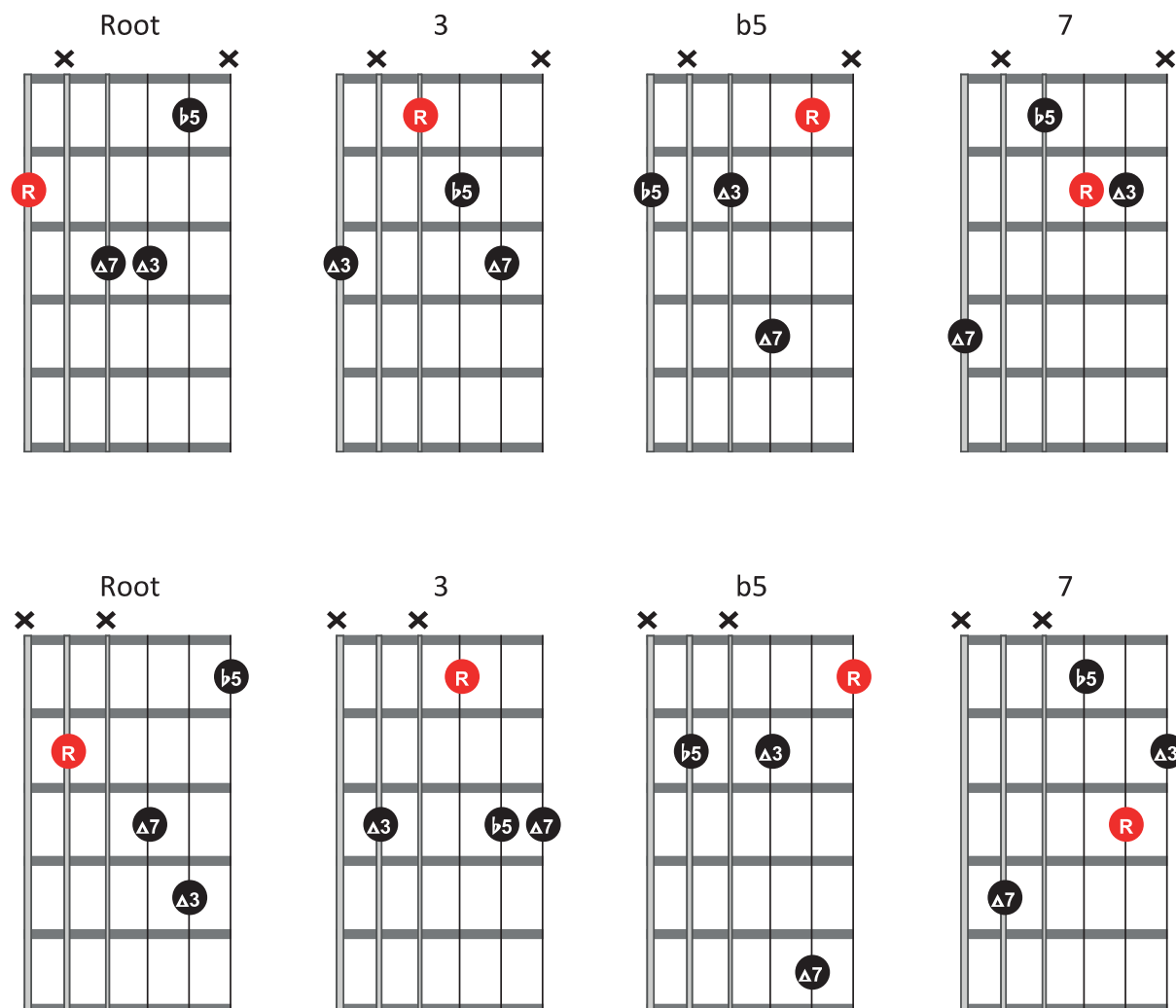
Aug^{maj7}



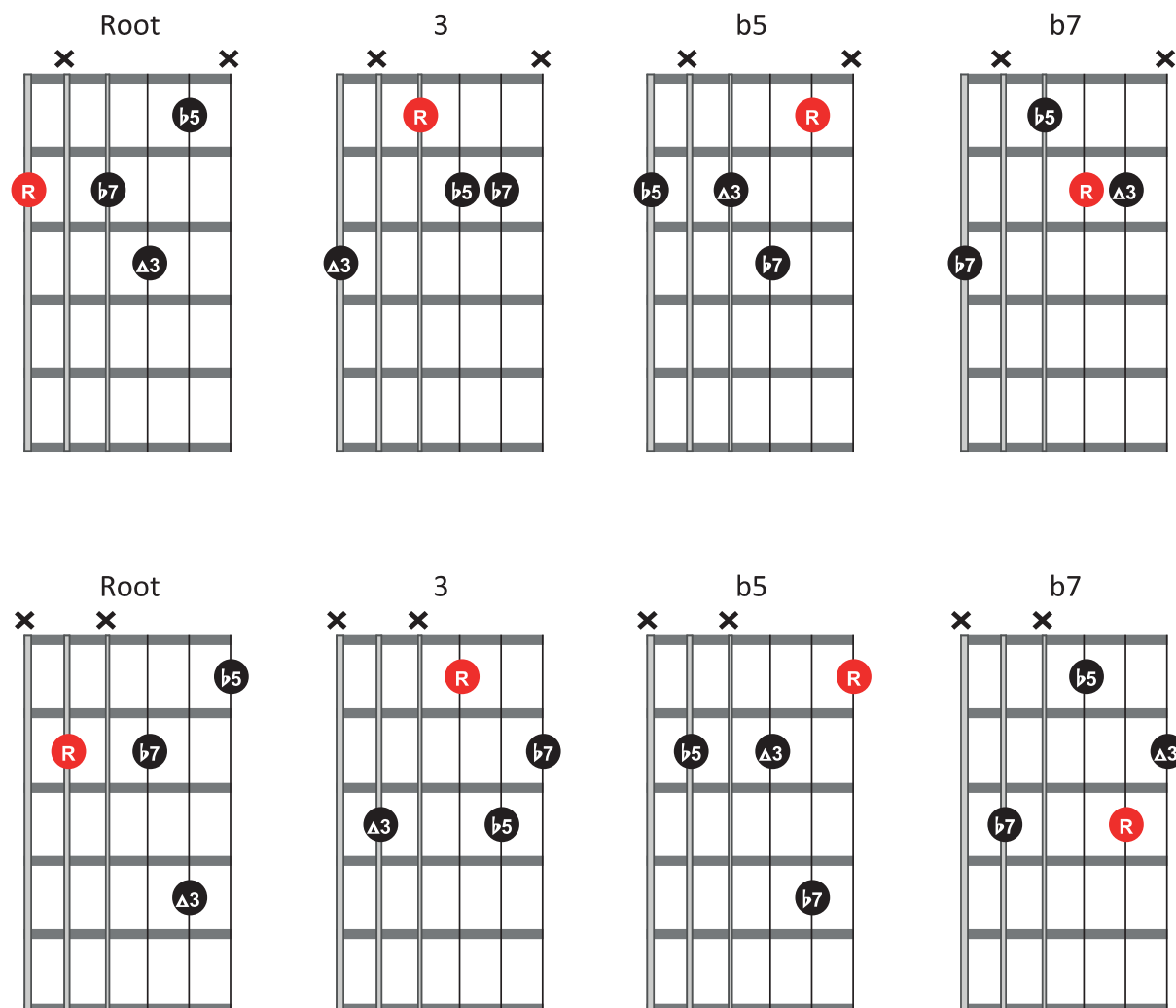
Aug⁷

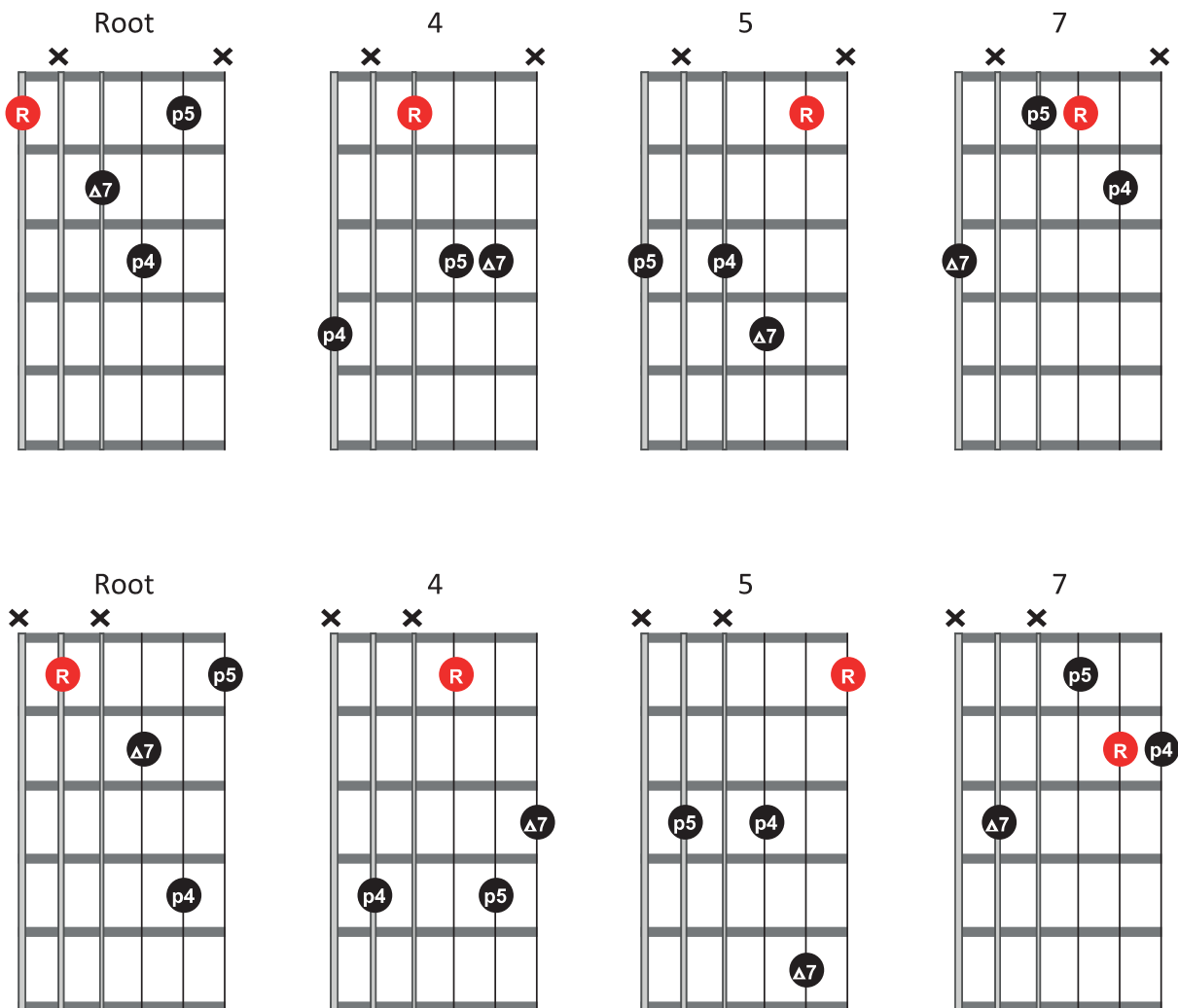


Maj^{7b5}

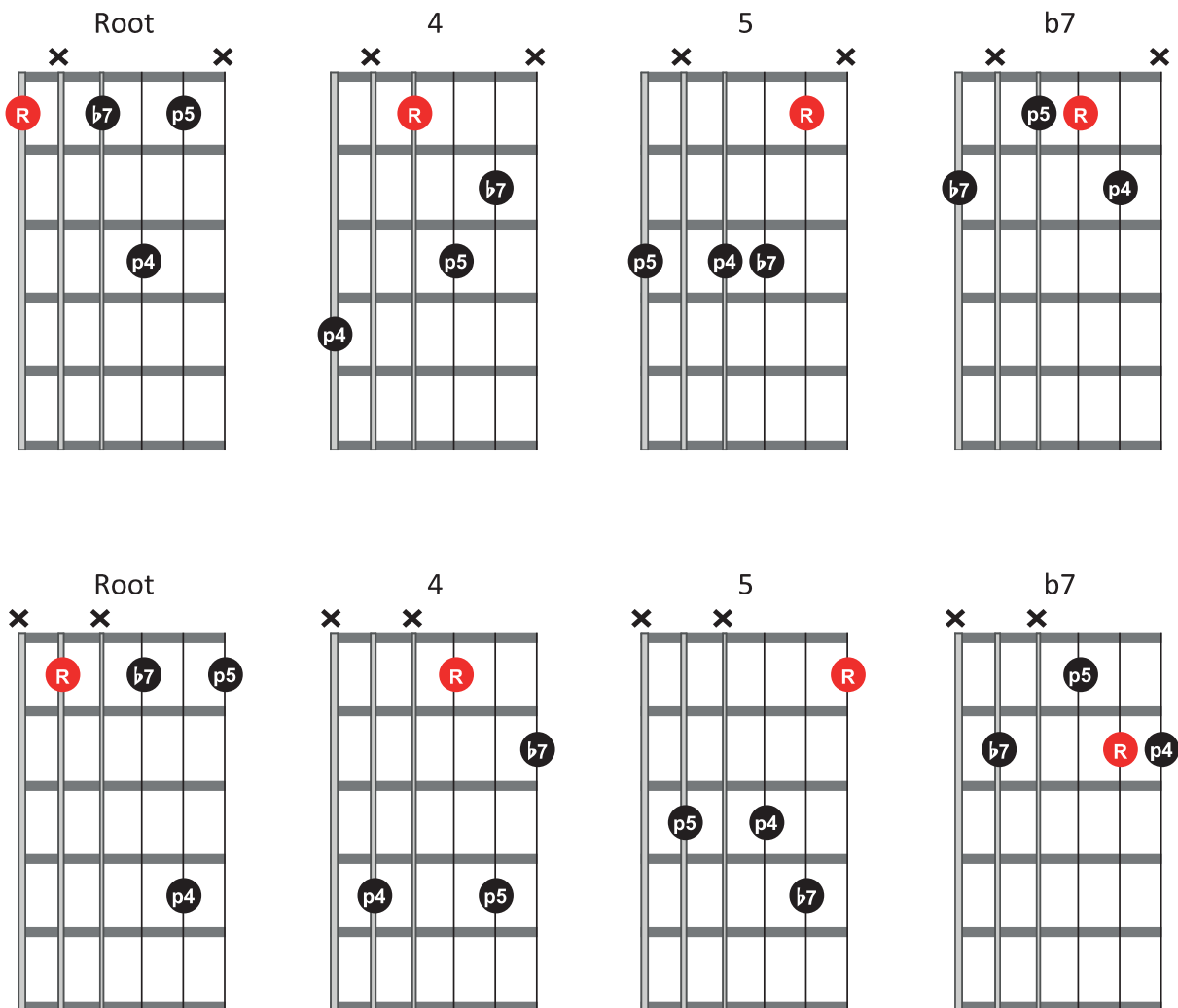


Dom^{7b5}

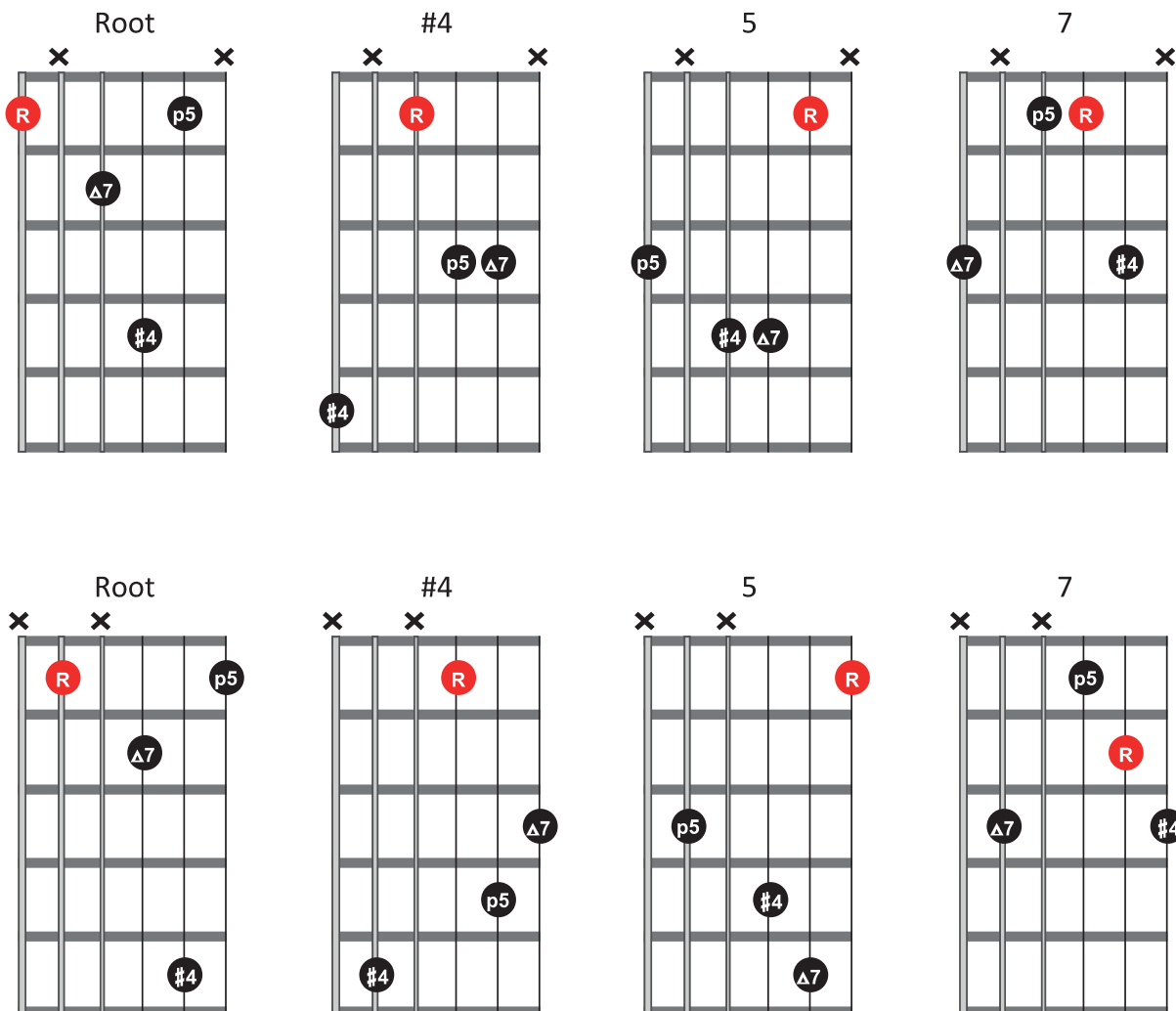




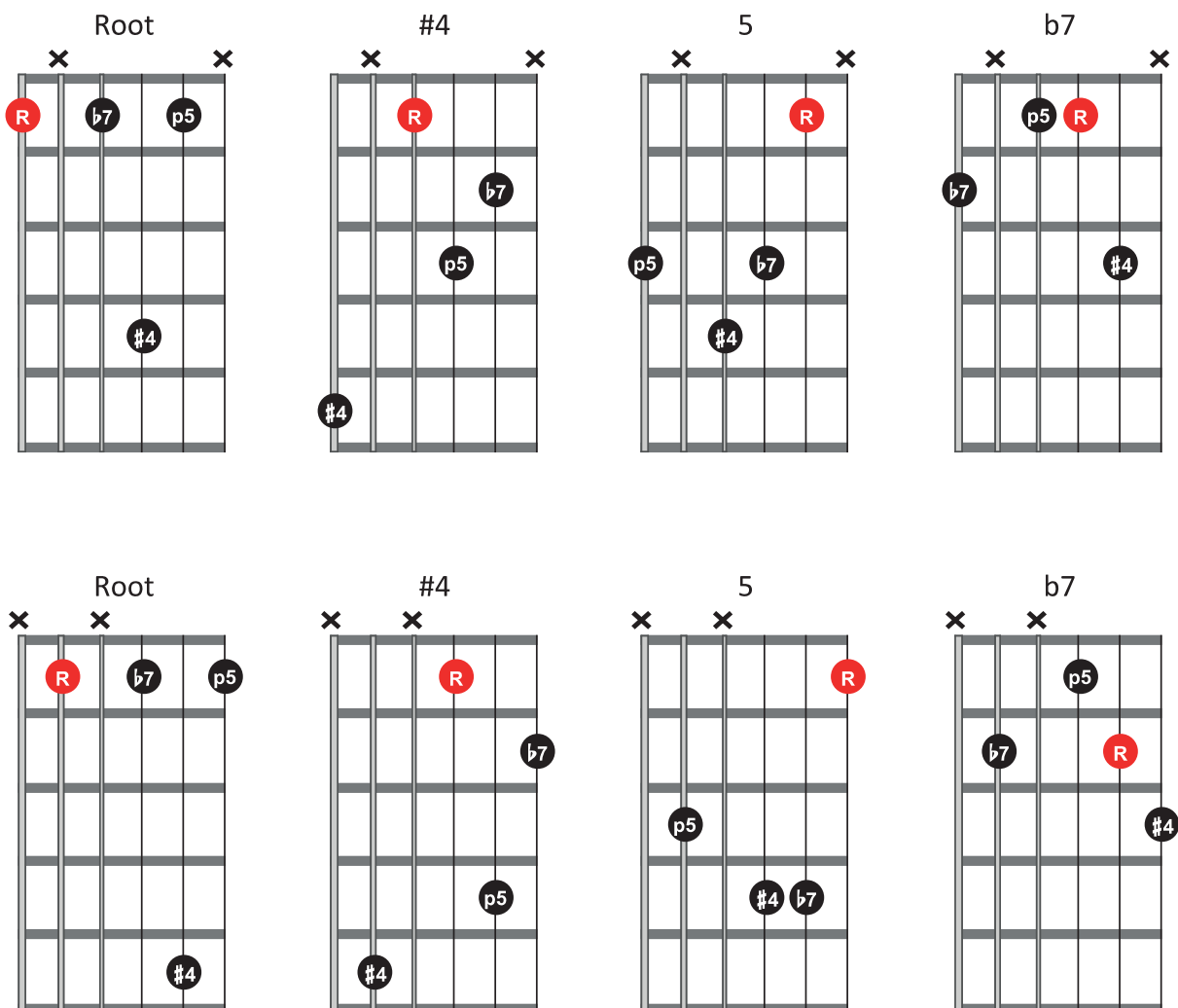
Dom^{7sus4}

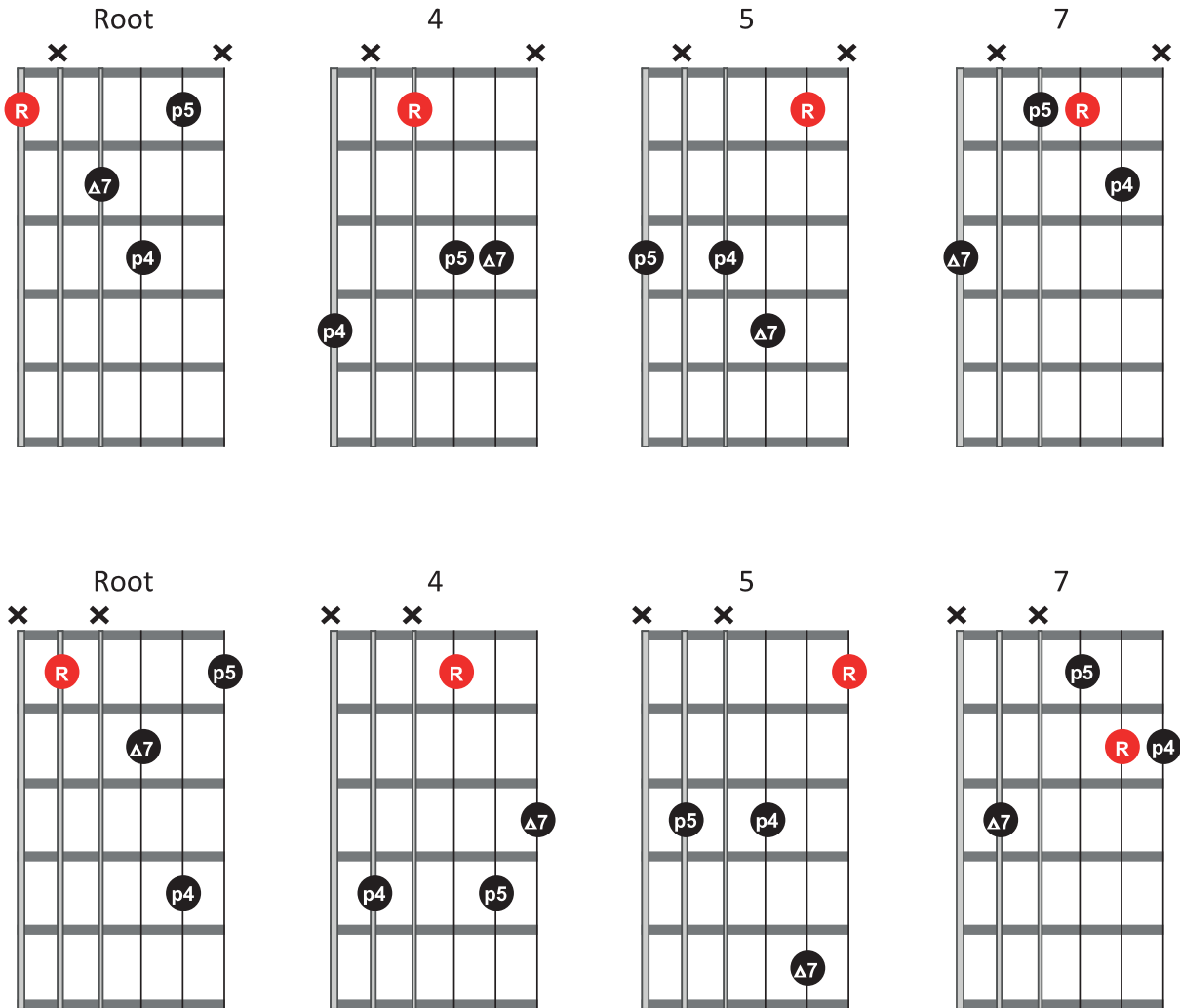


Lydian^{maj7}



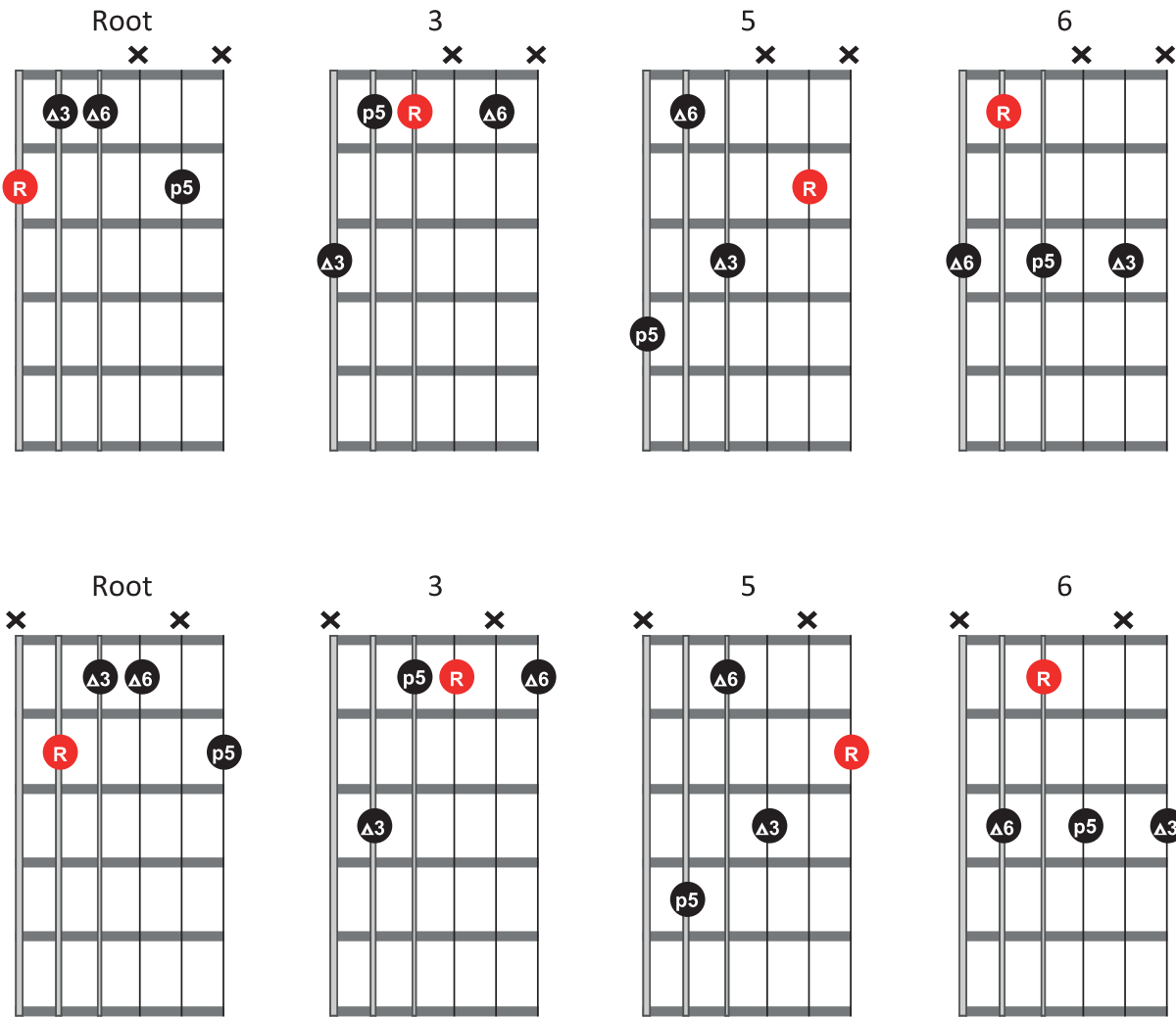
Lydian^{Dom7}



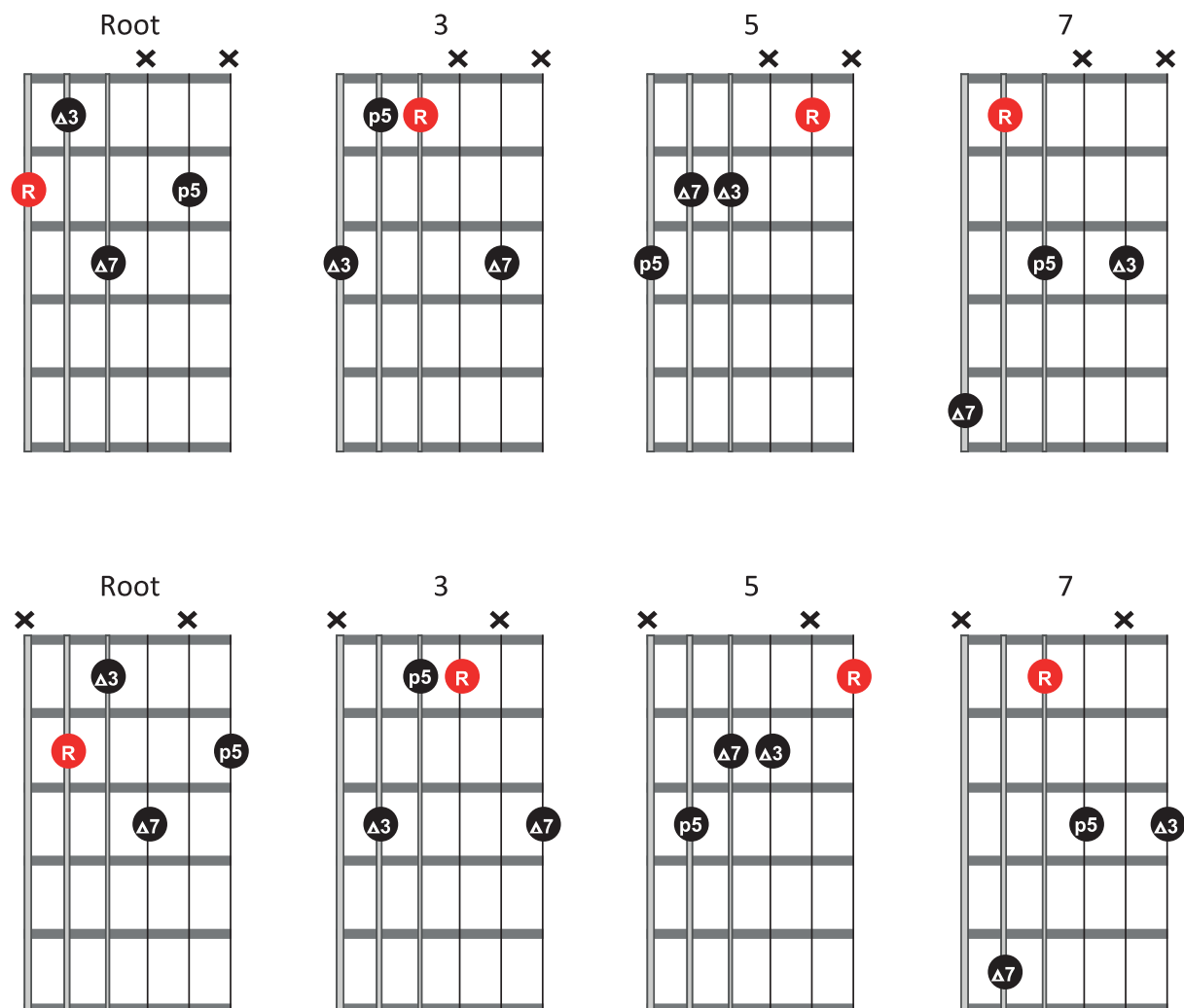


Drop 2 + 3

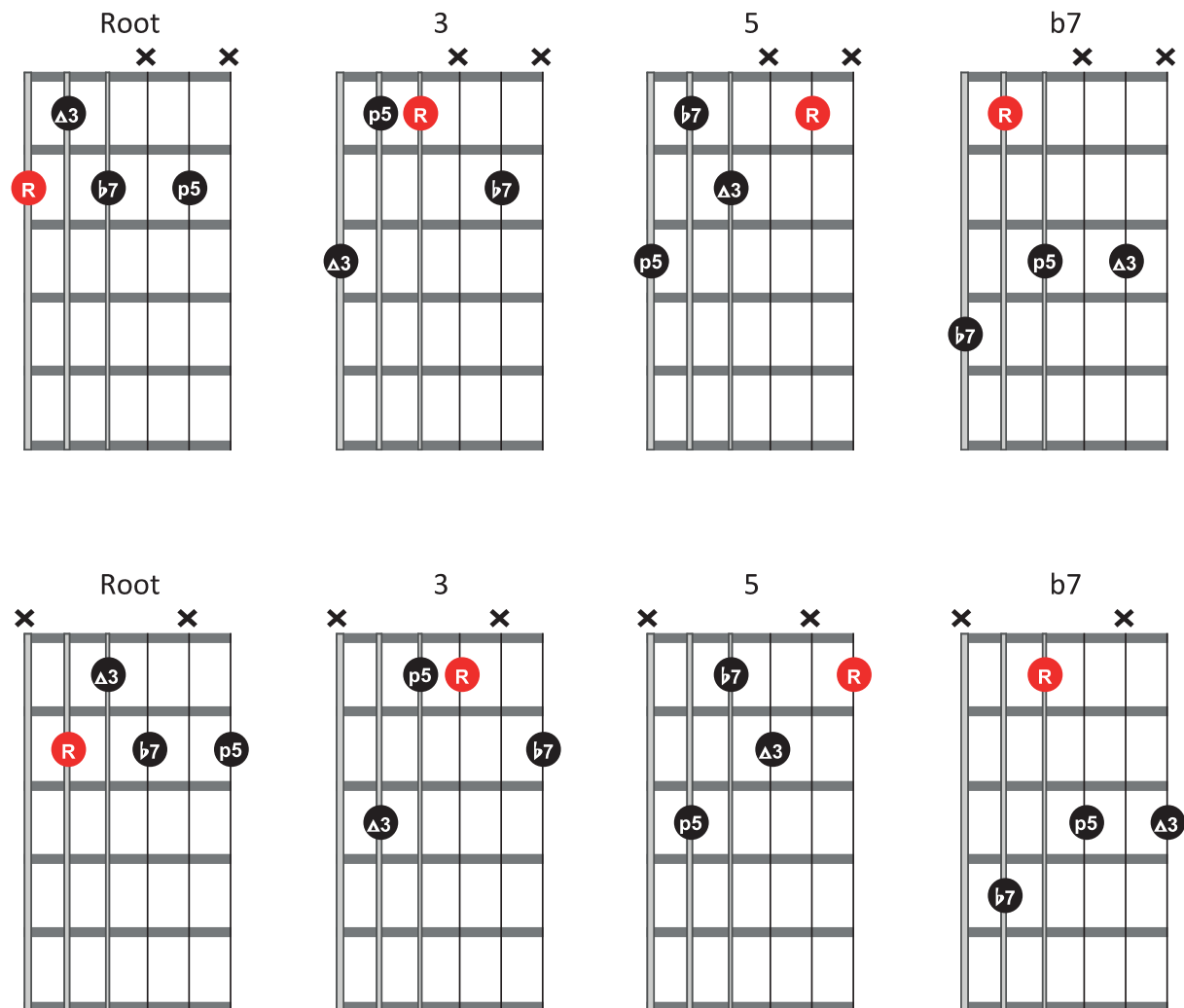
*Maj*⁶



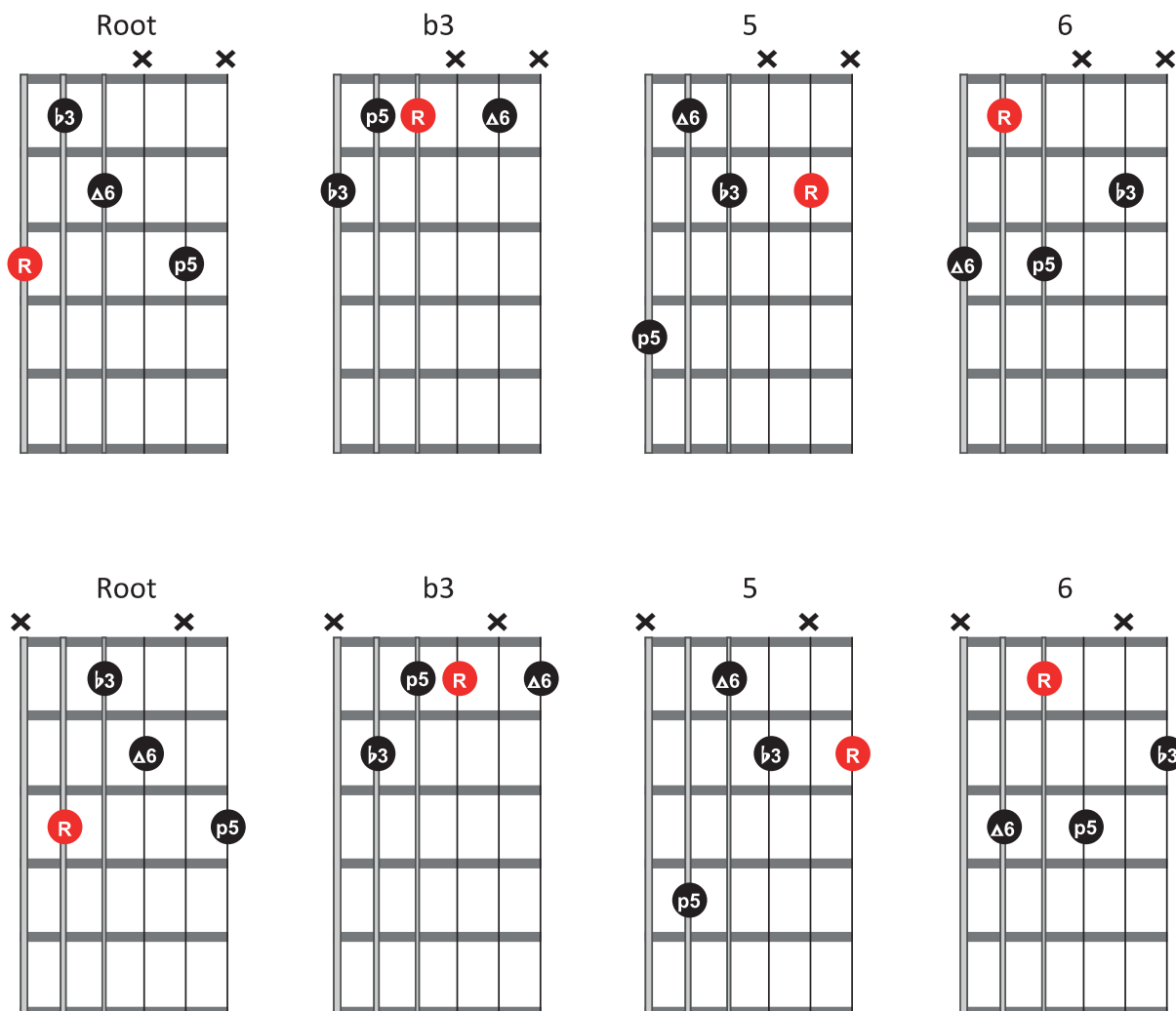
Maj⁷



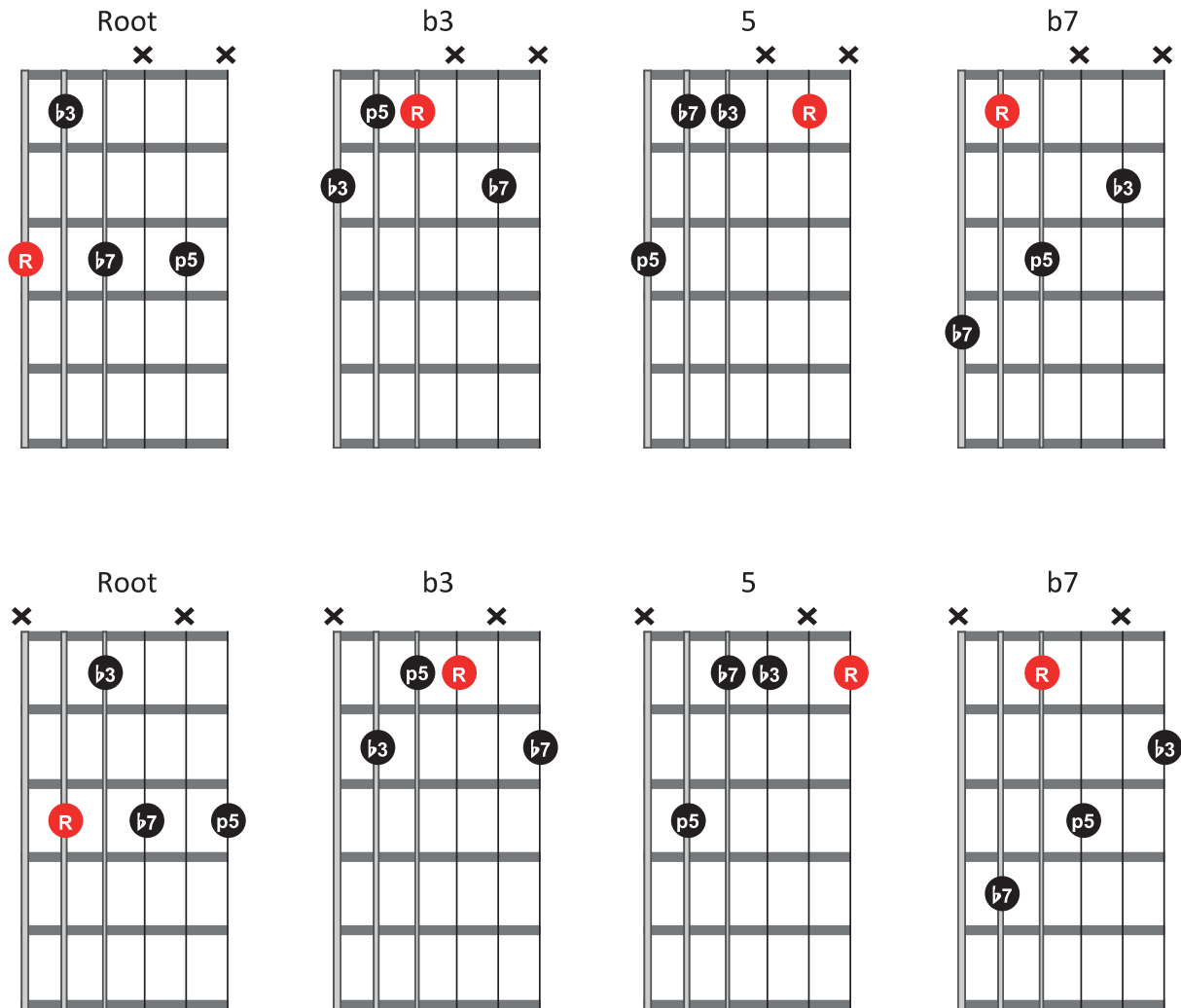
Dom⁷

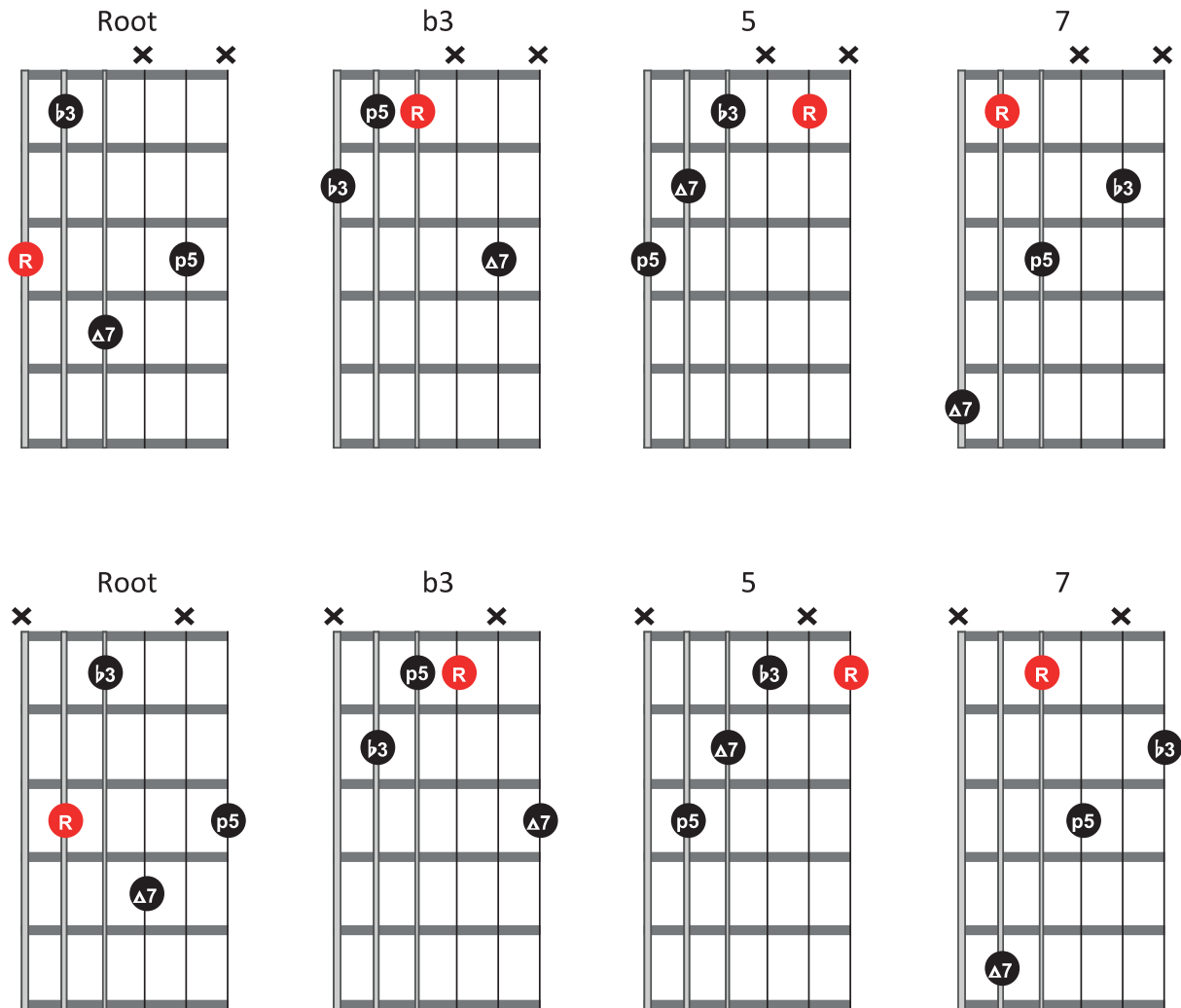


*Min*⁶

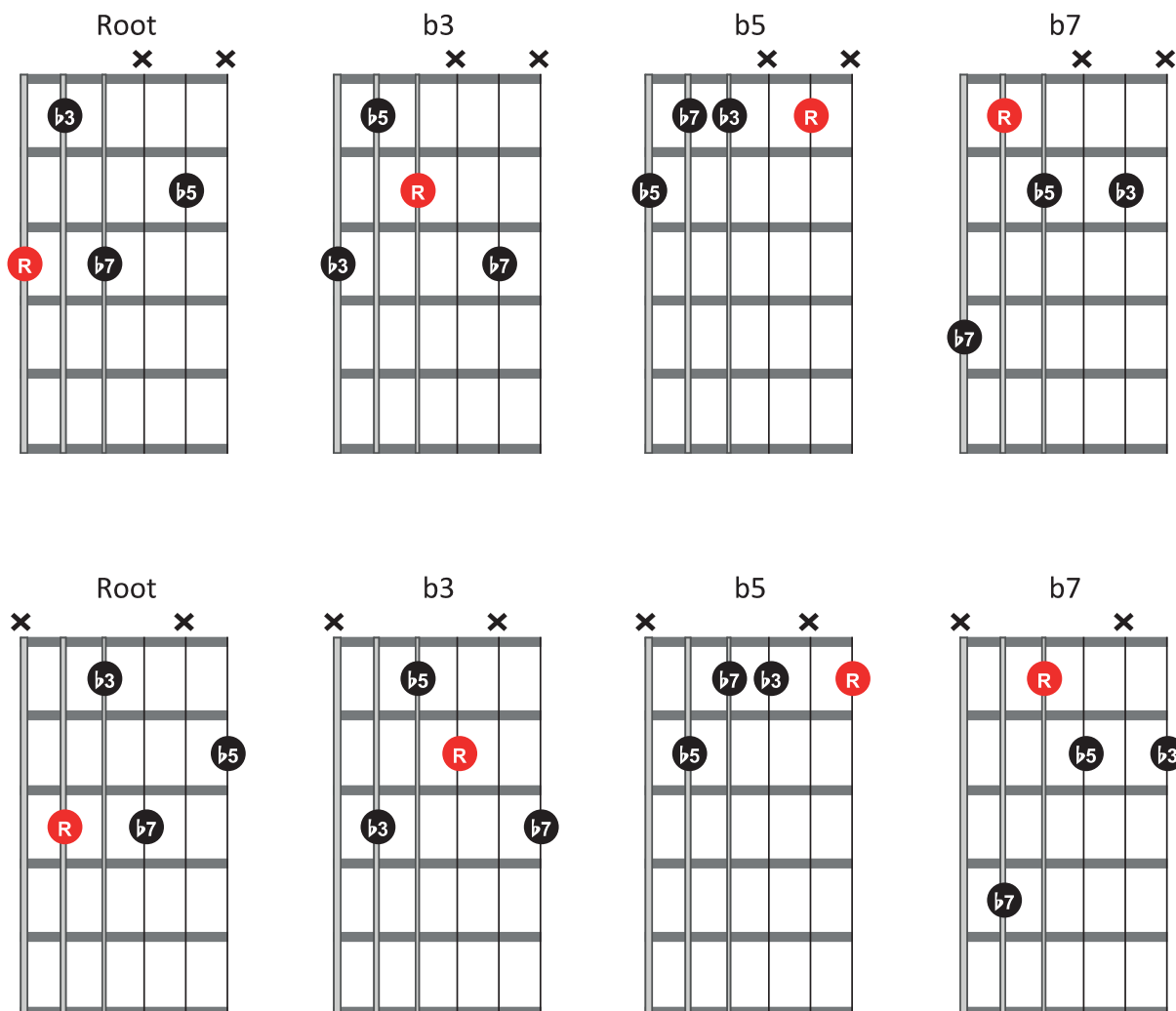


*Min*⁷

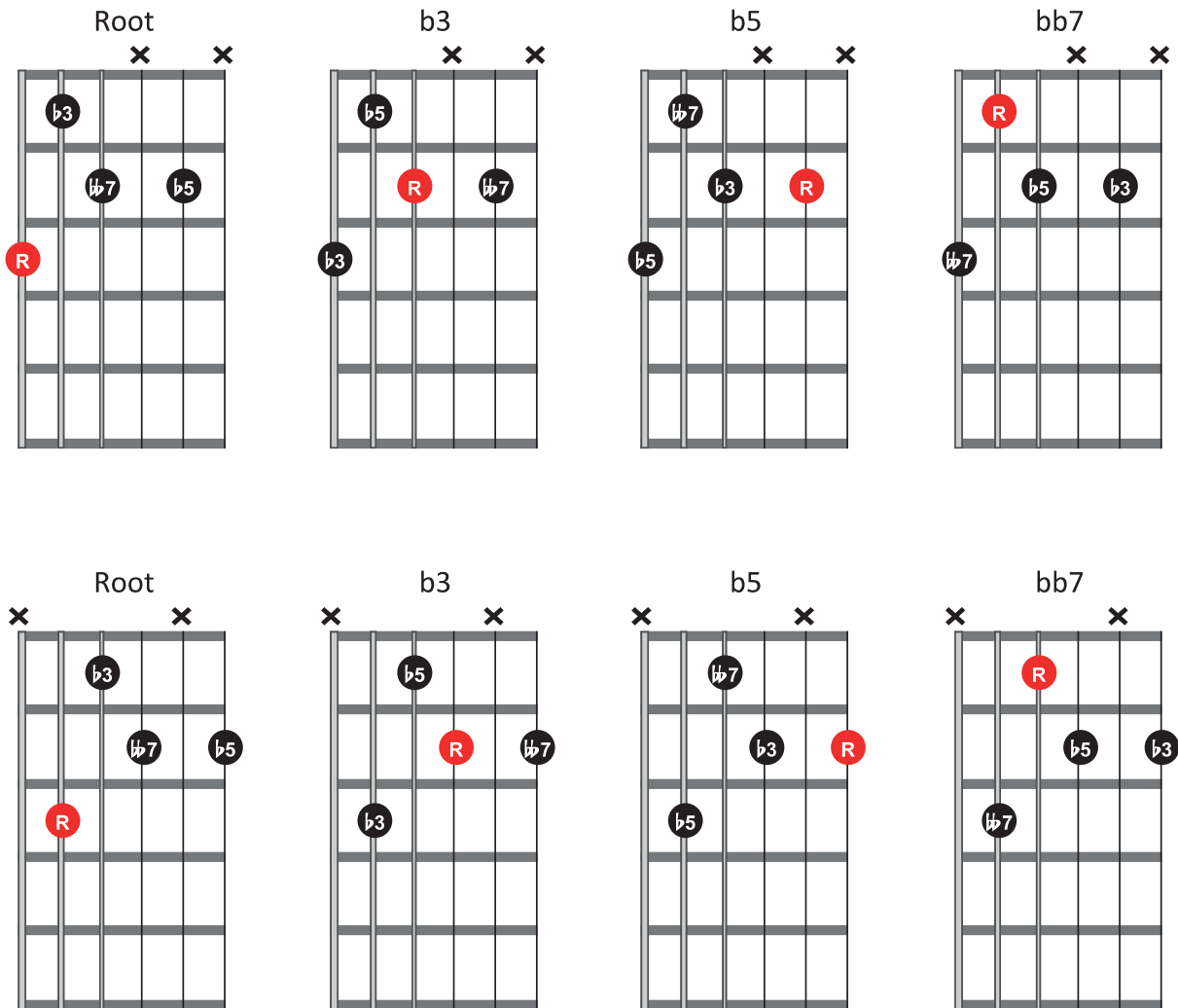


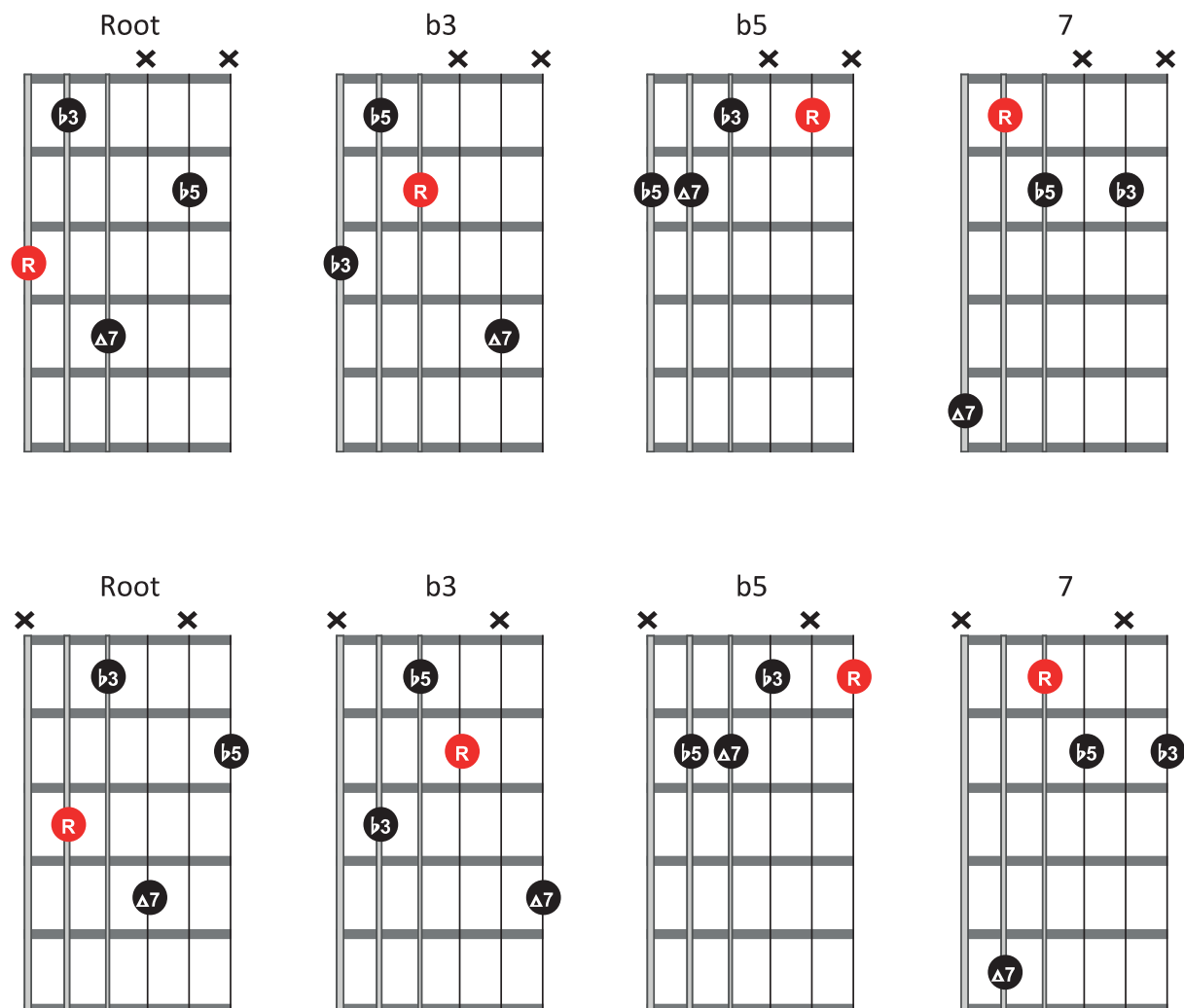


Min^{7b5}

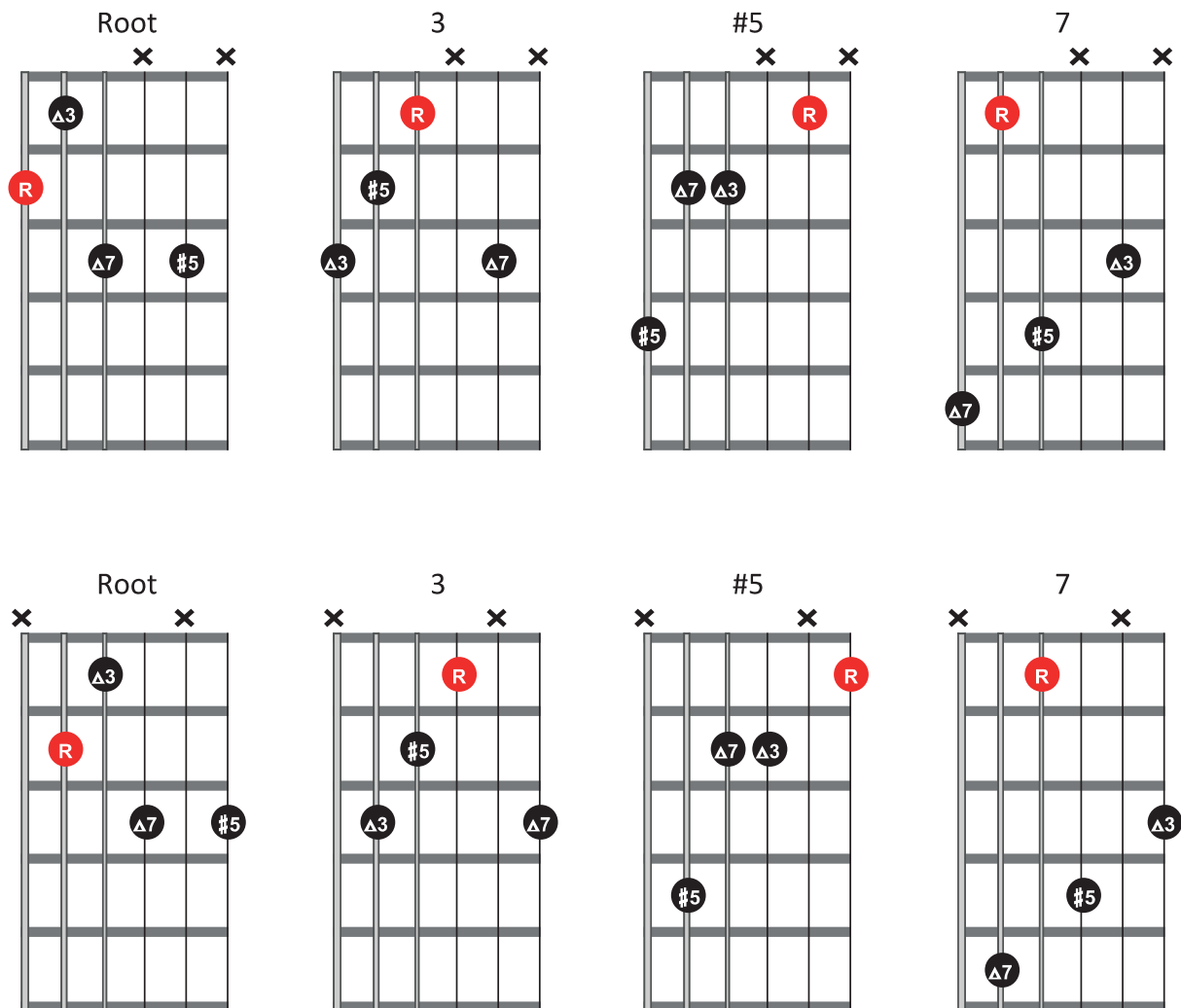


Dim⁷

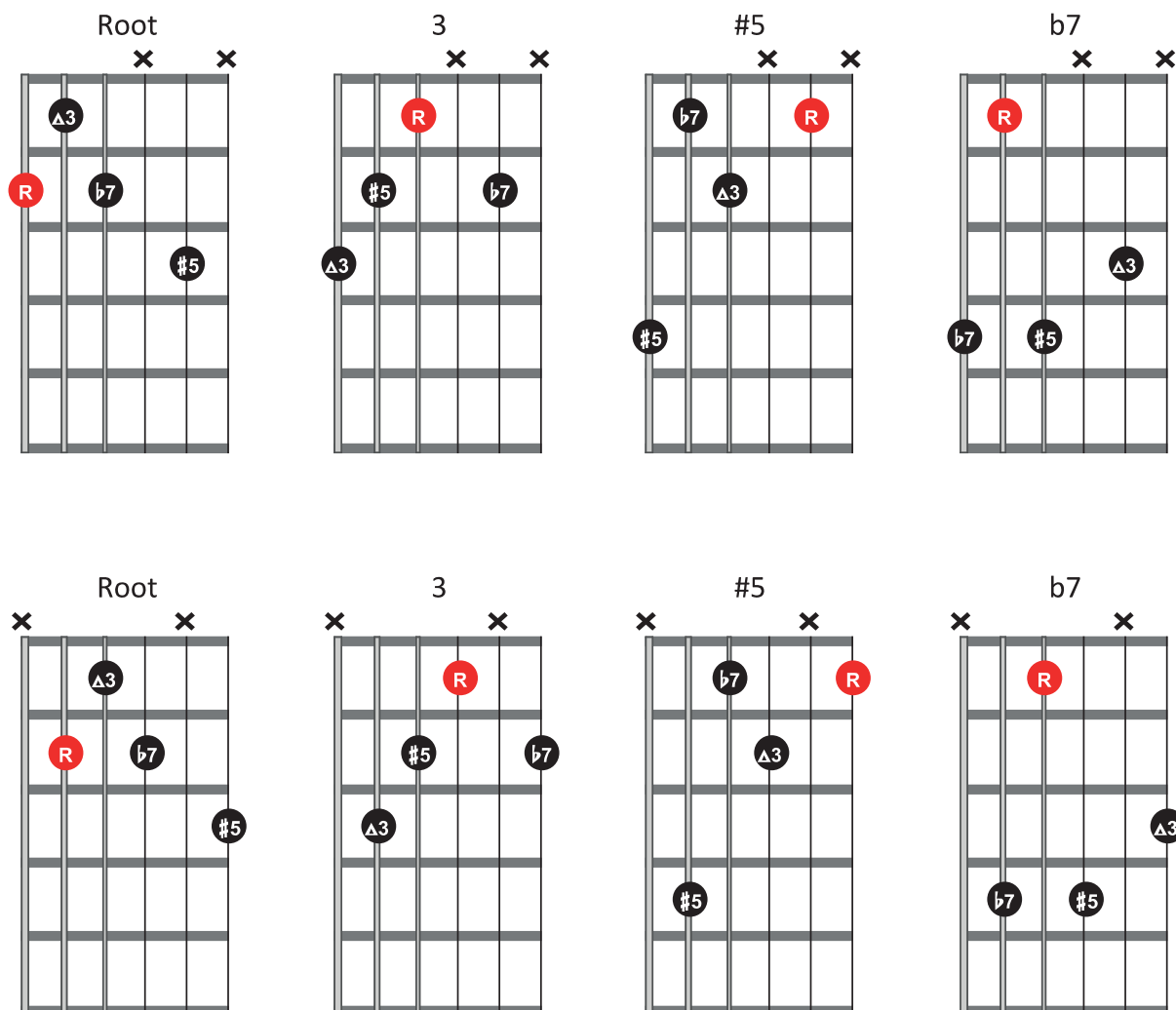




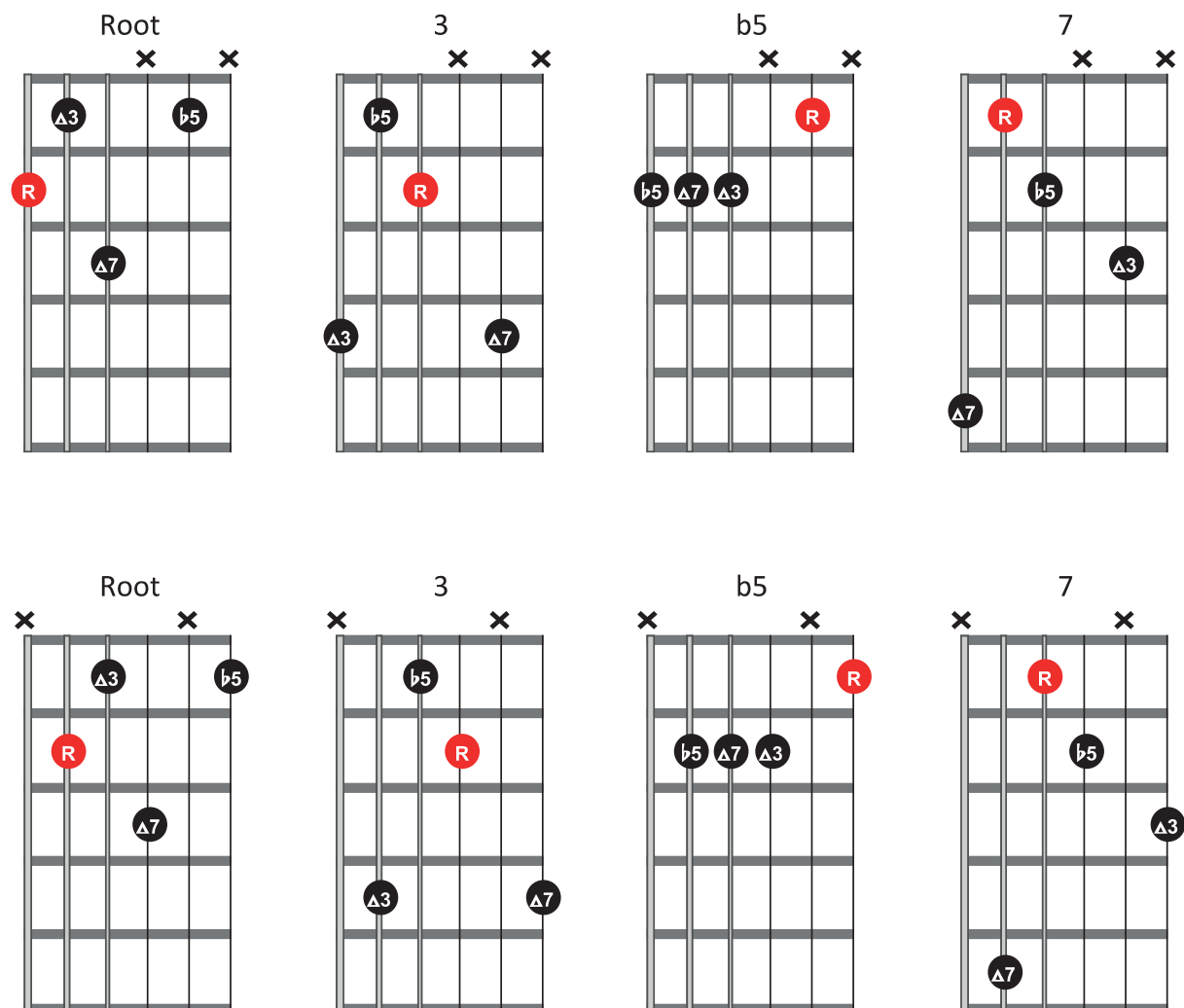
Aug^{maj7}



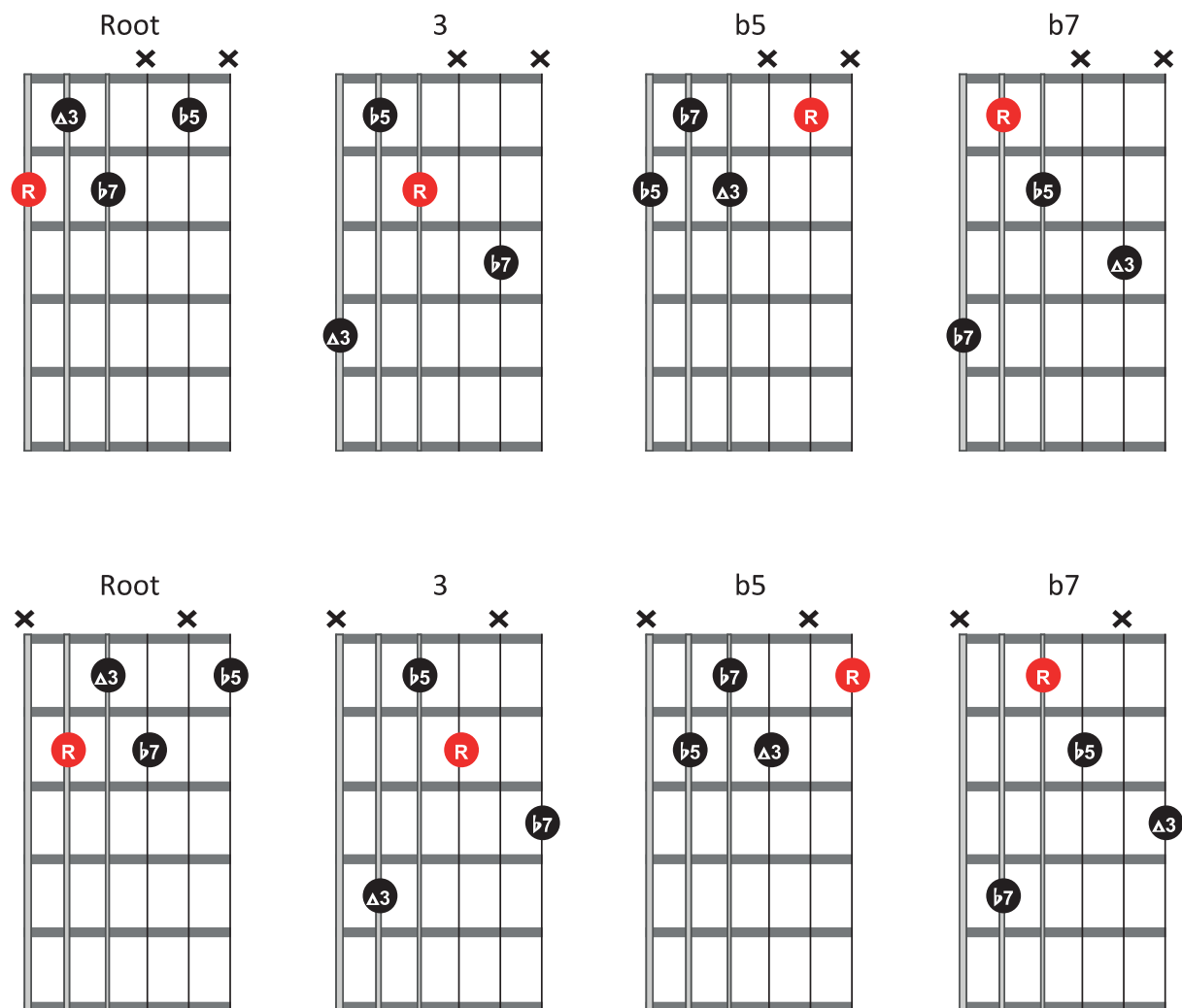
Aug⁷

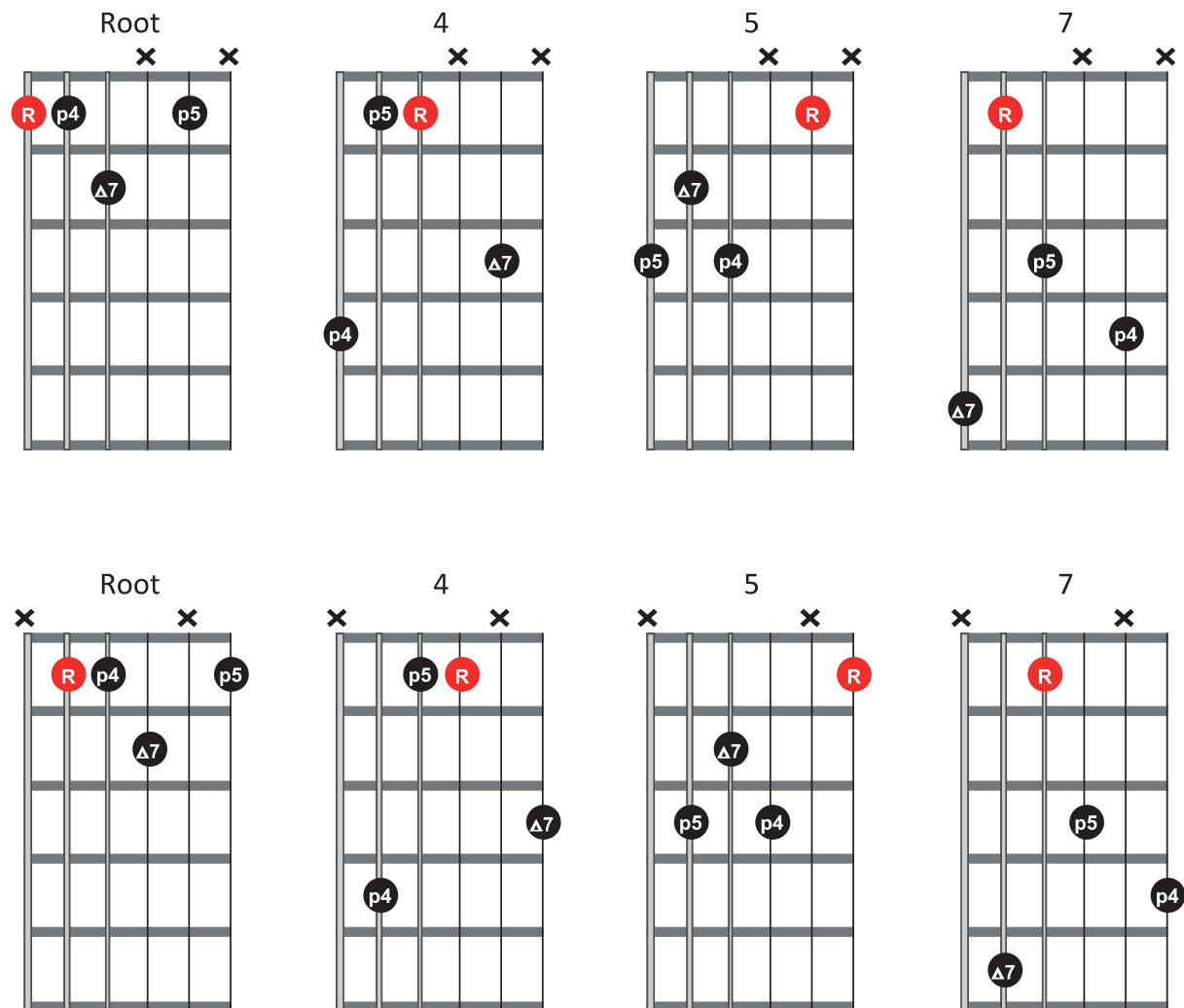


Maj^{7b5}

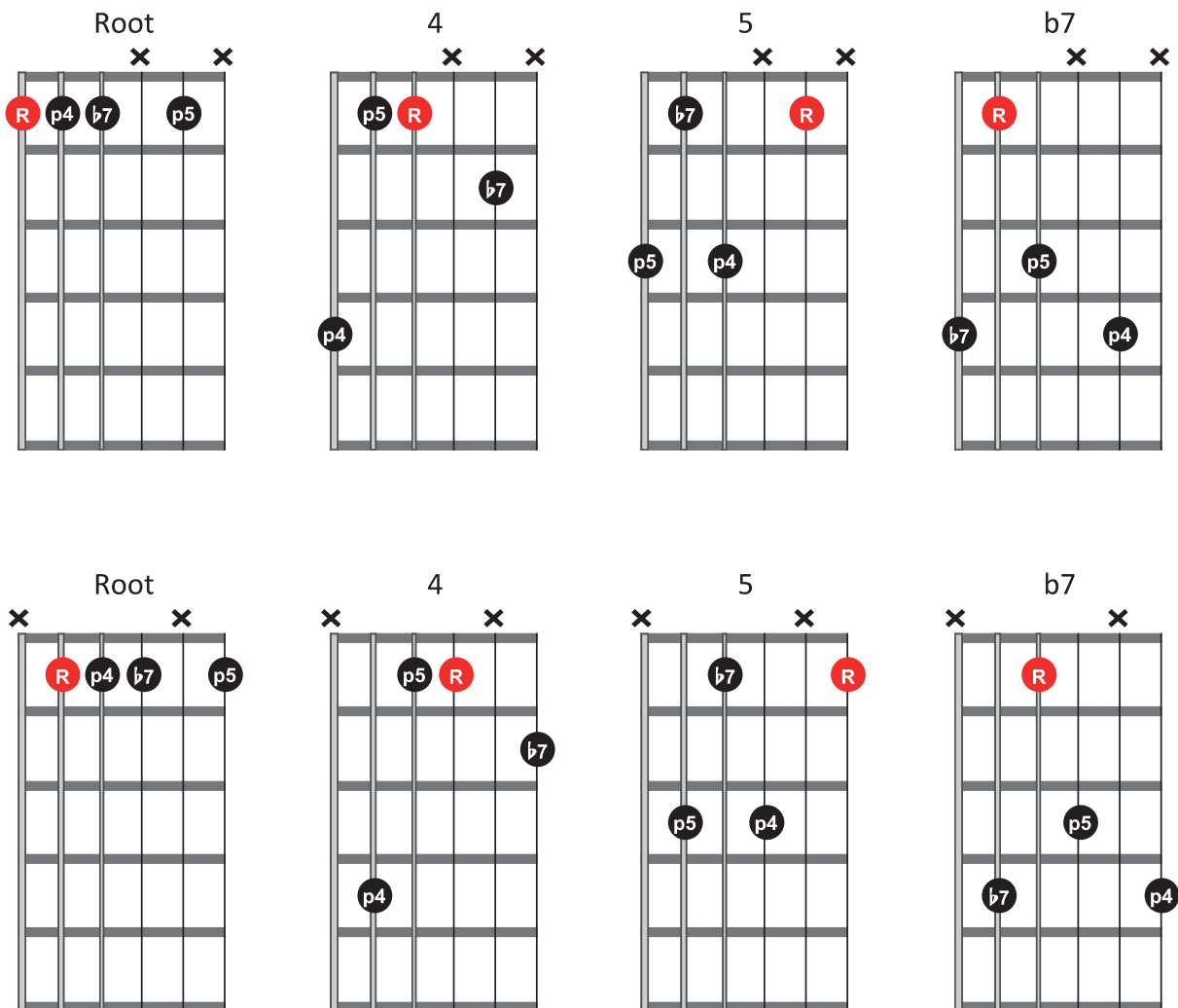


Dom^{7b5}

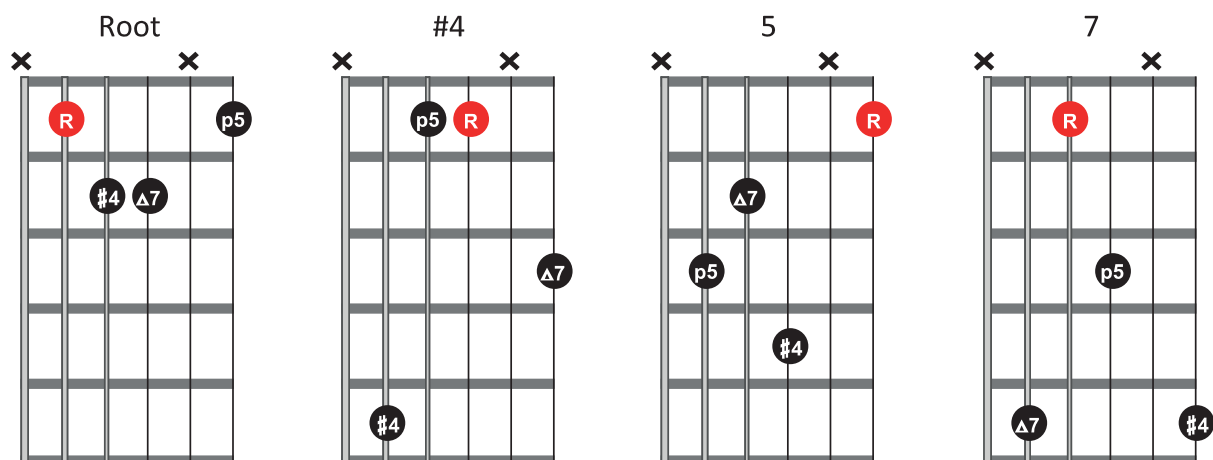
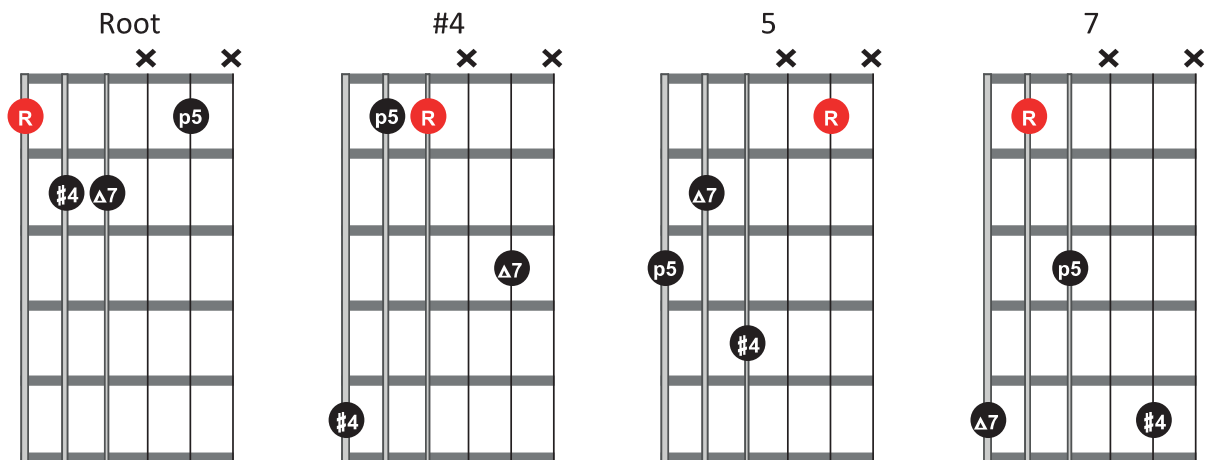




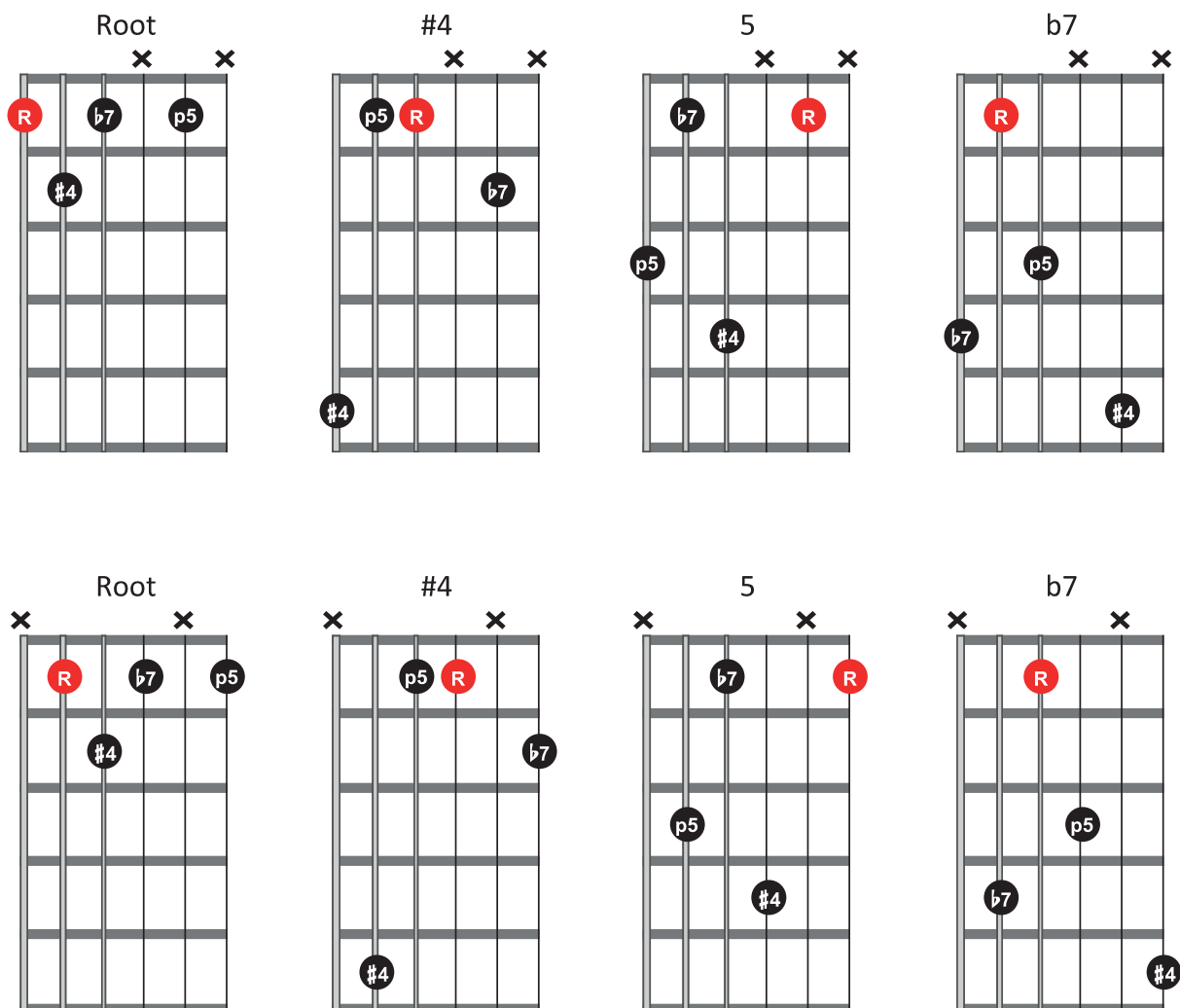
Dom^{7sus4}

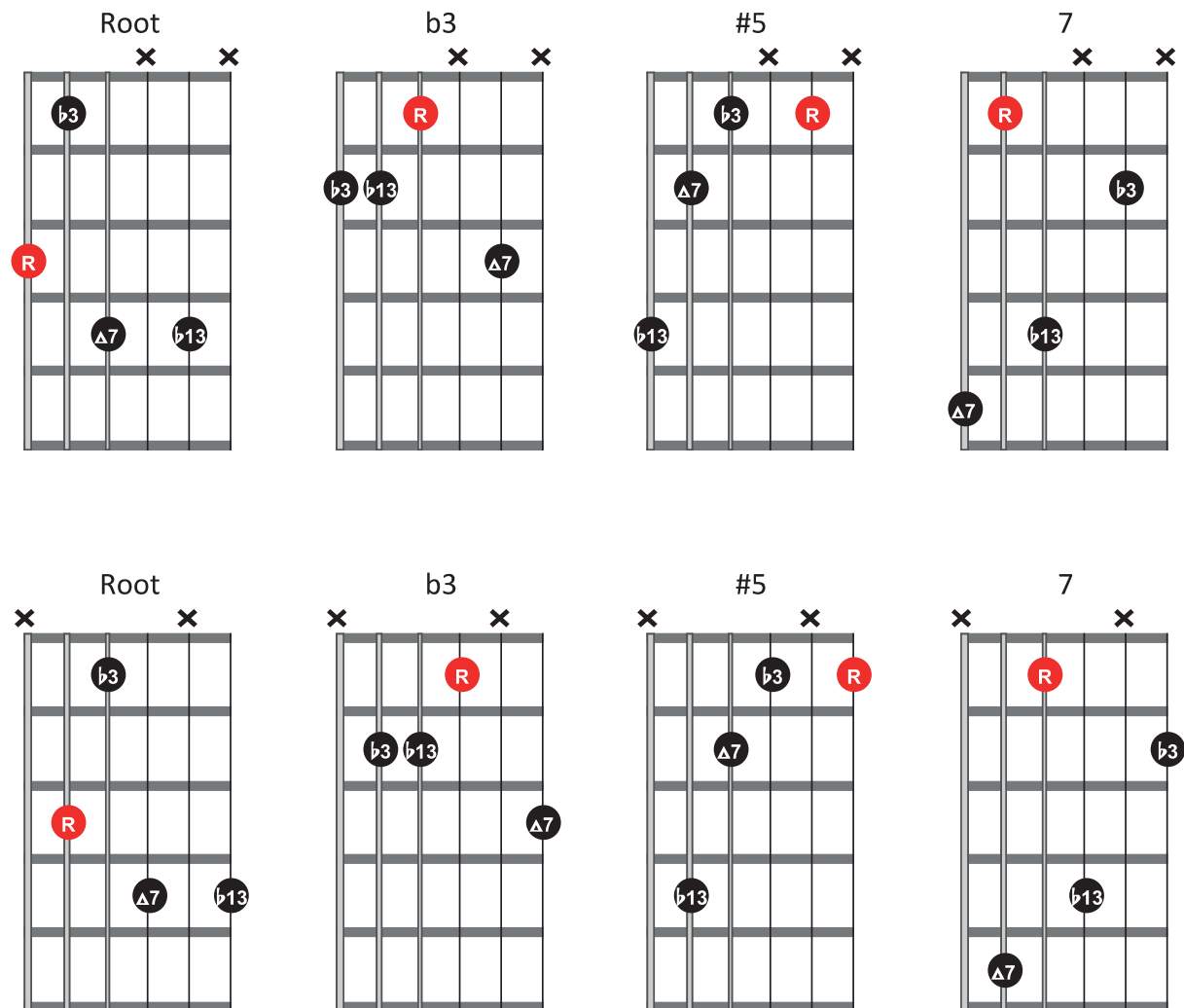


Lydian^{maj7}



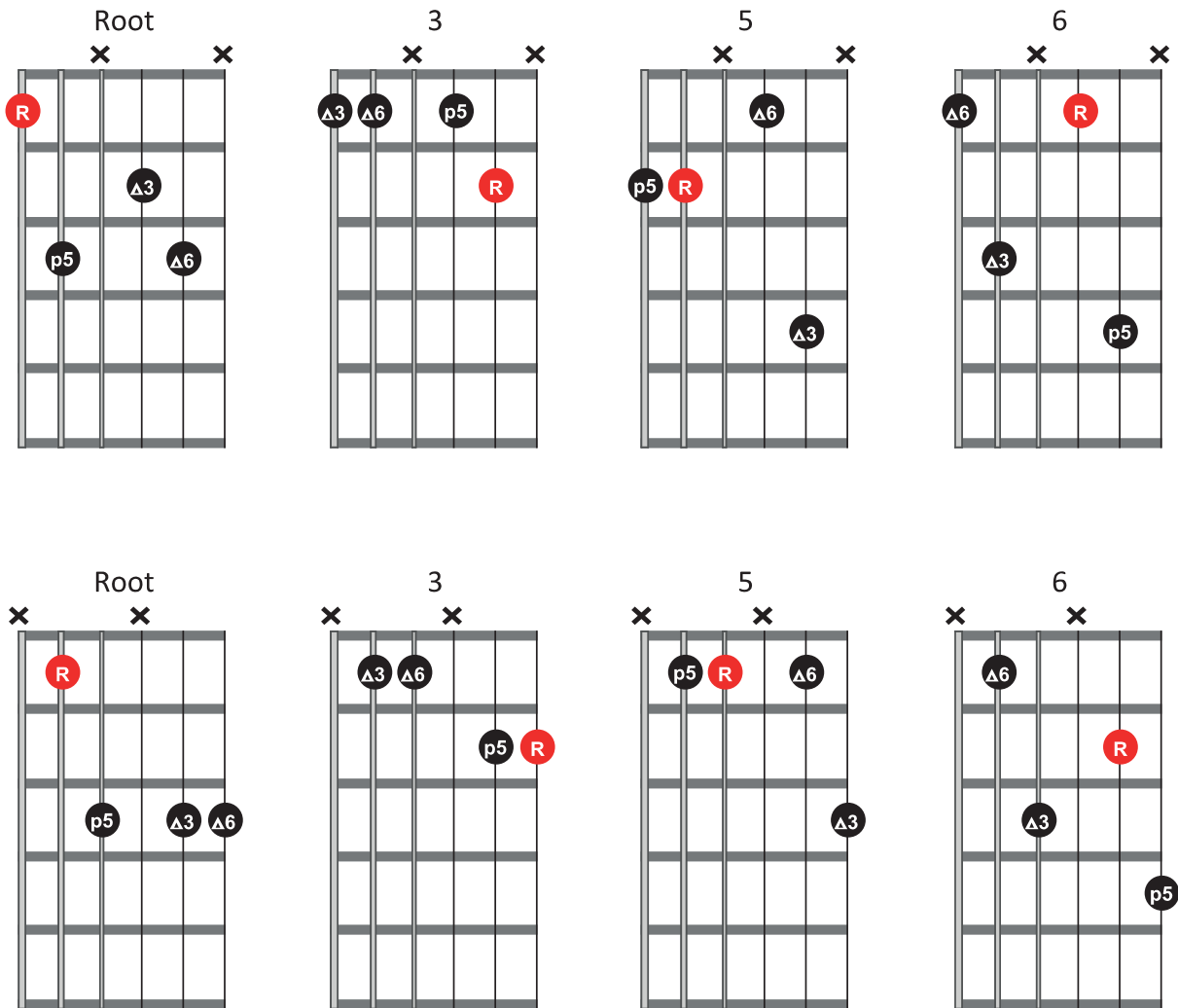
Lydian^{Dom7}



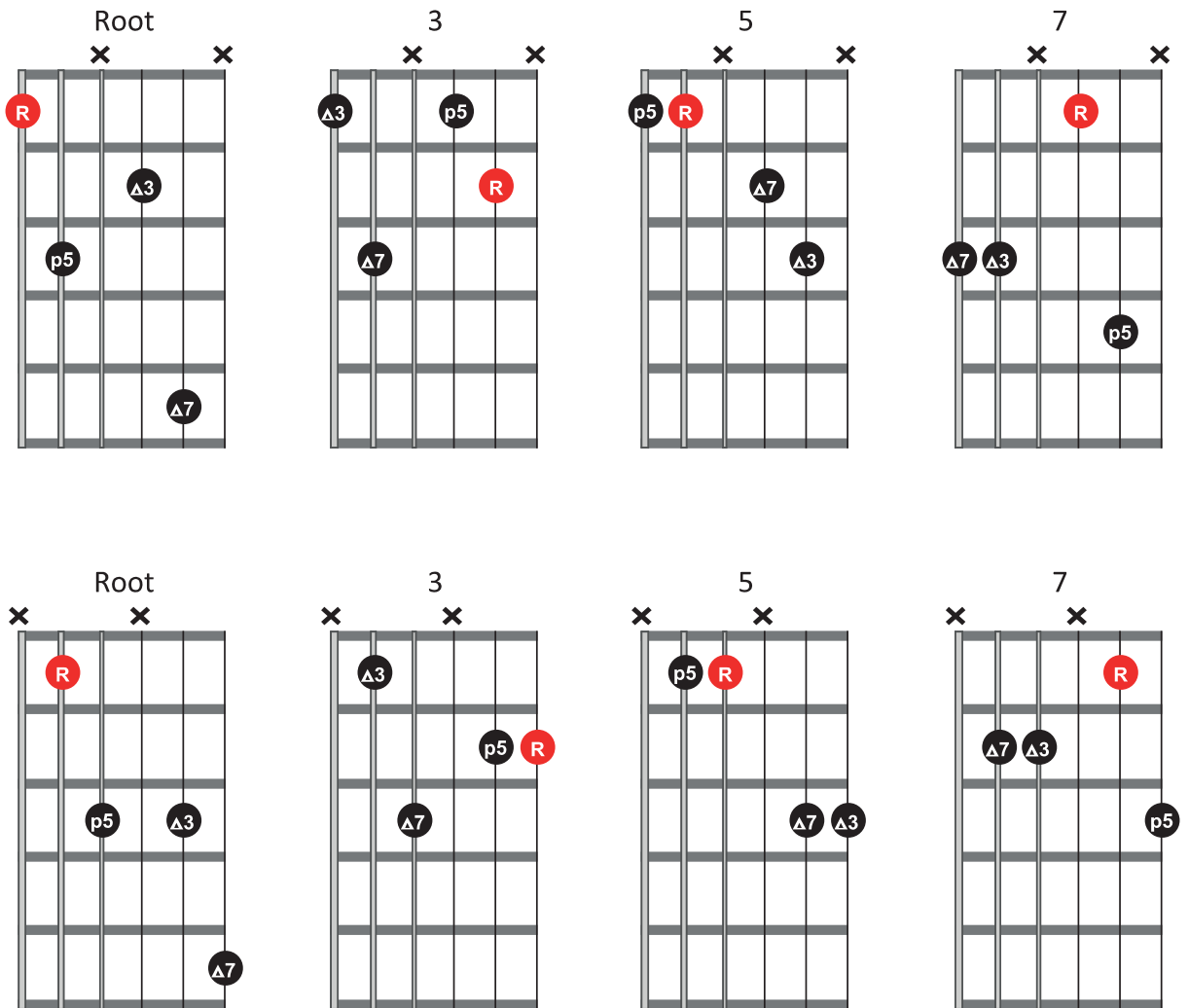


Drop 2 + 4

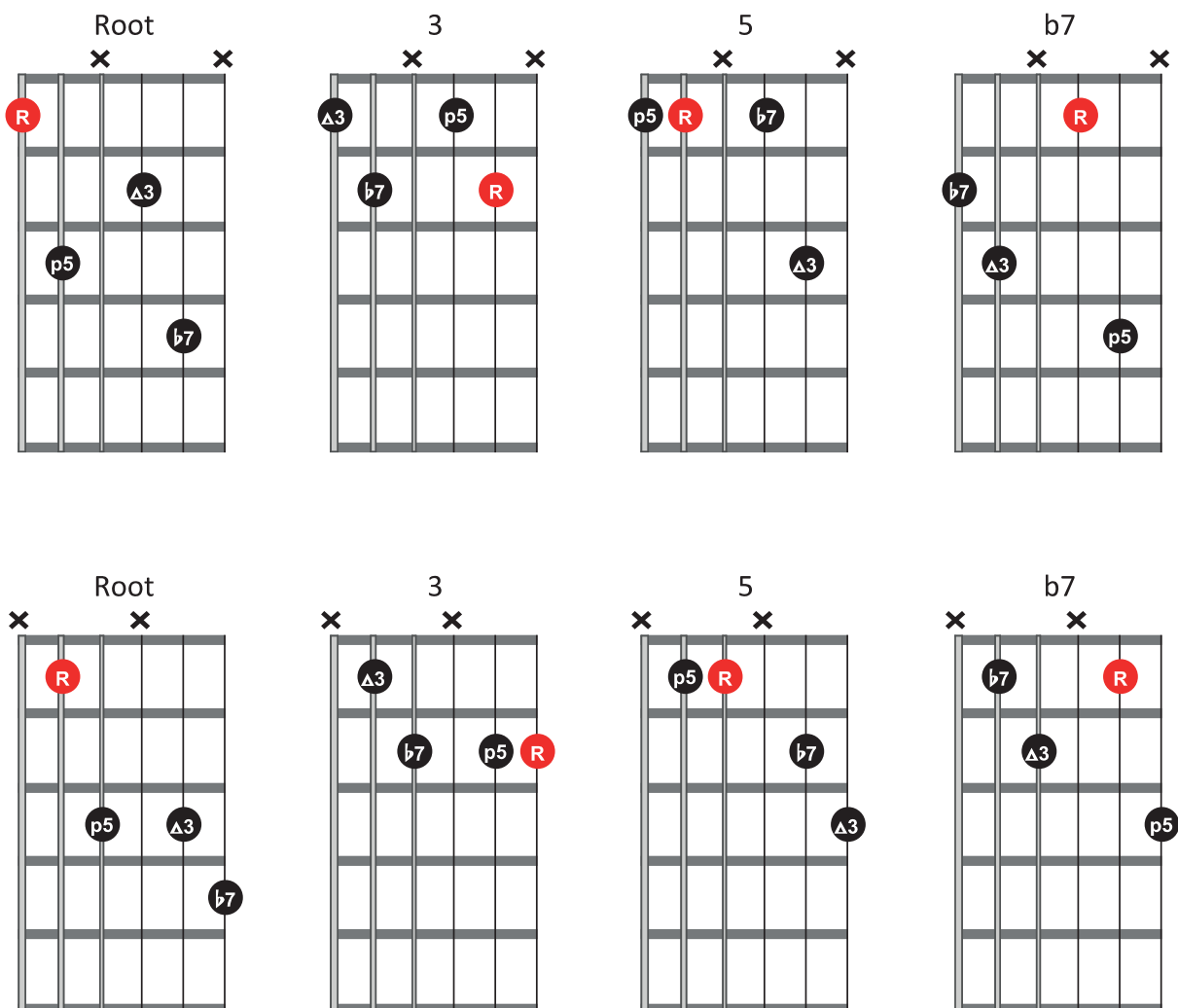
*Maj*⁶



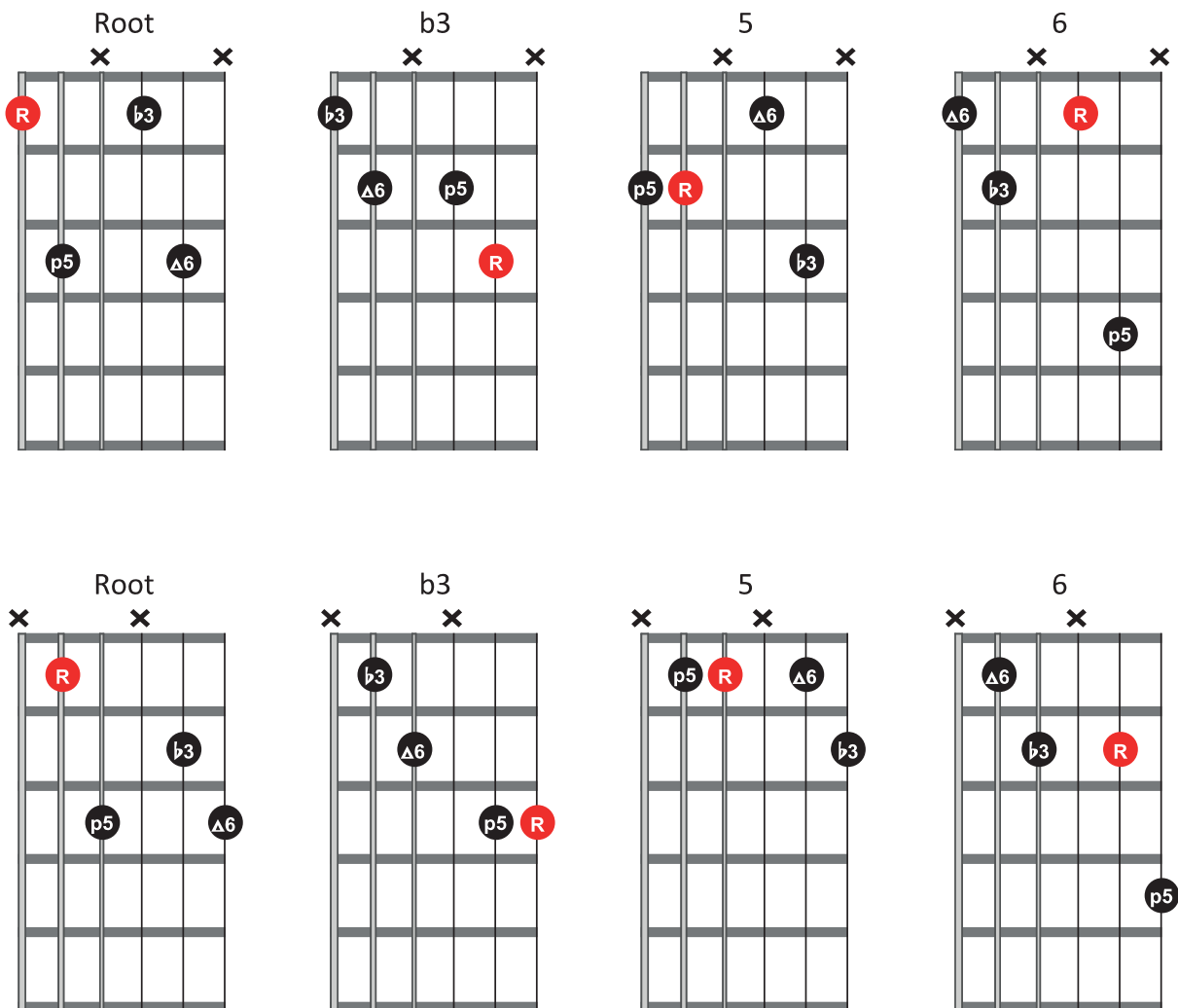
Maj⁷



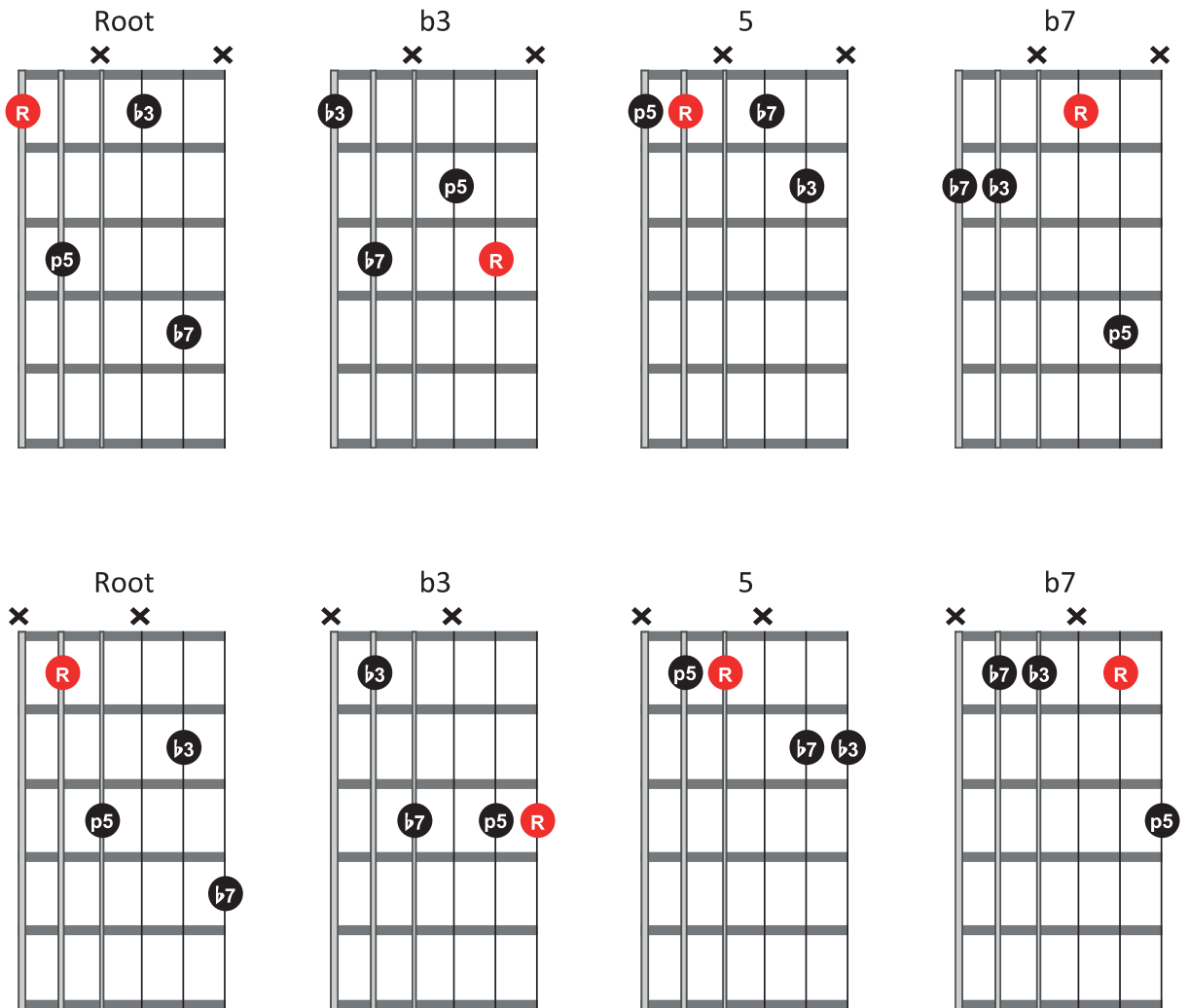
Dom⁷

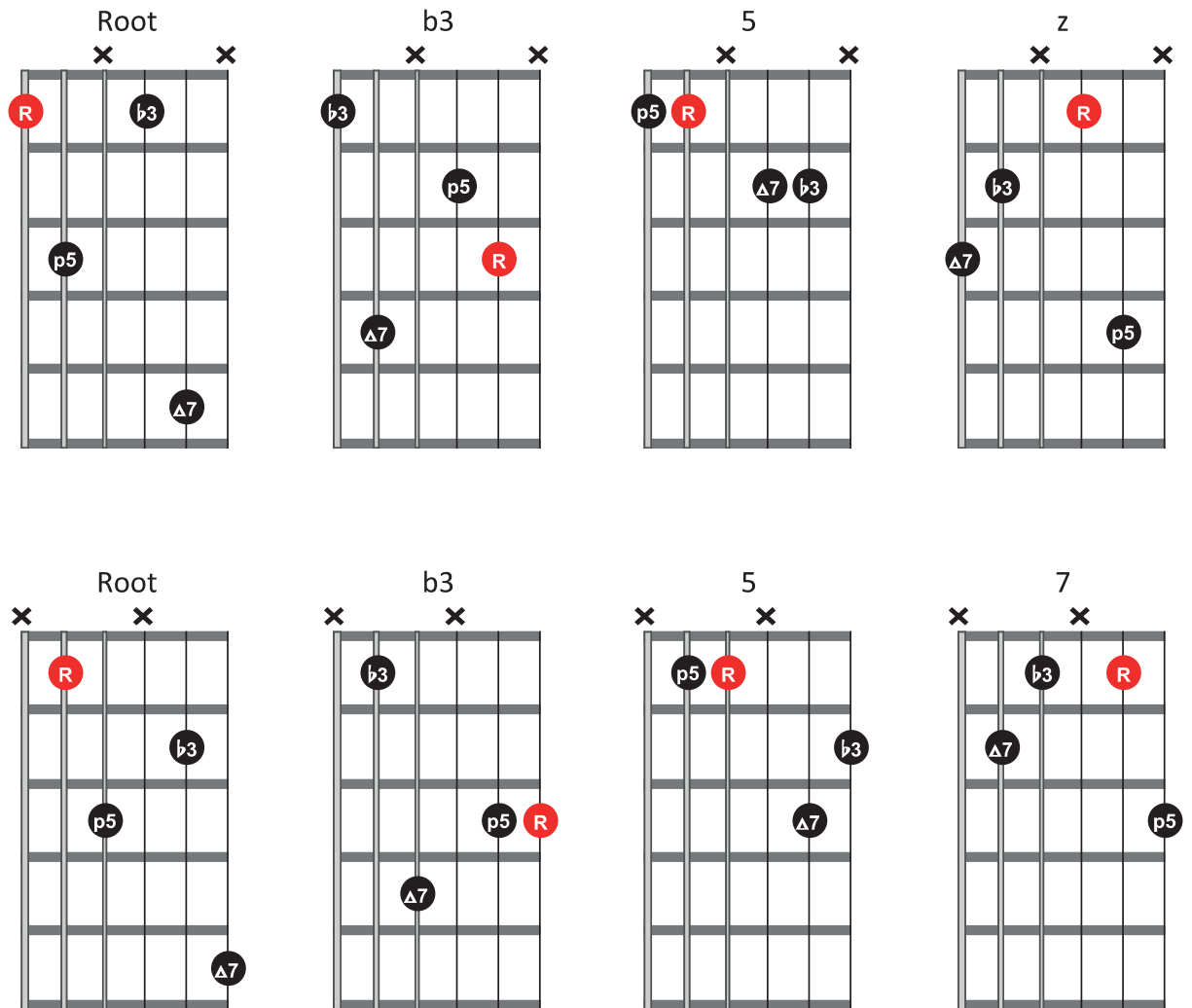


*Min*⁶

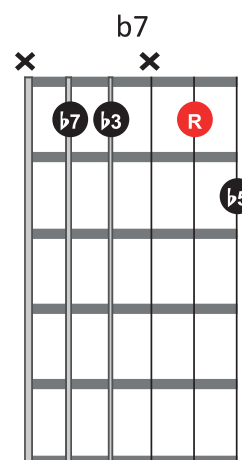
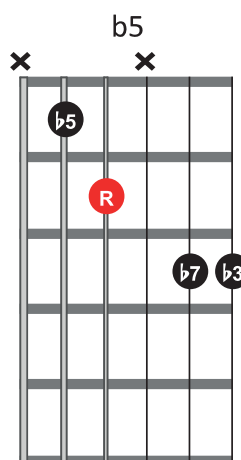
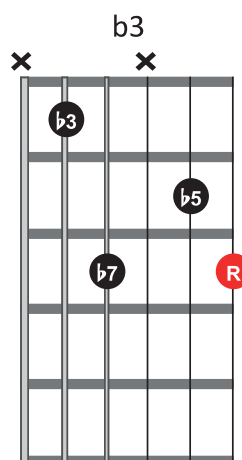
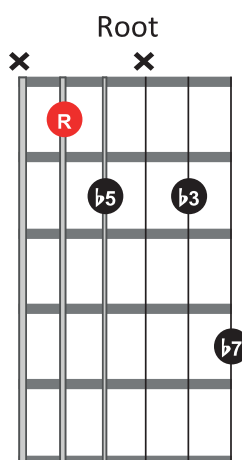
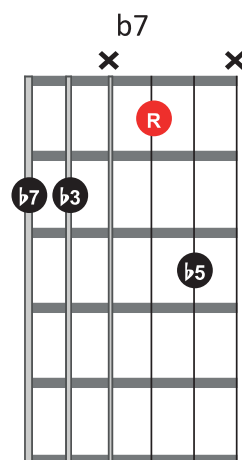
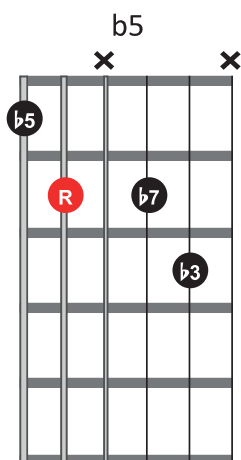
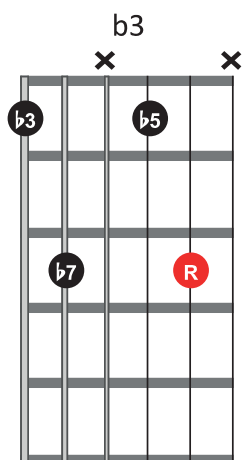
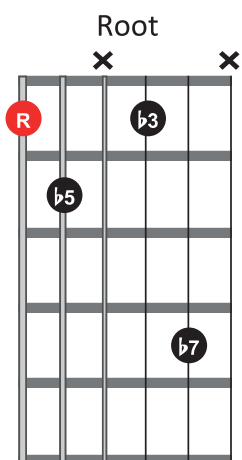


*Min*⁷

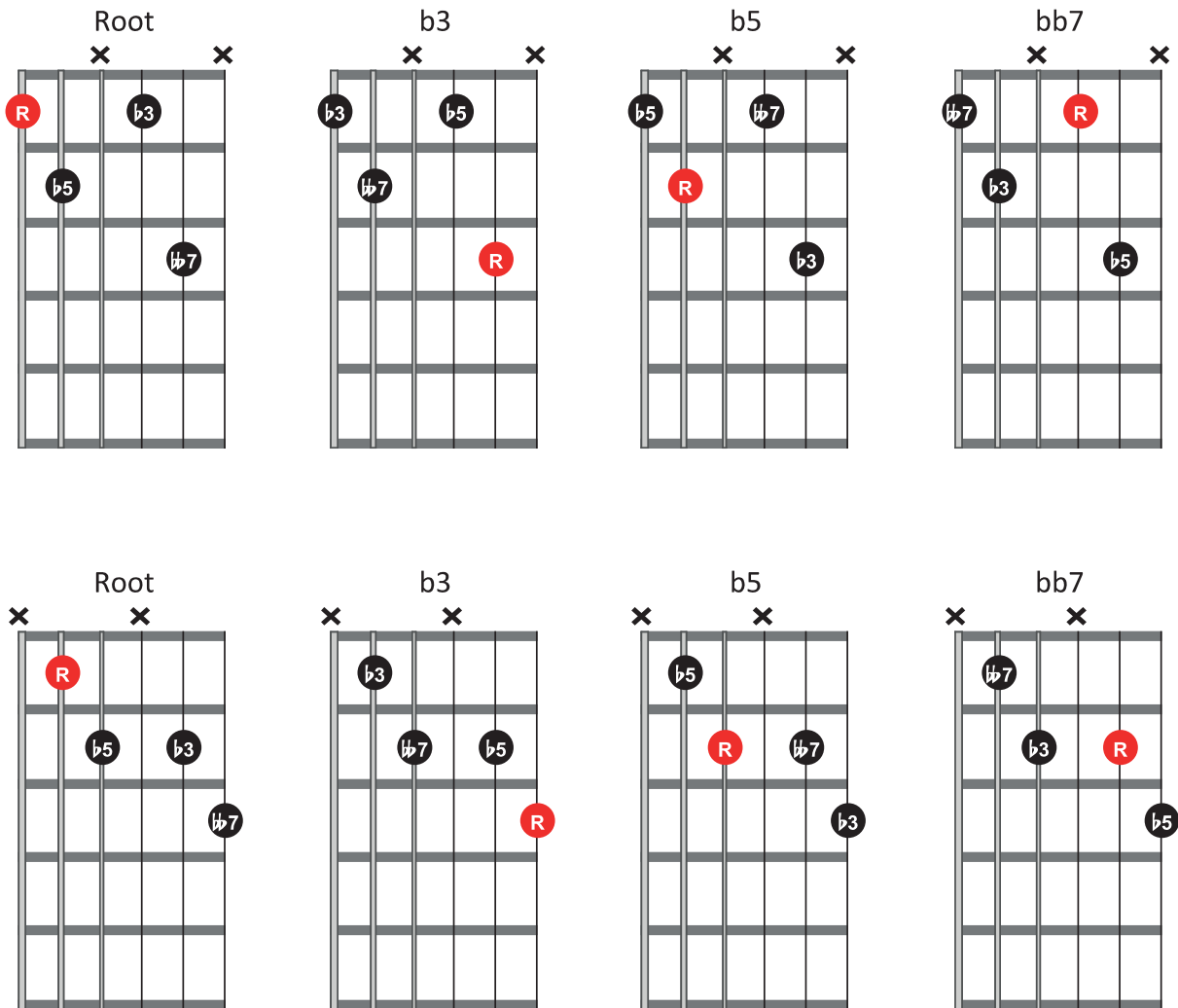


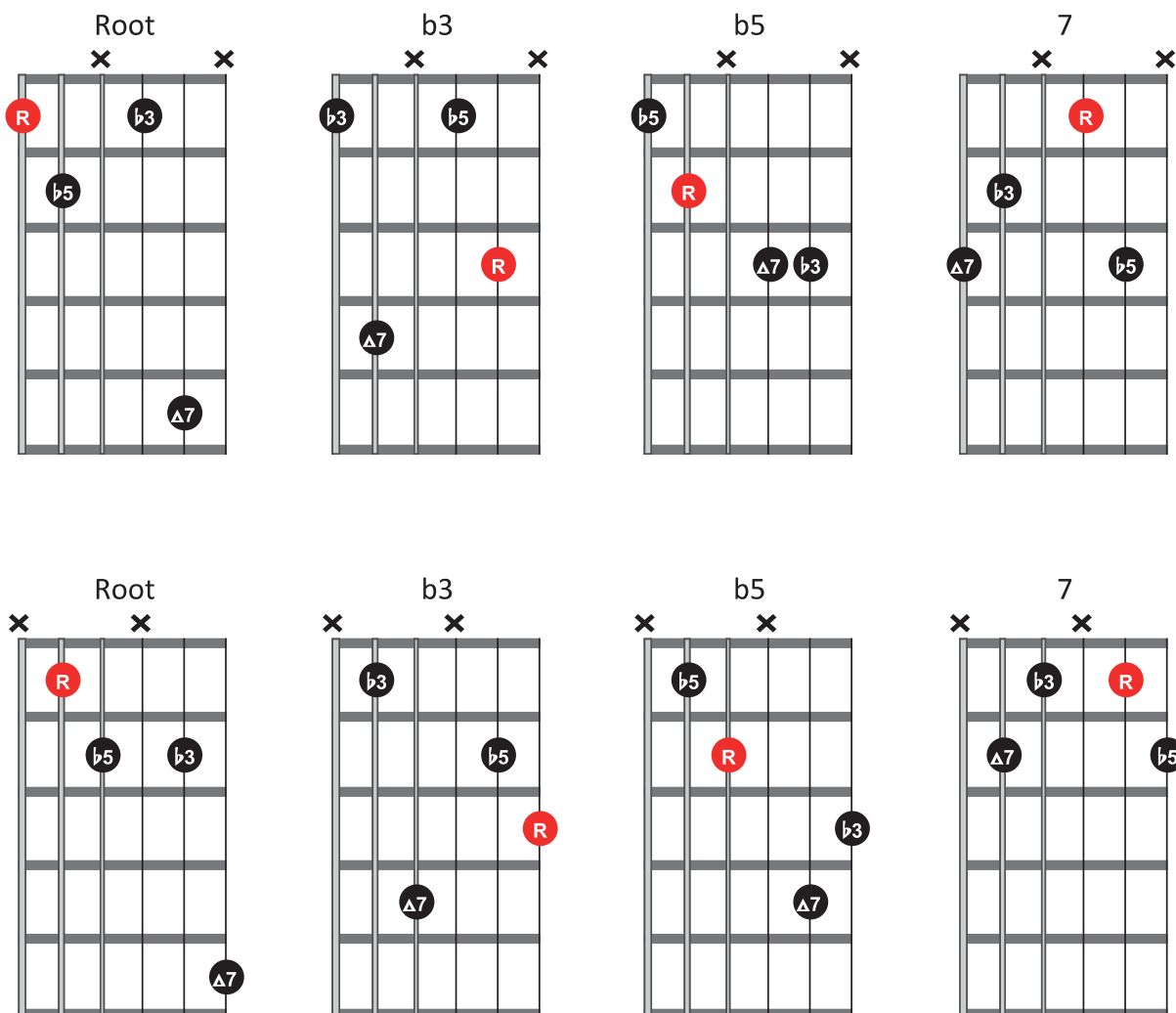


Min^{7b5}

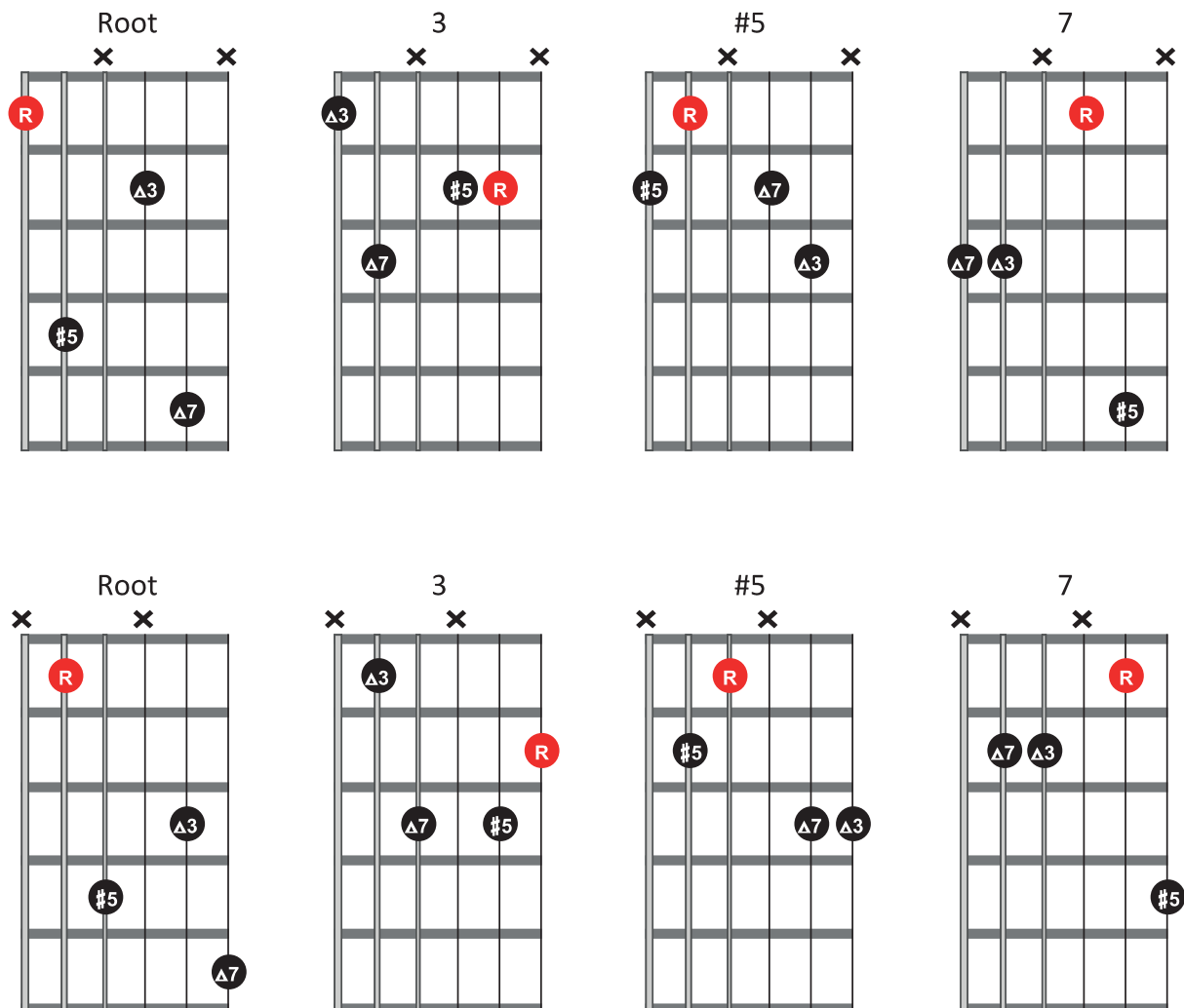


Dim⁷

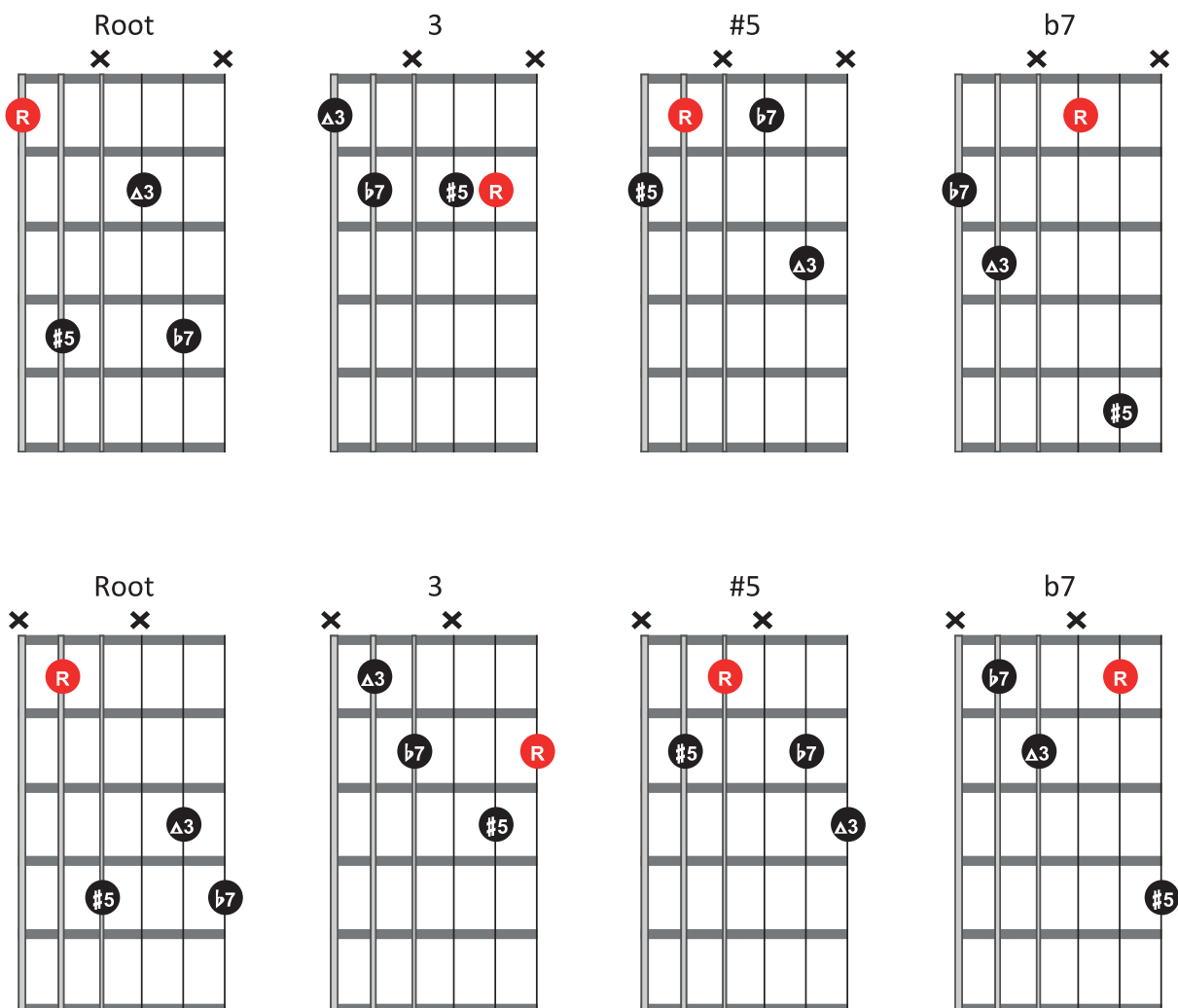




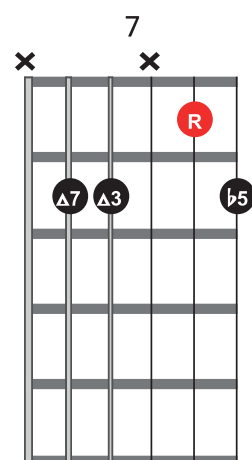
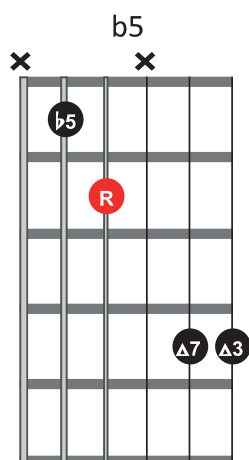
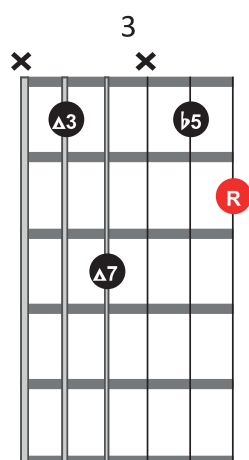
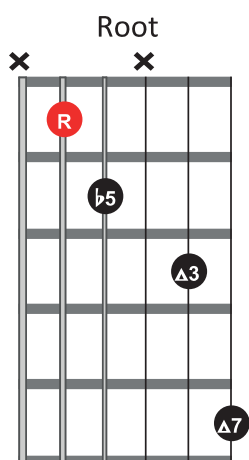
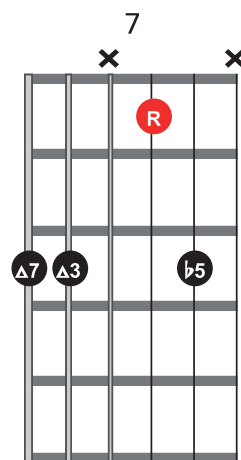
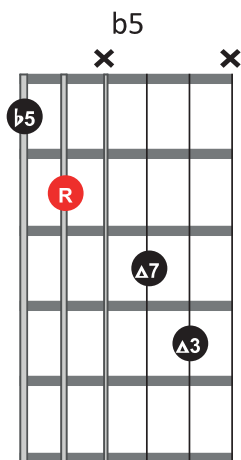
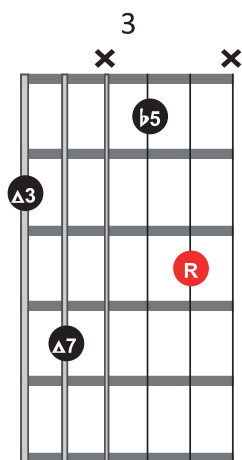
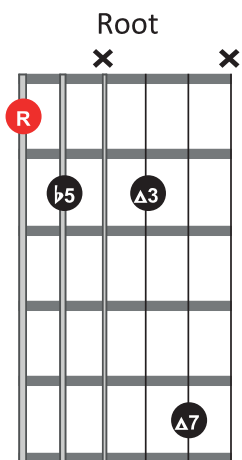
Aug^{maj7}



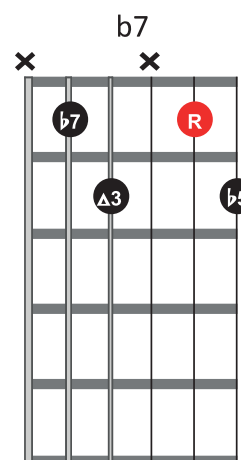
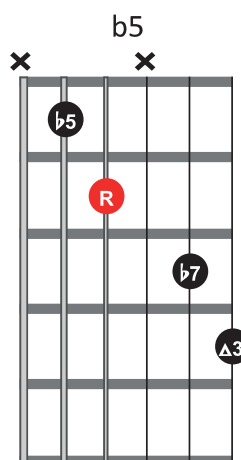
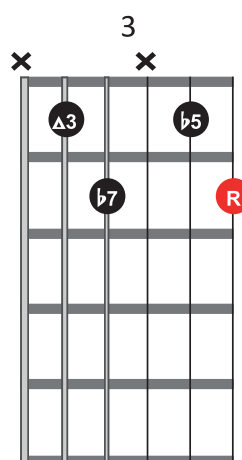
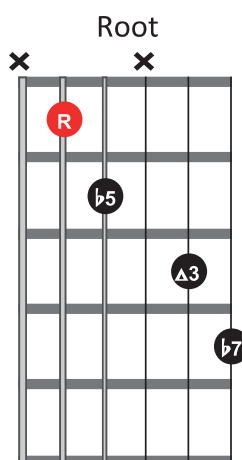
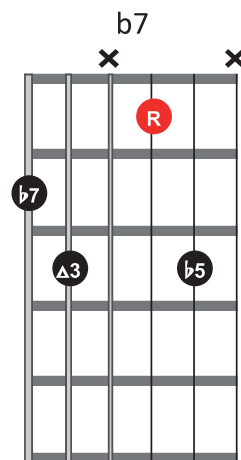
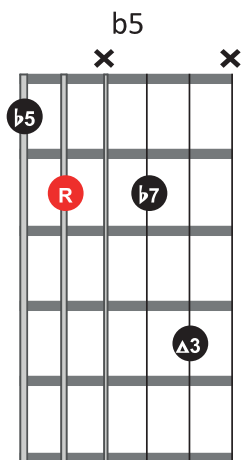
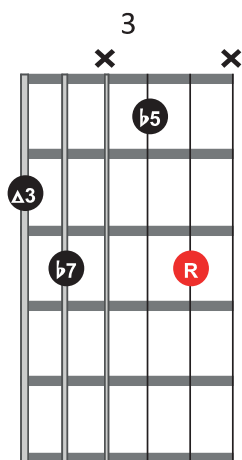
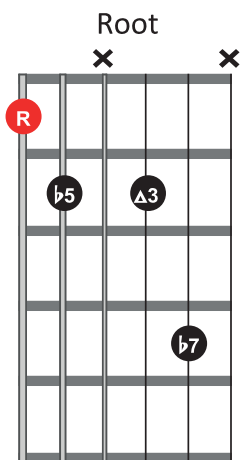
Aug⁷

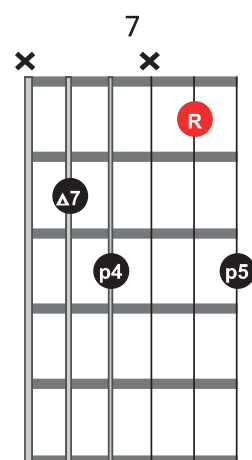
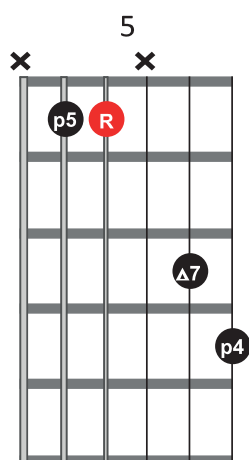
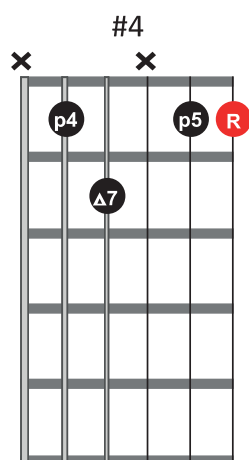
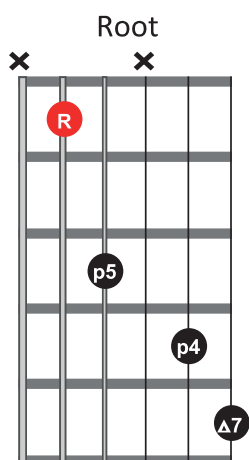
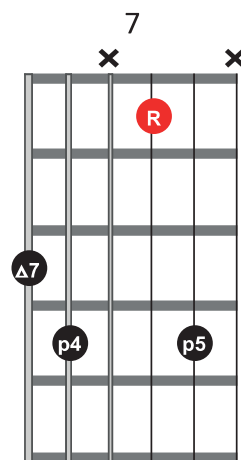
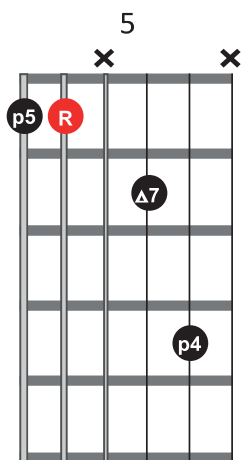
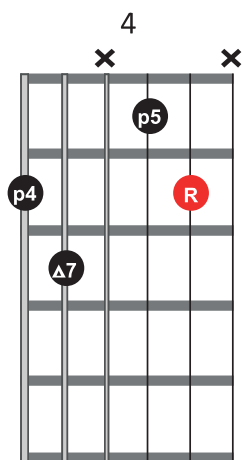
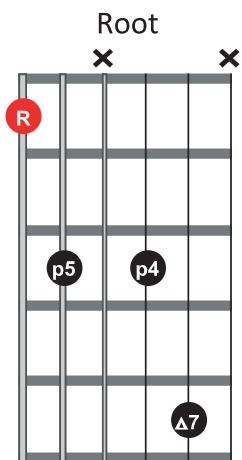


Maj^{7b5}

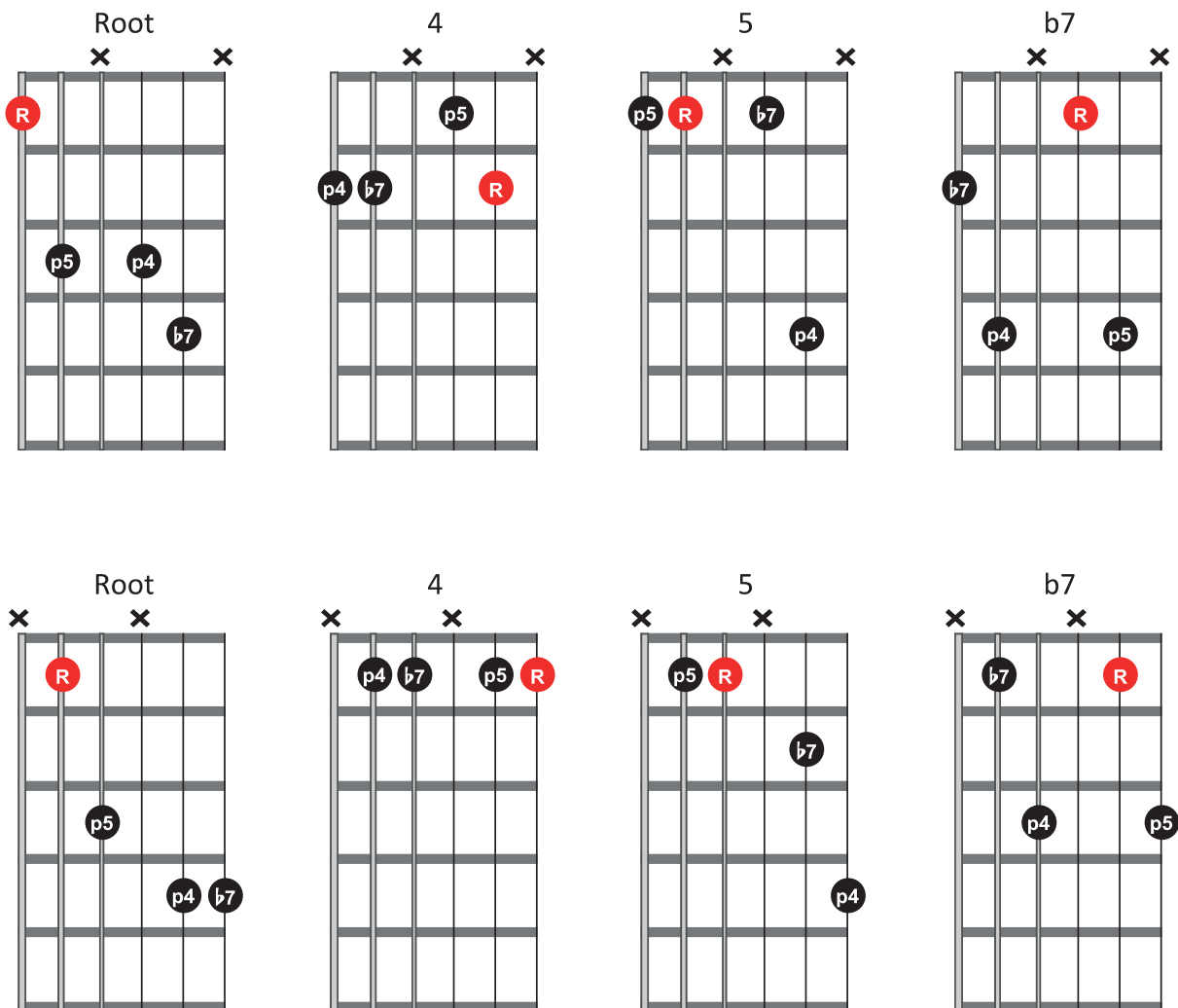


Dom^{7b5}

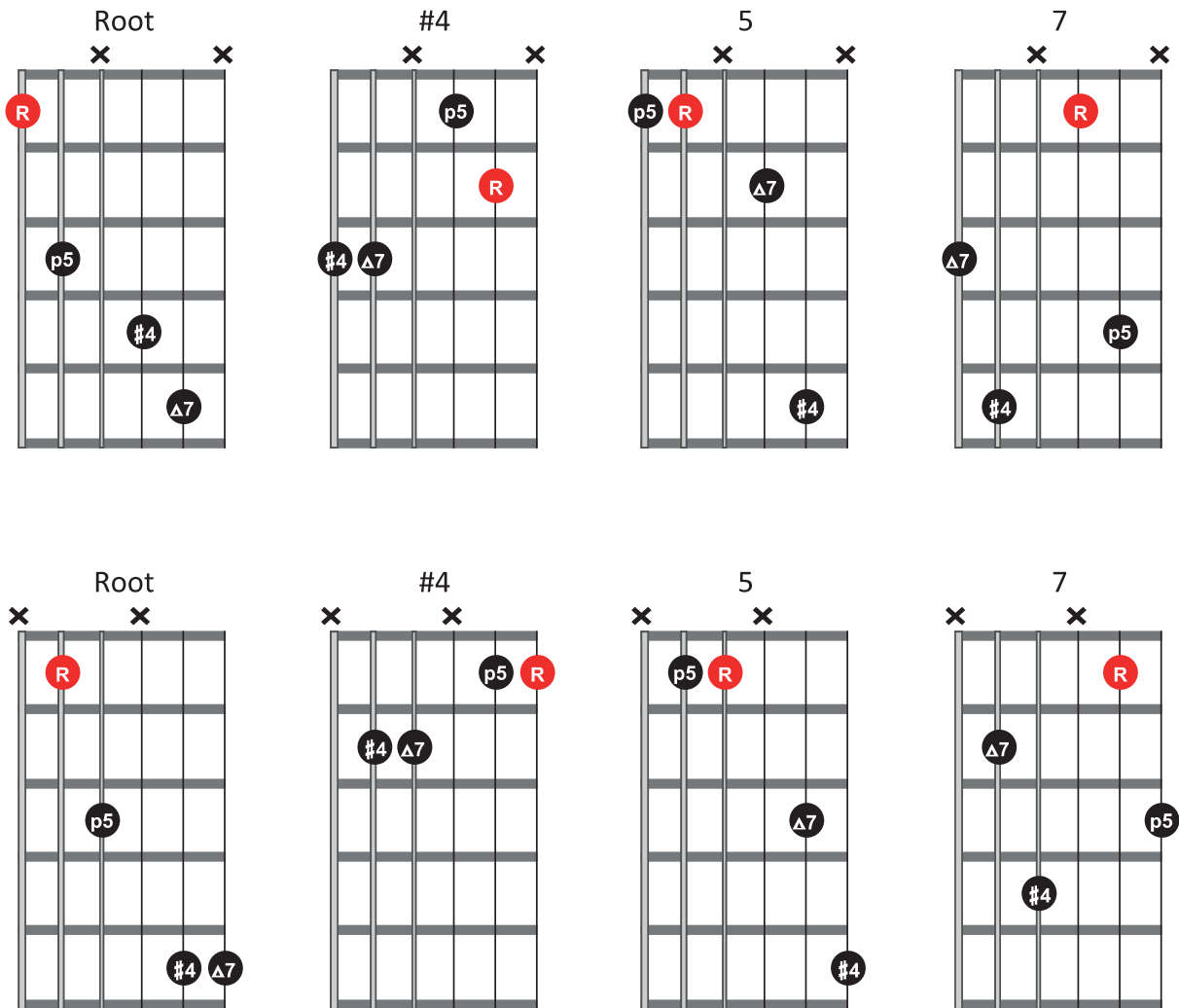




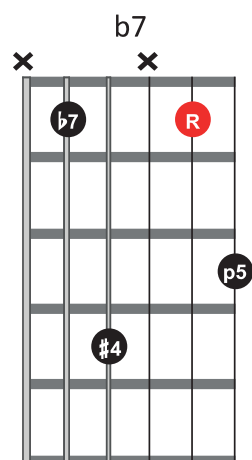
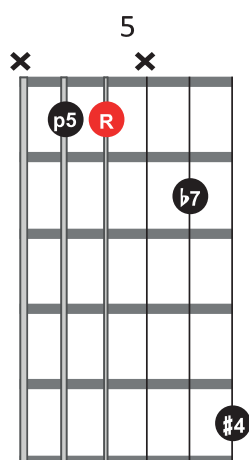
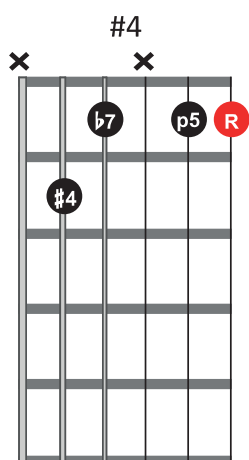
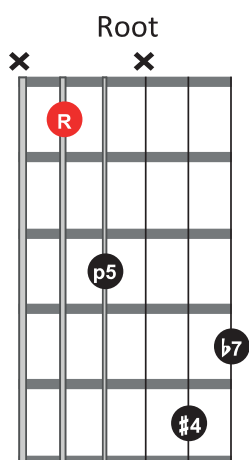
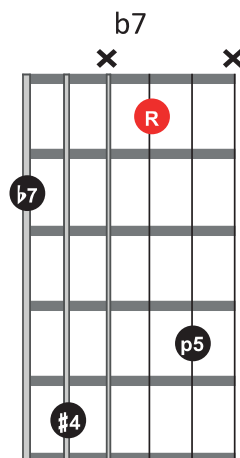
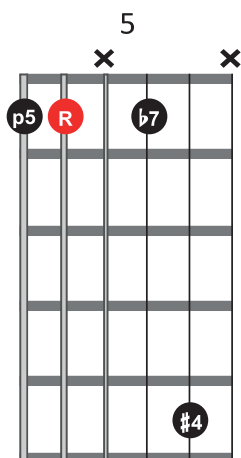
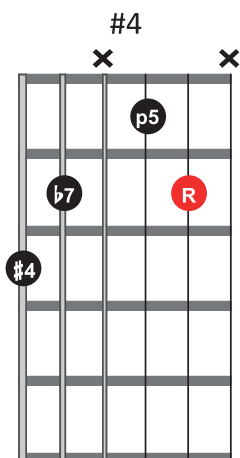
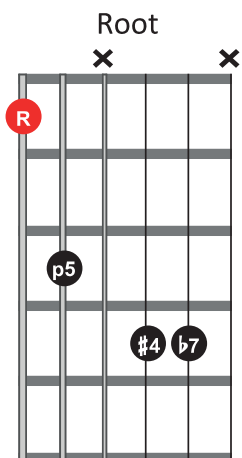
Dom^{7sus4}



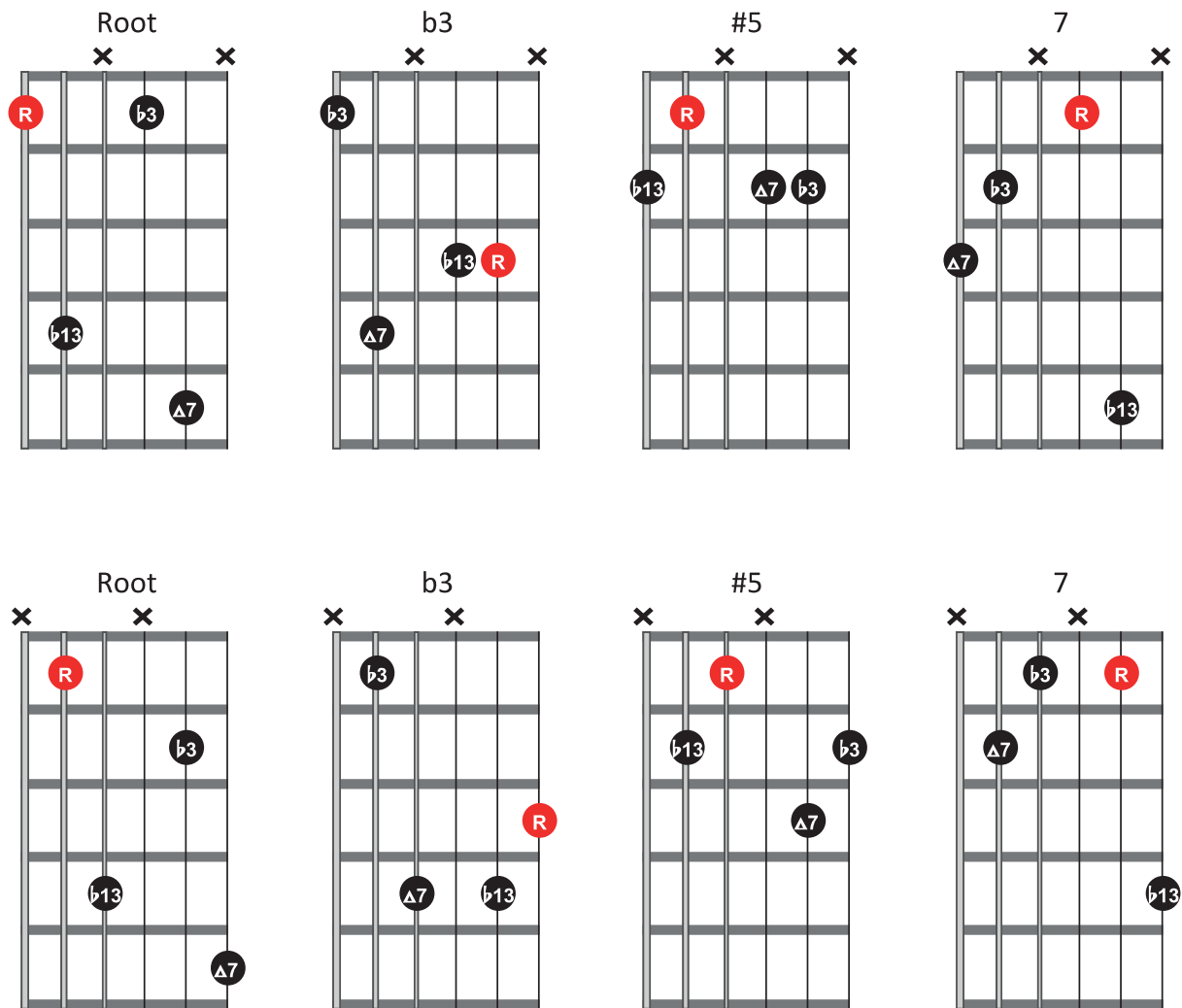
Lydian^{maj7}



Lydian^{Dom7}



Dim^{maj7b13}

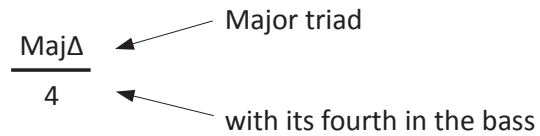


Triads over Bass Notes

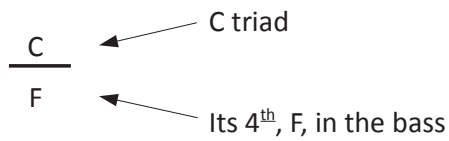
The subsequent chart contains six different forms of major, minor and suspended four triads over bass notes. I have included the bass note-to-triad relationship in addition to the common chord label.

Ex. 137

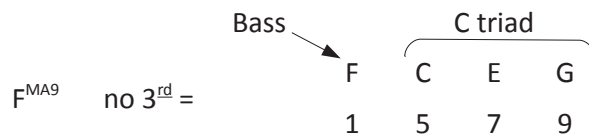
a)



b)

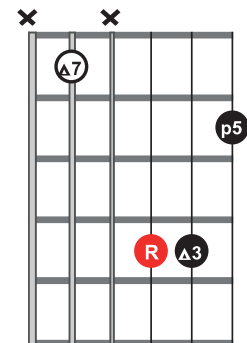
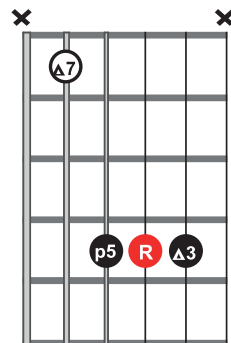
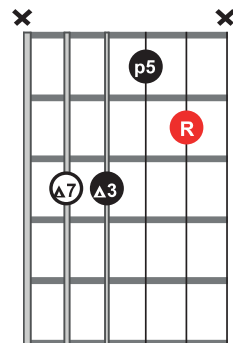
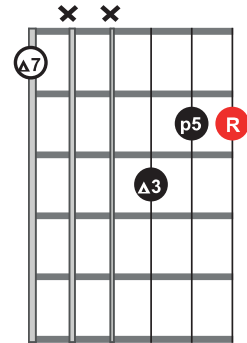
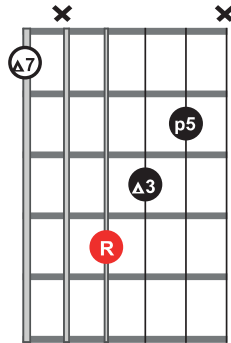
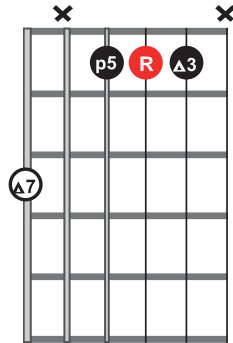


c) or

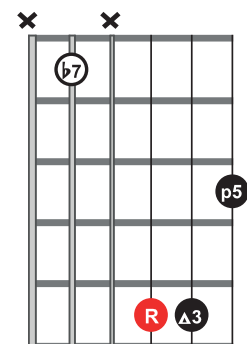
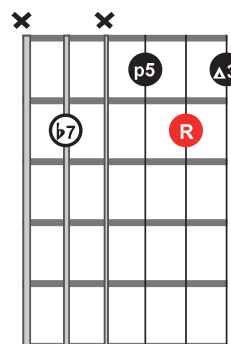
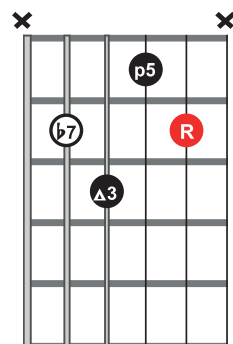
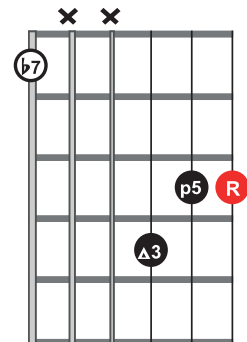
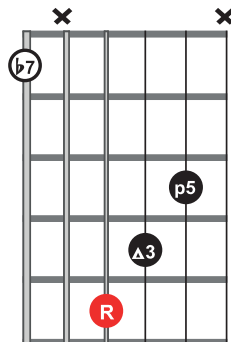
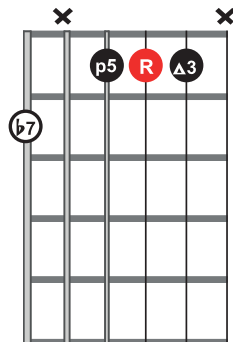


Major Triads Bass Notes

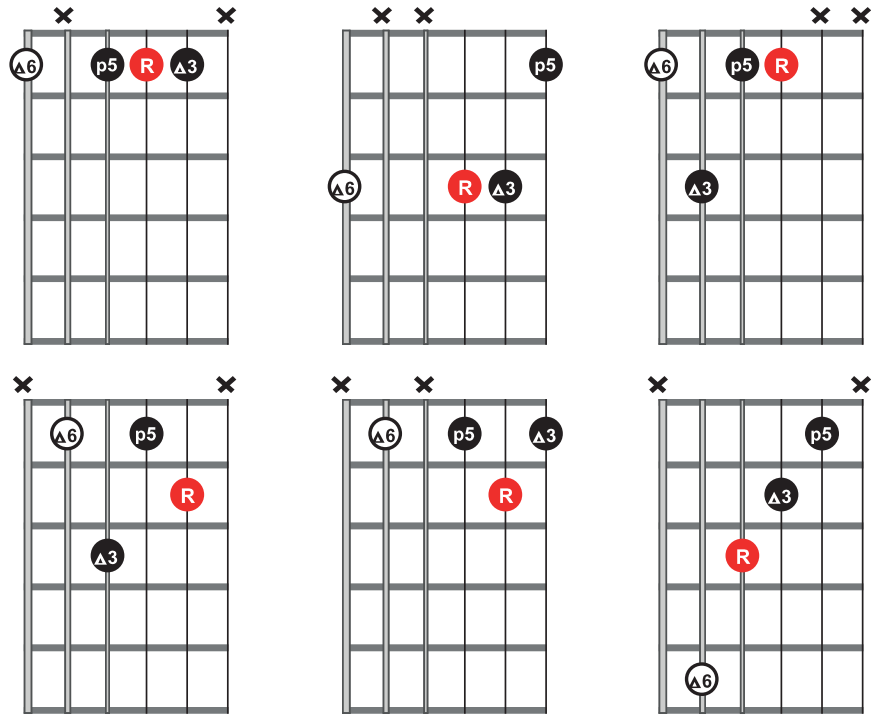
$$\frac{\text{Maj}\Delta}{7} = \text{Phrygian}$$



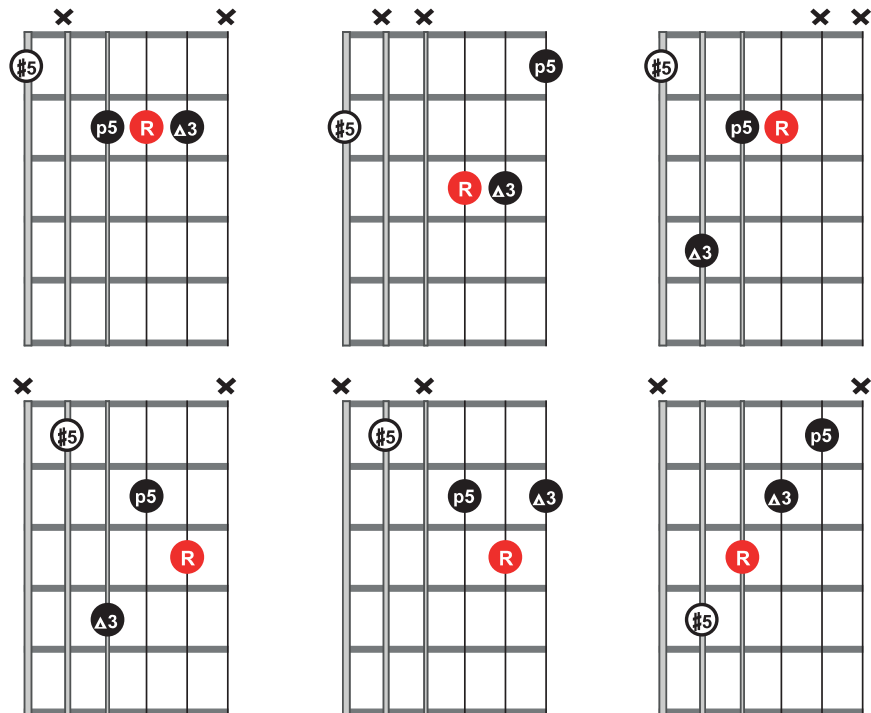
$$\frac{\text{Maj}\Delta}{b7} = \text{Dom } 2$$



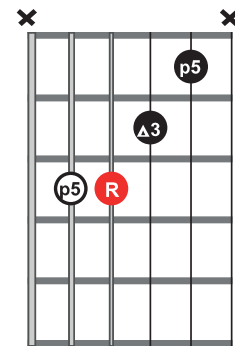
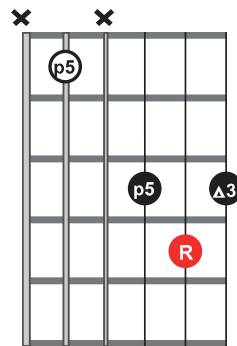
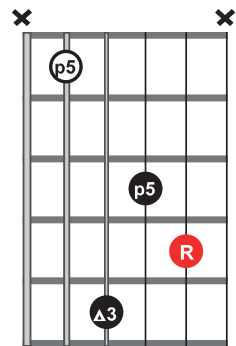
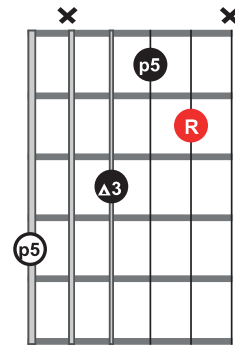
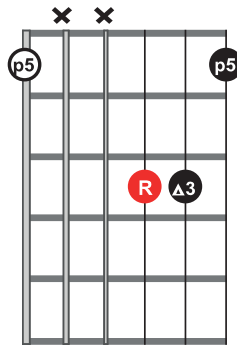
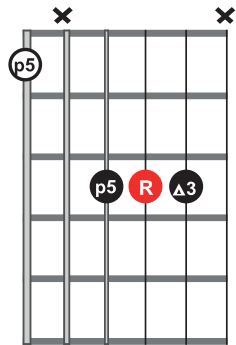
$$\frac{\text{Maj}\Delta}{6} = \text{Min}^7$$



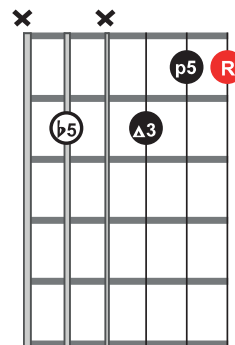
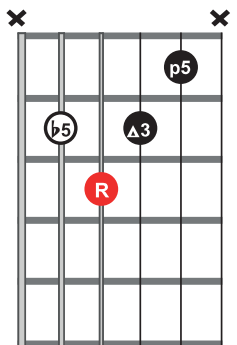
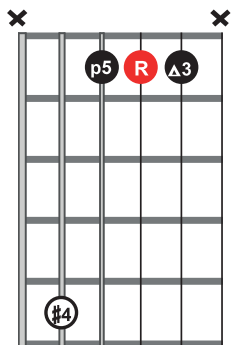
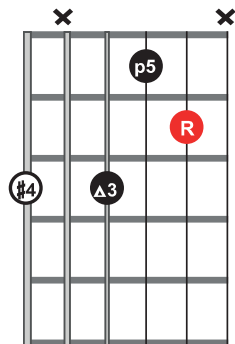
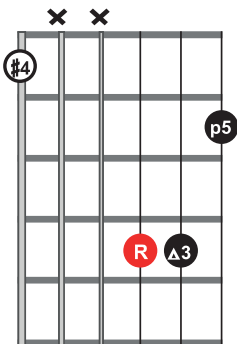
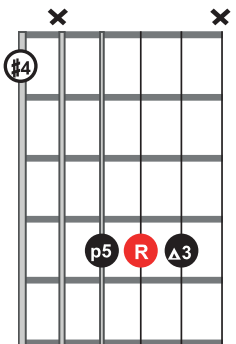
$$\frac{\text{Maj}\Delta}{\#5} = \text{Maj}^{7\#5}$$



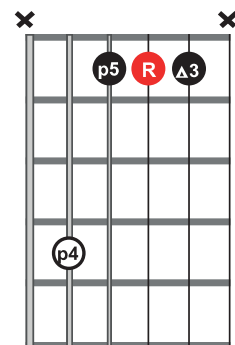
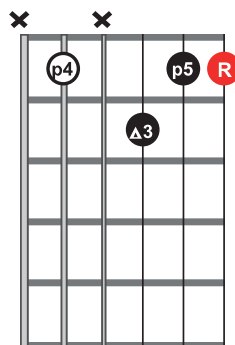
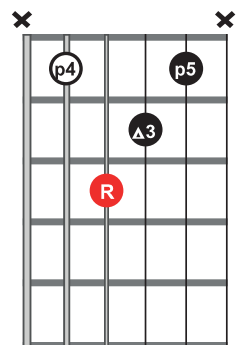
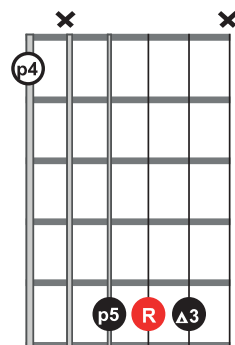
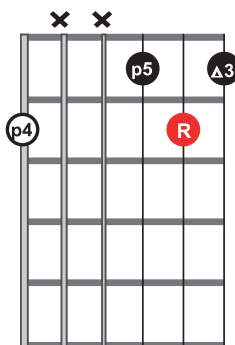
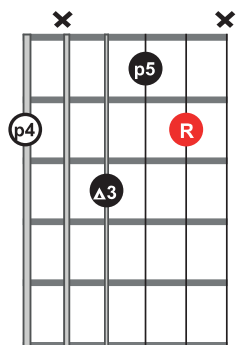
$$\frac{\text{Maj}\Delta}{5} = \text{Maj } \frac{6}{5}$$



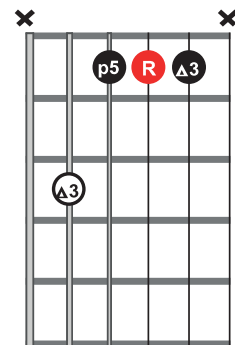
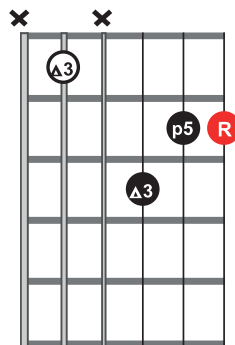
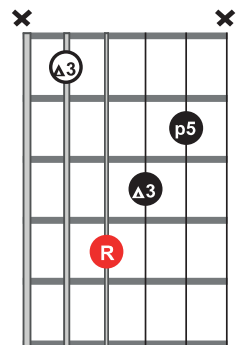
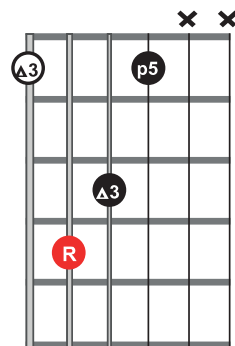
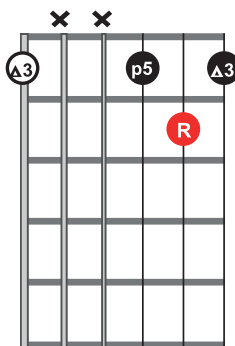
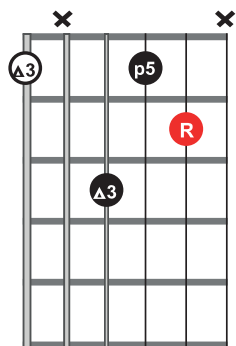
$$\frac{\text{Maj}\Delta}{\#4} = \text{Dom}^{7b9b5}$$



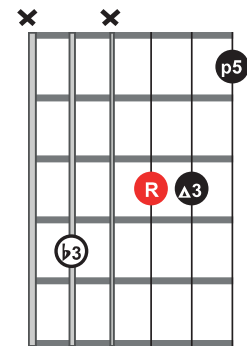
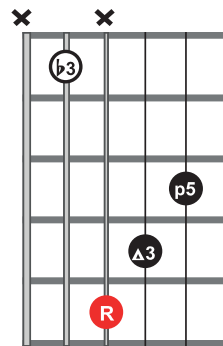
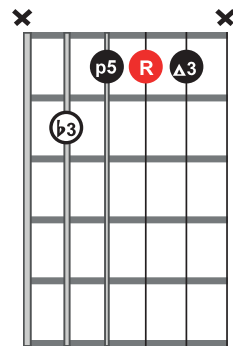
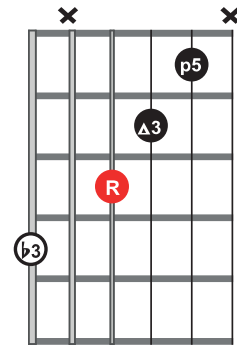
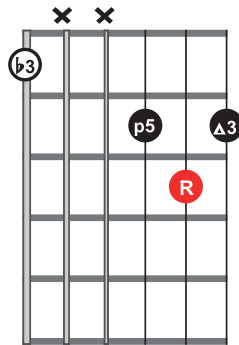
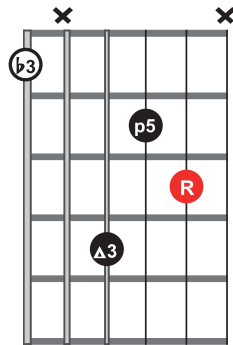
$$\frac{\text{Maj}\Delta}{4} = \text{Maj}^9 \text{ no } 3\text{rd}$$



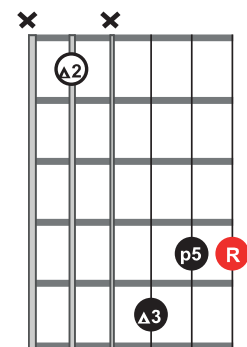
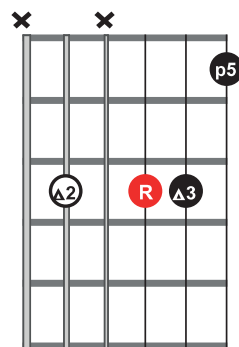
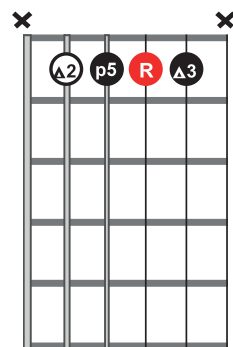
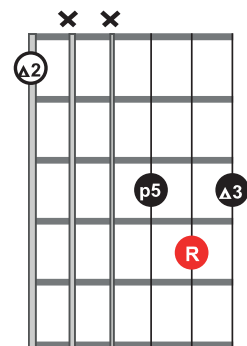
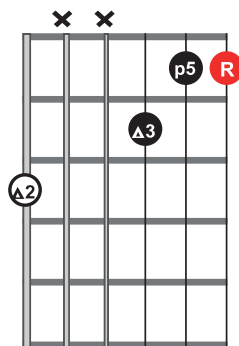
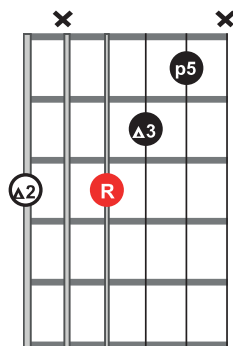
$$\frac{\text{Maj}\Delta}{3} = \text{Maj } 6$$



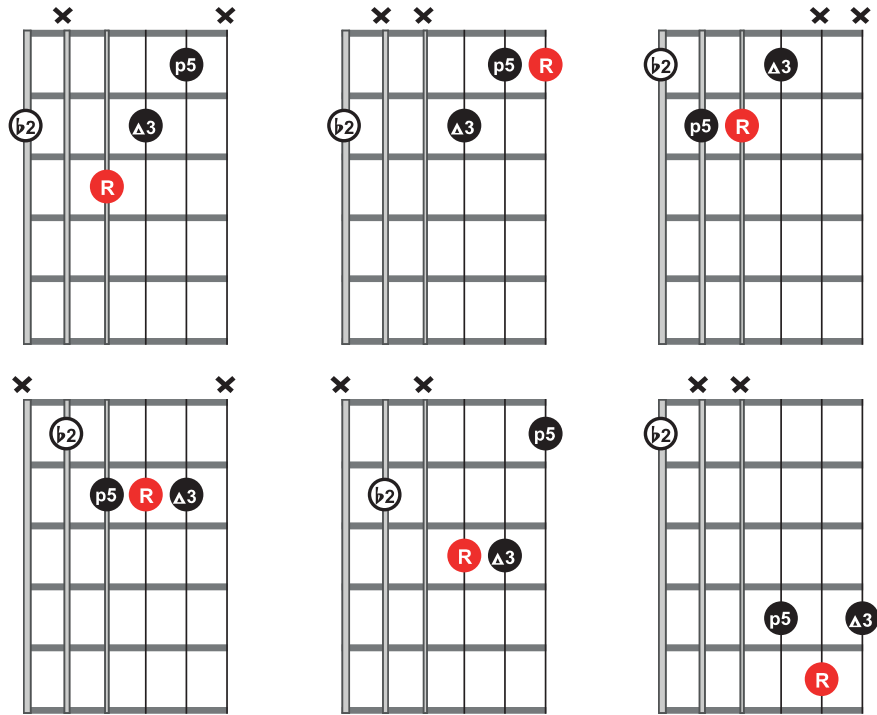
$$\frac{\text{Maj}\Delta}{b3} = \text{Dom}^{13b9 \text{ no } 7^{\text{th}}}$$



$$\frac{\text{Maj}\Delta}{9} = \text{Dom}^{11}$$

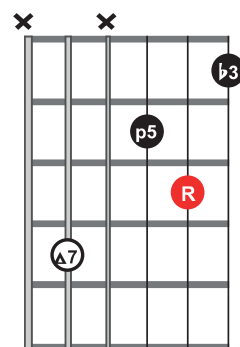
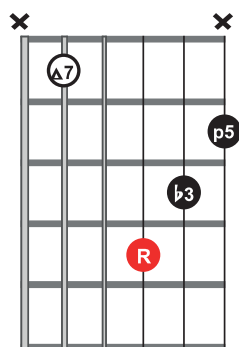
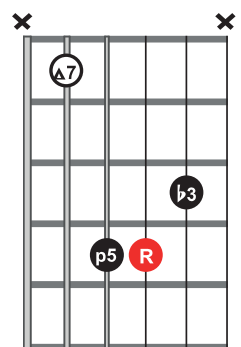
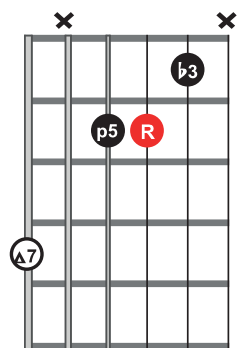
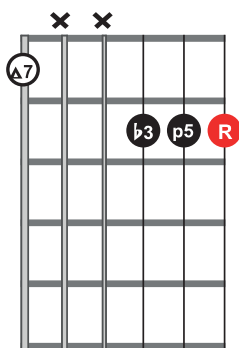
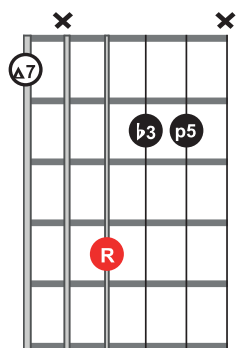


$$\frac{\text{Maj}\Delta}{b9} = \text{Dim}^{\text{maj}7}$$

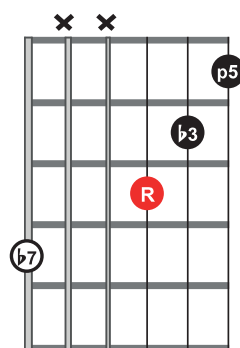
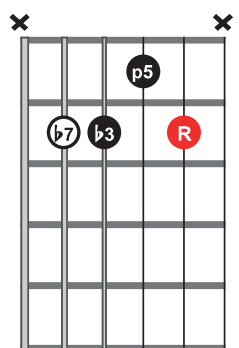
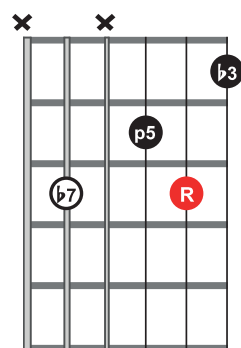
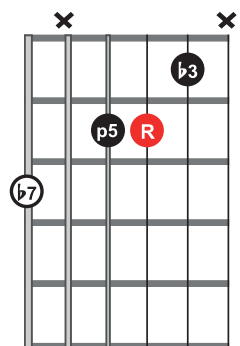
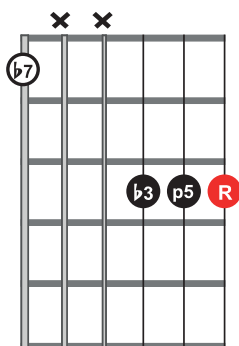
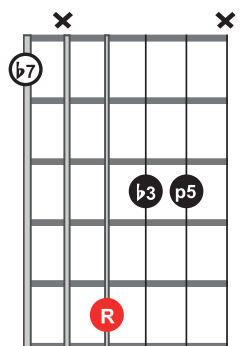


Minor Triads Bass Notes

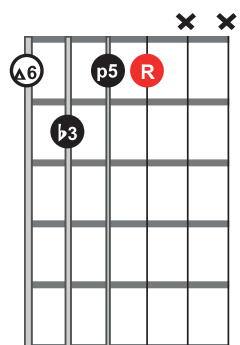
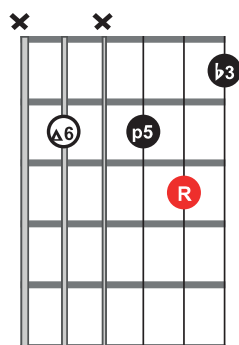
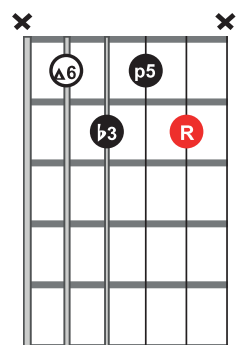
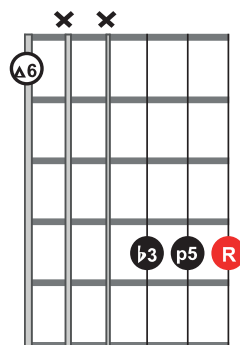
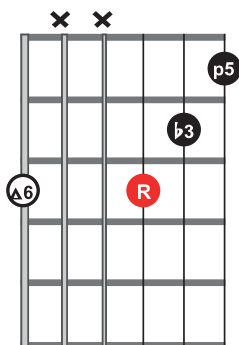
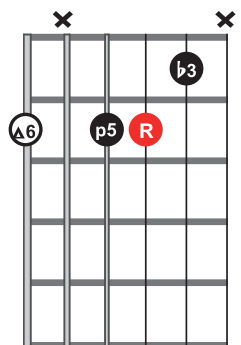
$$\frac{\text{Min}\Delta}{7} = \text{Dom}^{7/\#5/b9 \text{ no } 7}$$



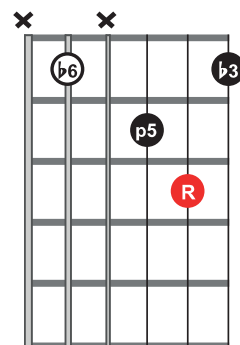
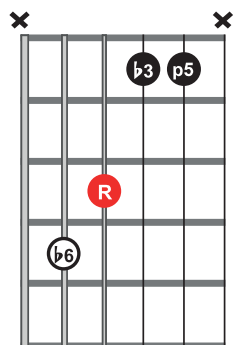
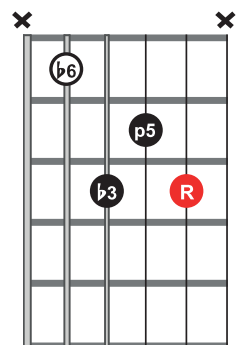
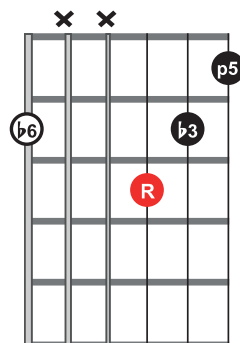
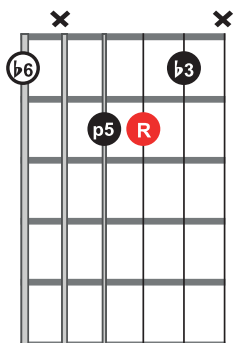
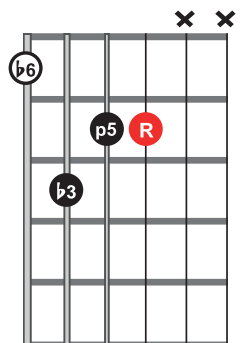
$$\frac{\text{Min}\Delta}{b7} = \frac{\text{Maj}^6}{5^{\text{th}}}$$



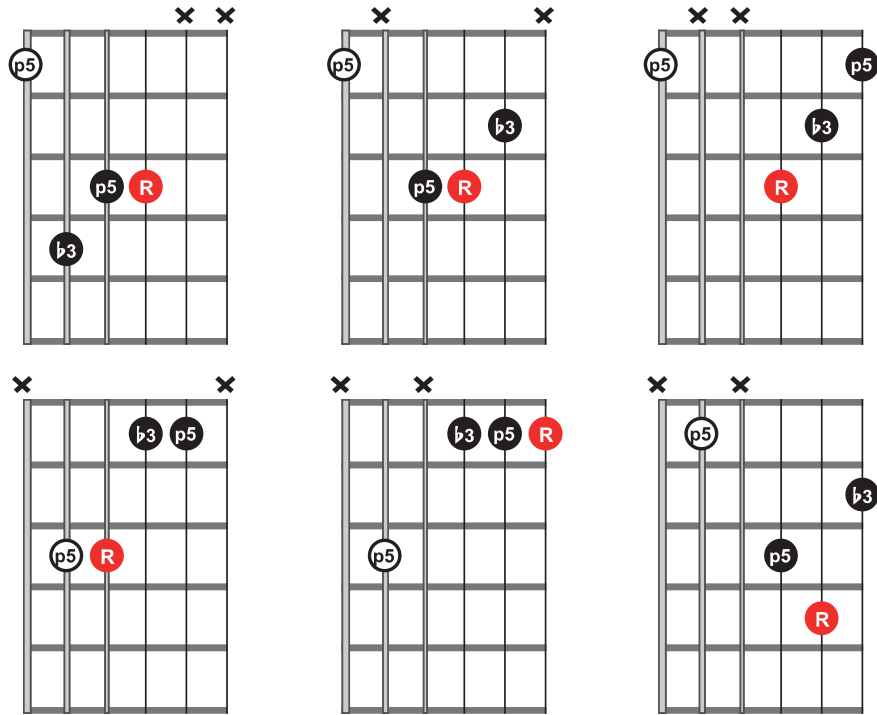
$$\frac{\text{Min}\Delta}{6} = \text{Min}^{7b5}$$



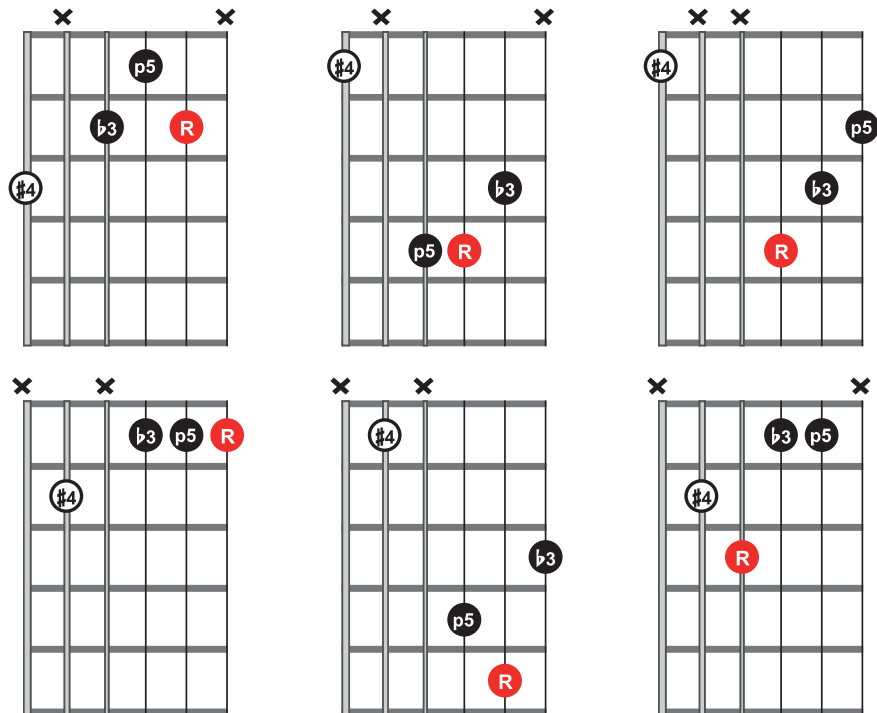
$$\frac{\text{Min}\Delta}{b6} = \text{Maj}^7$$



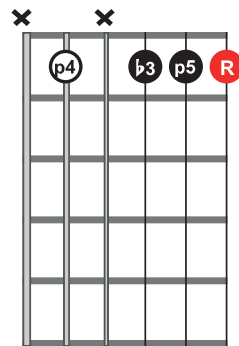
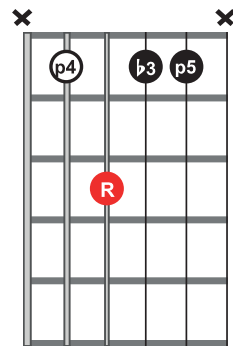
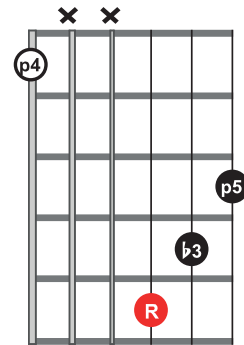
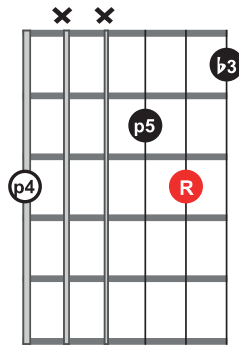
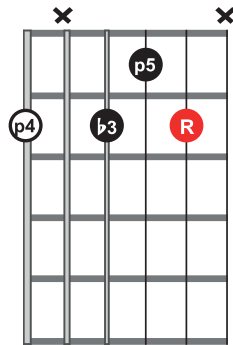
$$\frac{\text{Min}\Delta}{5} = \text{Min } \frac{6}{5}$$



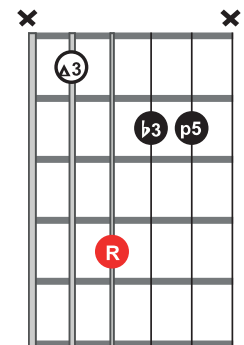
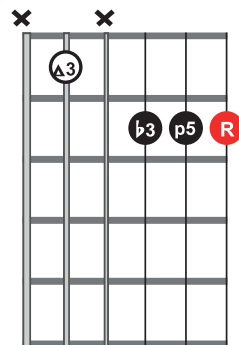
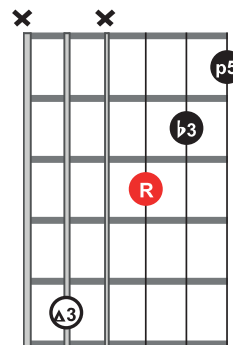
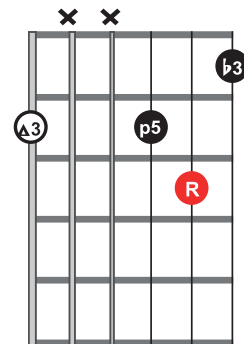
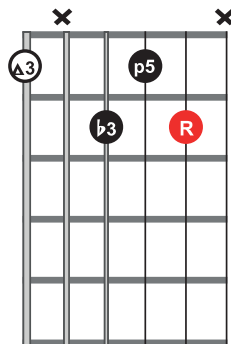
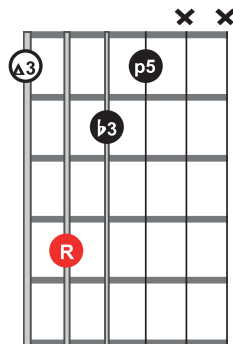
$$\frac{\text{Min}\Delta}{\#4} = \text{Dom } \frac{13}{b9/b5 \text{ no } 3rd}$$



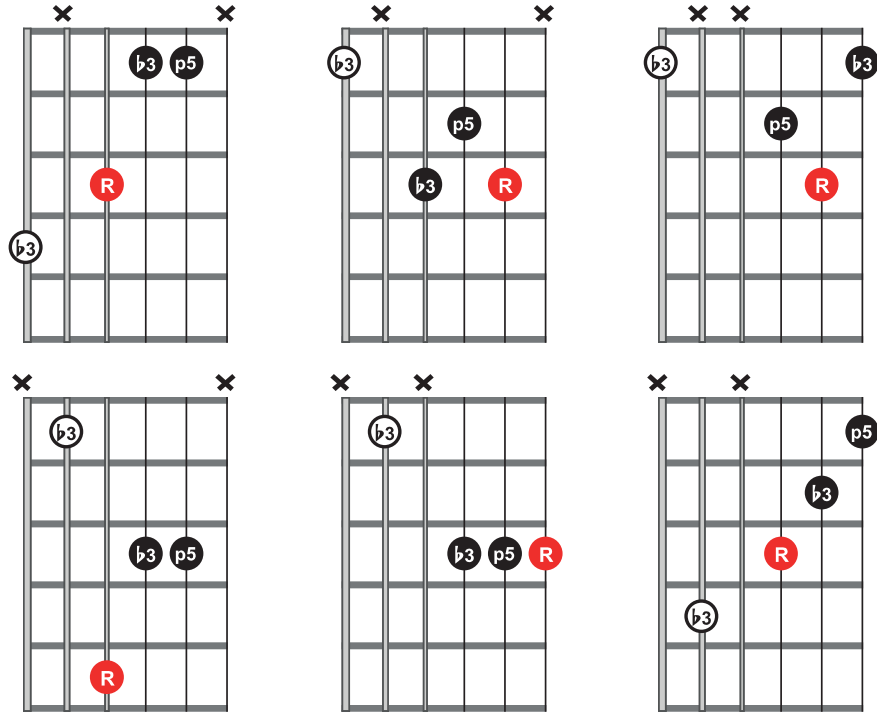
$$\frac{\text{Min}\Delta}{4} = \text{Dom}^{\text{9 no 3rd}}$$



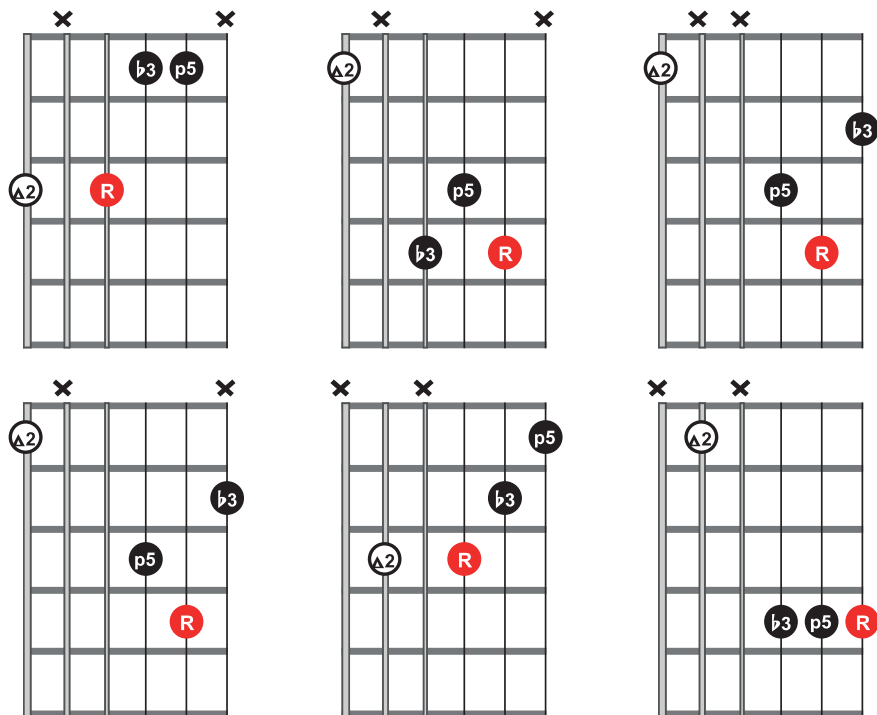
$$\frac{\text{Min}\Delta}{3} = \text{Dim}^{\text{maj7b13}}$$



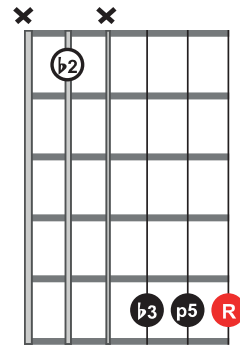
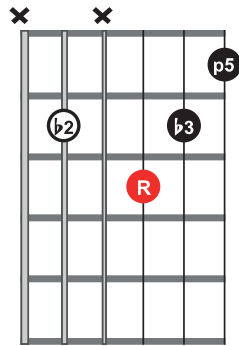
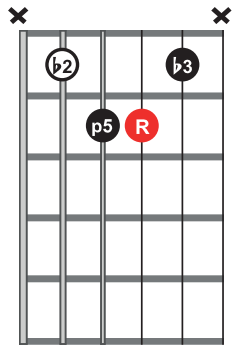
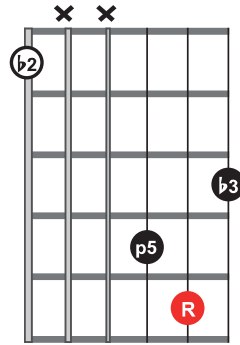
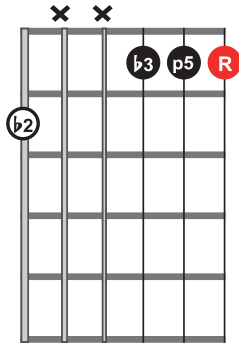
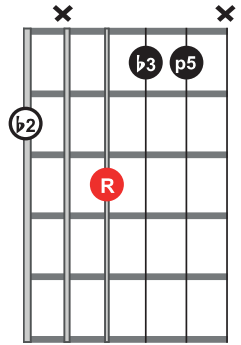
$$\frac{\text{Min}\Delta}{b3} = \text{Min } 6$$



$$\frac{\text{Min}\Delta}{9} = \text{Dom}^{11b9}$$



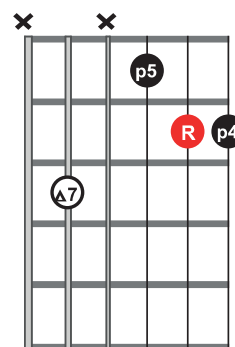
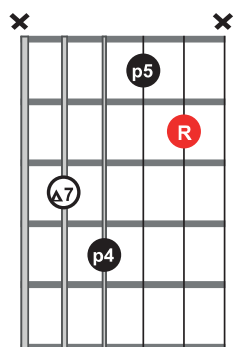
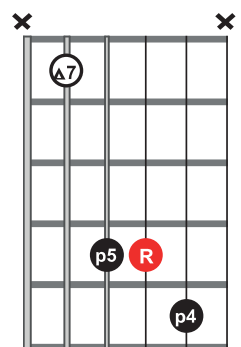
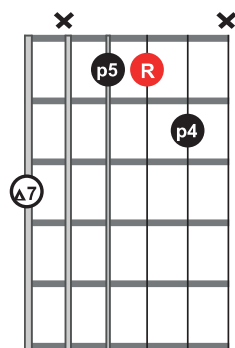
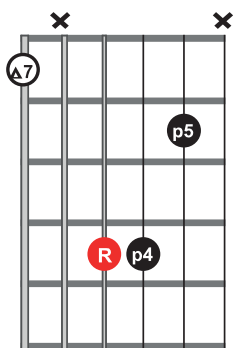
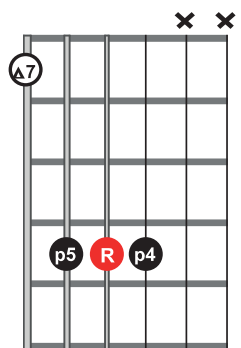
$$\frac{\text{Min}\Delta}{b_9} = \text{Dim}^{\text{maj}7}$$



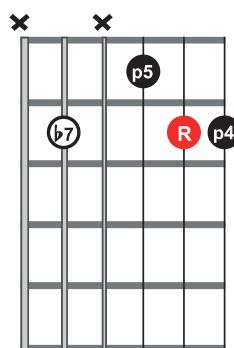
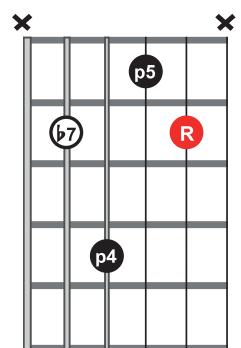
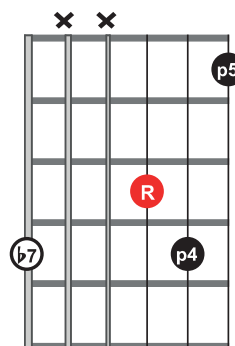
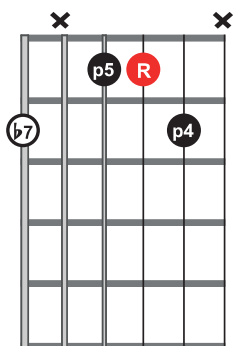
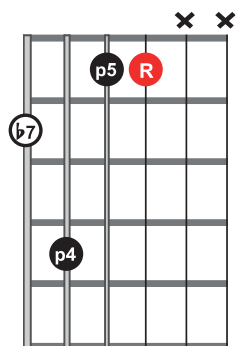
Sus4 Triads

Bass Notes

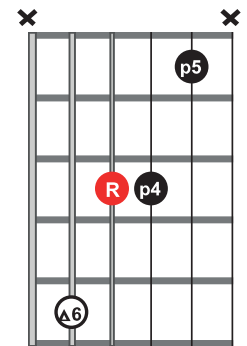
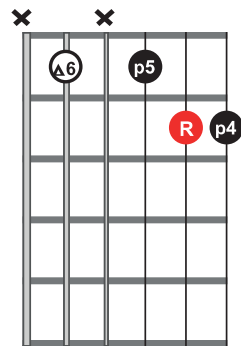
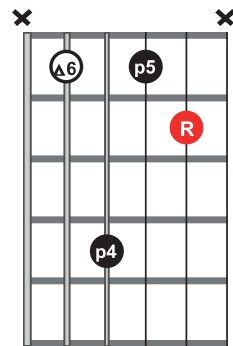
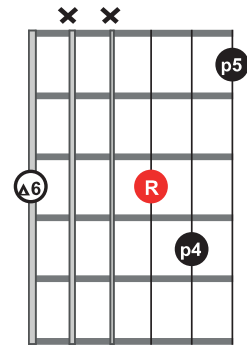
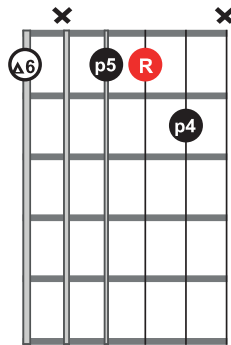
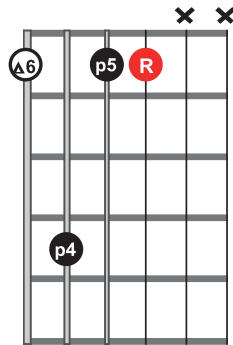
$$\frac{\text{Sus4}\Delta}{7} = \text{Dom}^{7/b9/b5/\#5}$$



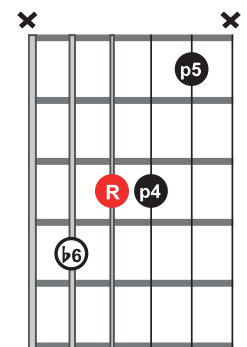
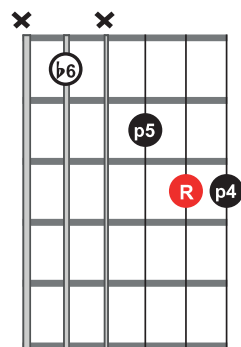
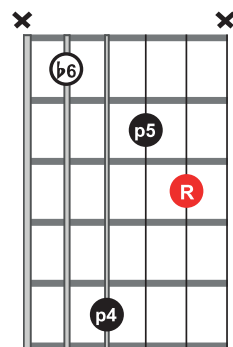
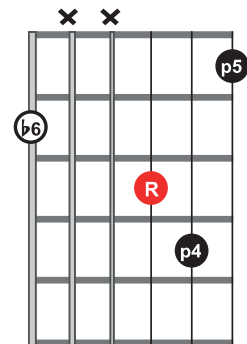
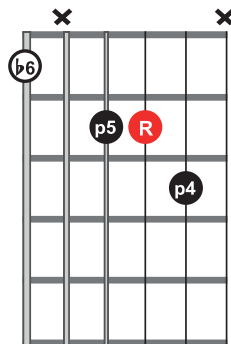
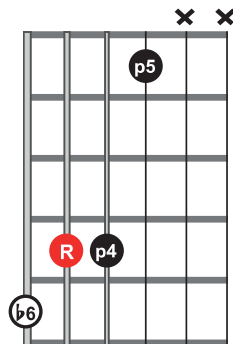
$$\frac{\text{Sus4}\Delta}{b7} = \text{Maj}^{69}$$



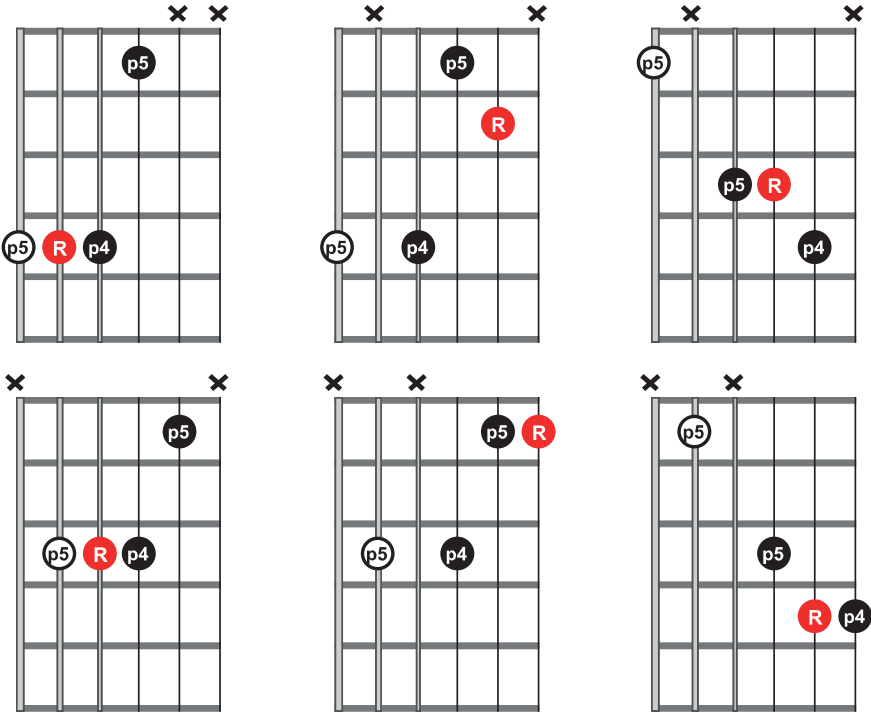
$$\frac{\text{Sus4}\Delta}{6} = \text{Min}^{7b6}$$



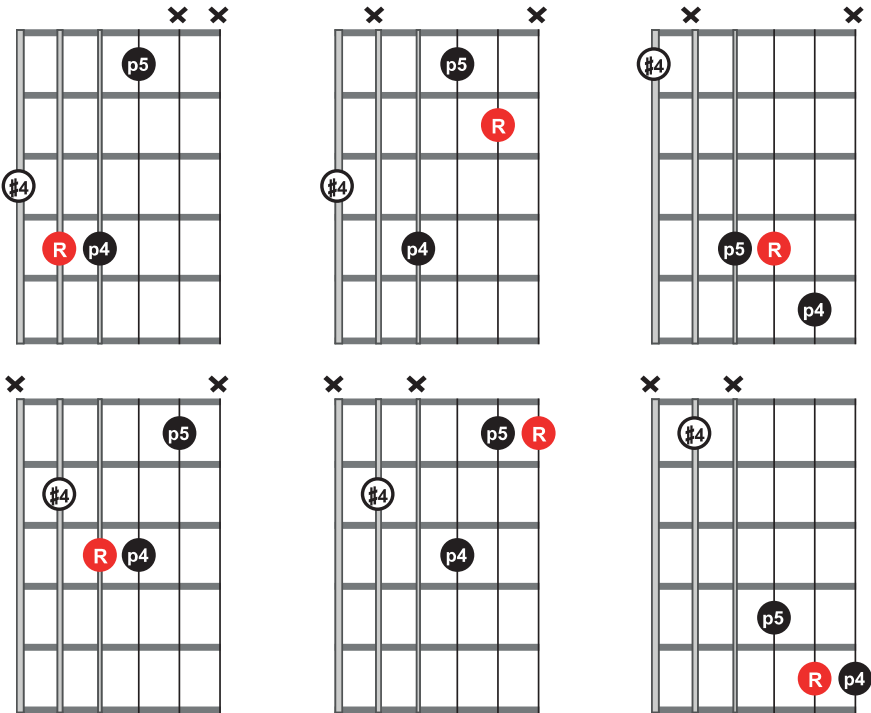
$$\frac{\text{Sus4}\Delta}{b6} = \text{Maj}^{13}$$



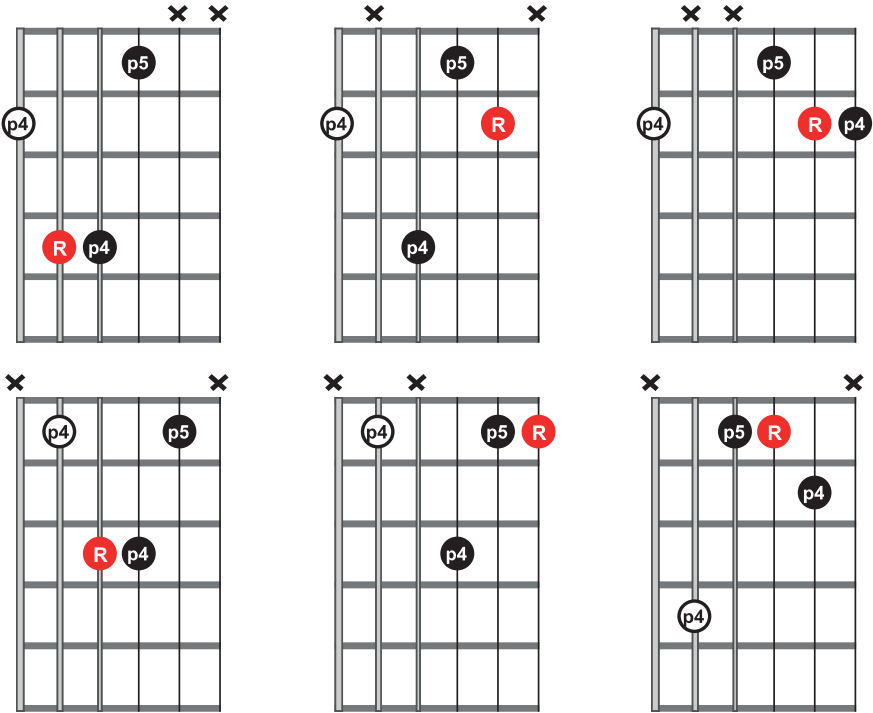
$$\frac{\text{Sus4}\Delta}{5} = \text{Dom}^{7\text{sus4}}$$



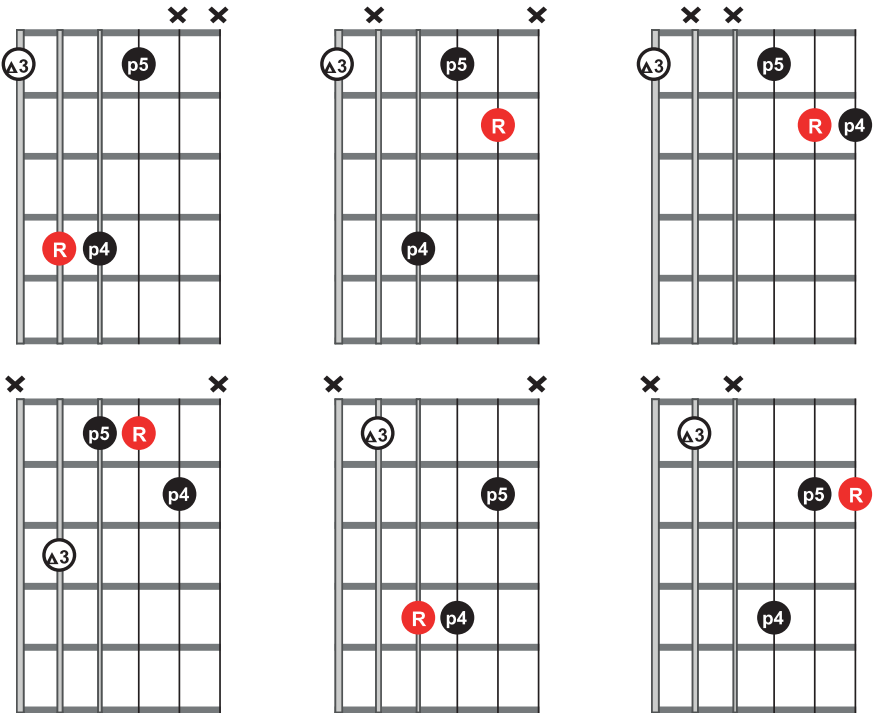
$$\frac{\text{Sus4}\Delta}{\#4} = \text{Twelve Tone}$$



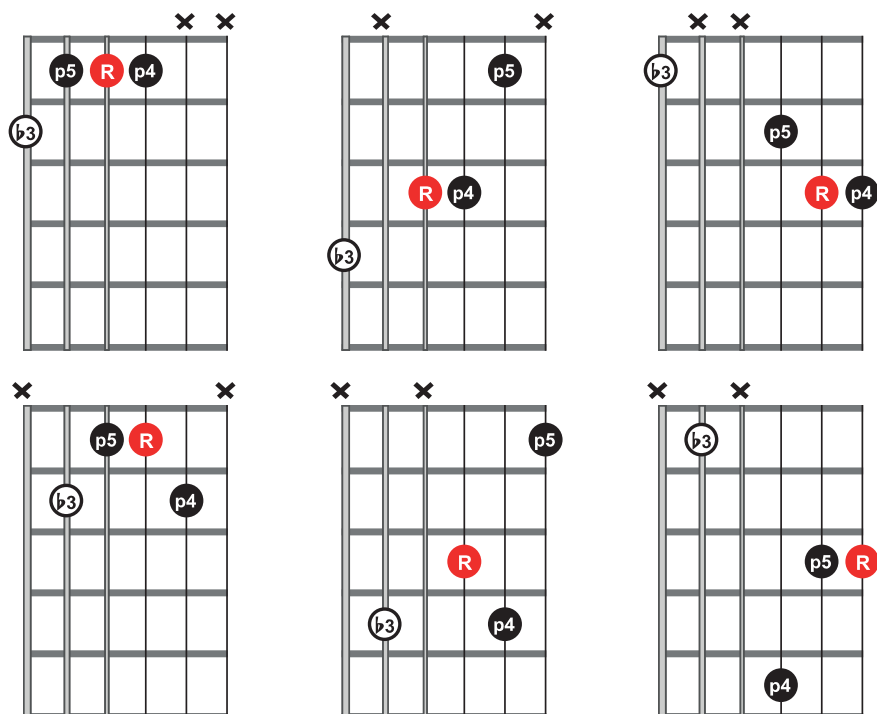
$$\frac{\text{Sus4}\Delta}{4} = \text{Sus2}$$



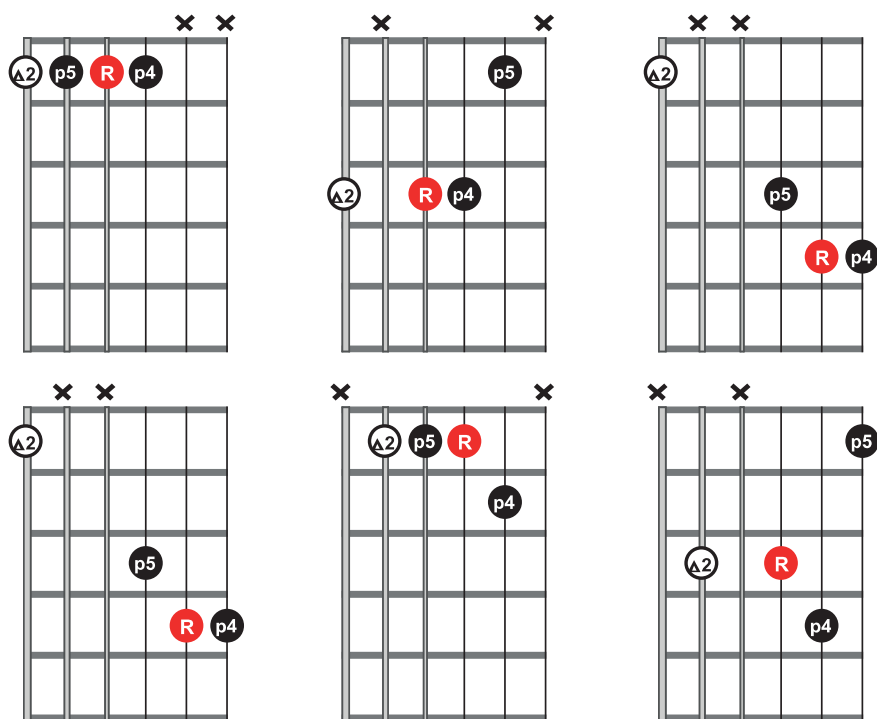
$$\frac{\text{Sus4}\Delta}{3} = \begin{matrix} \text{Dom}^{7/b9/b5/\#9} \\ \text{Min}^{7/b9b6} \end{matrix}$$



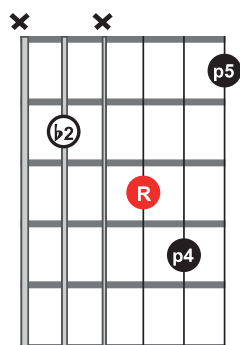
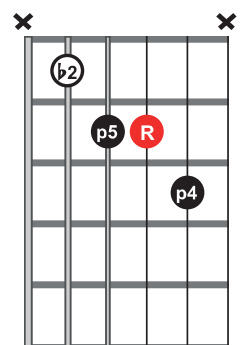
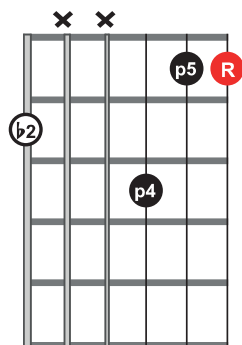
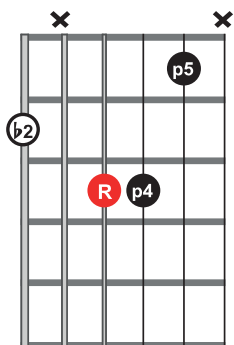
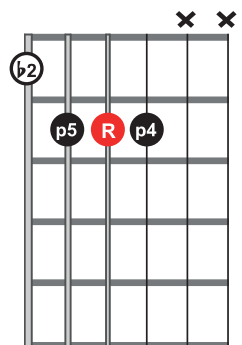
$$\frac{\text{Sus4}\Delta}{b3} = \text{Maj}^{69}$$



$$\frac{\text{Sus4}\Delta}{9} = \text{Min}^{11}$$



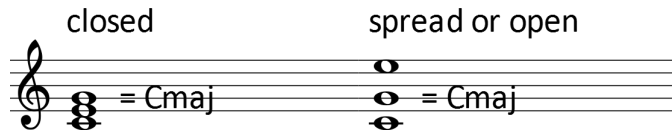
$$\frac{\text{Sus4}\Delta}{b9} = \text{Maj}^{7b5}$$



Spread triads over bass notes

The term spread triad over bass note implies a triad in which the middle note has been raised an octave.

Ex. 138



Whenever possible, the spread triads over bass notes have been reduced to seventh chord structures.

Ex. 139

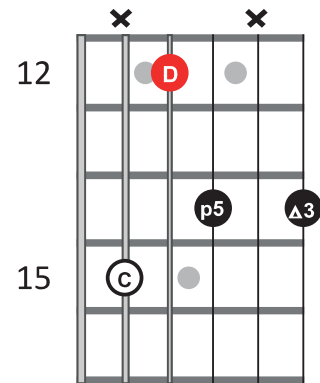
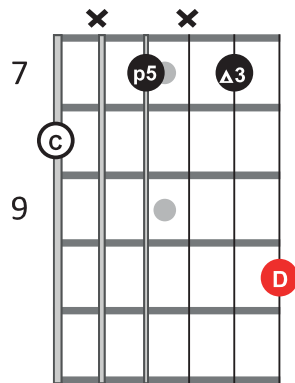
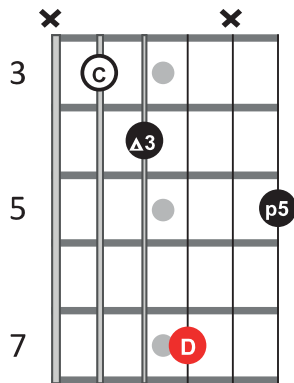
$$\frac{E}{C} = Cmaj^{7\#5} = C \quad \begin{array}{c} E \\ \overbrace{E \quad G\# \quad B} \\ 1 \quad 3 \quad \#5 \quad 7 \end{array}$$

Because $\frac{C}{E}$ is a type of Cmajor chord it will be listed in the major chord category. The voicings labeled "Twelve Tone type" are derived from the chromatic scale. These only include chords with three consecutive chromatic tones as in:

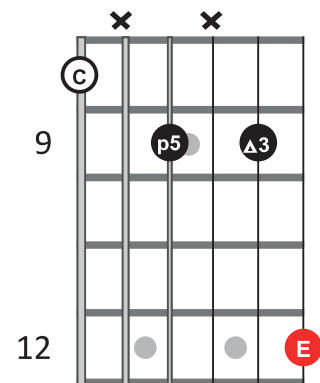
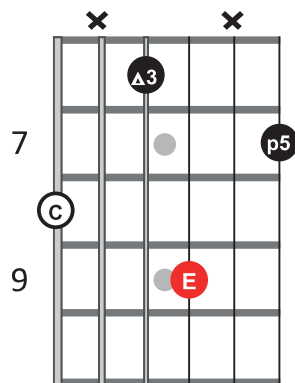
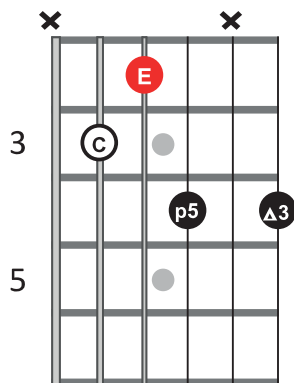
$$\frac{ELyd}{C} = C \quad \begin{array}{c} ELyd \\ \overbrace{E \quad A\# \quad B} \\ 3\frac{1}{2} \text{ step intervals} \end{array}$$

Major Type Spread Triads Bass Notes (C)

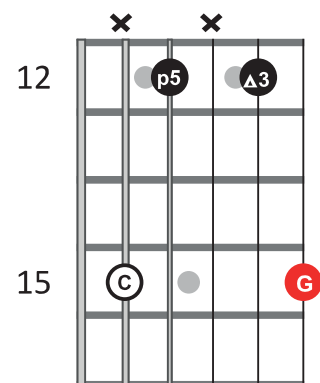
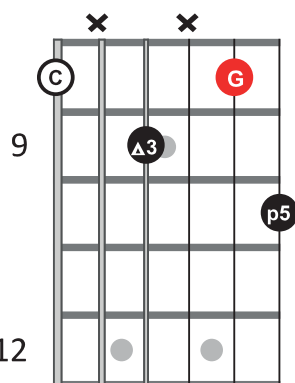
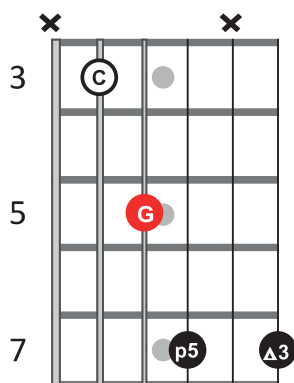
$\frac{D}{C}$



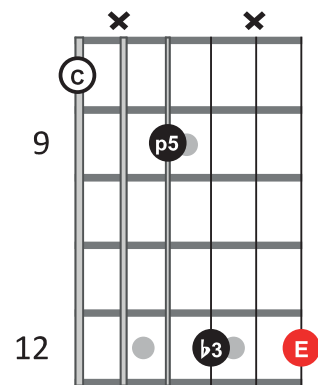
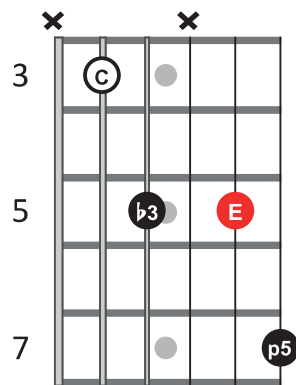
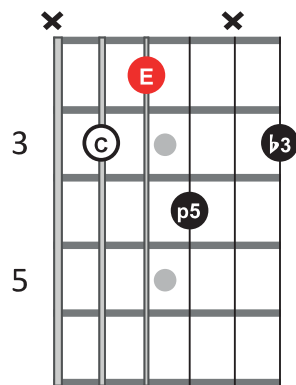
$\frac{E}{C}$



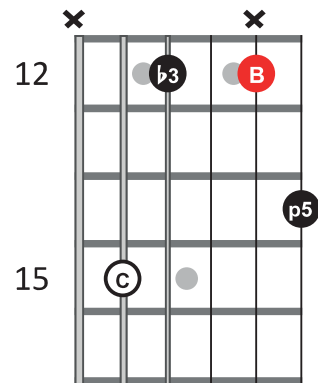
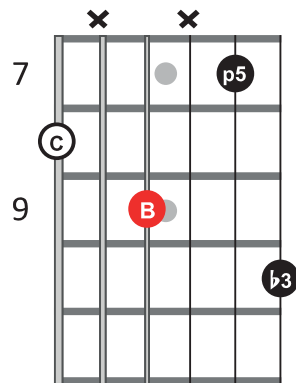
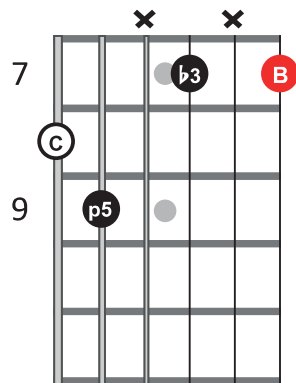
$\frac{G}{C}$



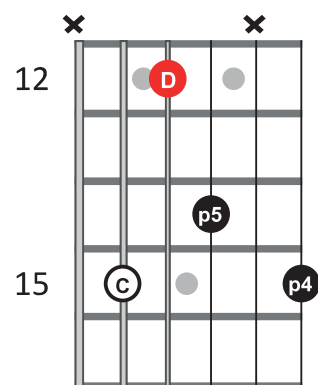
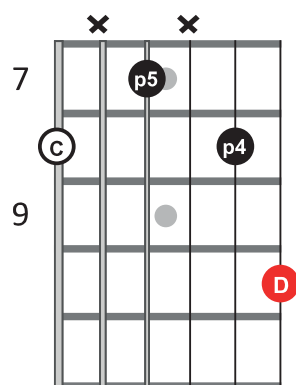
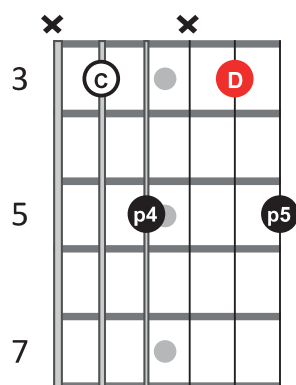
$$\frac{E-}{C}$$



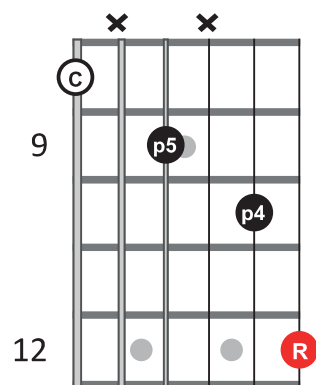
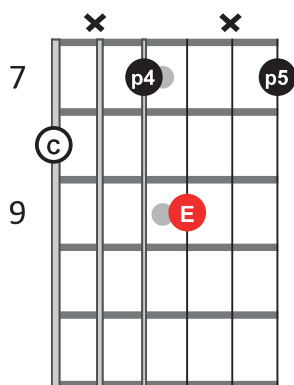
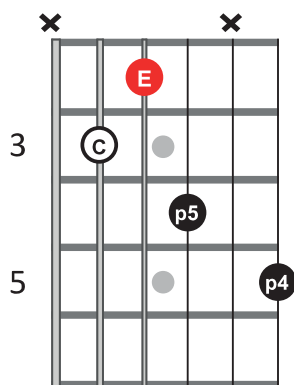
$$\frac{B-}{C}$$



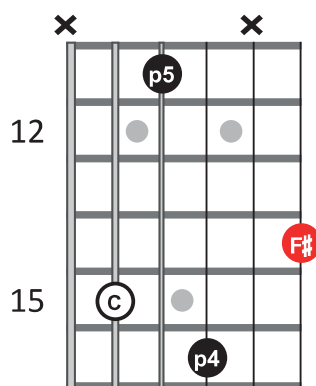
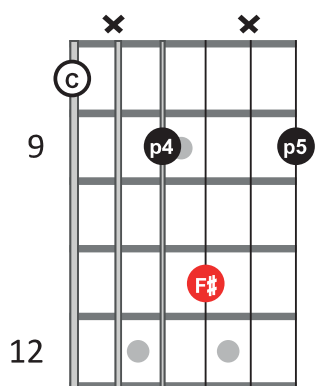
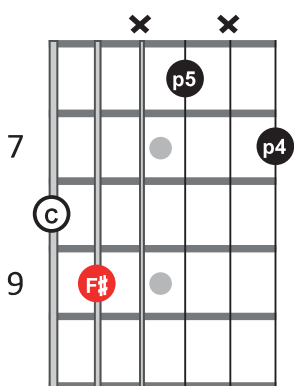
$$\frac{D^{sus4}}{C}$$



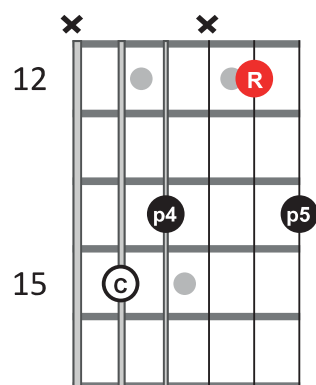
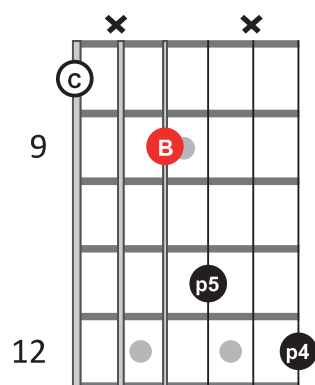
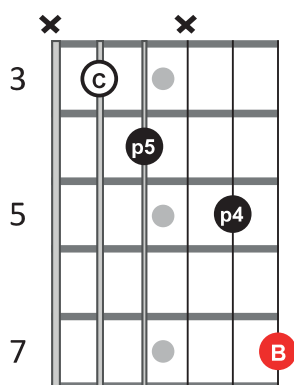
$$\frac{E^{sus4}}{C}$$



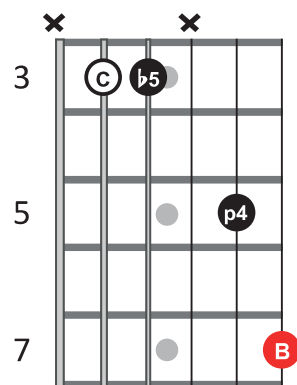
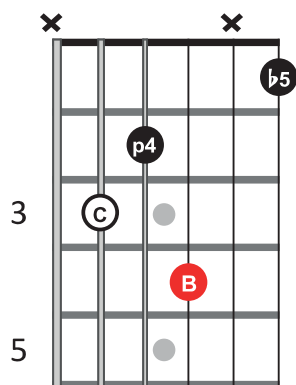
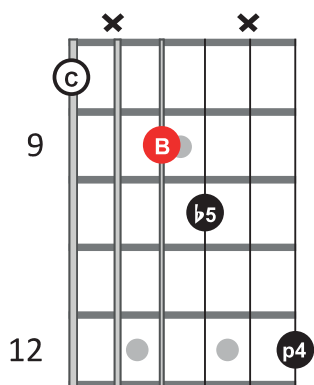
$$\frac{F\#^{sus4}}{C}$$



$$\frac{B^{sus4}}{C}$$

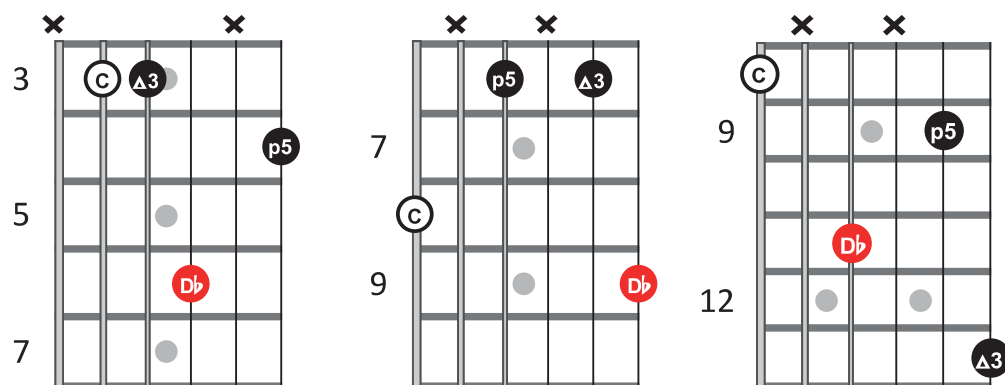


$$\frac{B^{loc}}{C}$$

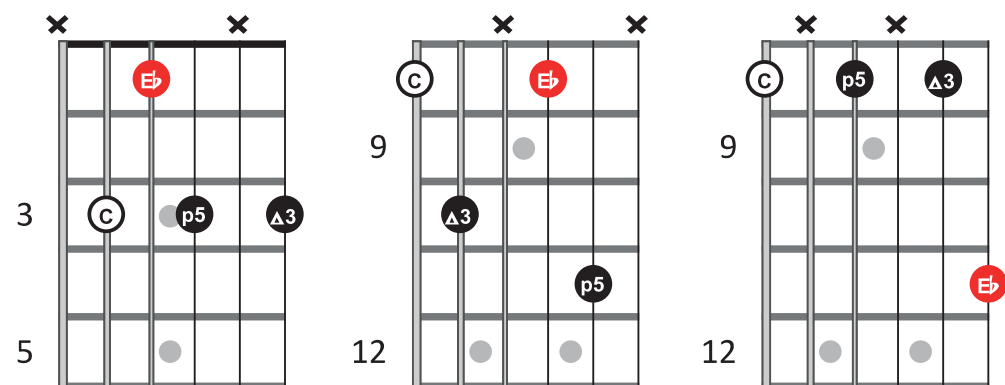


Minor Type Spread Triads Bass Notes (C)

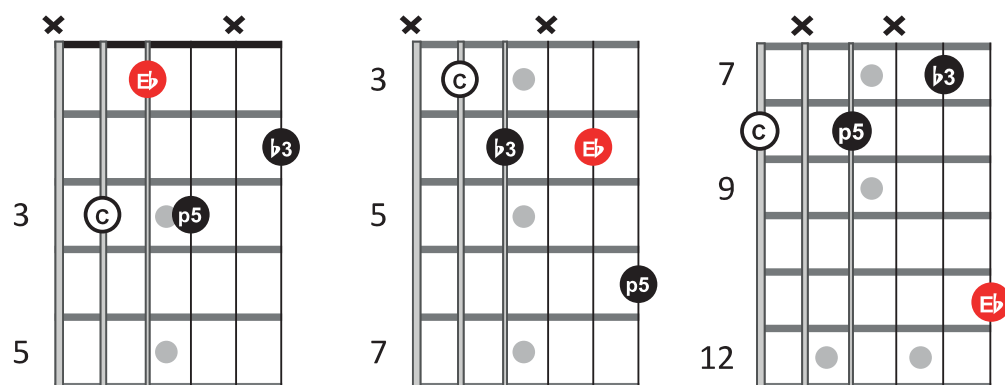
$\frac{D\flat}{C}$



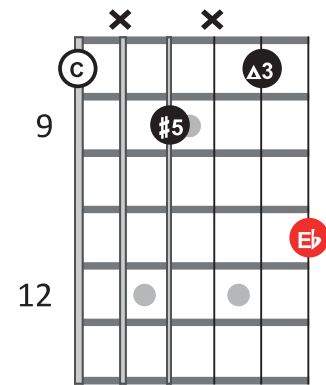
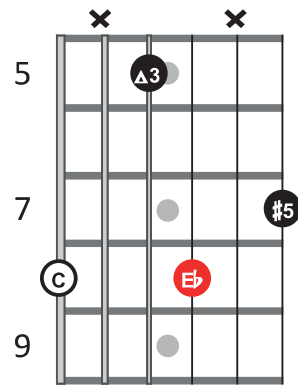
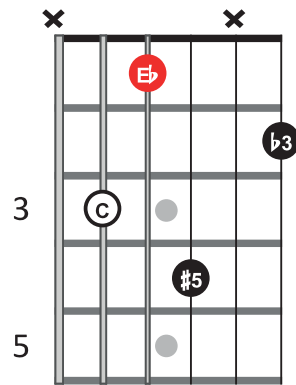
$\frac{E\flat}{C}$



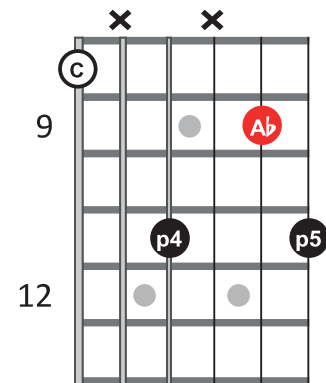
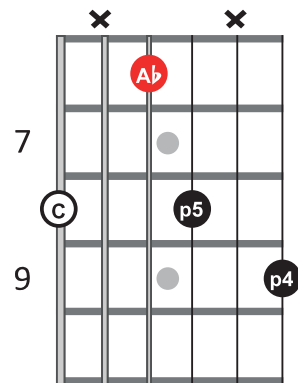
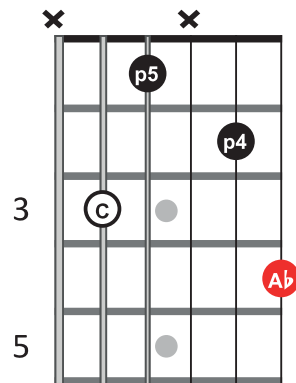
$\frac{E\flat-}{C}$



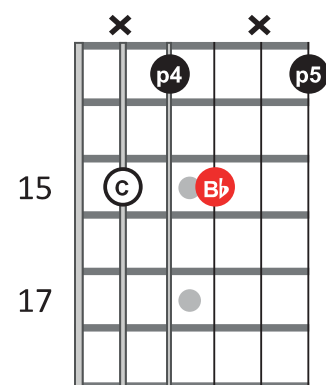
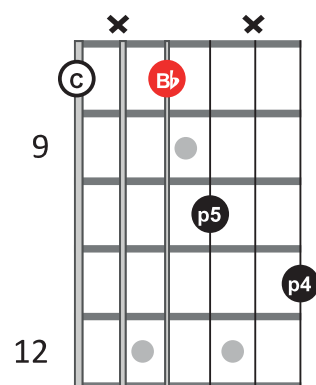
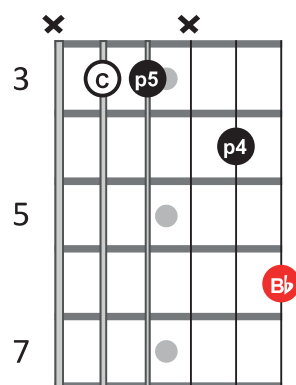
$$\frac{Eb+}{C}$$



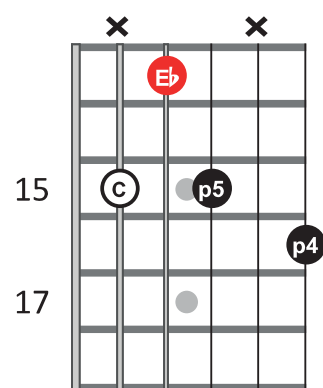
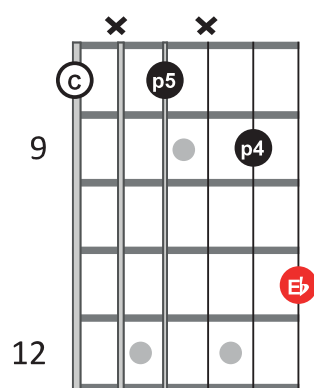
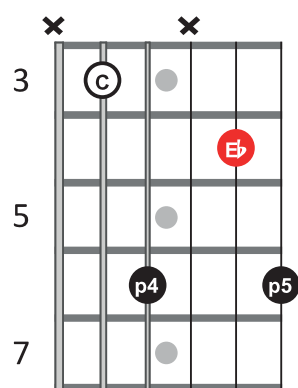
$$\frac{Ab^{sus4}}{C}$$



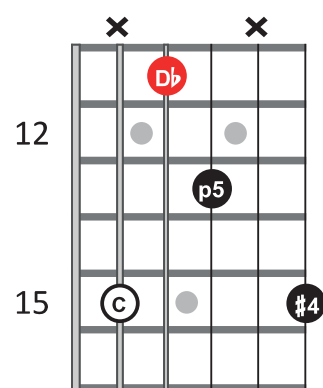
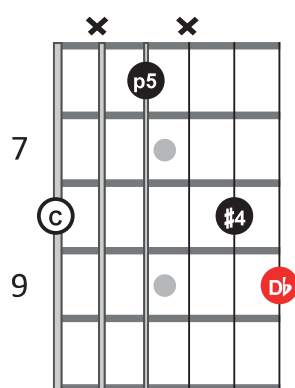
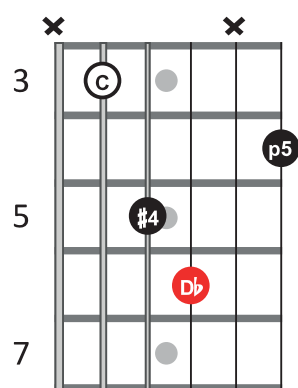
$$\frac{Bb^{sus4}}{C}$$



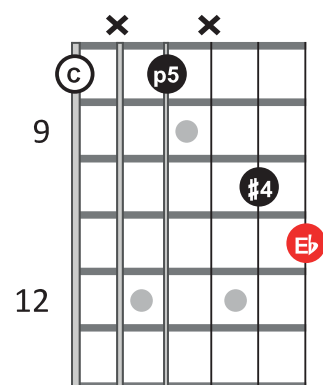
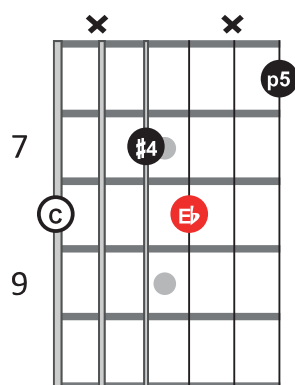
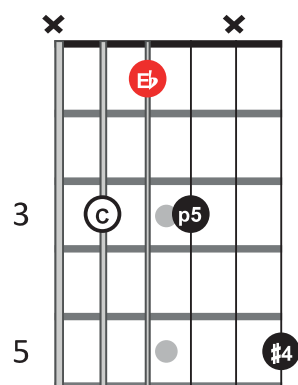
$$\frac{Eb^{sus4}}{C}$$



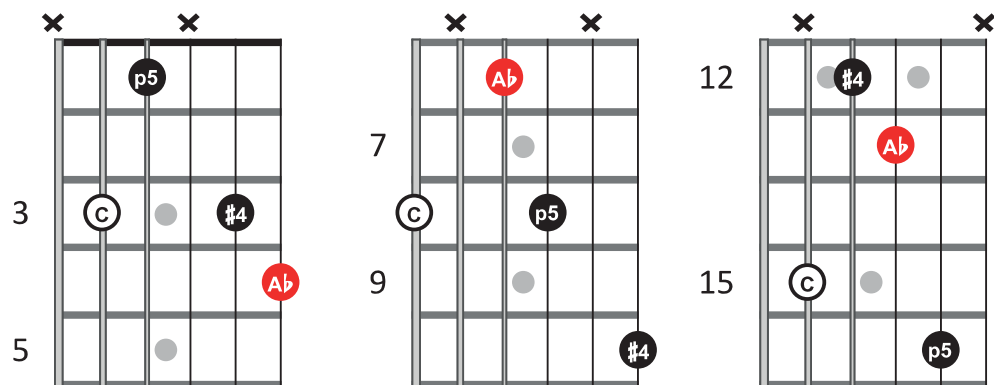
$$\frac{Db^{lyd}}{C}$$



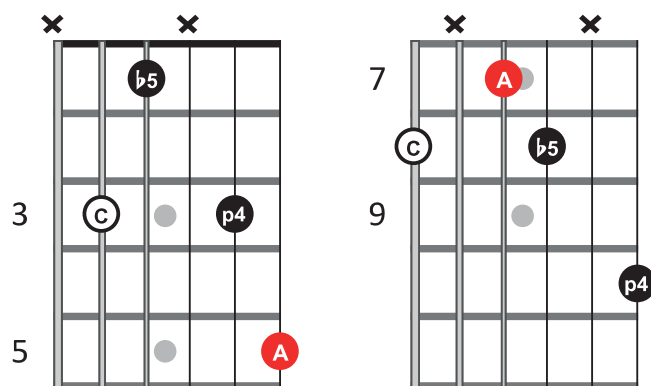
$$\frac{Eb^{lyd}}{C}$$



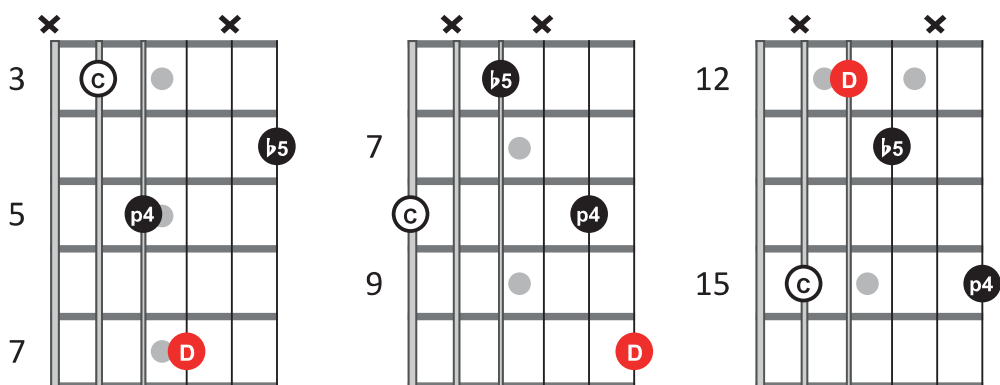
$$\frac{Ab^{lyd}}{C}$$



$$\frac{A^{loc}}{C}$$

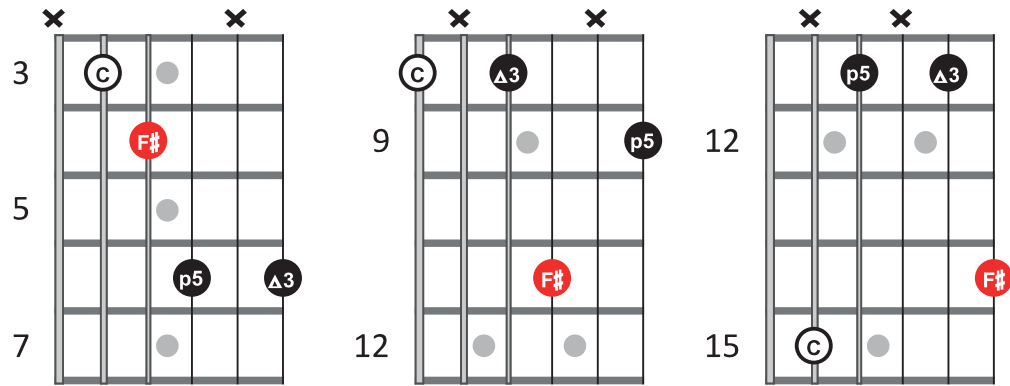


$$\frac{D^{loc}}{C}$$

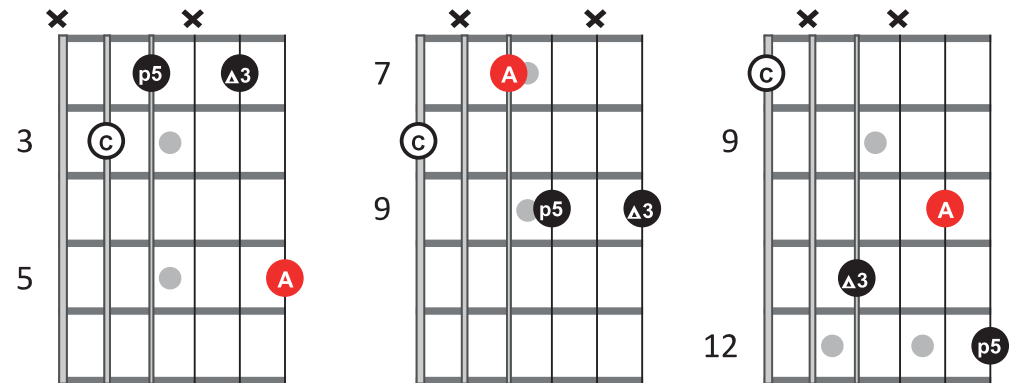


Dom⁷ Type Spread Triads Bass Notes (C)

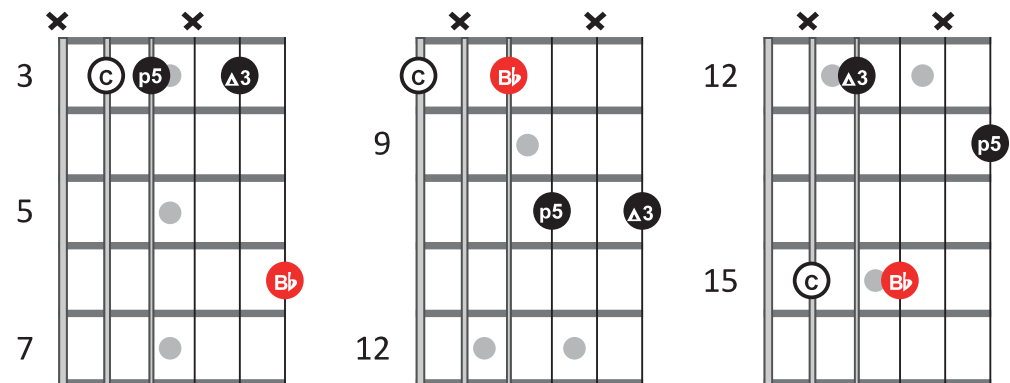
$\frac{F\#}{C}$



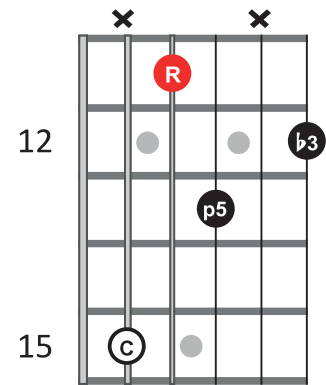
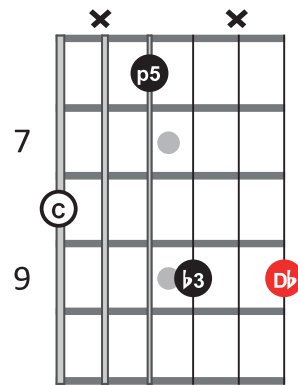
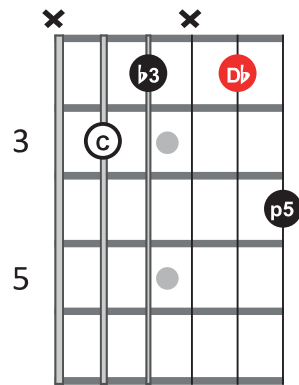
$\frac{A}{C}$



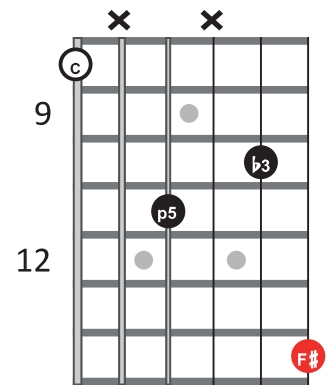
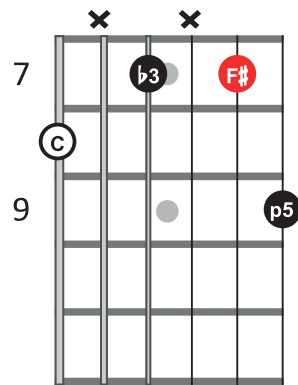
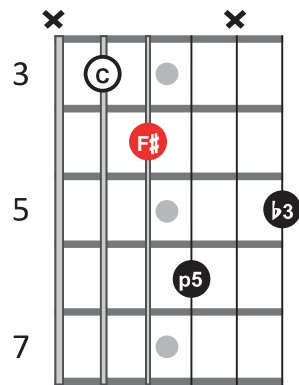
$\frac{Bb}{C}$



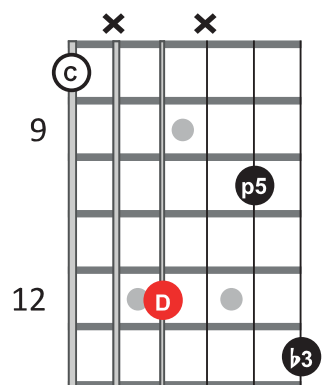
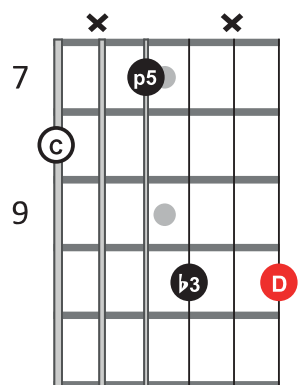
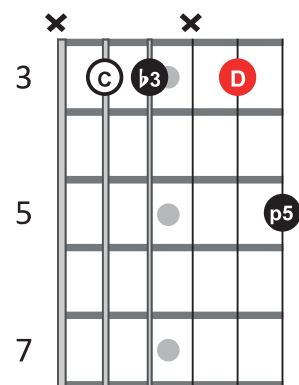
Db-
C



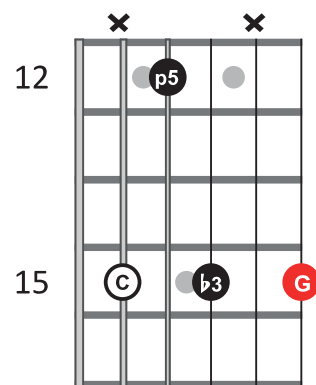
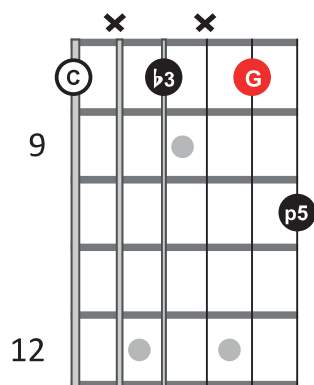
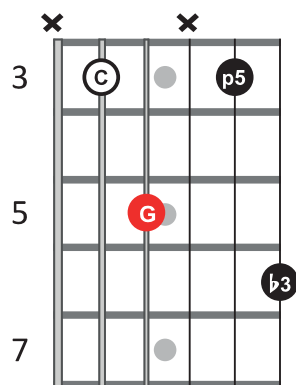
F#-
C



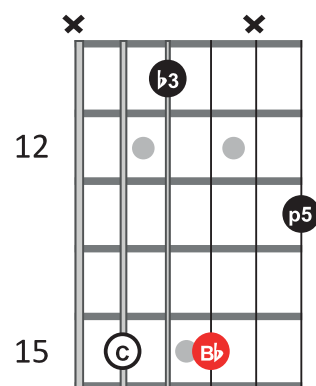
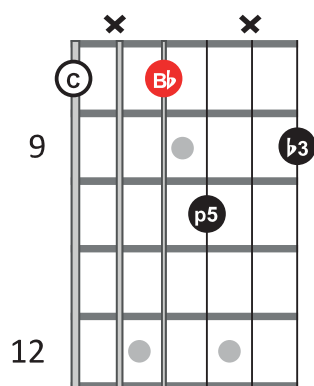
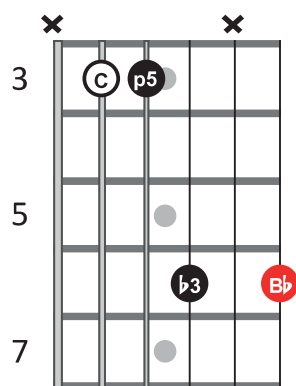
D-
C



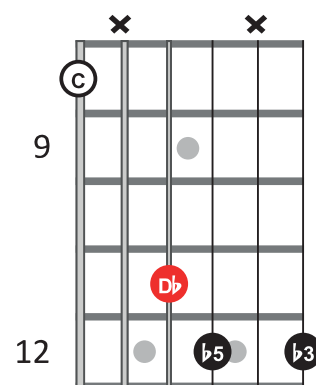
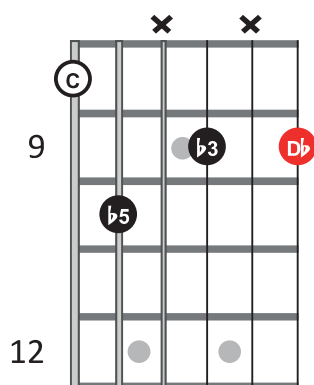
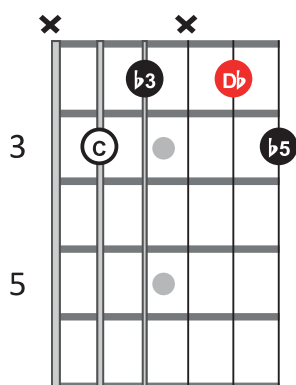
$$\frac{G-}{C}$$



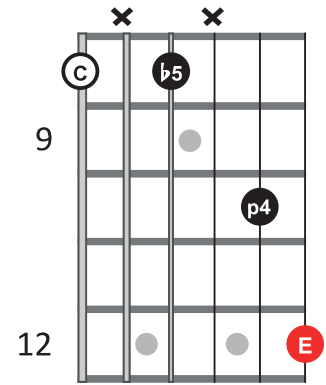
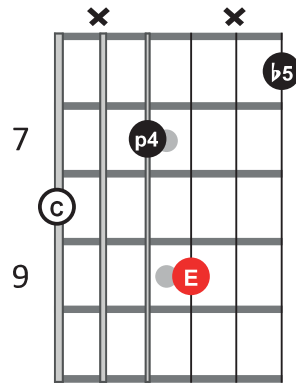
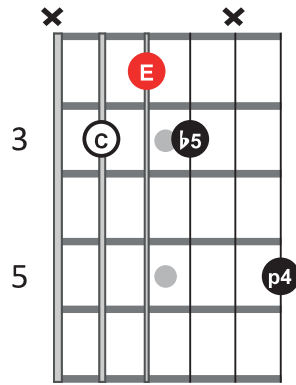
$$\frac{Bb-}{C}$$



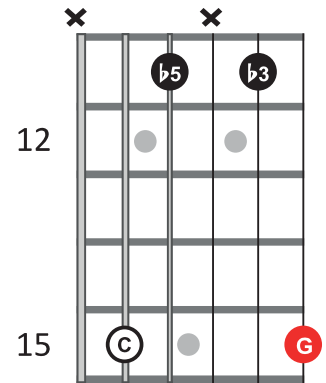
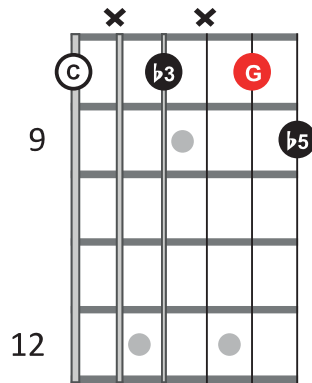
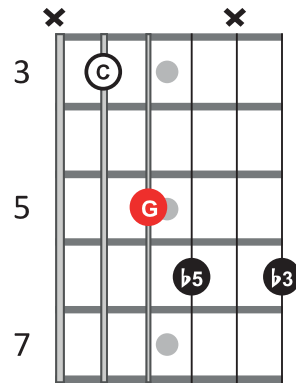
$$\frac{Db^{\circ}}{C}$$



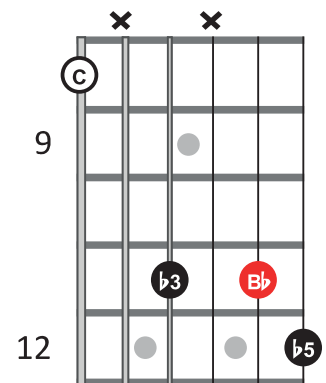
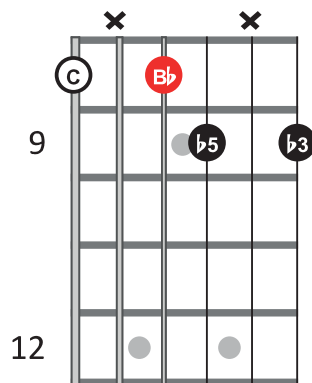
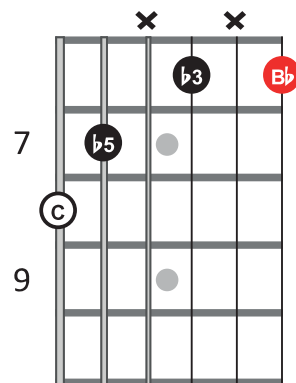
$$\frac{E^\circ}{C}$$



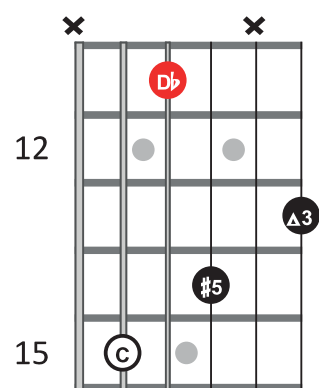
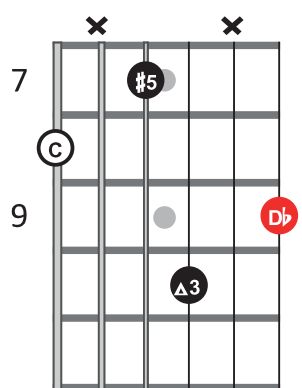
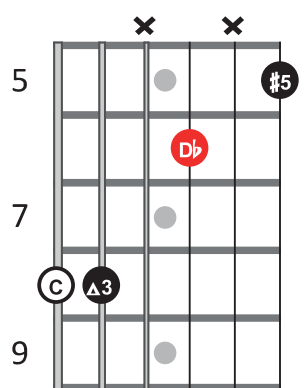
$$\frac{G^\circ}{C}$$



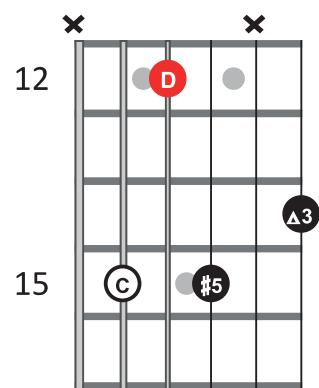
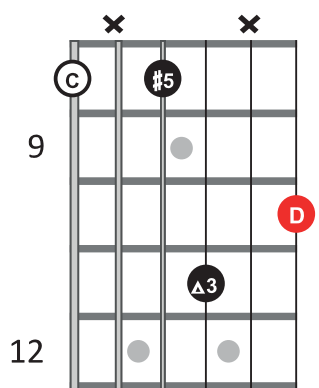
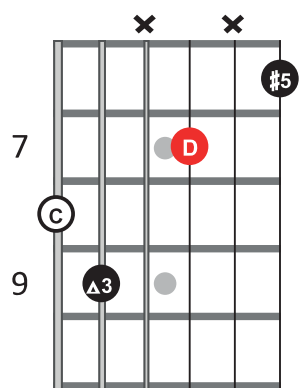
$$\frac{Bb^\circ}{C}$$



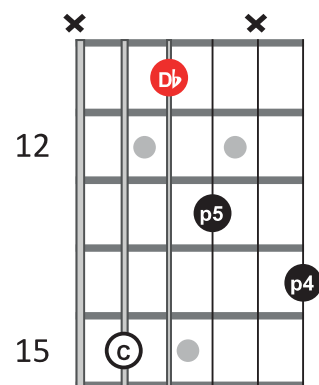
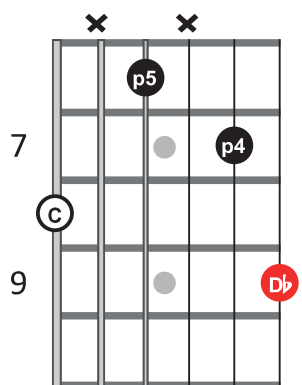
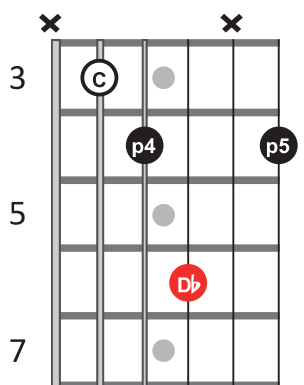
$$\frac{Db+}{C}$$



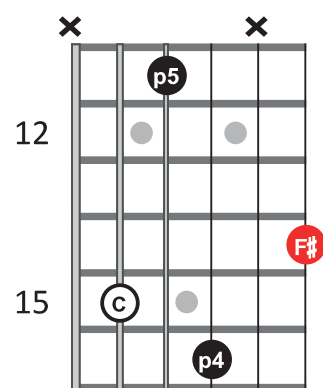
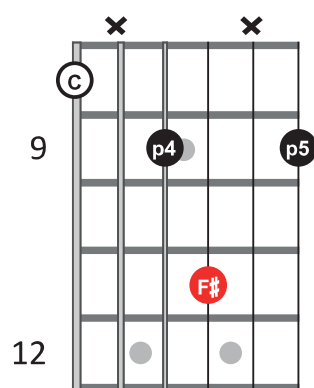
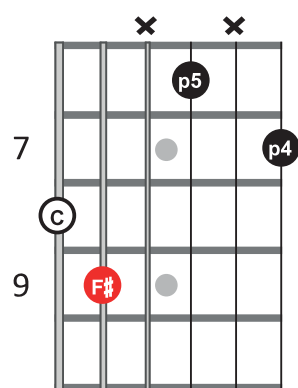
$$\frac{D+}{C}$$



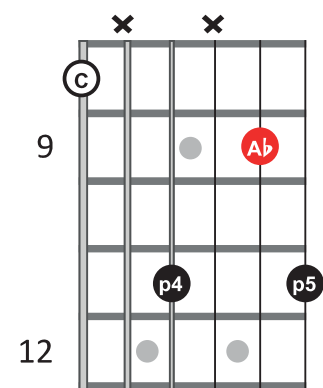
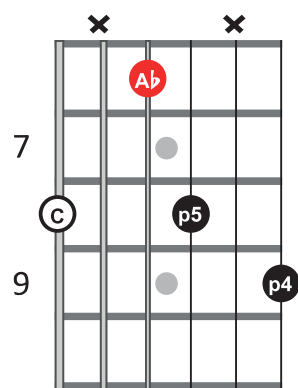
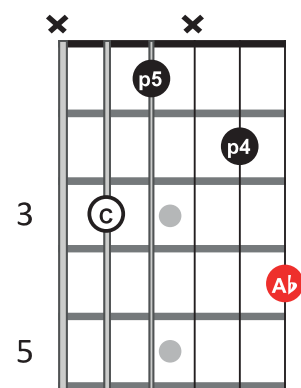
$$\frac{Db^{sus4}}{C}$$



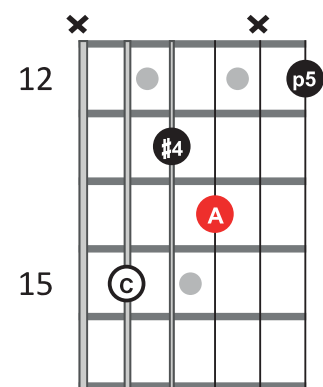
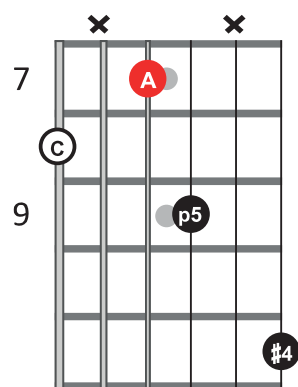
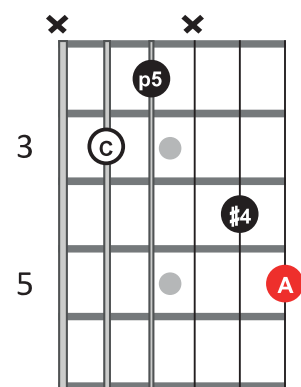
$$\frac{F\sharp^{sus4}}{C}$$



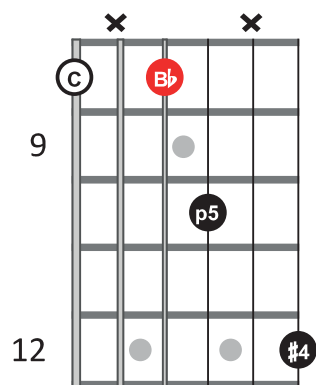
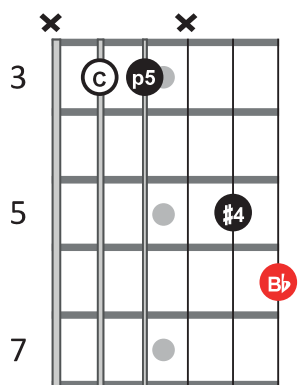
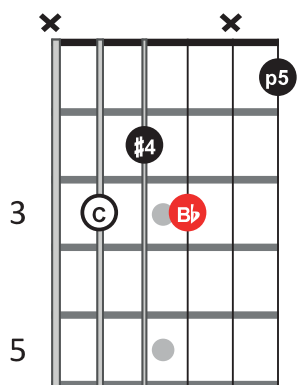
$$\frac{Ab^{sus4}}{C}$$



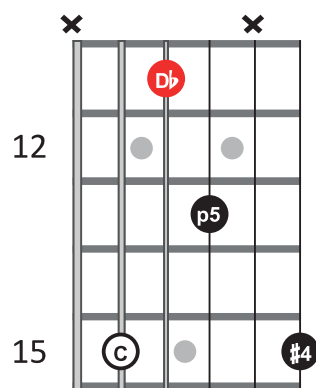
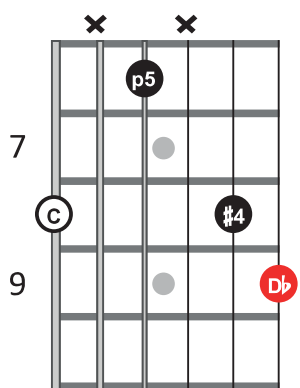
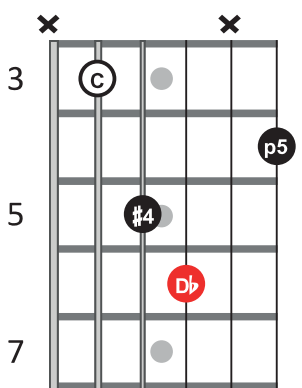
$$\frac{A^{lyd}}{C}$$



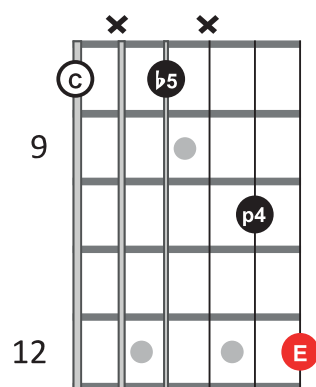
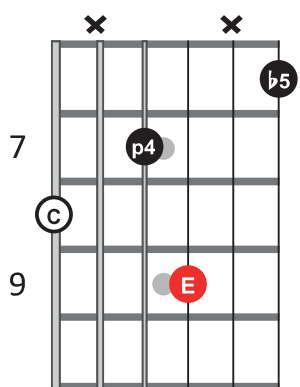
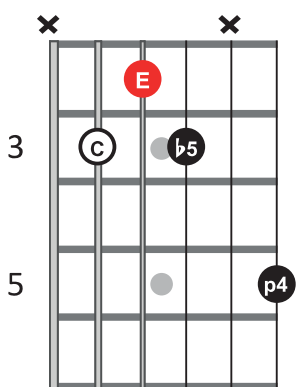
$$\frac{Bb^{lyd}}{C}$$



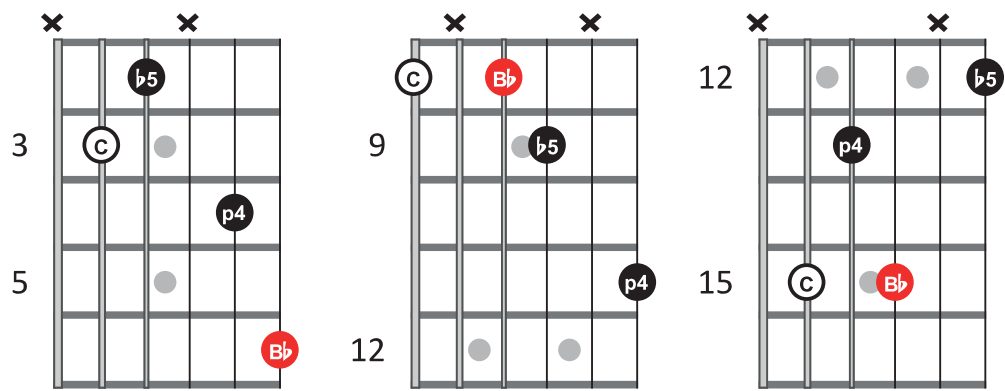
$$\frac{Db^{lyd}}{C}$$



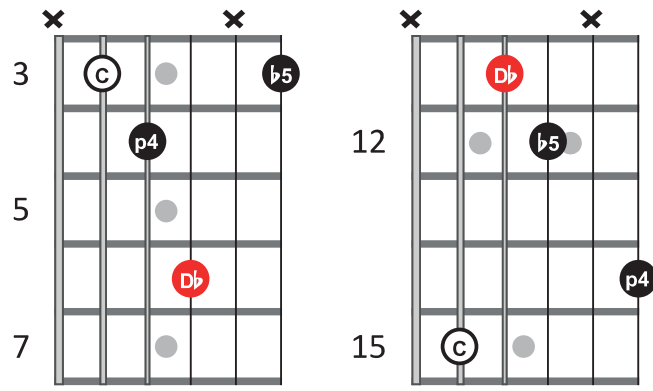
$$\frac{E^{loc}}{C}$$



$$\frac{Bb^{loc}}{C}$$

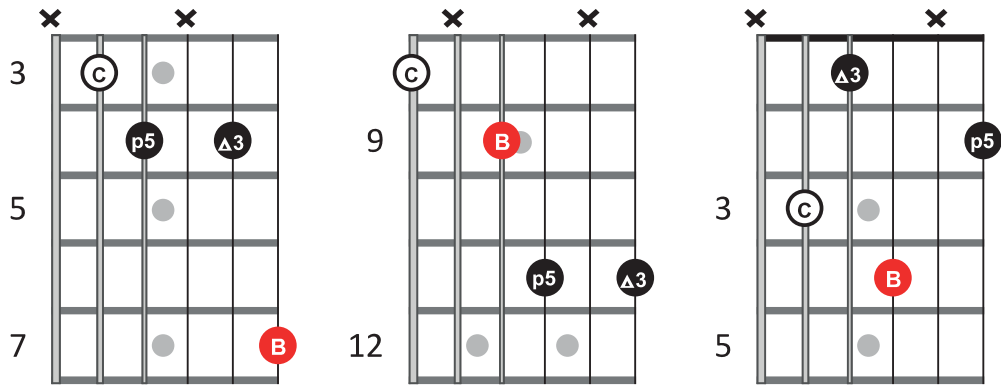


$$\frac{Db^{loc}}{C}$$

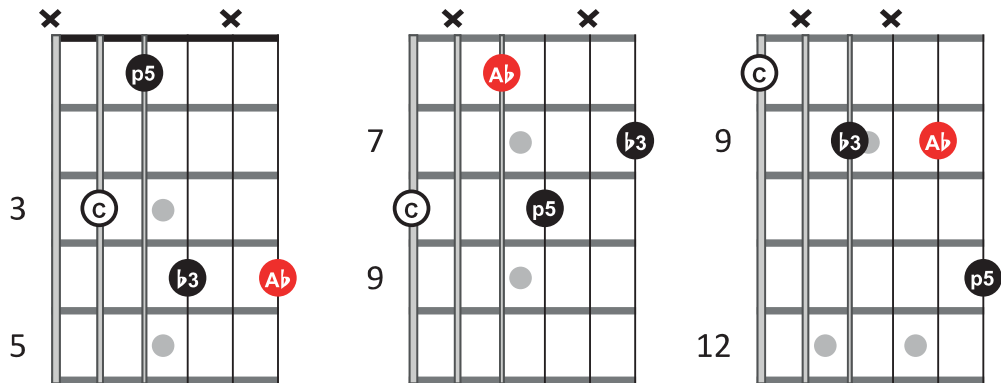


Diminished Type Spread Triads Bass Notes (C)

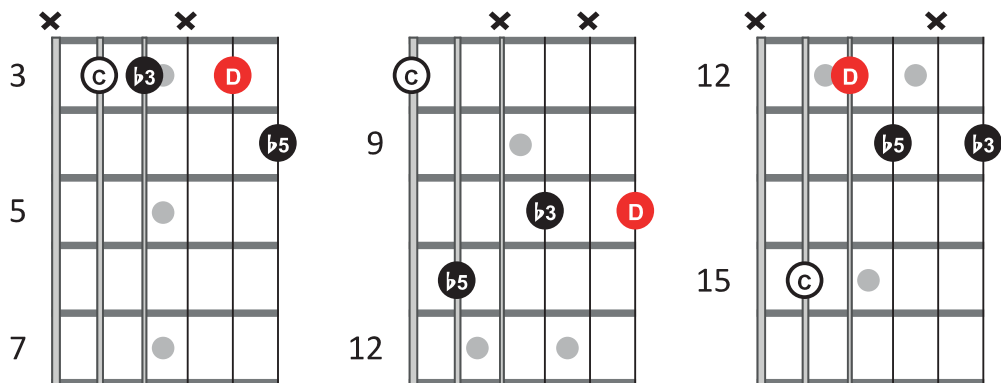
$\frac{B}{C}$



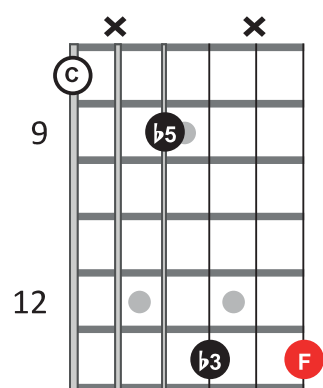
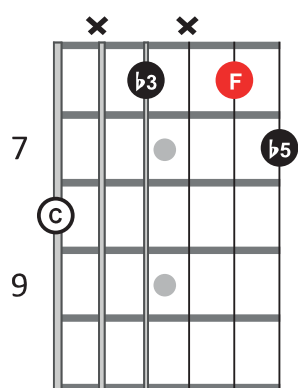
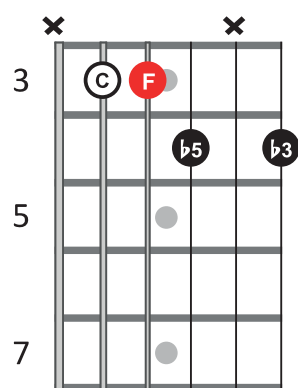
$\frac{Ab}{C}$



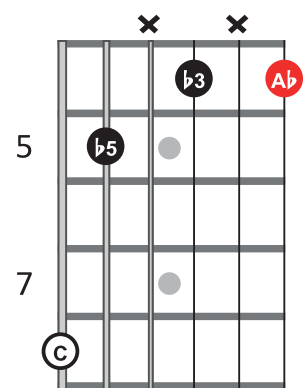
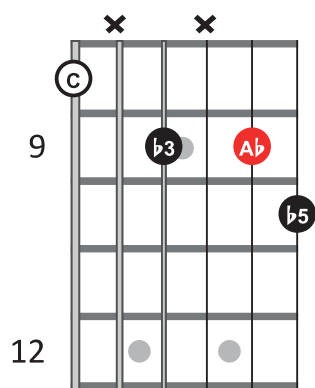
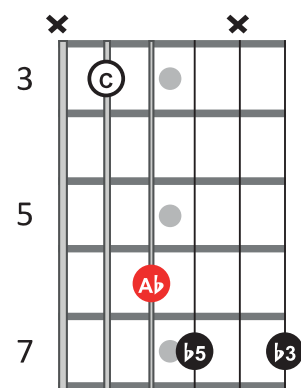
$\frac{D^{\circ}}{C}$



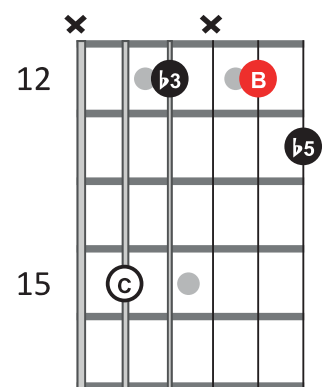
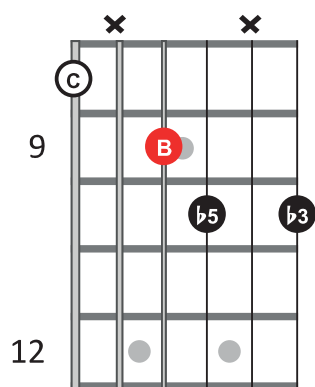
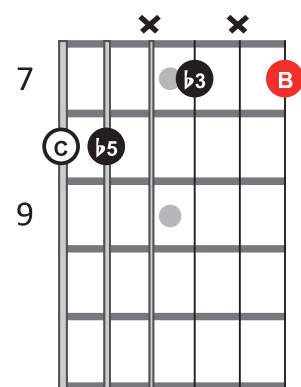
$$\frac{F^{\circ}}{C}$$



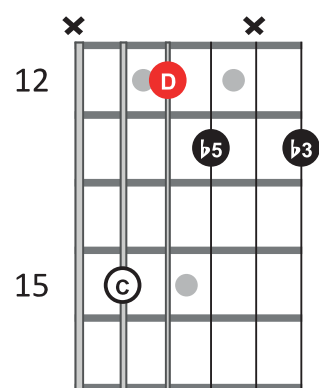
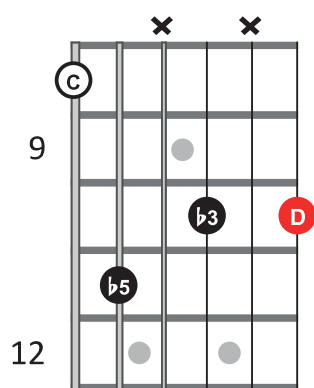
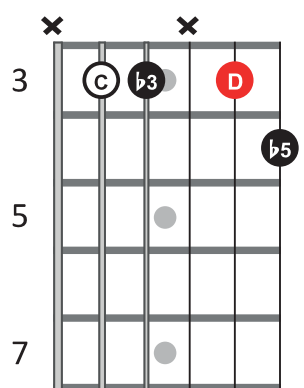
$$\frac{Ab^{\circ}}{C}$$



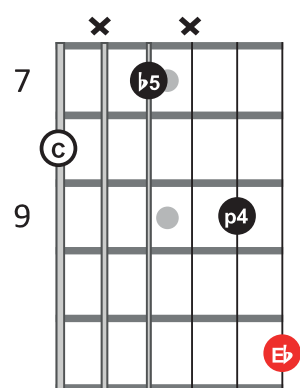
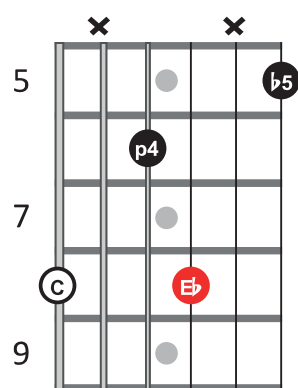
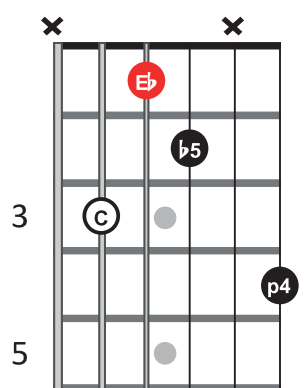
$$\frac{B^{\circ}}{C}$$



$$\frac{D^o}{C}$$

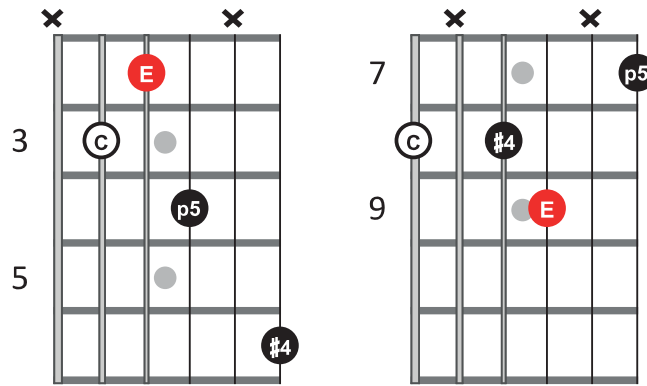


$$\frac{Eb^{loc}}{C}$$

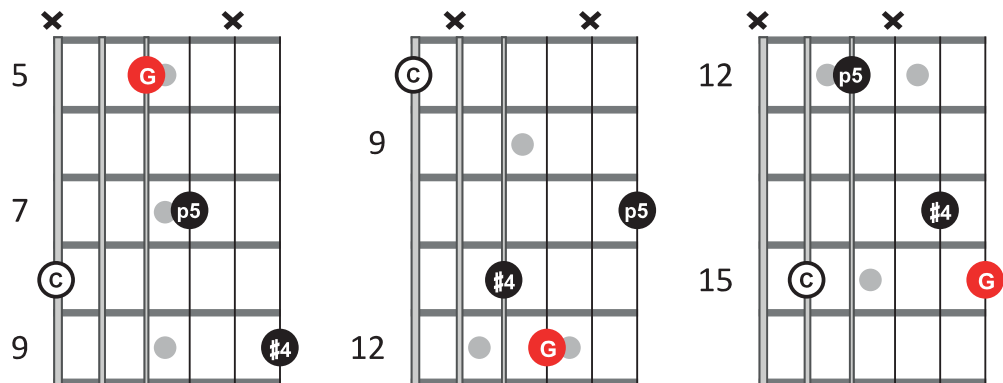


Twelve Tone Type Spread Triads Bass Notes (C)

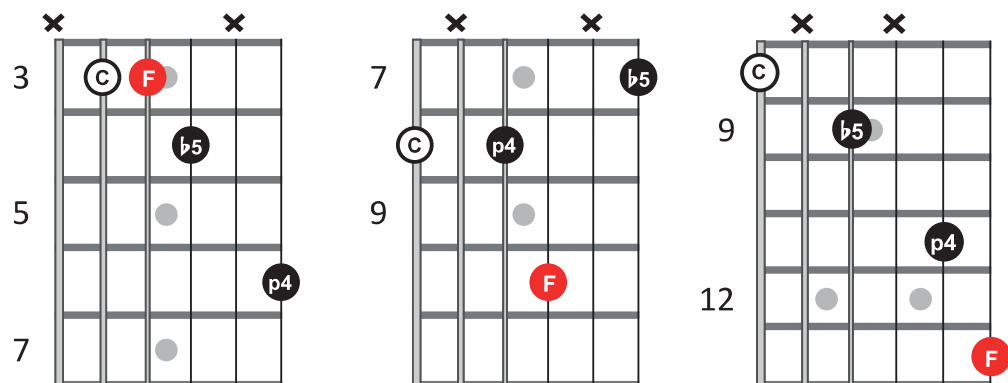
$$\frac{E^{lyd}}{C}$$



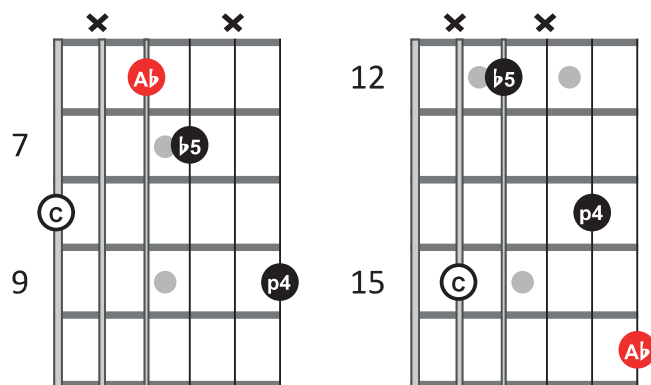
$$\frac{G^{lyd}}{C}$$



$$\frac{F^{loc}}{C}$$



$$\frac{Ab^{loc}}{c}$$



Quartal Voicings

Quartal voicings are constructed by the superimposition of diatonic fourth intervals. The three part quartal voicing is most commonly used because it functions nicely in an upper-structure capacity. For this reason the (Q) nomenclature has been devised.

Three Part Quartal Voicings

Ex. 140

Cmaj

Ex. 141

a) $F^{+4}Q = \begin{matrix} & +4 & & P4 \\ & \diagdown & \diagup & \\ F & & B & \\ & \diagup & \diagdown & \\ & & E & \end{matrix} \longrightarrow 1 \quad \#4 \quad 7$

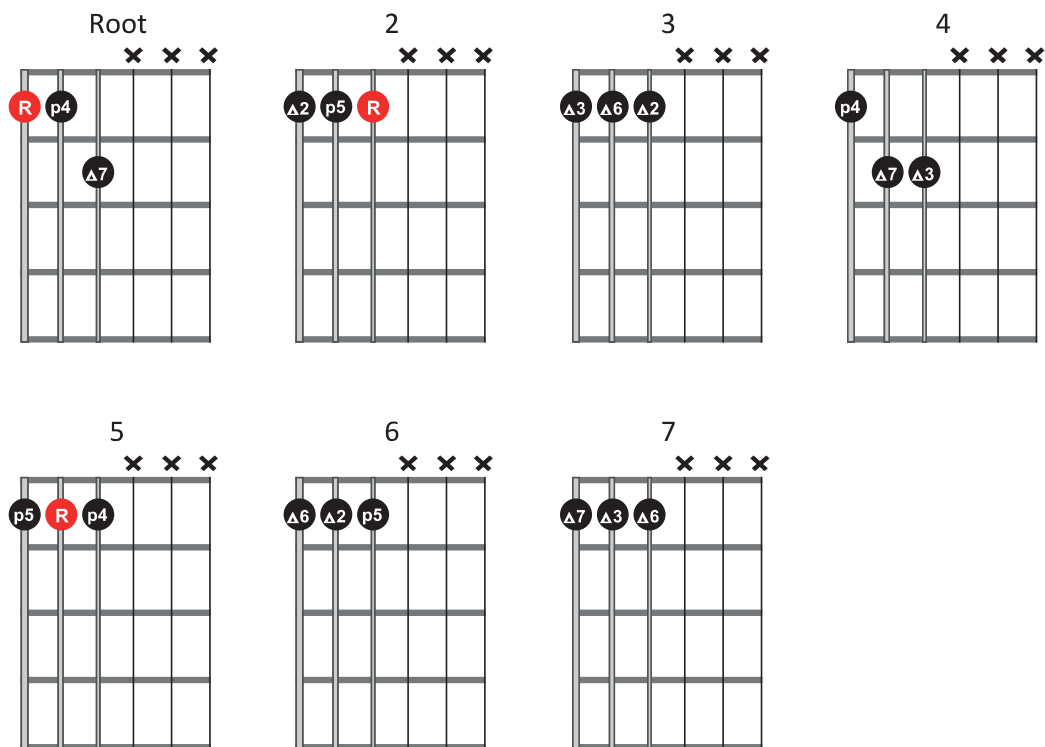
b) $CQ^{+4} = \begin{matrix} & P4 & & +4 \\ & \diagdown & \diagup & \\ C & & F & \\ & \diagup & \diagdown & \\ & & B & \end{matrix} \longrightarrow 1 \quad 4 \quad 7$

c) $GQ = \begin{matrix} & P4 & & P4 \\ & \diagdown & \diagup & \\ G & & C & \\ & \diagup & \diagdown & \\ & & F & \end{matrix} \longrightarrow 1 \quad 4 \quad b7$

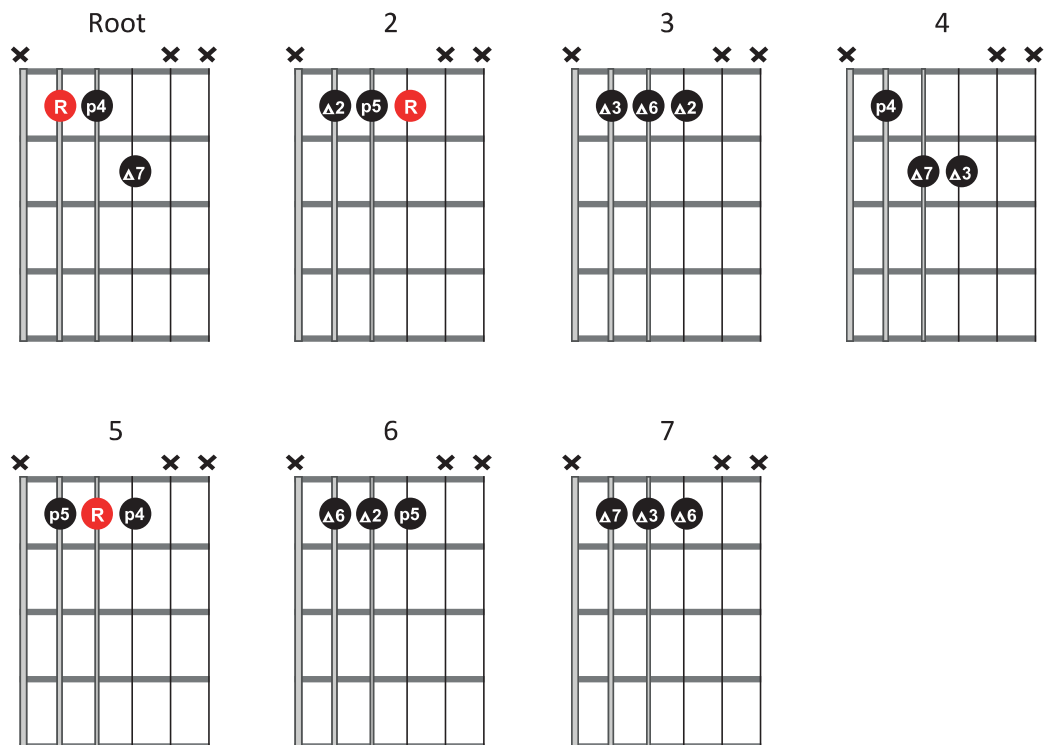
Four, Five, and Six-Part Quartal Voicings have not been specifically labeled.

3part-Quartal Voicings – Major Scale

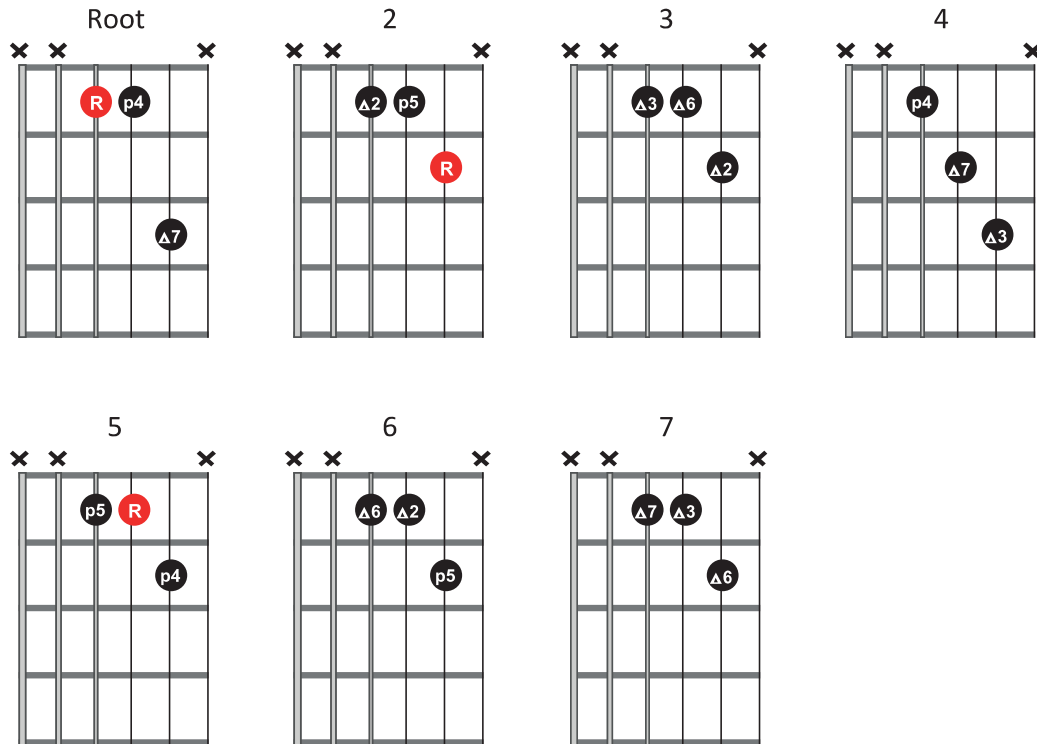
Stringset E-A-D



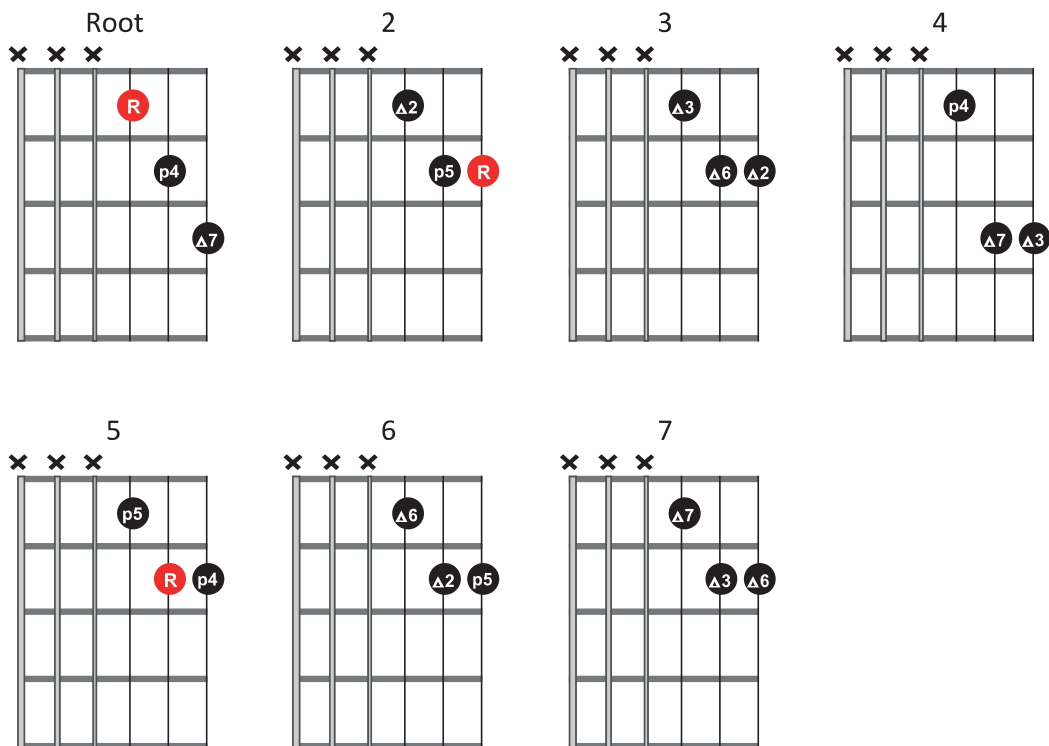
Stringset A-D-G



Stringset D-G-B

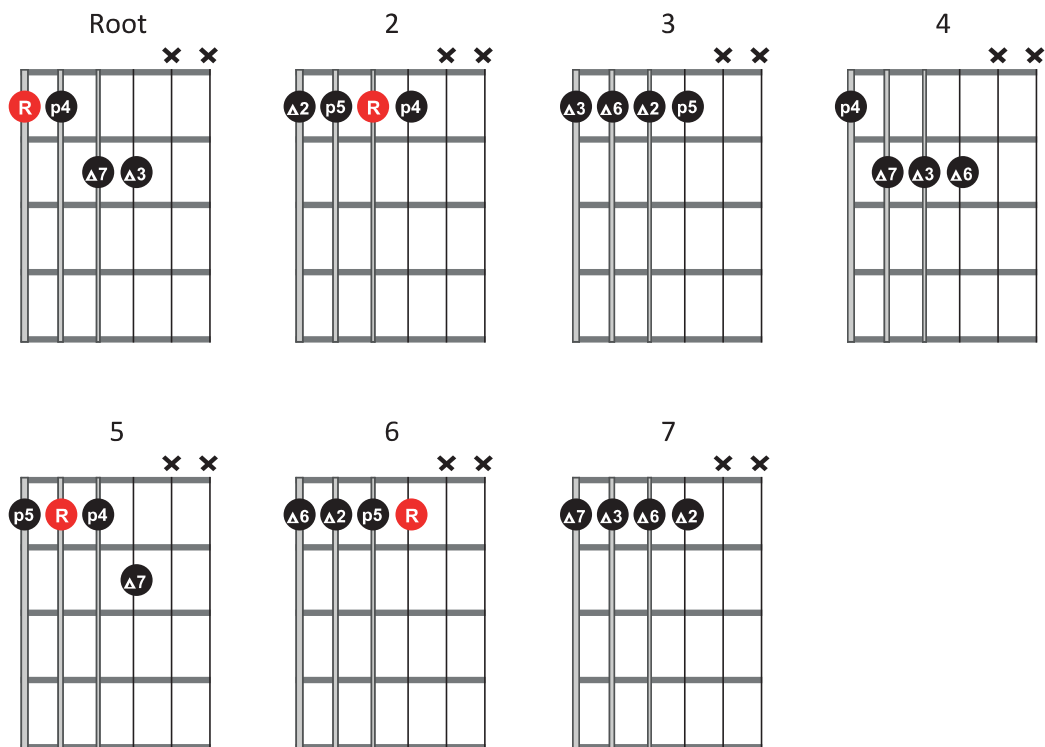


Stringset G-B-E

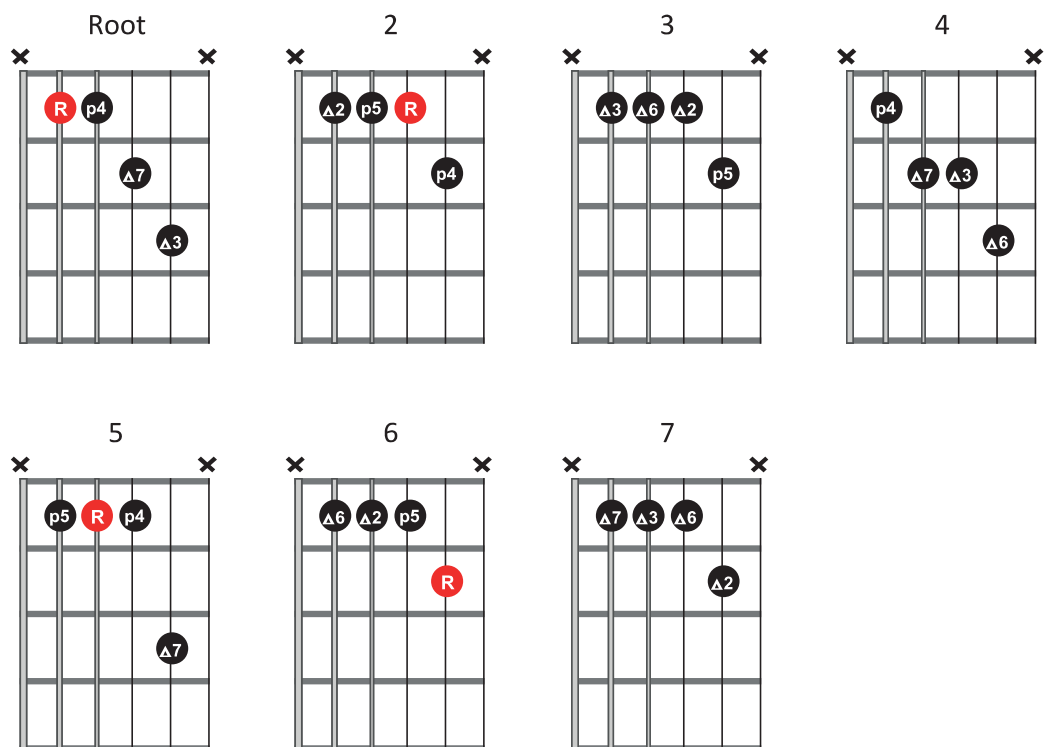


4part-Quartal Voicings – Major Scale

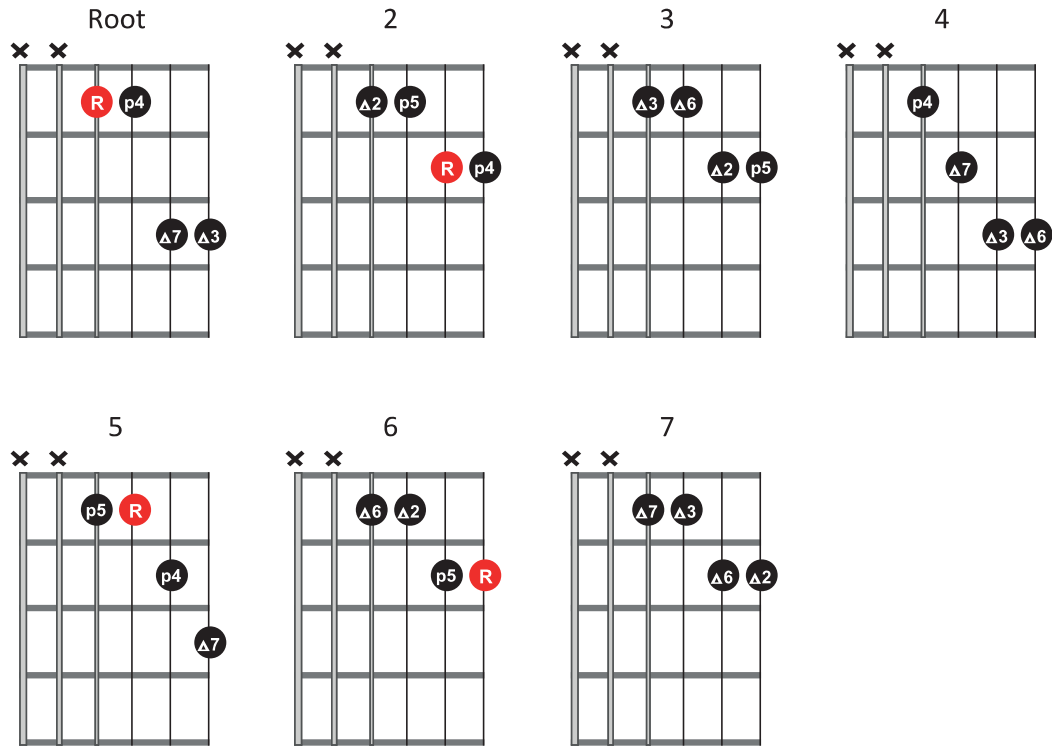
Stringset E-A-D-G



Stringset A-D-G-B

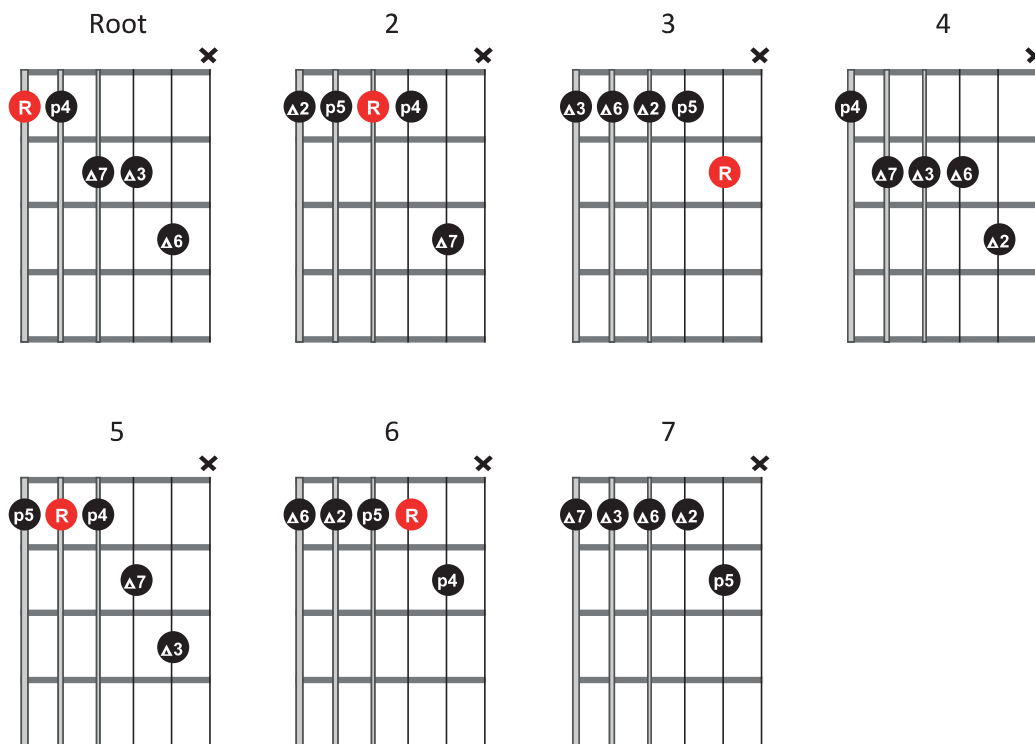


Stringset D-G-B-E

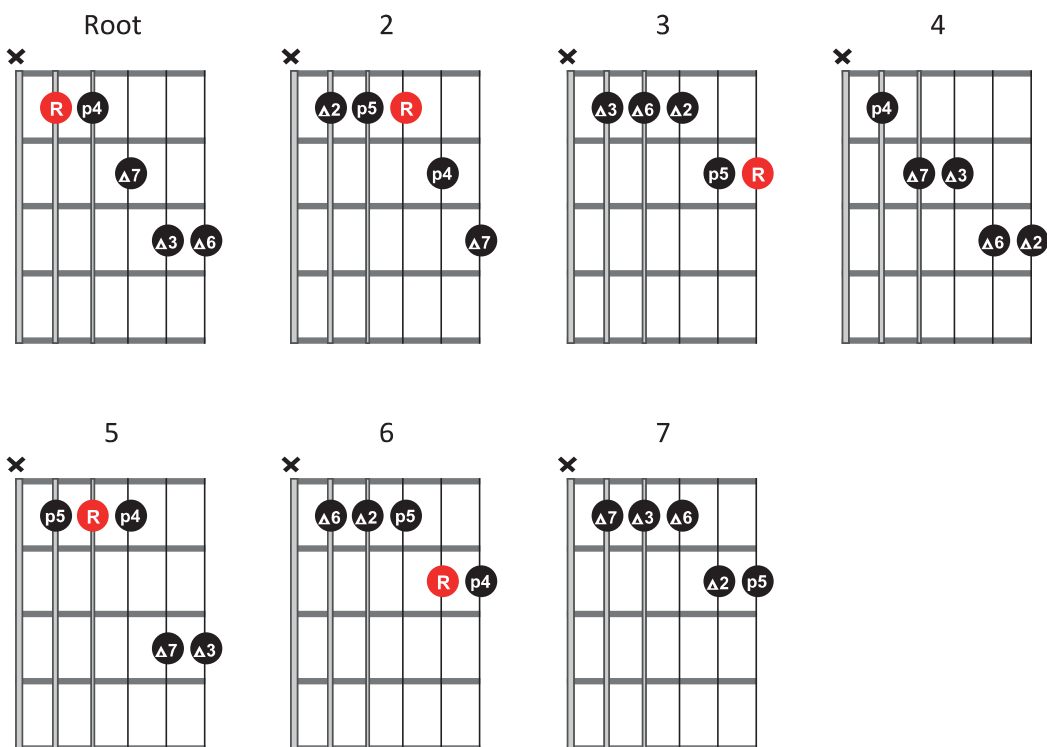


5part-Quartal Voicings – Major Scale

Stringset E-A-D-G-B

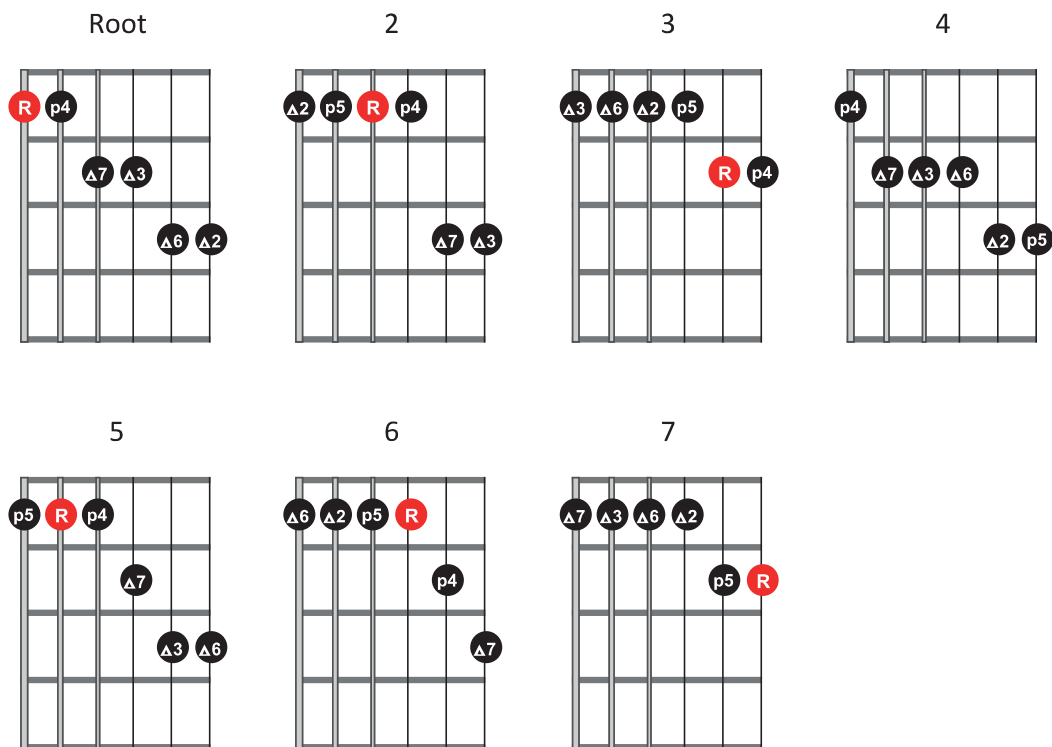


Stringset A-D-G-B-E



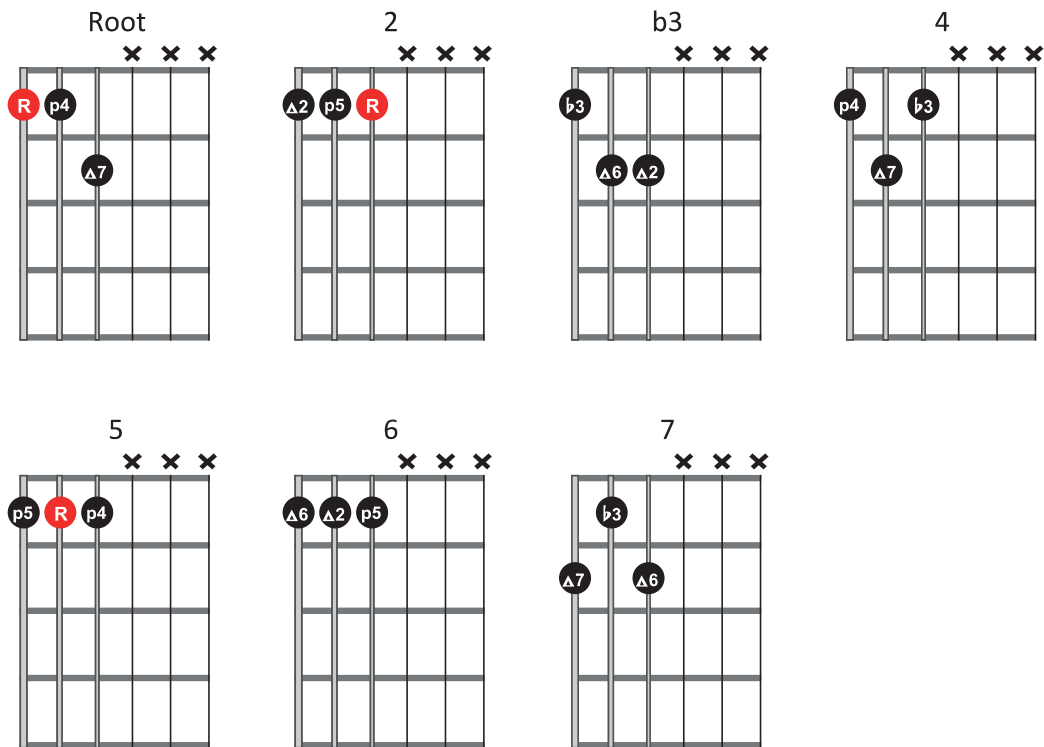
6part-Quartal Voicings – Major Scale

Stringset E-A-D-G-B-E

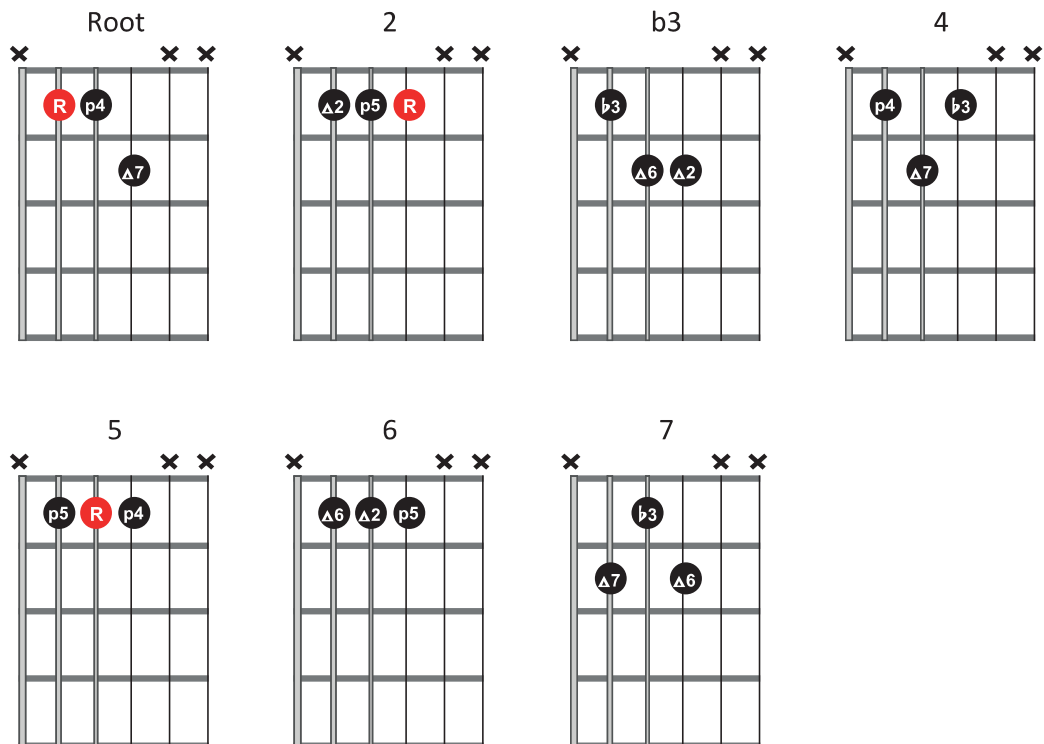


3part-Quartal Voicings – Melodic Minor

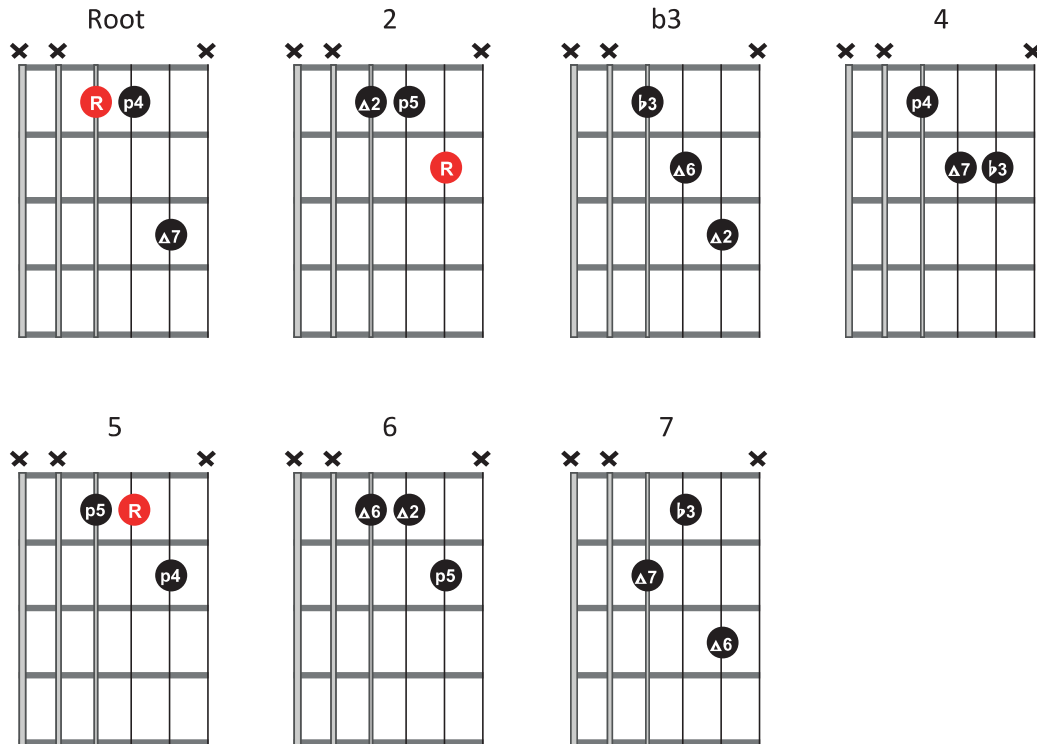
Stringset E-A-D



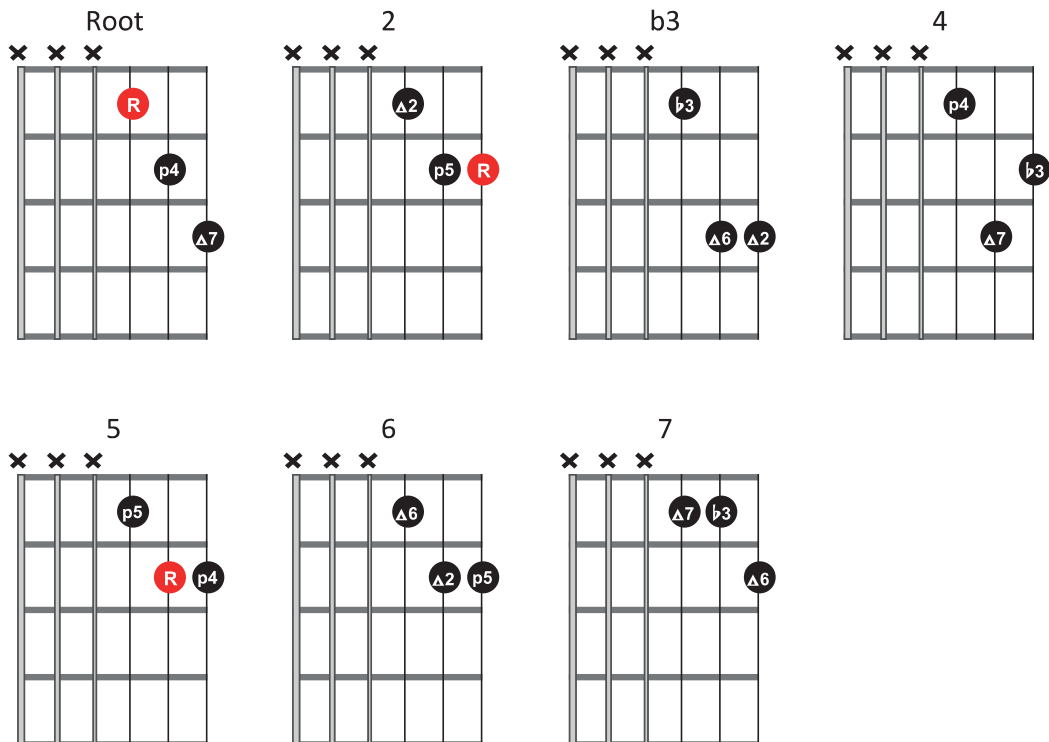
Stringset A-D-G



Stringset D-G-B

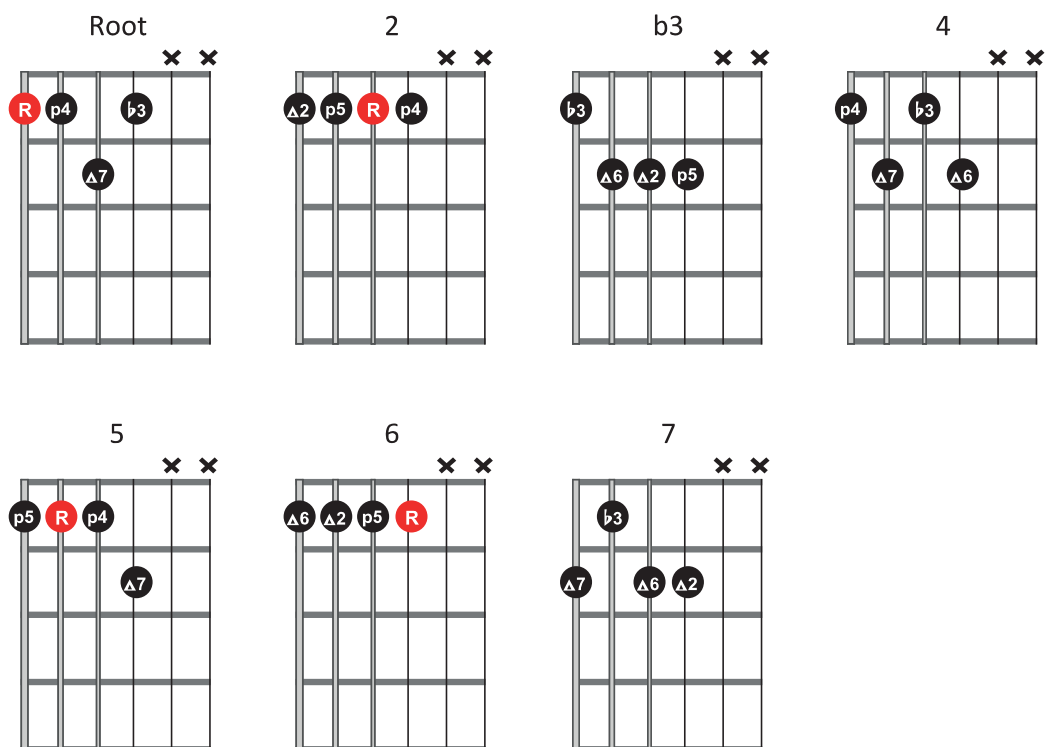


Stringset G-B-E

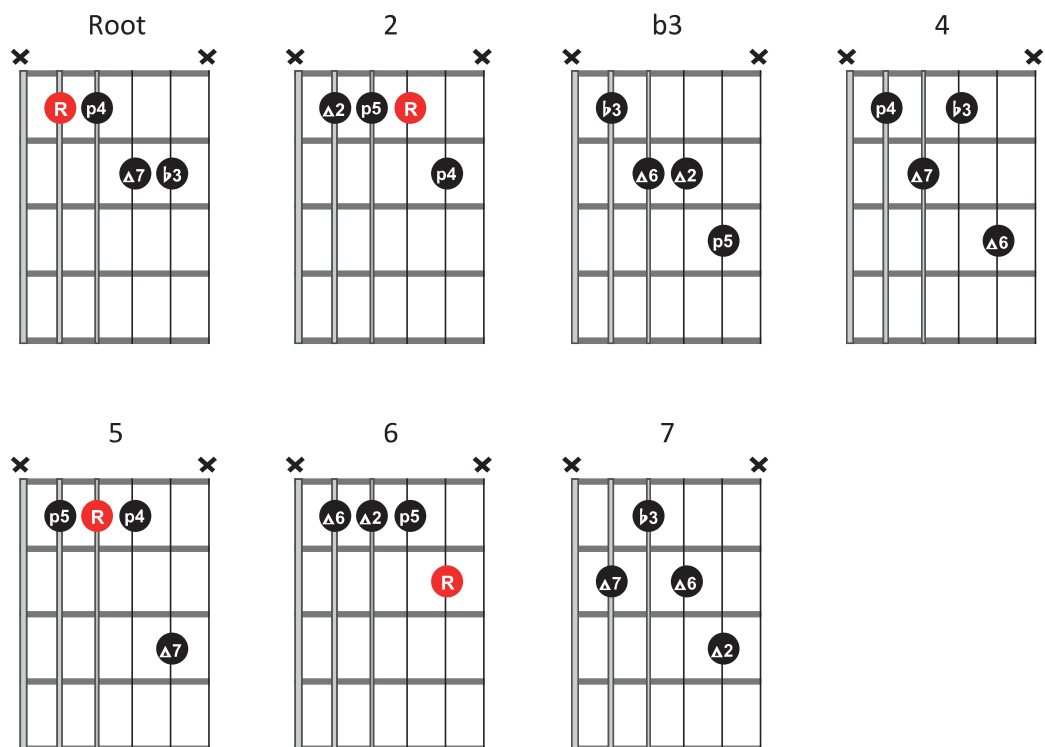


4part-Quartal Voicings – Melodic Minor

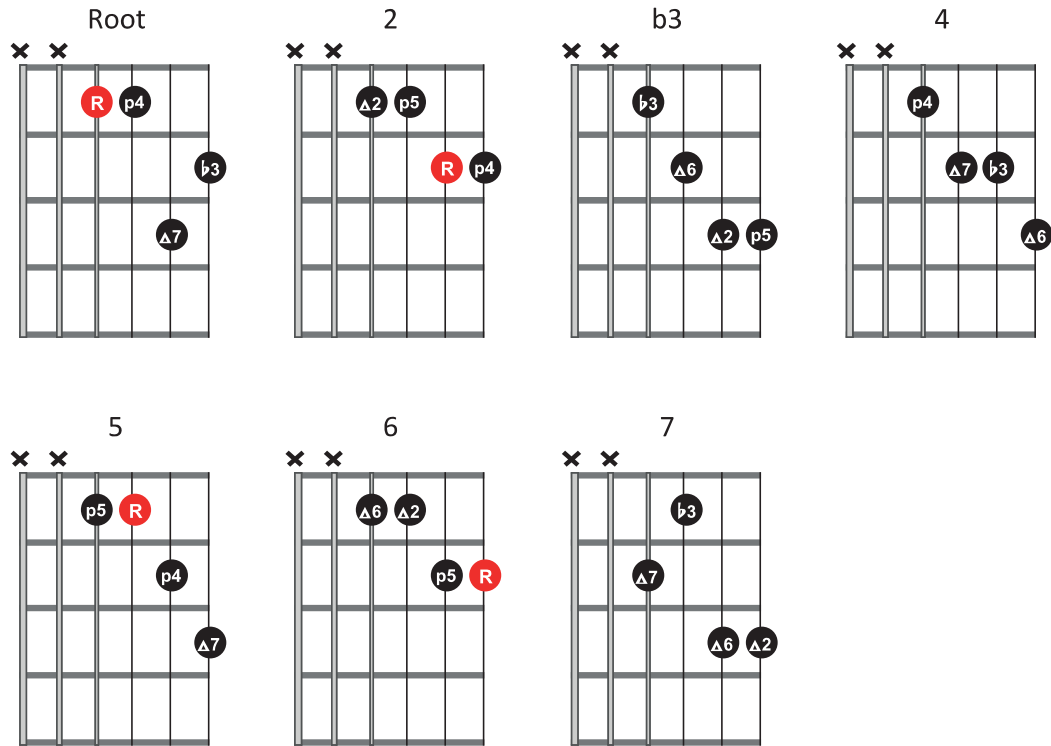
Stringset E-A-D-G



Stringset A-D-G-B

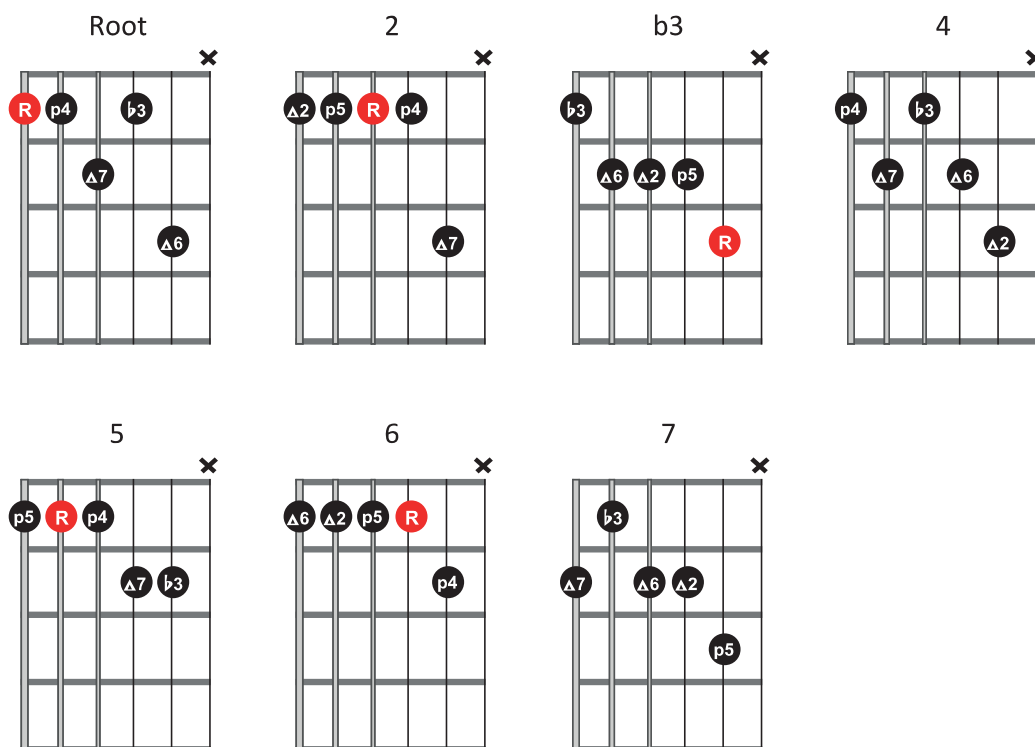


Stringset D-G-B-E

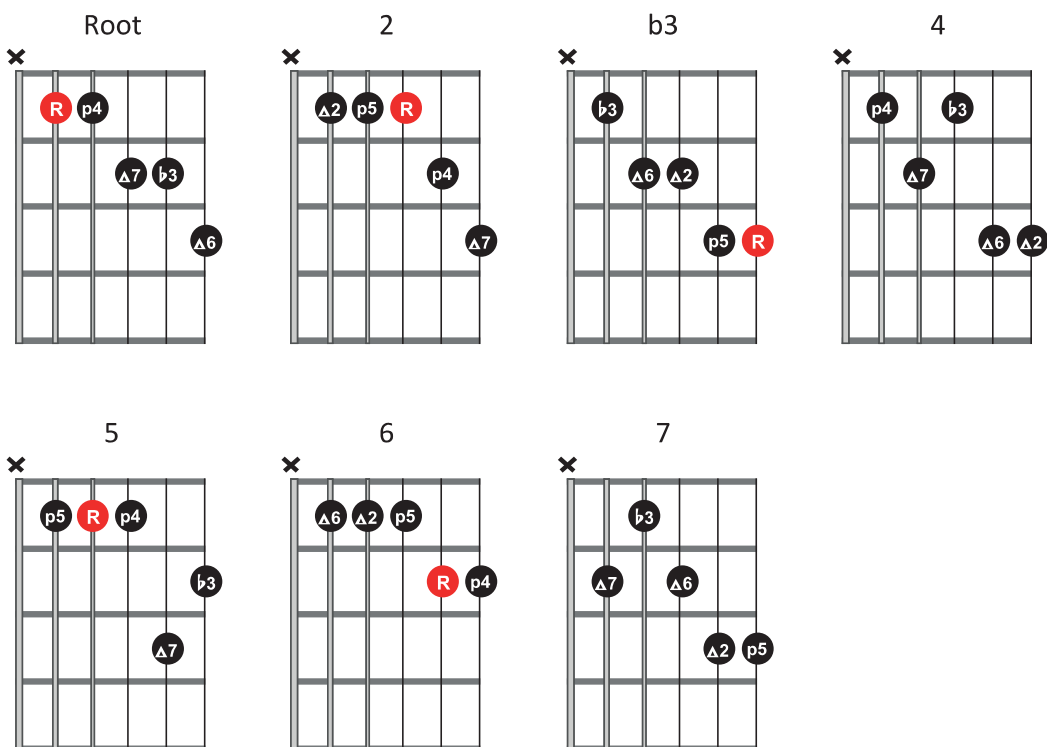


5part-Quartal Voicings – Melodic Minor

Stringset E-A-D-G-B

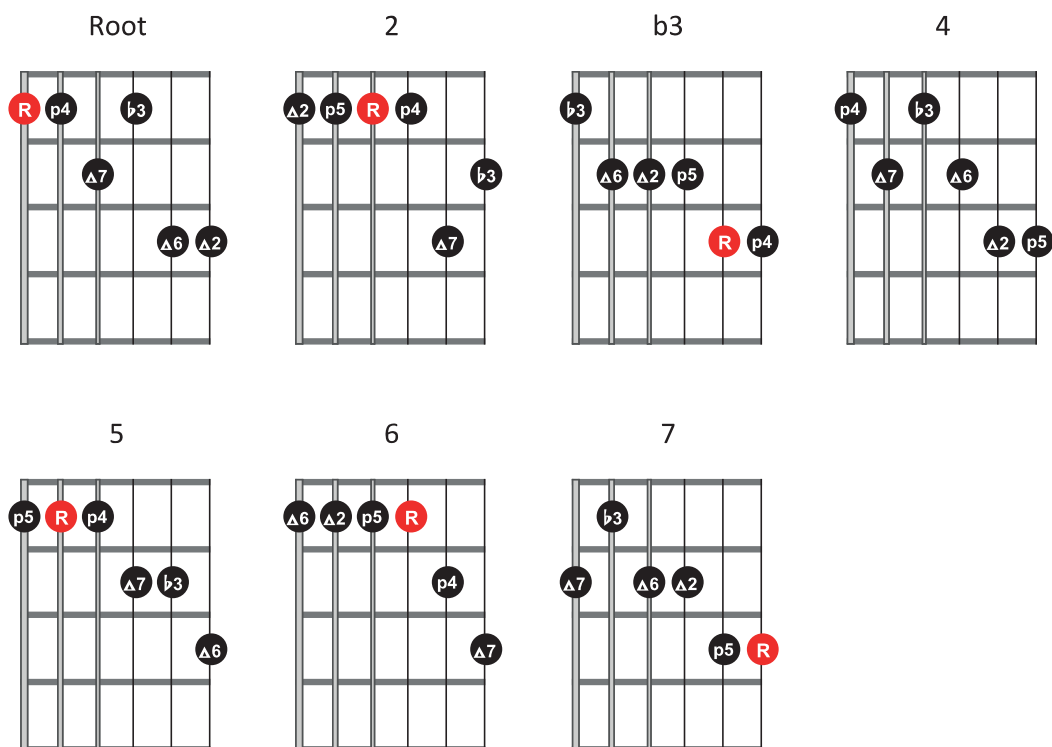


Stringset A-D-G-B-E



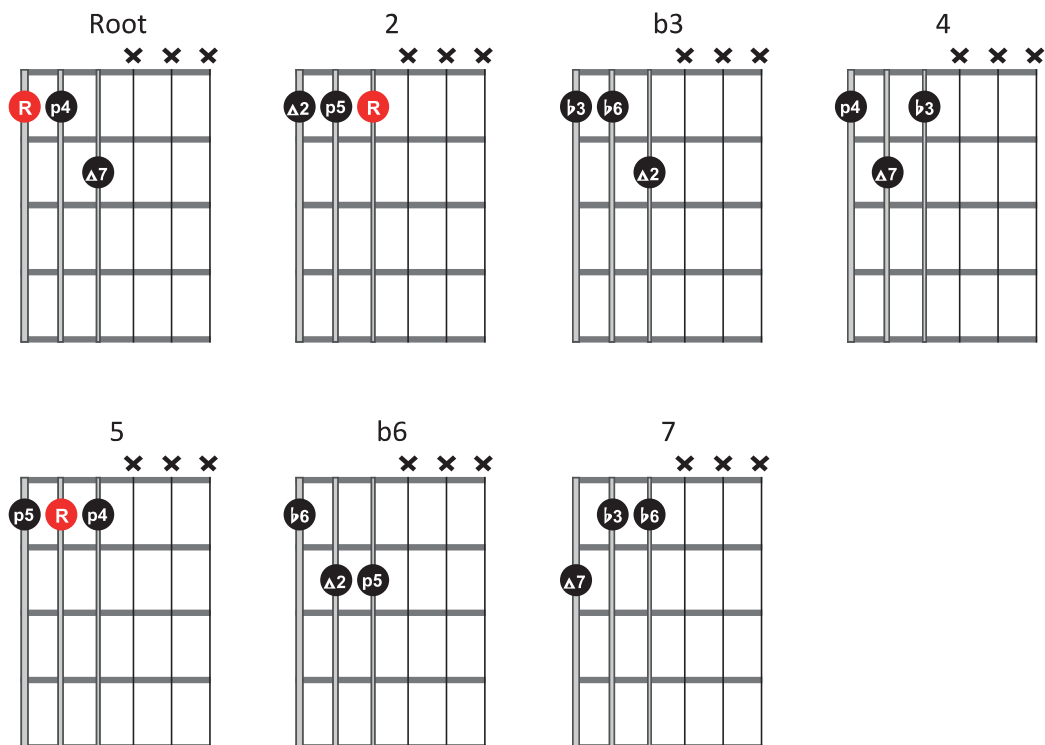
6part-Quartal Voicings – Melodic Minor

Stringset E-A-D-G-B-E

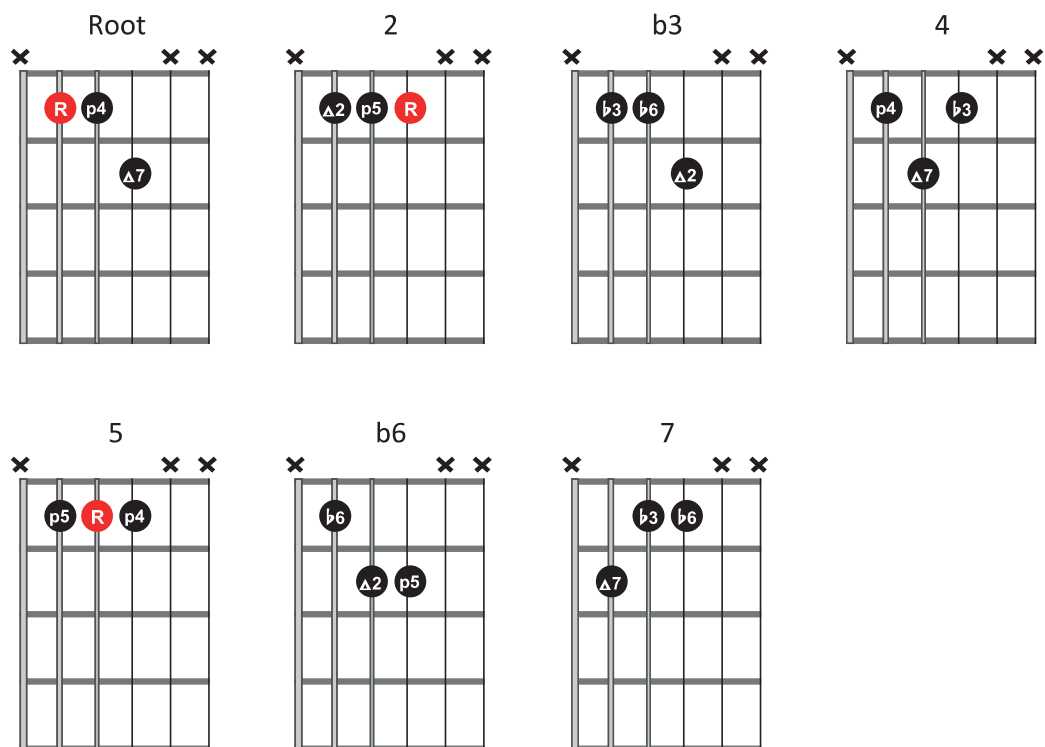


3part-Quartal Voicings – Harmonic Minor

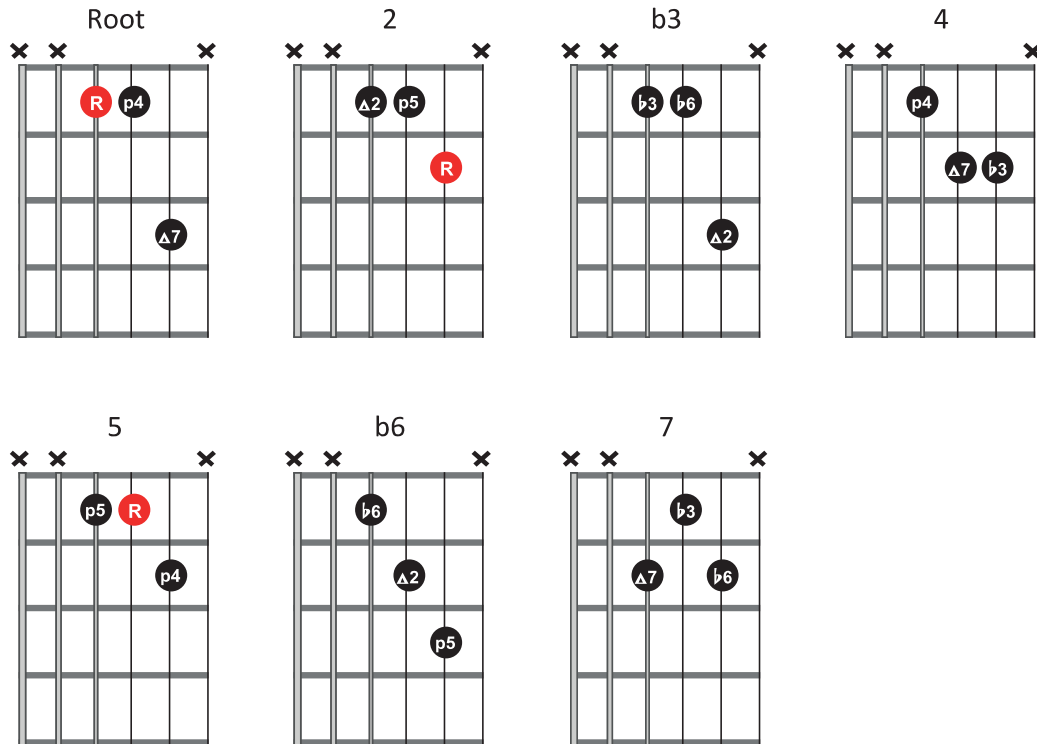
Stringset E-A-D



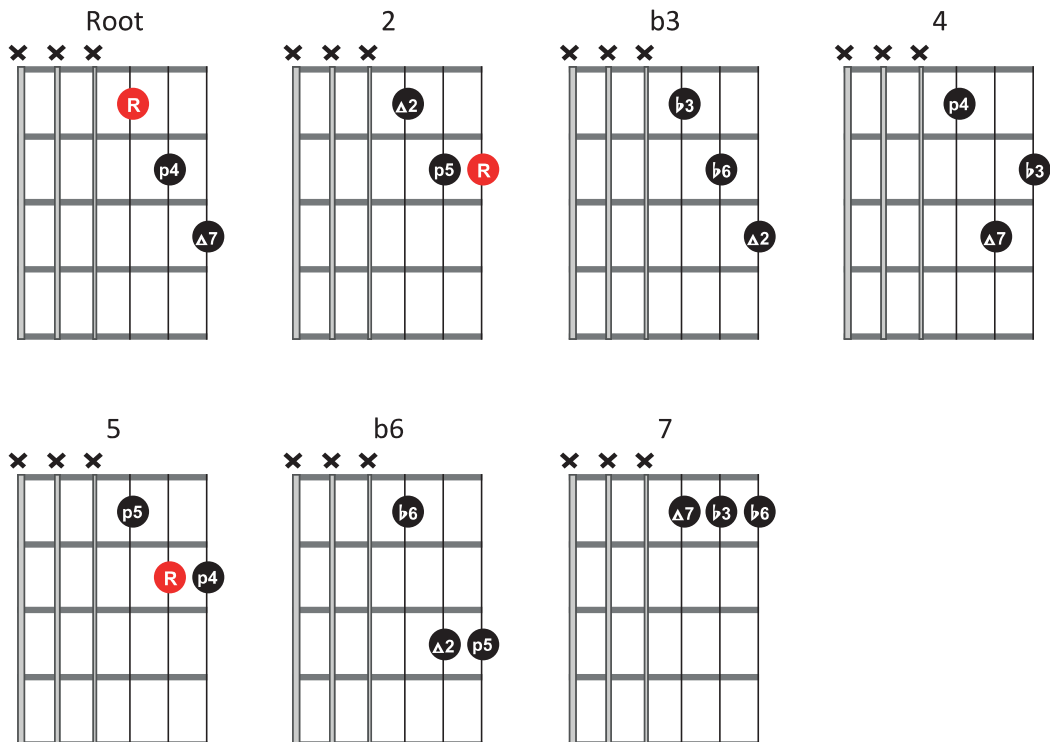
Stringset A-D-G



Stringset D-G-B

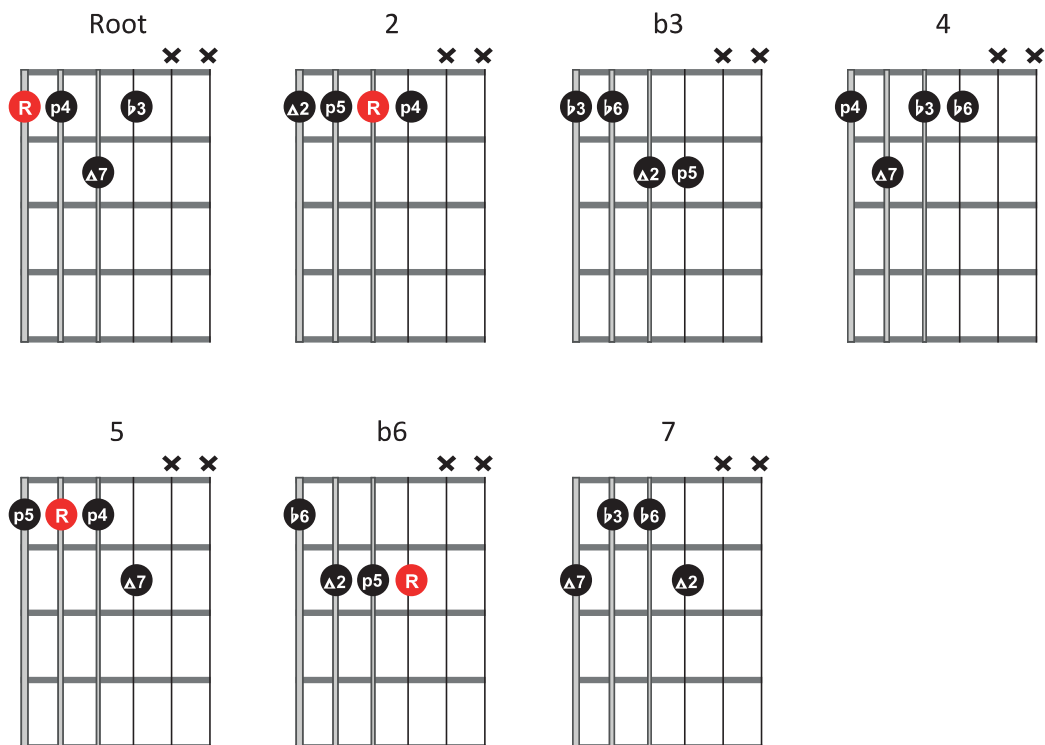


Stringset G-B-E

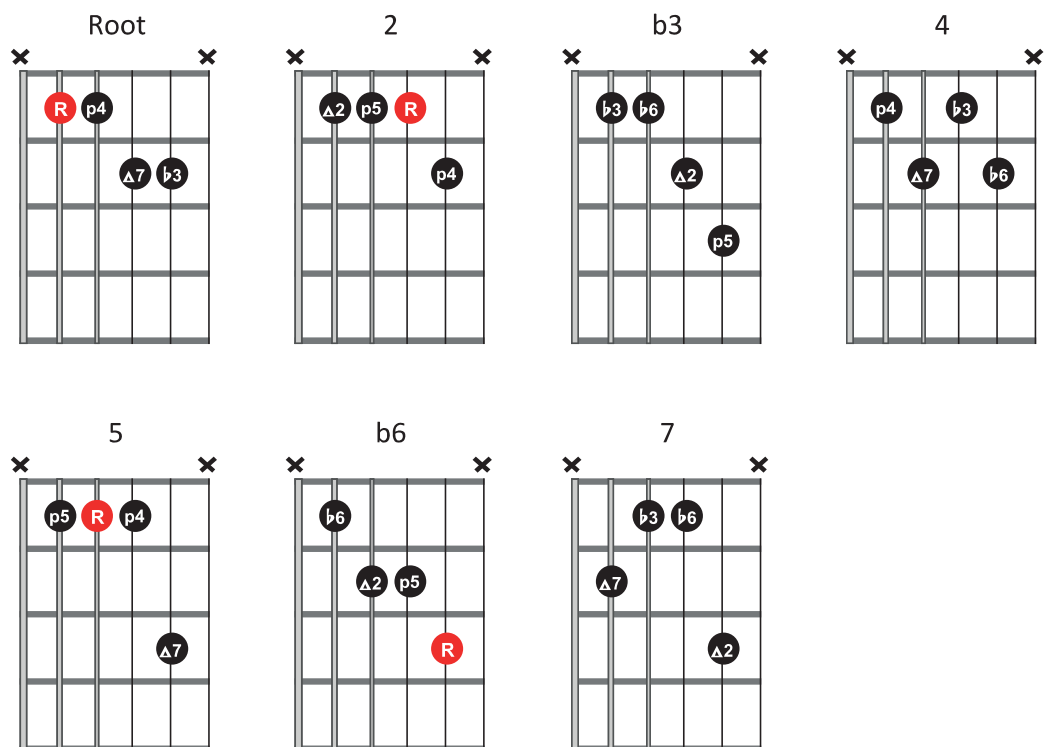


4part-Quartal Voicings – Harmonic Minor

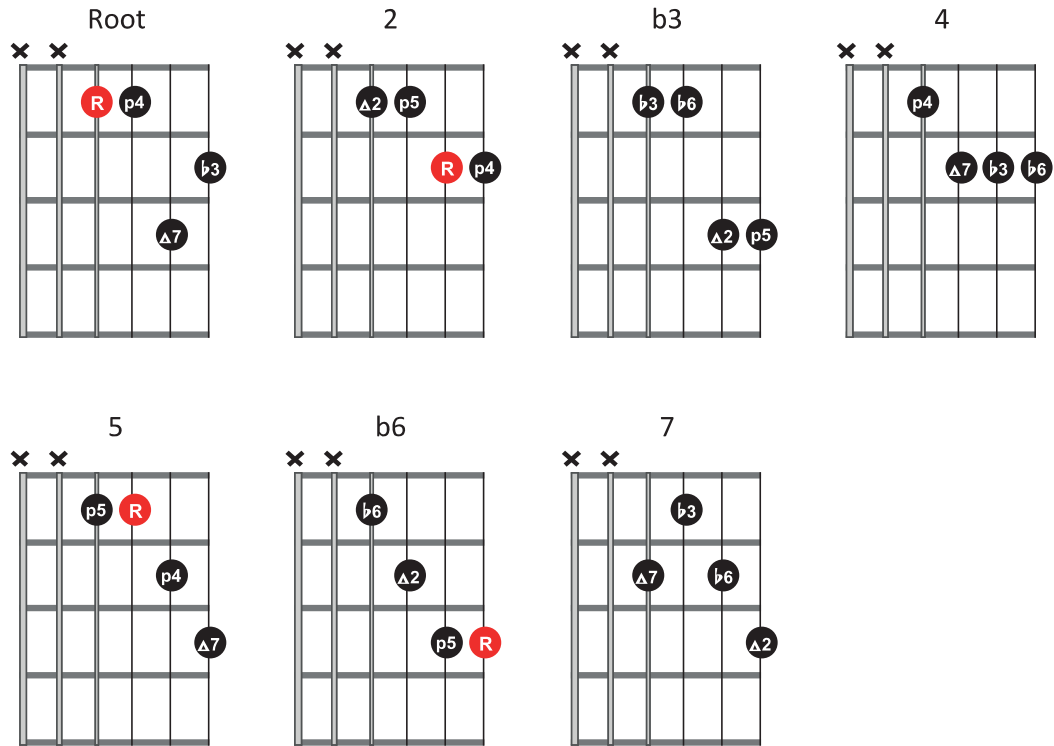
Stringset E-A-D-G



Stringset A-D-G-B

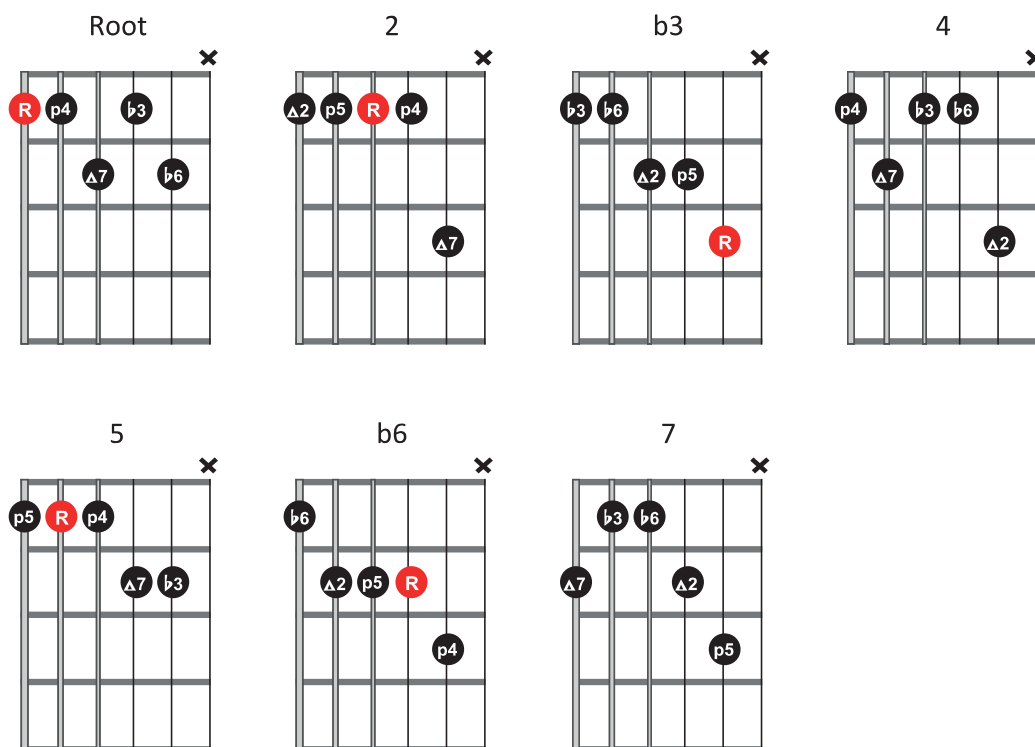


Stringset D-G-B-E

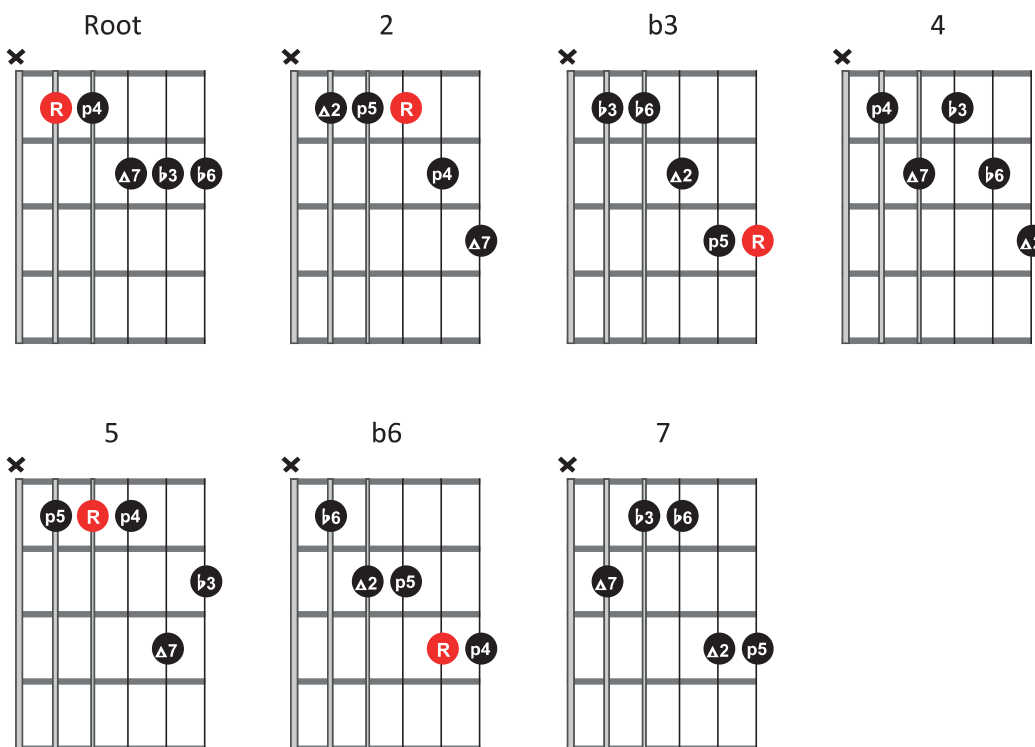


5part-Quartal Voicings – Harmonic Minor

Stringset E-A-D-G-B

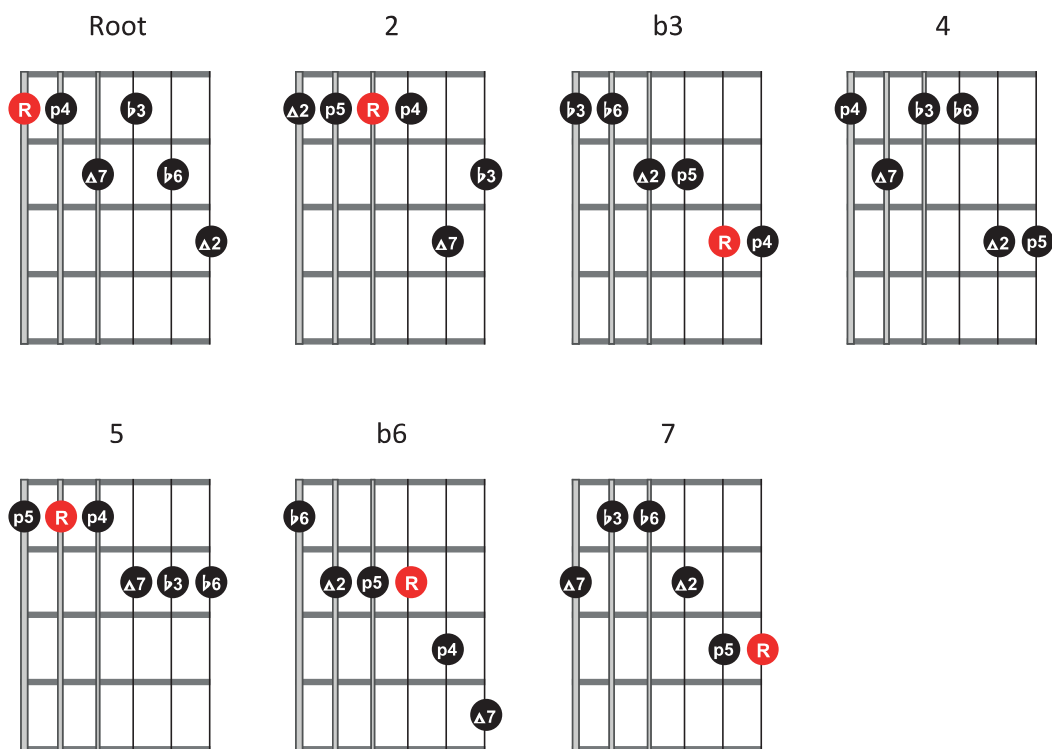


Stringset A-D-G-B-E



6part-Quartal Voicings – Harmonic Minor

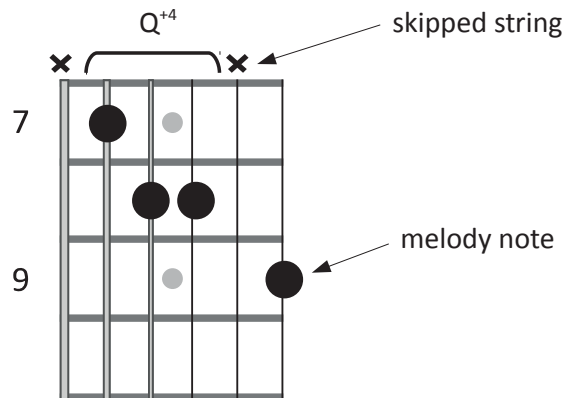
Stringset E-A-D-G-B-E



Skipped String Voicings

Skipped string voicings are particularly useful on the guitar. They consist of a quartal type voicing on the E,A,D or A,D,G strings and a melody note two strings above.

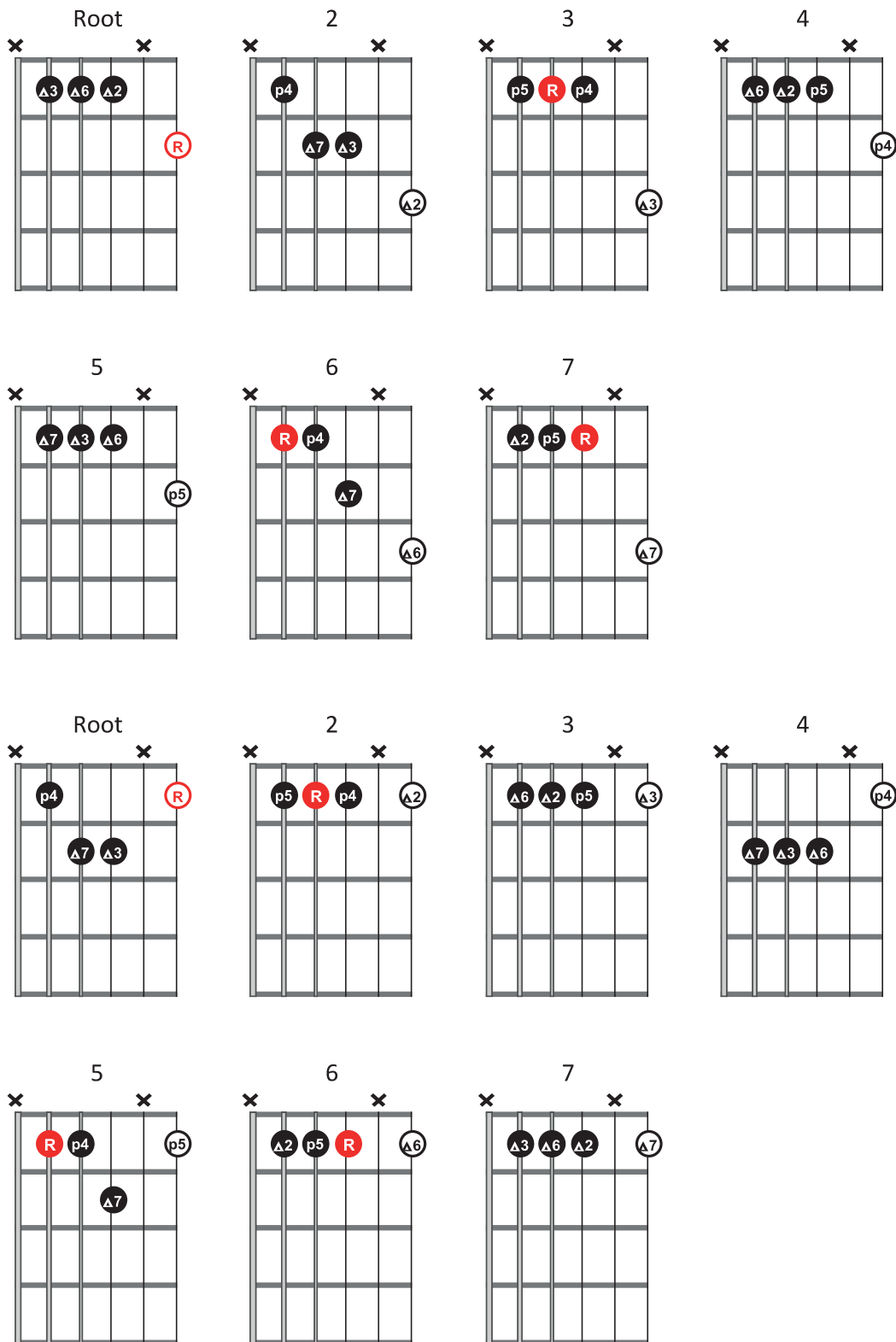
Ex. 142



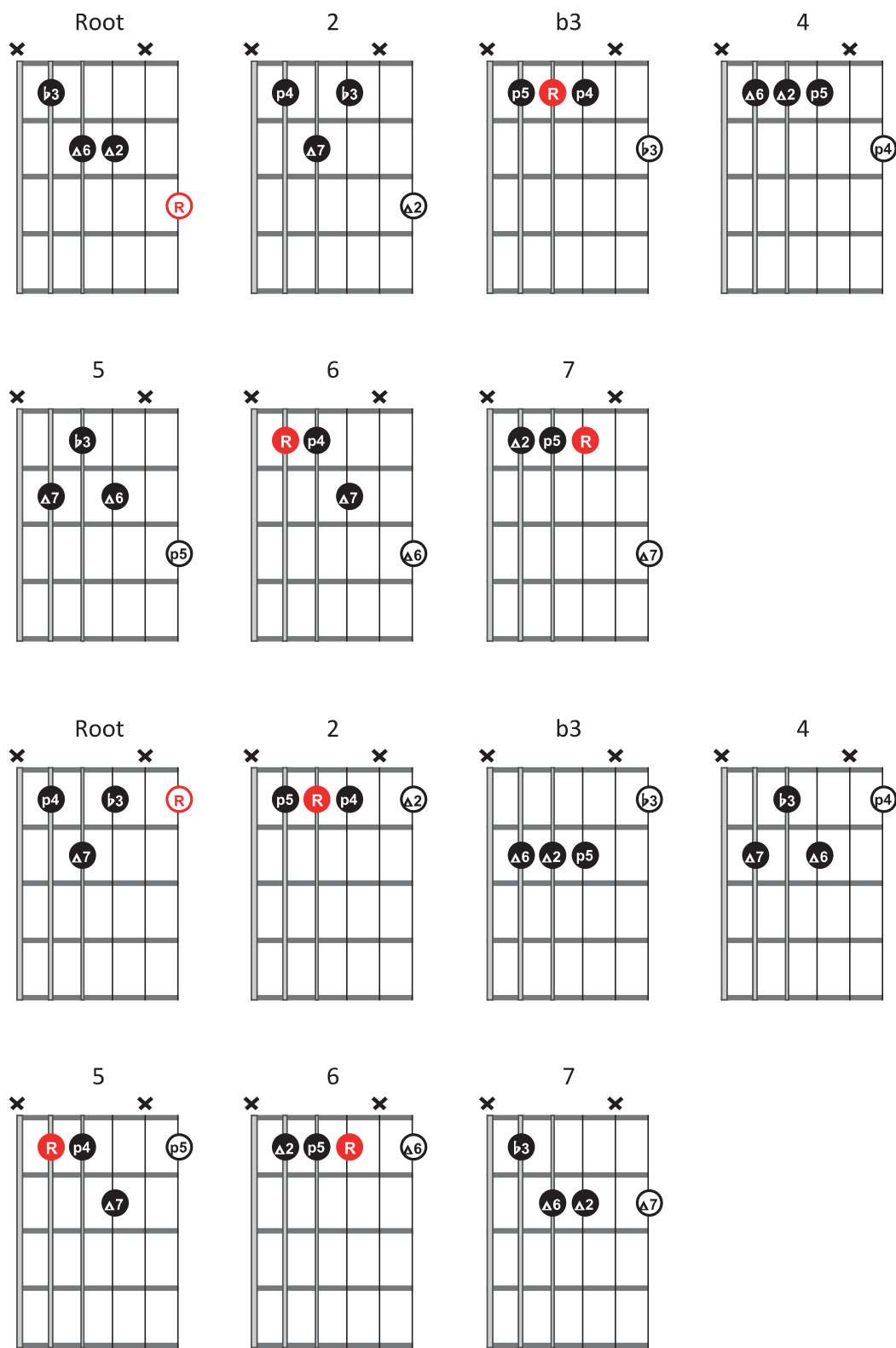
The voicing above is comprised of the notes E, Bb, Eb, Db. On its own this chord is incomplete but if played over certain bass notes it produces such chords as: $F\sharp^{13}$, $C^{7\sharp 9b9}$, E^{b7b9} , A^{7b5b9} , $E^{MA\sharp 11\#5}$, G^{o7b13} .

Try to discover all the substitution possibilities of each form.

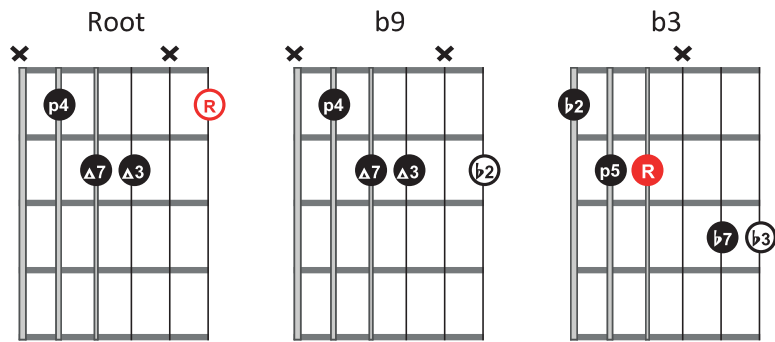
Major Scale Skipped String Voicings



Melodic Minor Scale Skipped String Voicings



Dominant Diminished Skipped String Voicings



Here is an example of using skipped string quartal voicings in an F blues.

Ex. 143

The musical score for Ex. 143 is written in 4/4 time and consists of six staves. The key signature is one flat (Bb), and the mode is blues. The score is characterized by the use of skipped string quartal voicings, which are indicated by brackets with the number '3' underneath. The voicings are primarily in the right hand, with the left hand providing a steady bass line. The first staff begins with a whole rest in the right hand and a quarter note in the left hand, followed by a series of eighth notes. The second staff continues the eighth-note pattern. The third staff features a 'loco' section with a 'Bb7' chord and a '3' bracket. The fourth staff shows a 'D7b9' chord and a '3' bracket. The fifth staff includes a 'C7alt' chord and a '3' bracket. The sixth staff concludes with a 'G-7' chord and a '3' bracket. The score is marked with various accidentals and dynamics, including '8va' and '8'.

F7

Bb7

D7b9

C7alt

G-7

F7

D7alt

G-7

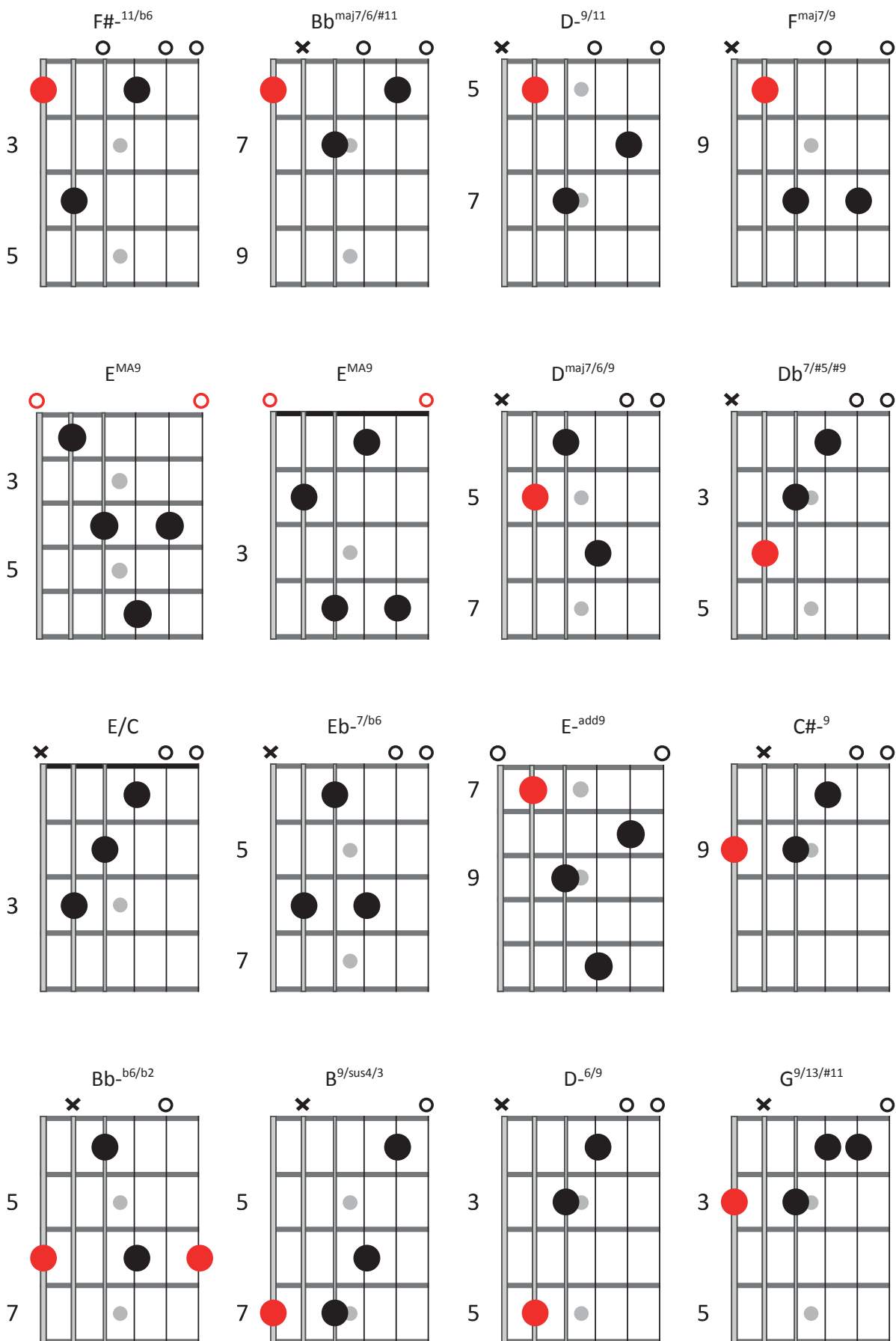
C7

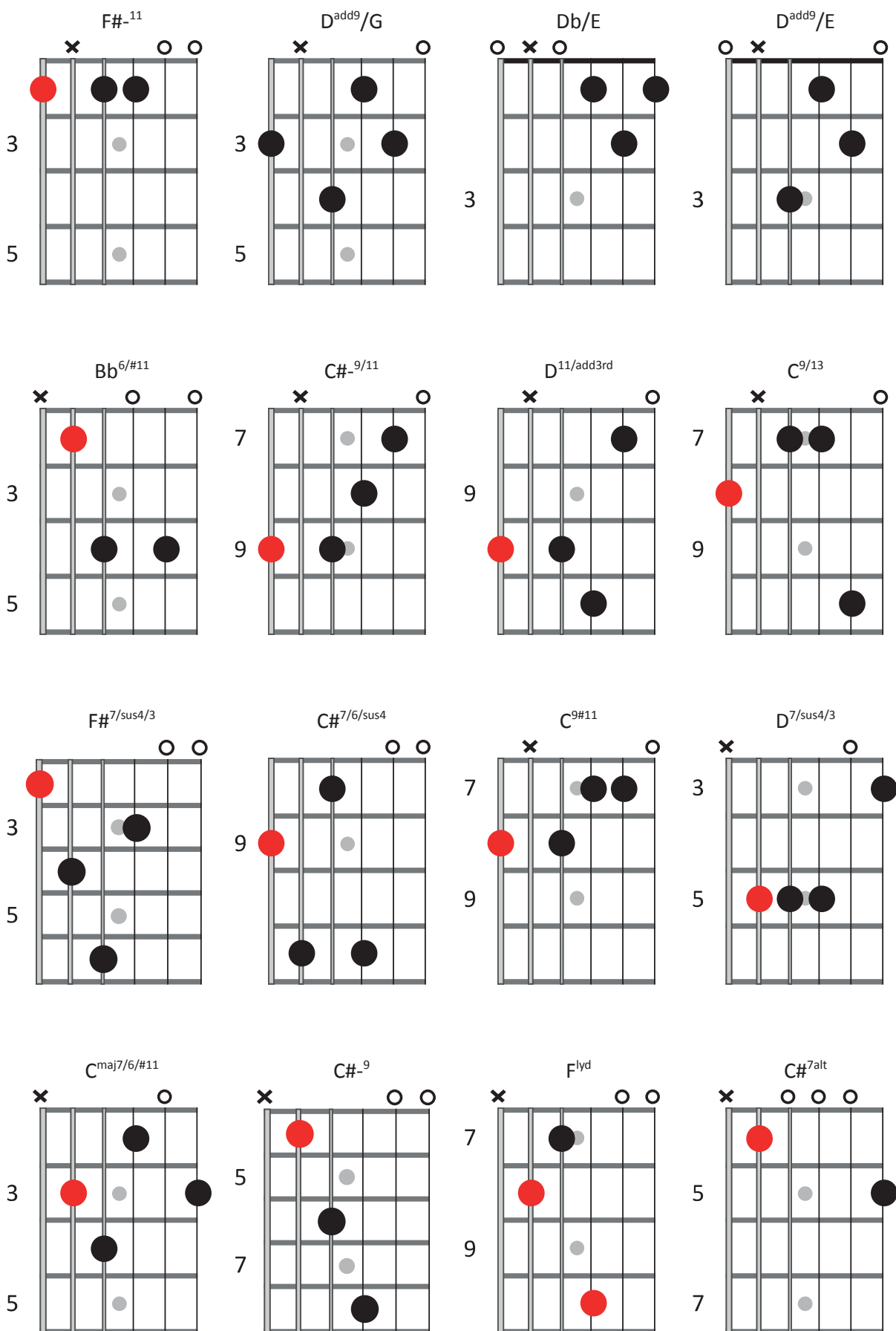
F7

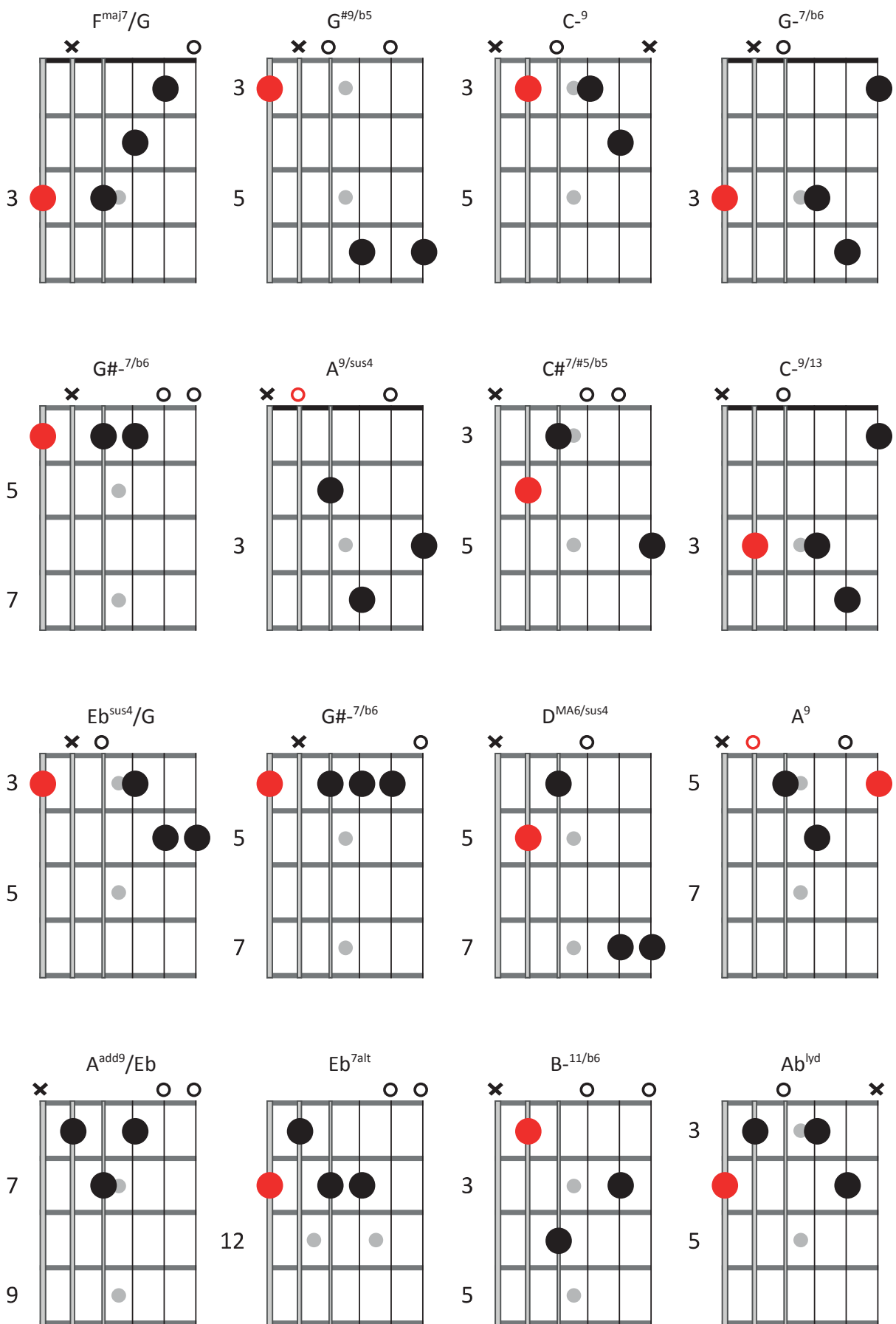
Open String Voicings

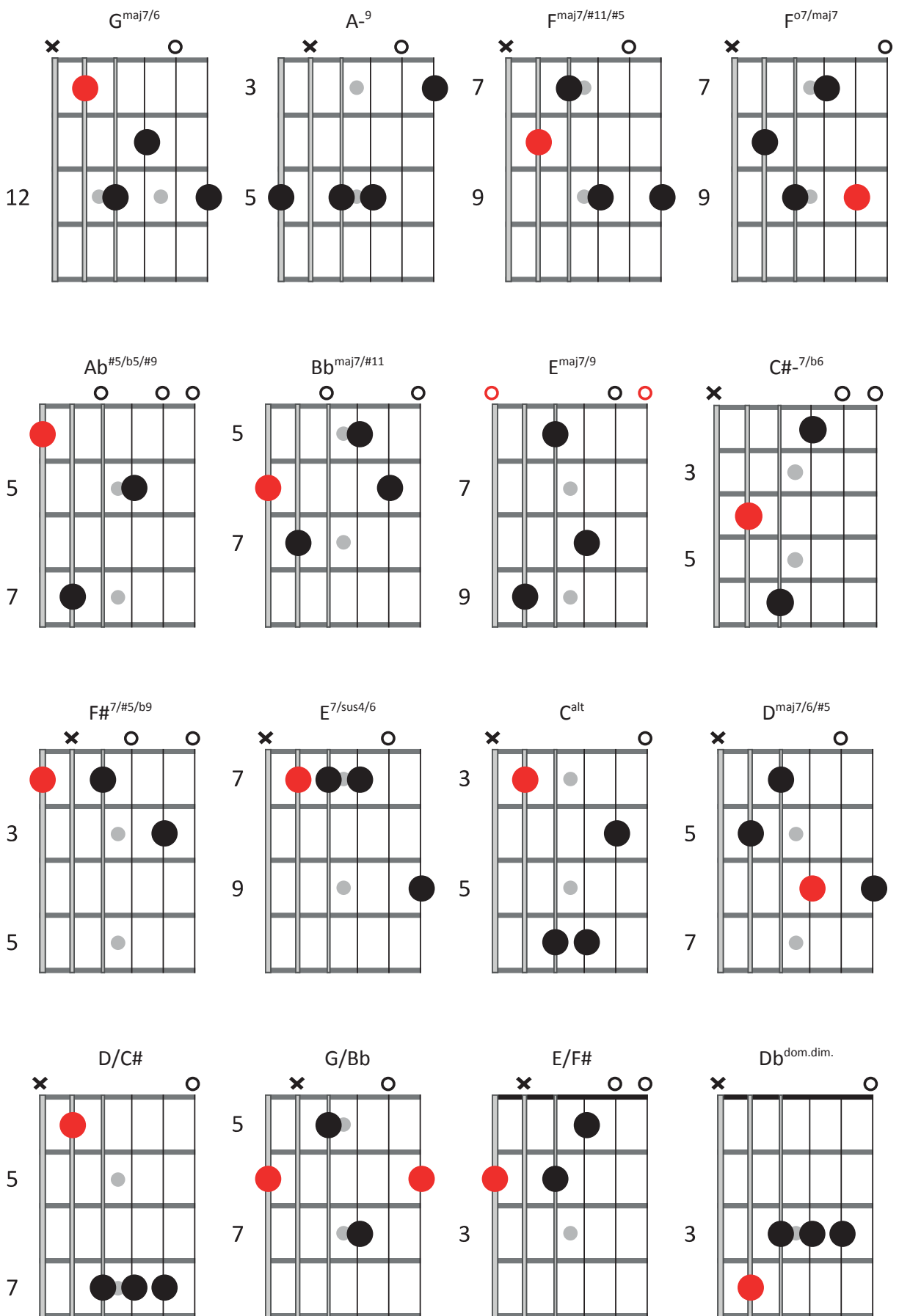
This section includes some of my favorite open string voicings. The open string(s) can occur as any member of the chord. Play through all the chords putting a check next to your favorites. It is also a good idea to organize the chords into progressions in order to remember them.

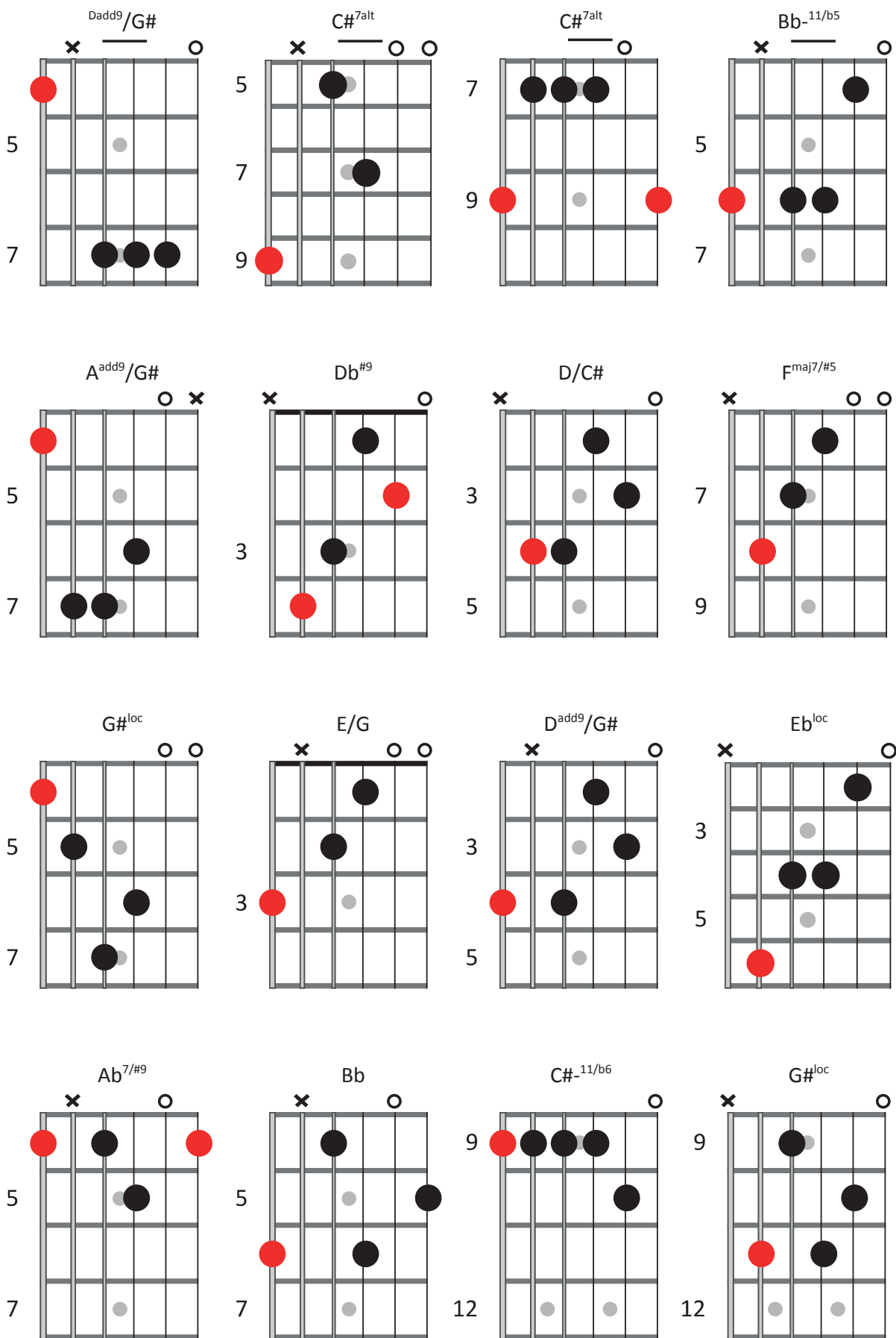
D^{6/9/sus4}	A^{MA9/sus4}	F#^{sus4/3}	Ab⁻⁹
F^{MA9}	C^{MA9/#4}	F#^{sus4/3}	G^{MA9/13/#4}
Ab^{-11/b6}	F#^{7/6/sus4}	F^{maj7/#11}	E^{sus4/add9}

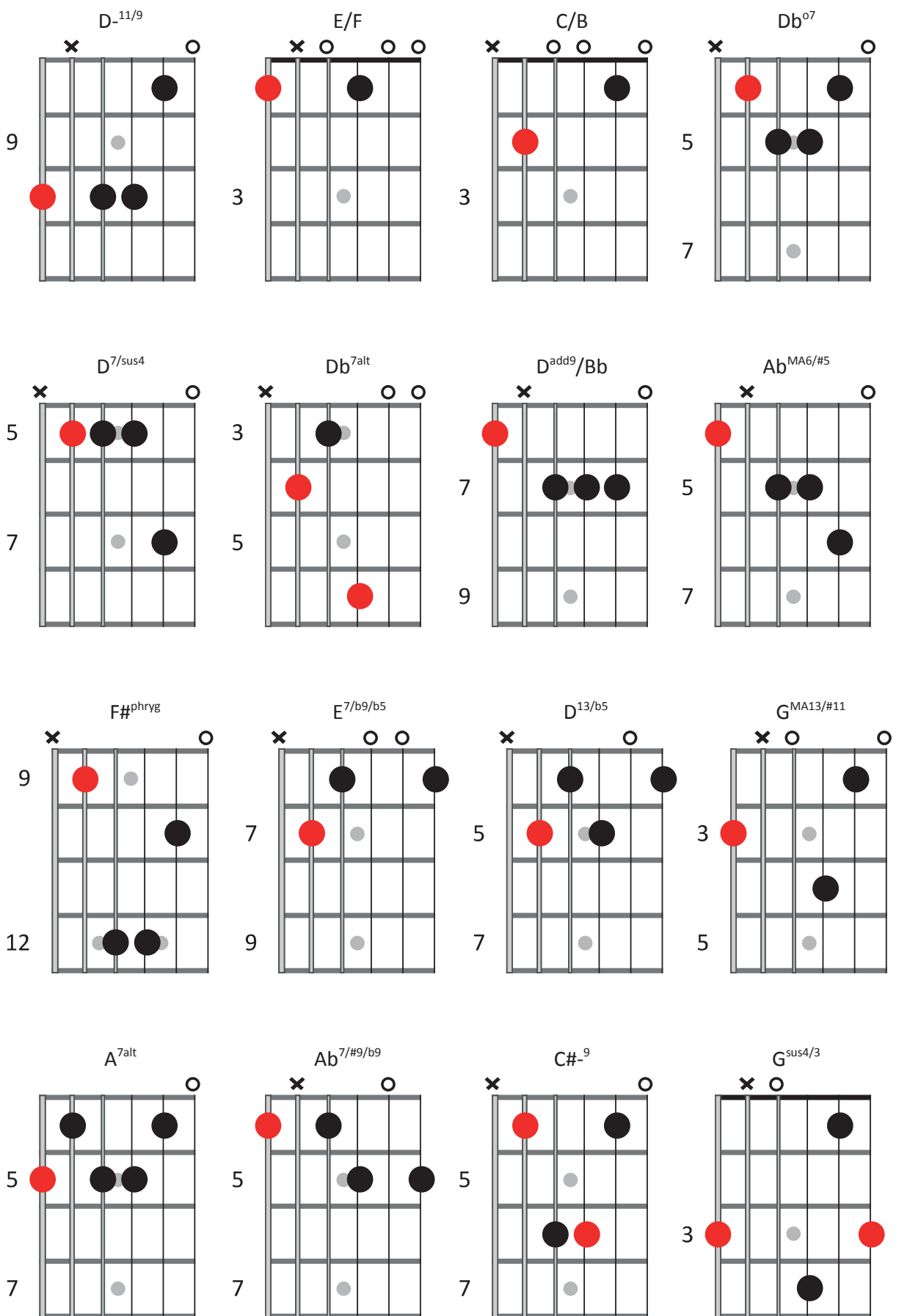


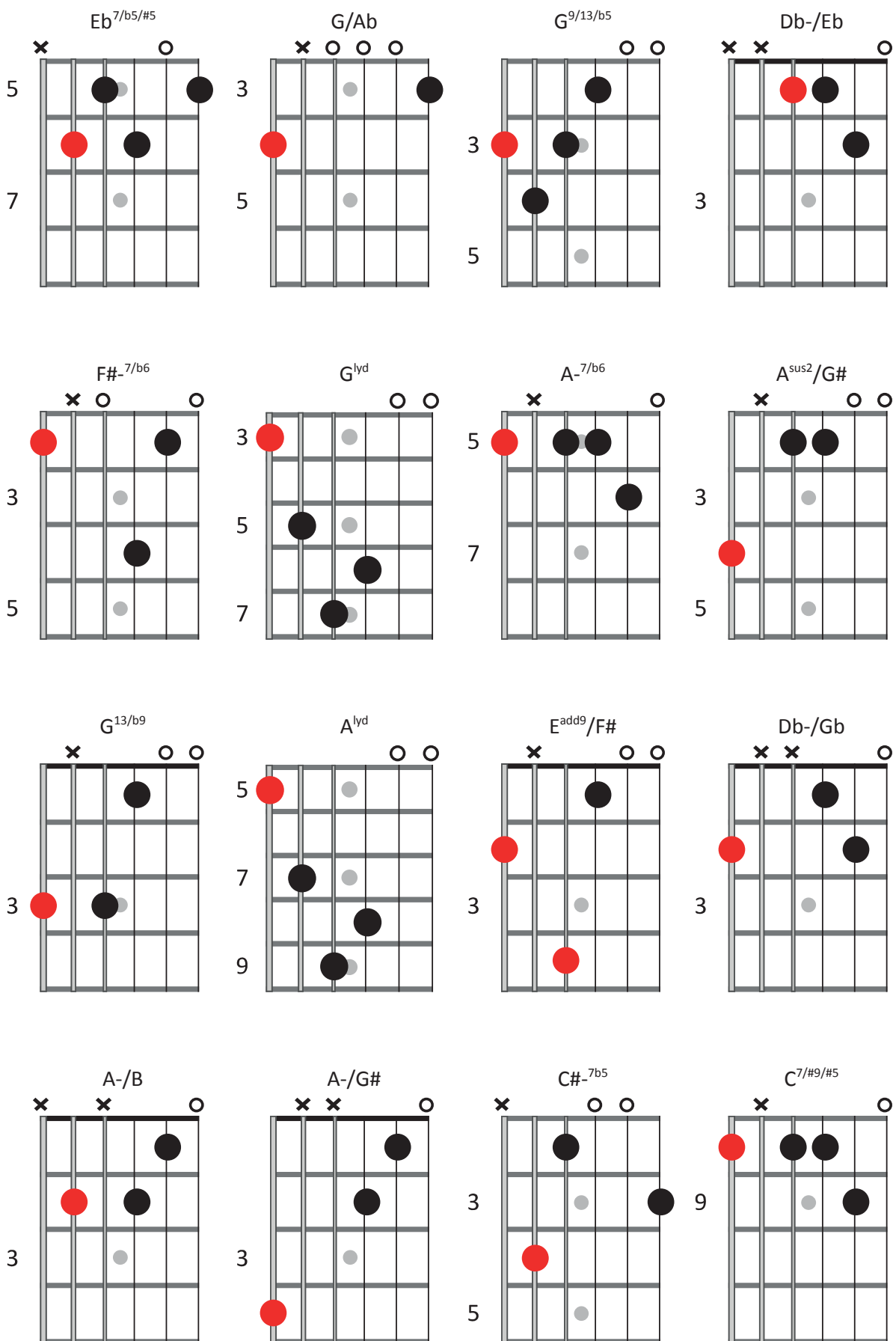


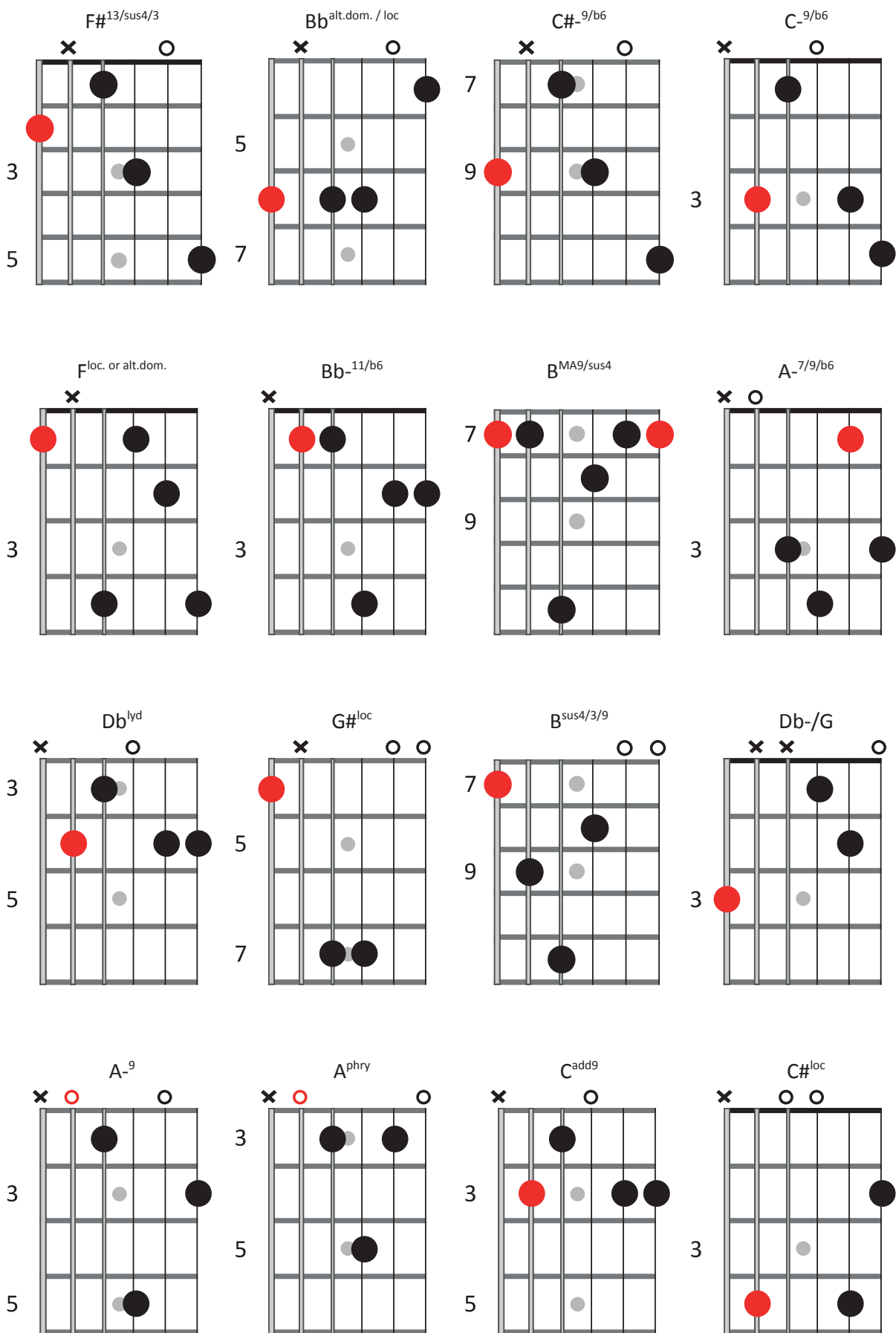


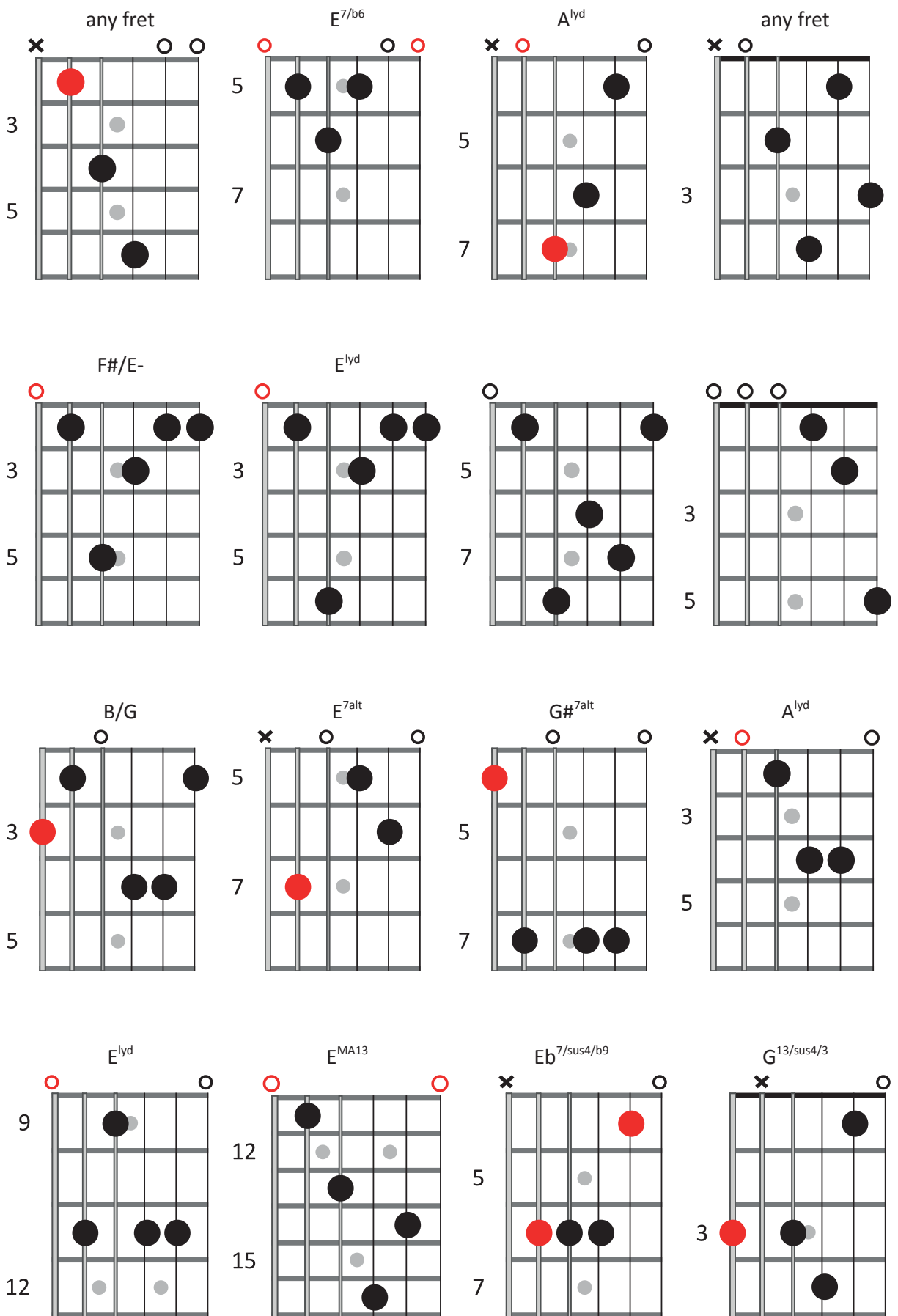


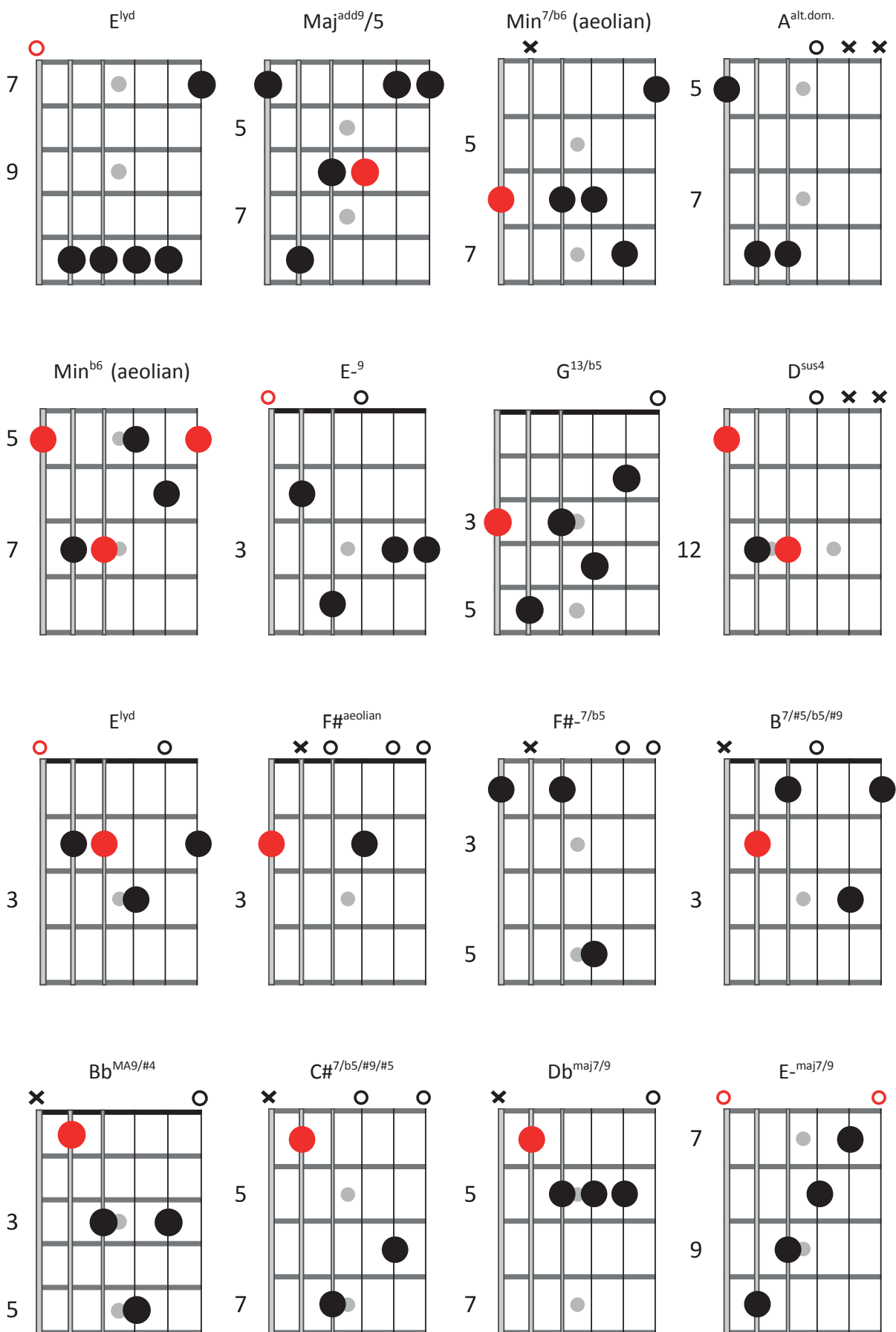






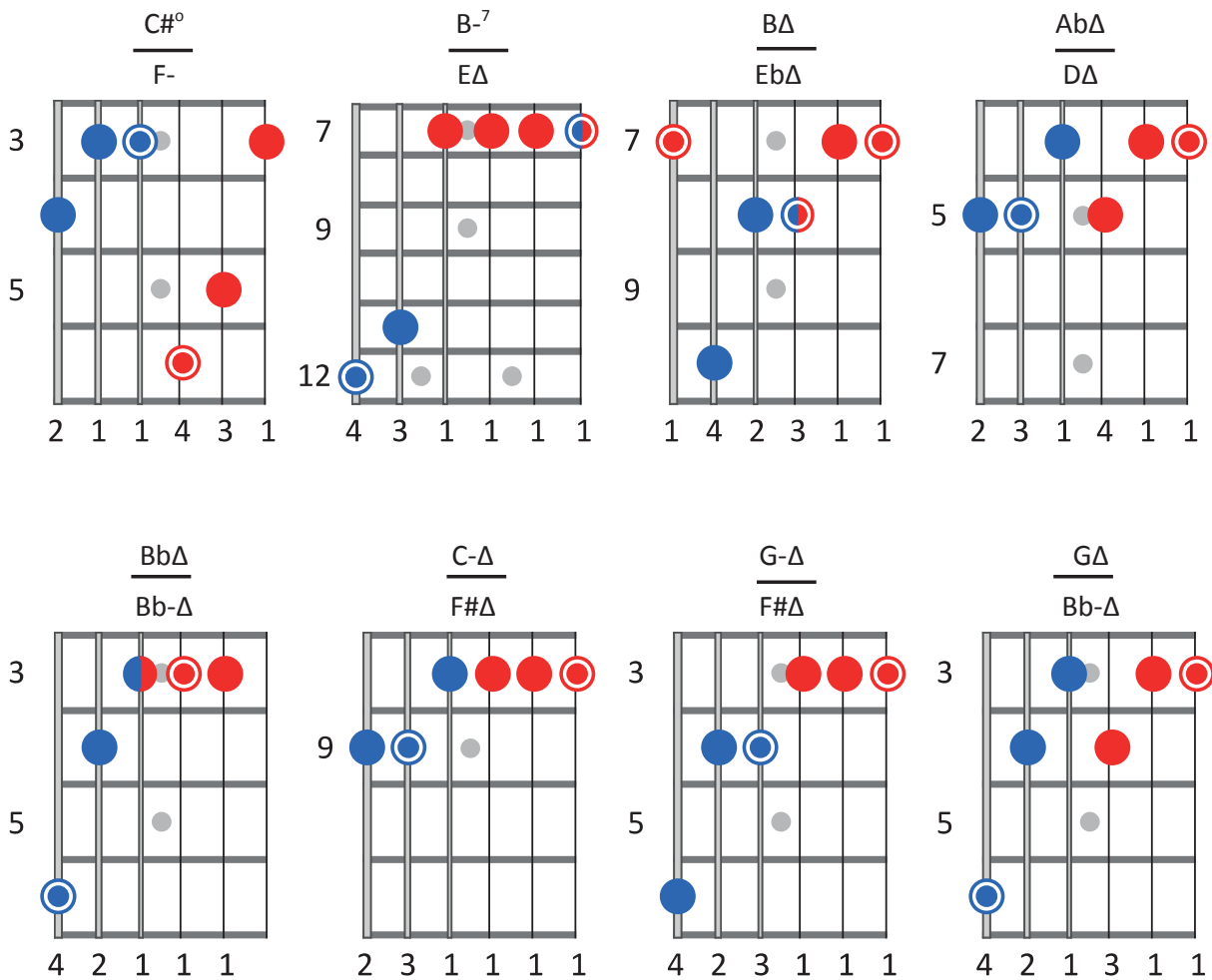


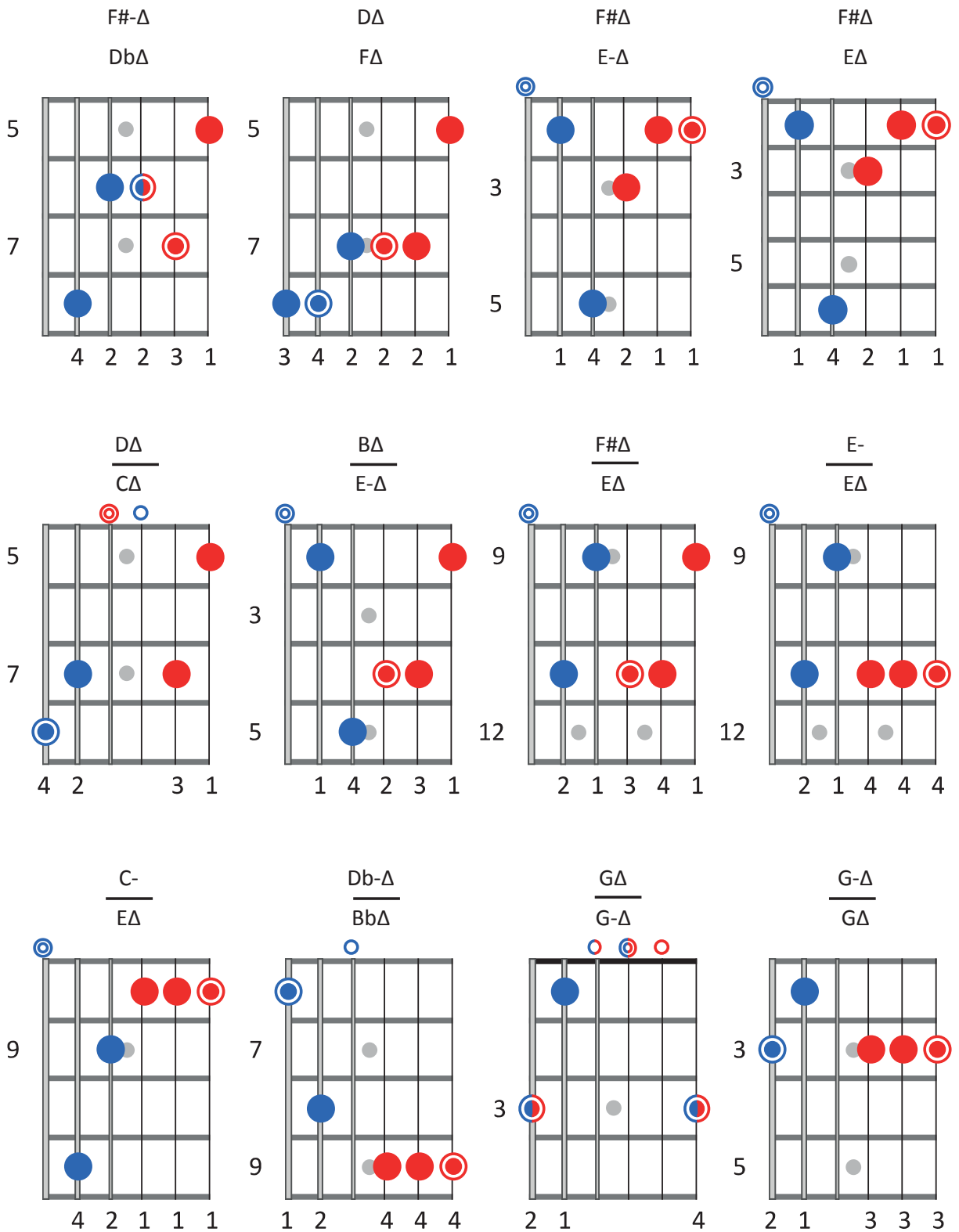


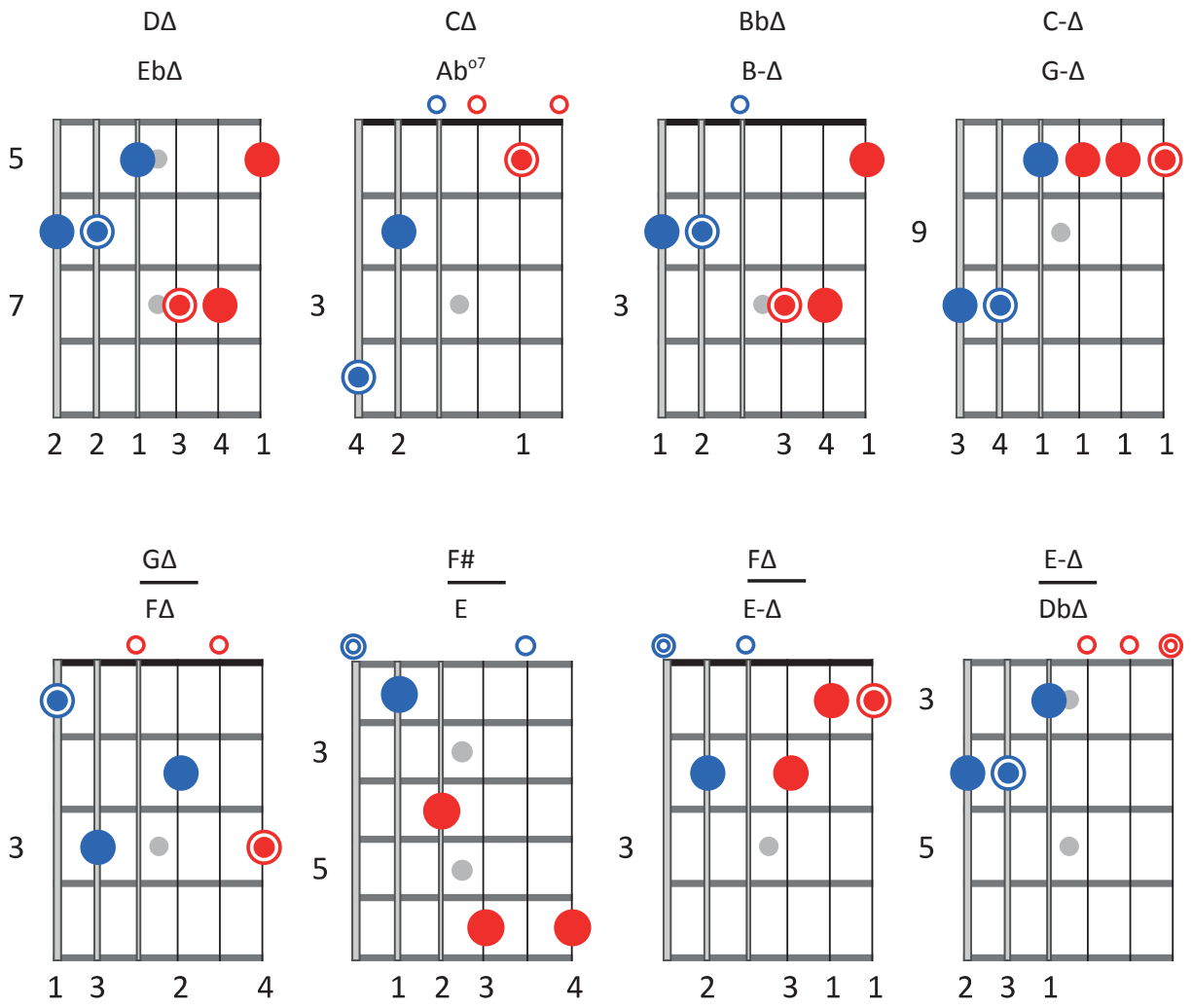


Polychords (Triads over Triads)

The polychords in this section are moveable but have been specifically labeled for easier understanding. These kind of voicings work well for intros and endings where there is more harmonic freedom.







Using Comping Voicings in New Ways

The comping voicings on the following page may be used in a variety of ways. To demonstrate, let's look at some possible substitutions for Eb^{7alt}.

Ex. 144

a)	Eb ^{7/#5/#9}	=	3	#5	b7	#9
			G	B	C#	F#
sub.	G ^{maj7b5}	=	1	3	b5	7
b)	Eb ^{7/b9/#5}	=	b9	3	#5	R
			E	G	B	D#
sub.			1	b3	5	7
c)	Eb ^{7/b9/#5}	=	b7	b9	3	#5
			Db	Fb	Abb	Cb
sub.	Db ^{-7b5}	=	1	b3	b5	b7

Any of these substitutions (and their inversions) will work in place of Eb^{7alt}, because they all share the same parent melodic minor scale (E melodic minor).

Consult the substitution section for further applications.

Constructing Chord Scales

Chord scales for comping and soloing may be constructed from upper-string voicings. For demonstration purposes let's use an F7 chord.

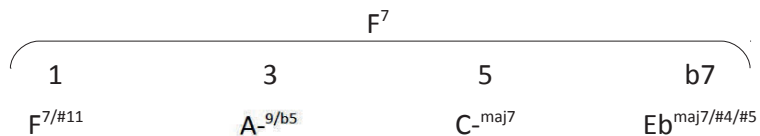
What I would first do is decide on an appropriate scale, in this case we'll use Fmix#11. Then, using the parent melodic minor scale, list all of the chords generated by the scale.

Ex. 145

C^{-maj7} D^{7/sus4/b13} Eb^{maj7/#4/#5} F^{7/#11} G^{7/b13} A^{-9/b5} B^{7/#9/b9/#5/b5}

Next I would isolate all of the chords whose root was a basic chord tone of F⁷.

Ex. 146



Out of these chords I would pick two, in this case C^{-maj7} and Eb^{maj7/#5/#4}, on which the scale would be based. By alternating these chords and their inversions an Fmix#11 scale may be built in the top voice. This may be done by alternating voicings as seen here in Ex. 147.

Ex. 147

F13

C^{-MA7}

Eb^{MA7#4}

C^{-MA7}

C^{-MA7}

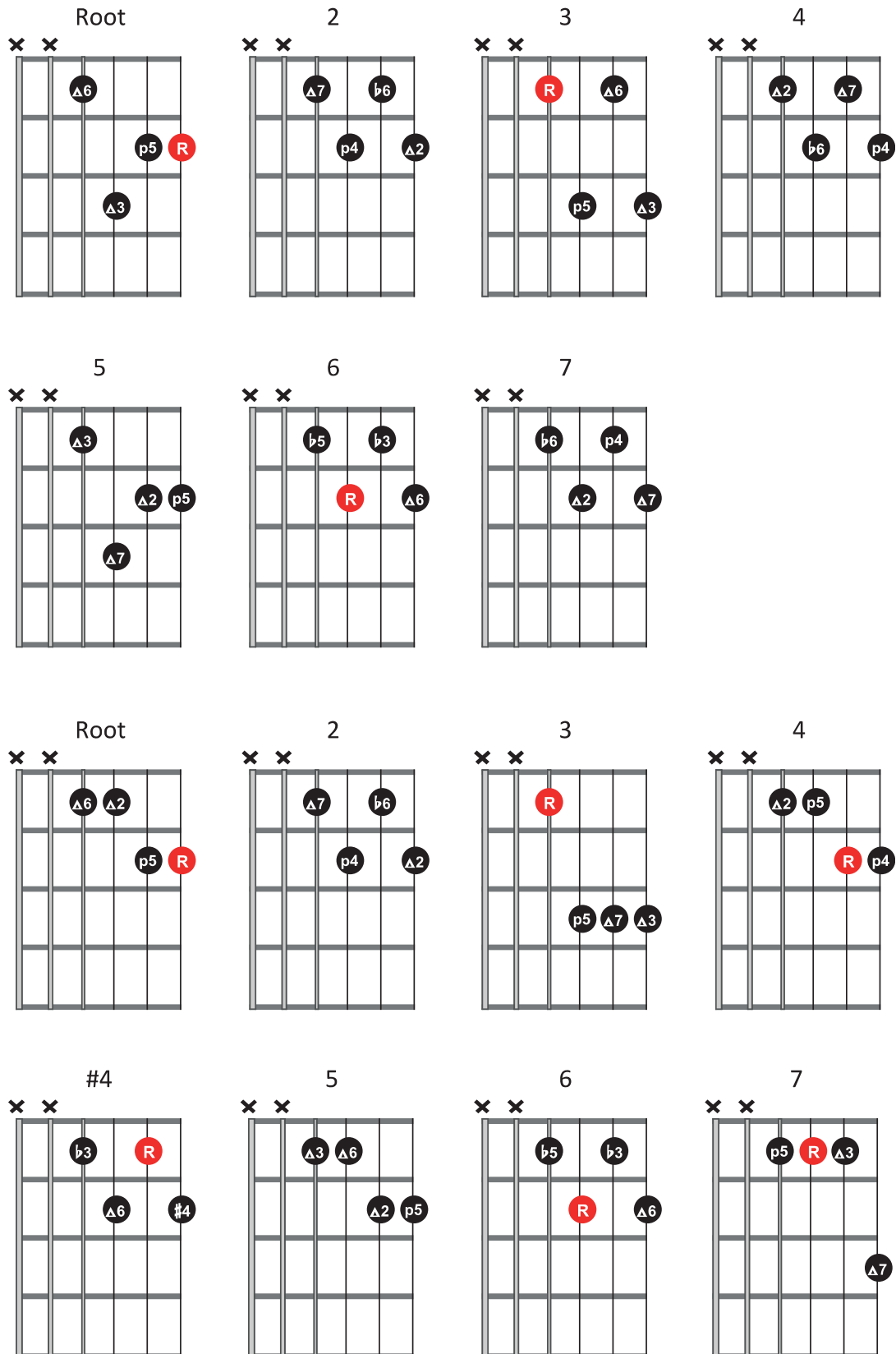
Eb^{MA7#4}

F9 (A-7b5)

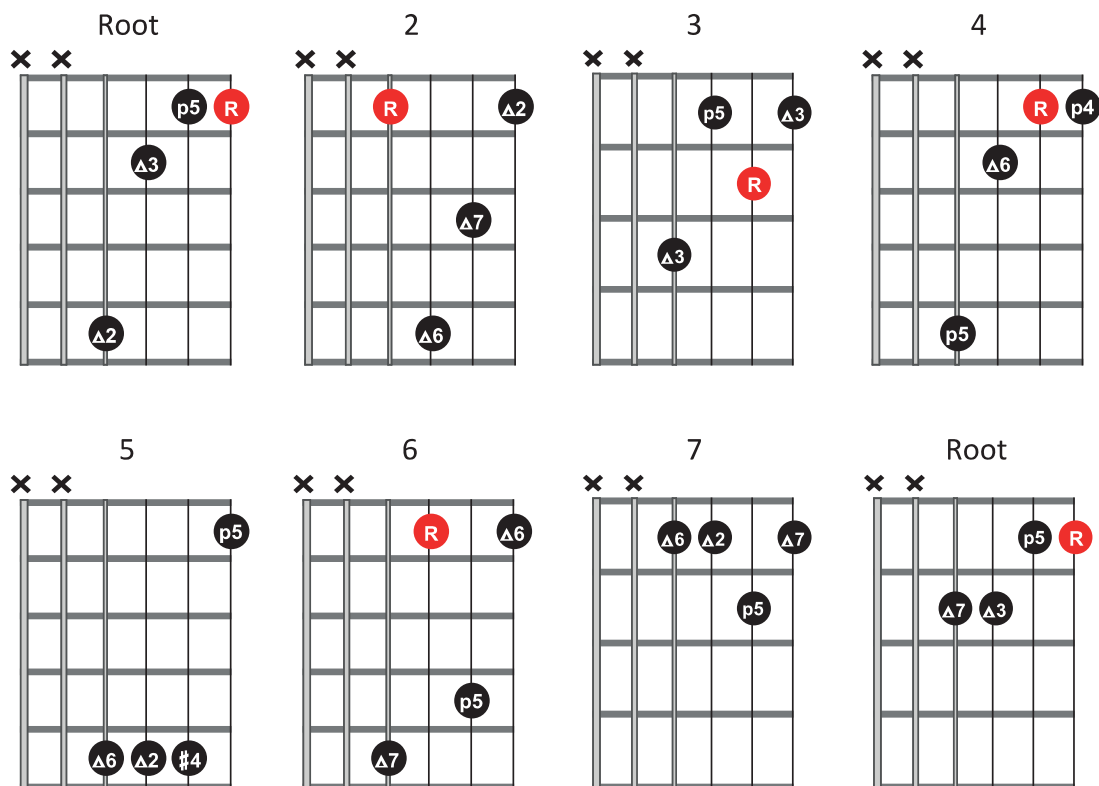
Remember, you may mix together any of the drop voicing groups for these purposes.

Chordal Scales

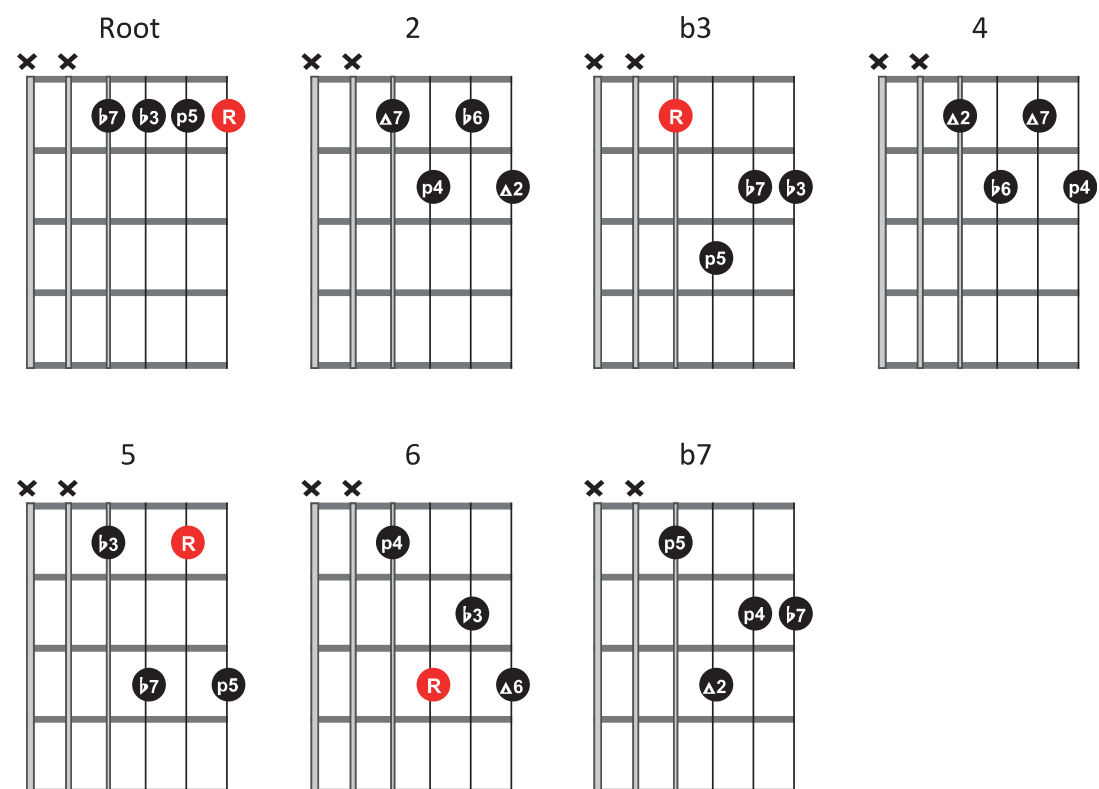
Major Scale (Bebop)



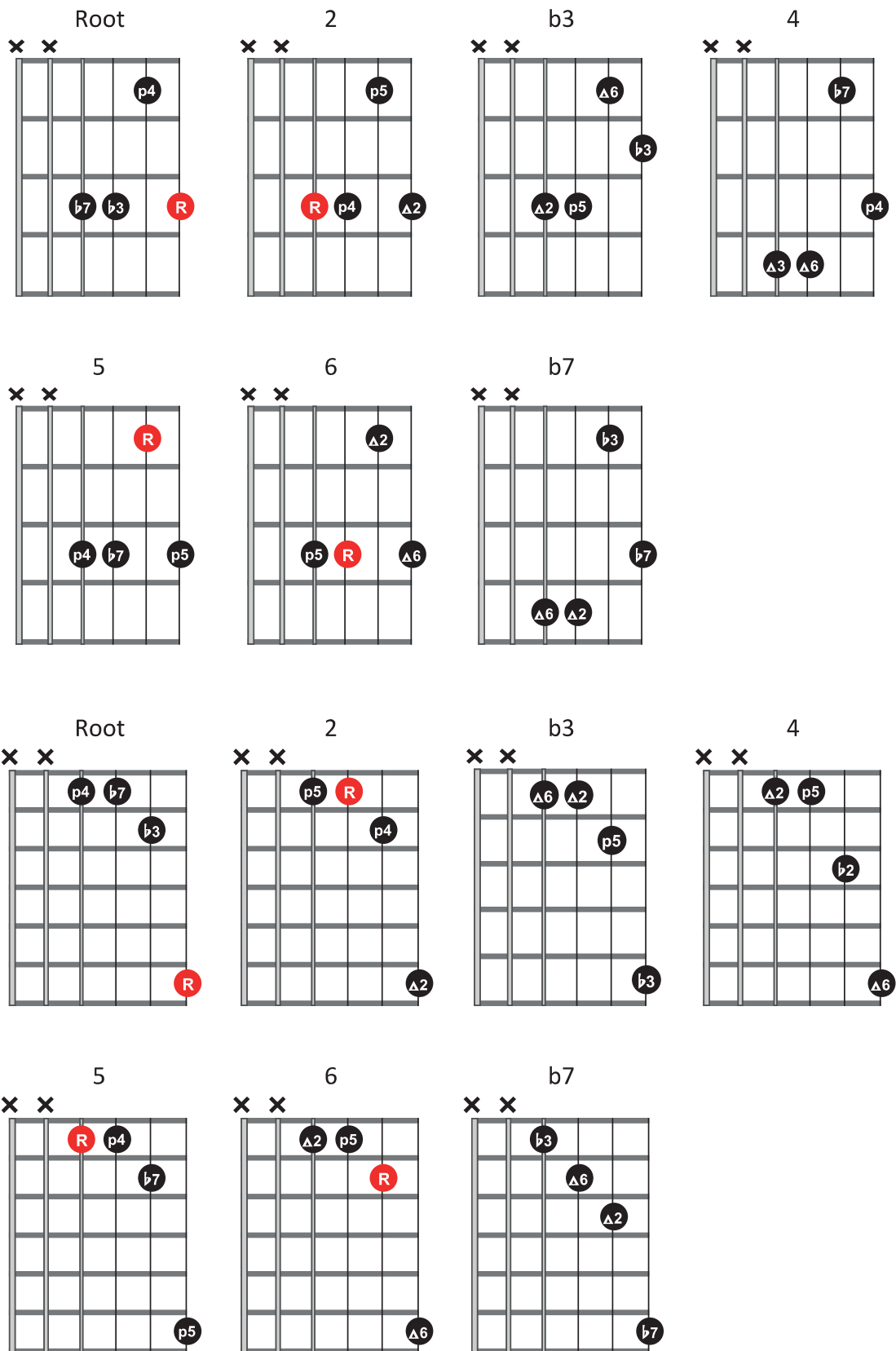
Major Scale (modern)



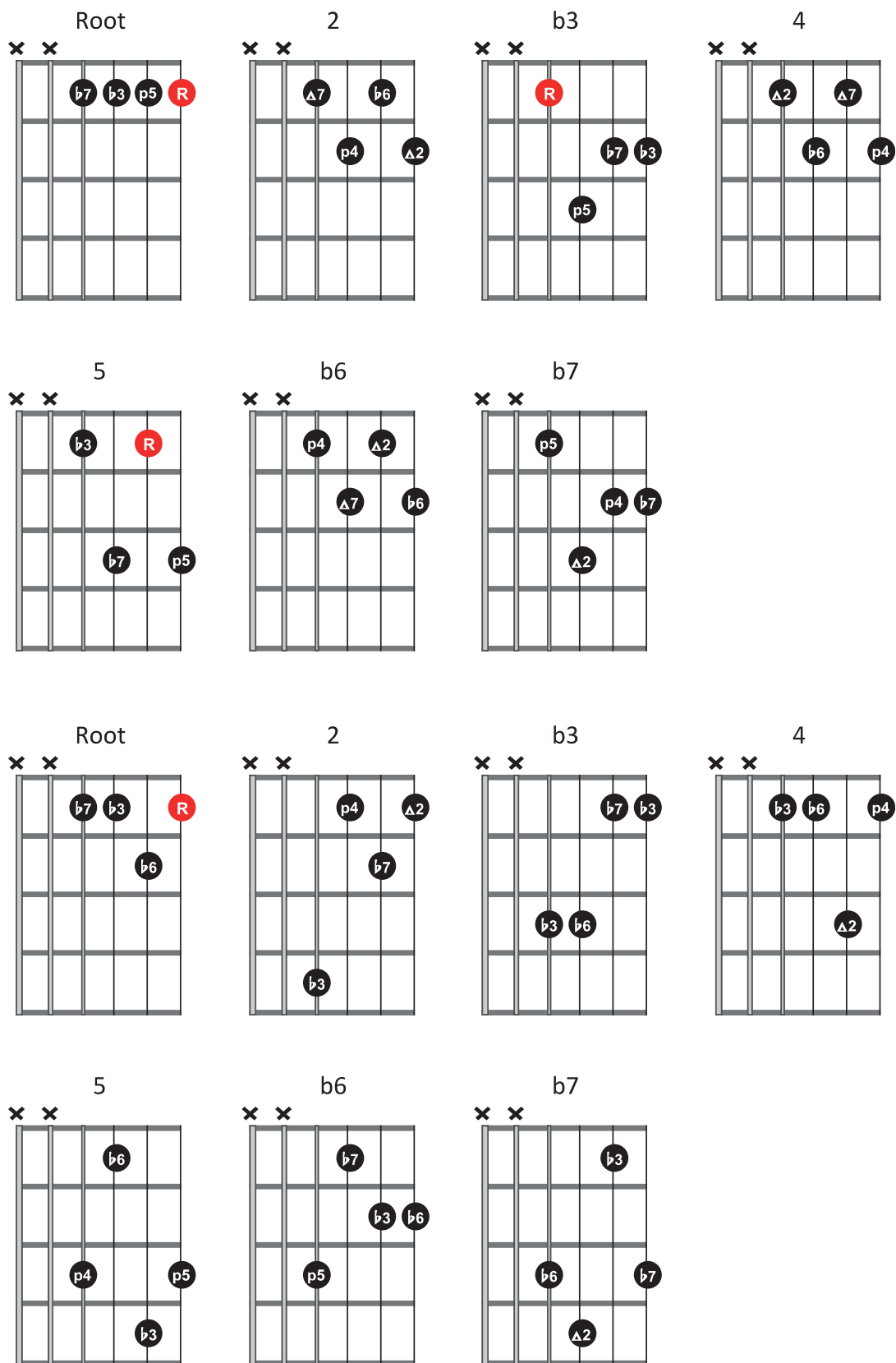
Dorian/Minor (Bebop)

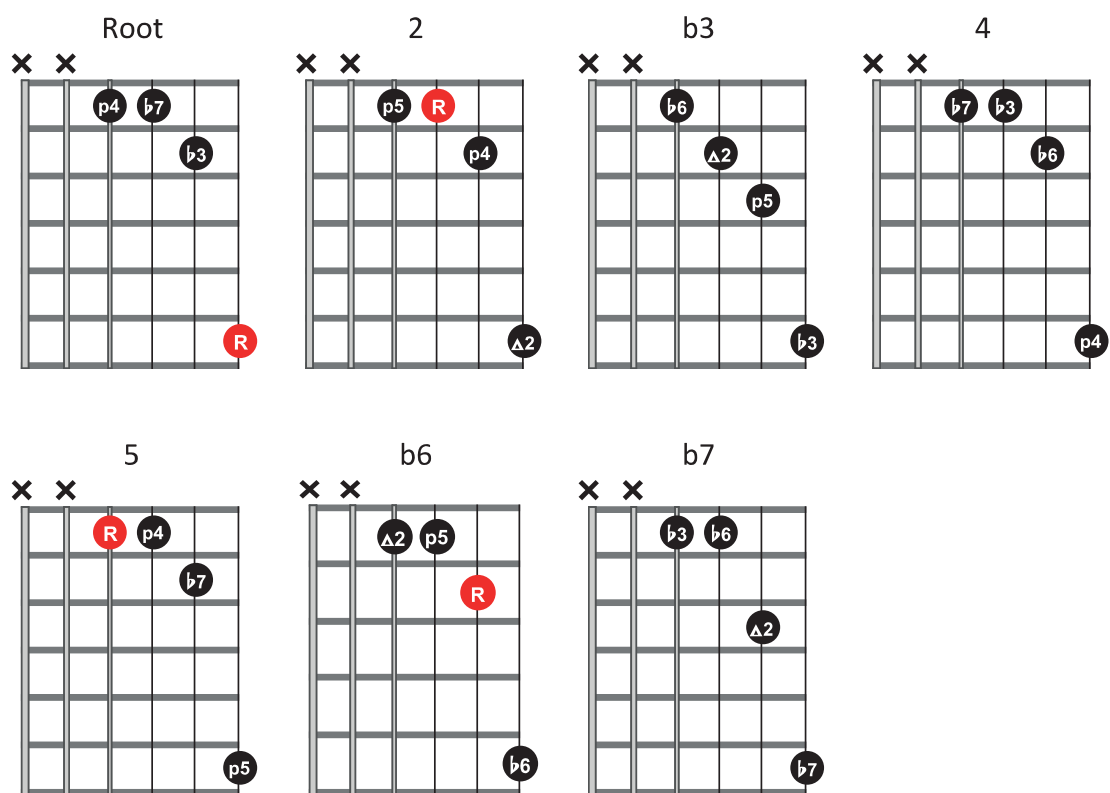


Dorian/Minor (modern)

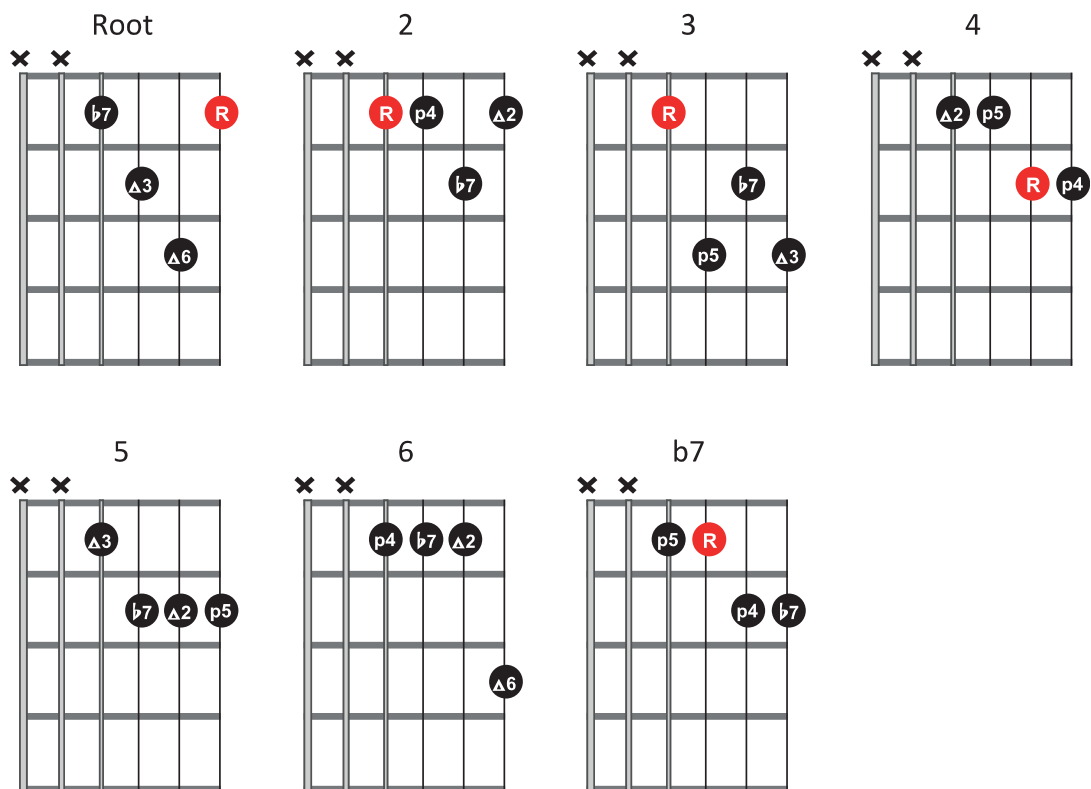


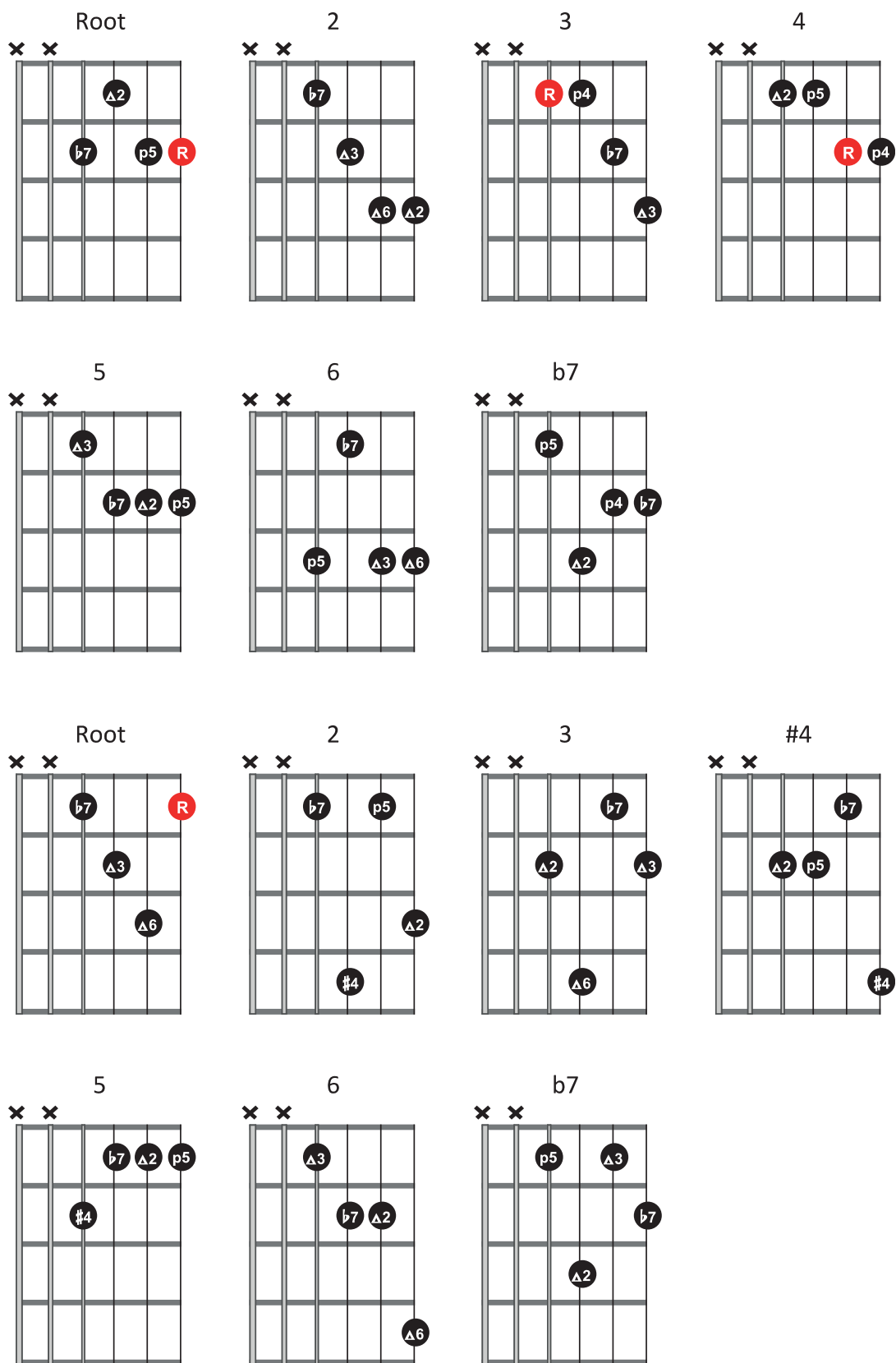
Aeolian/Minor



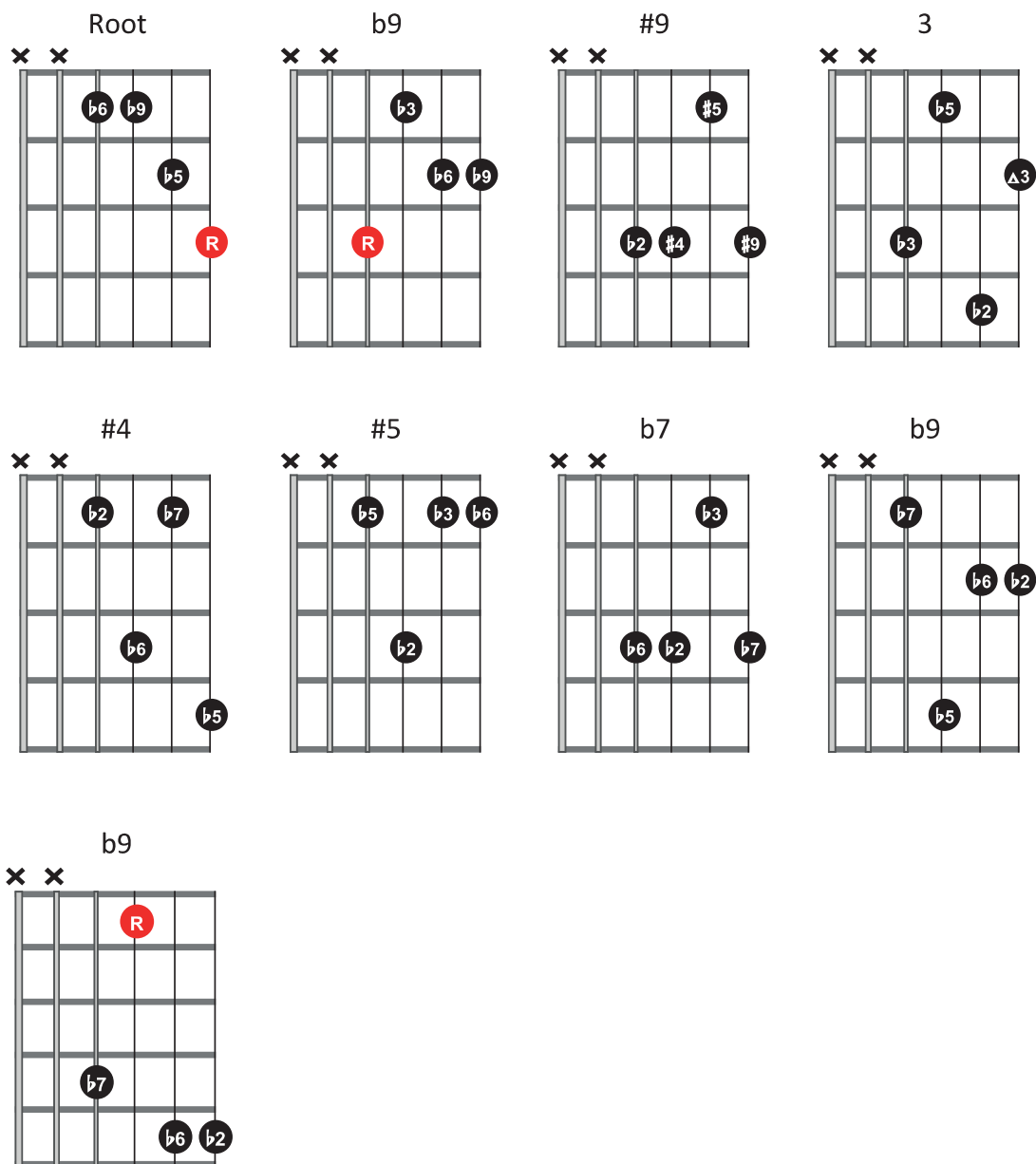


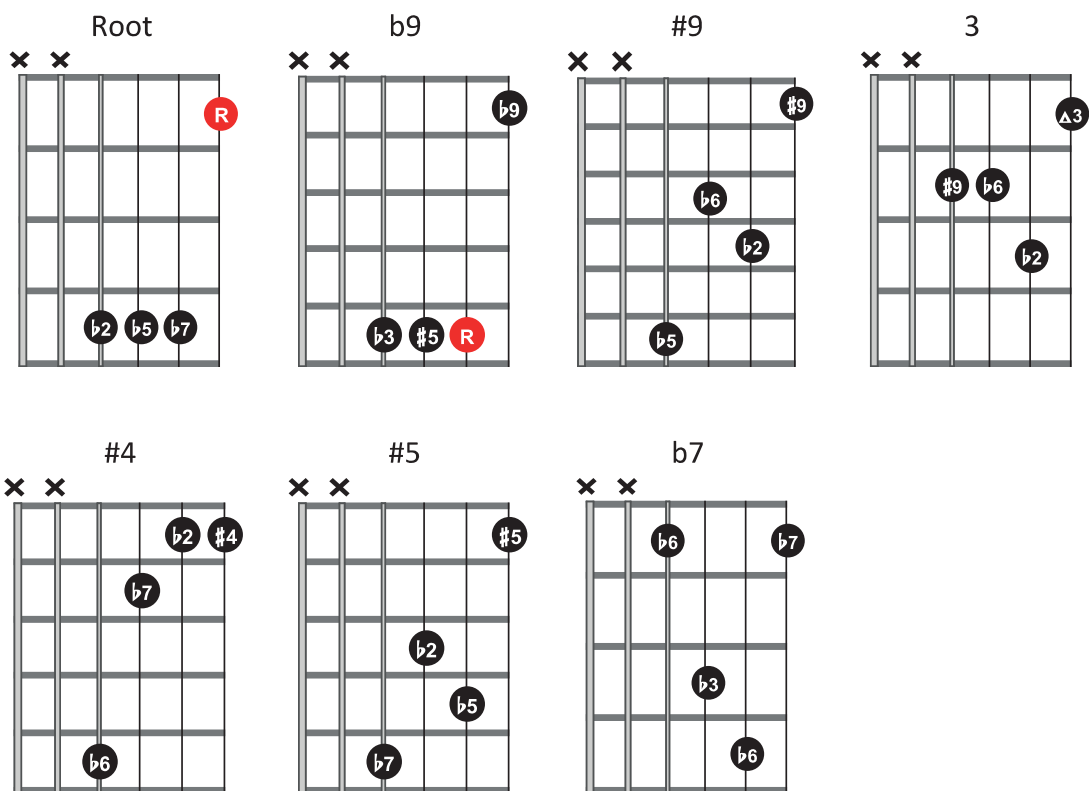
Dom⁷ (unaltered)



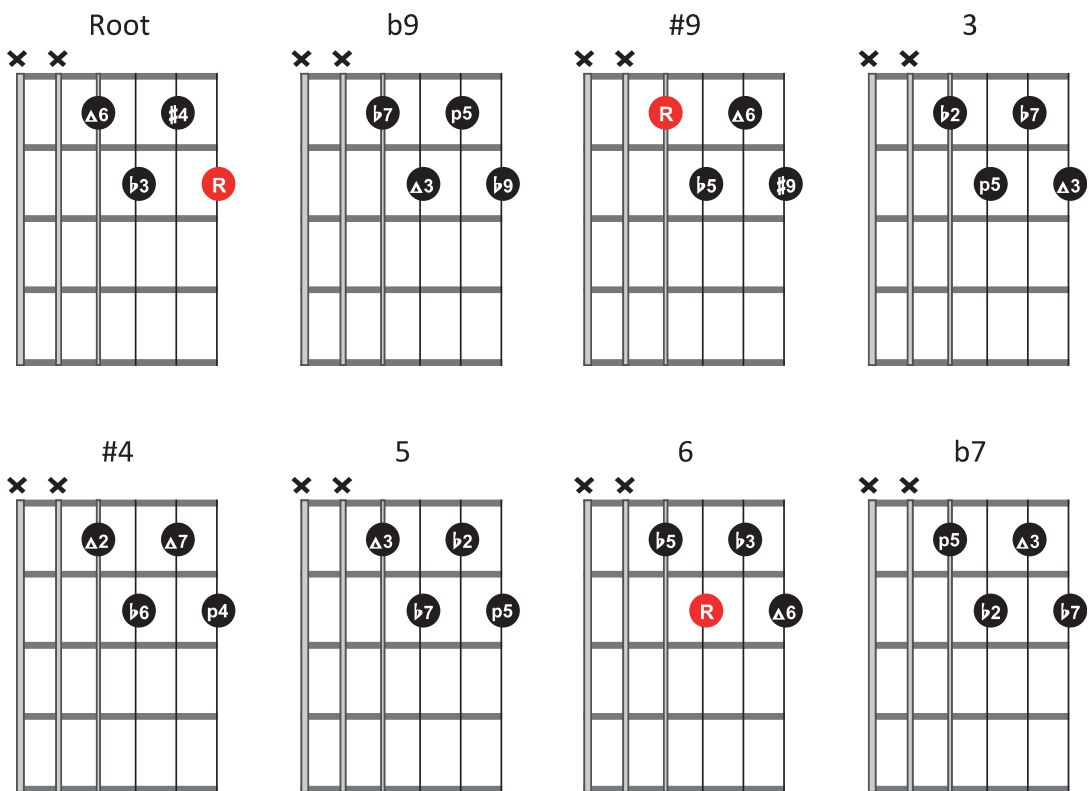


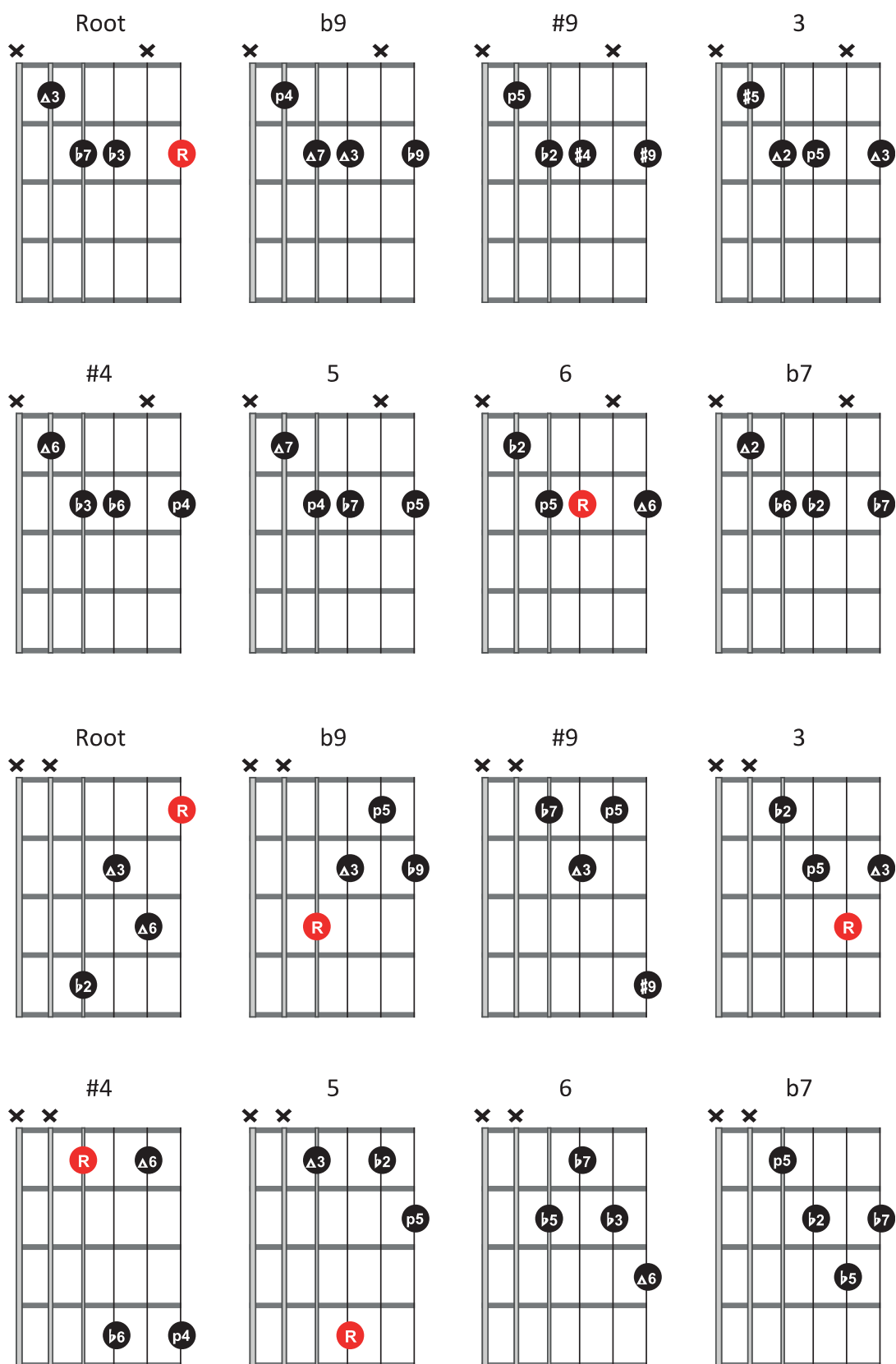
Dom⁷ (altered Dom)





Dom⁷ (Dominant Dim)

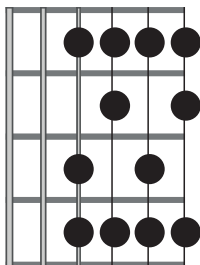




Diminished Scale Voicings

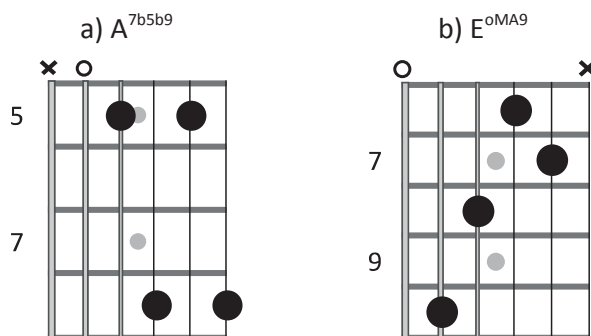
The accompanying diminished voicings can be used in tonic or dominant situations, depending on fret position. Most of the voicings are derived from this pattern.

Ex. 148



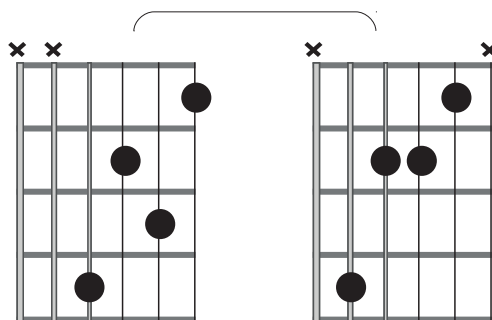
The open E and A strings work nicely as bass notes for these type voicings.

Ex. 149



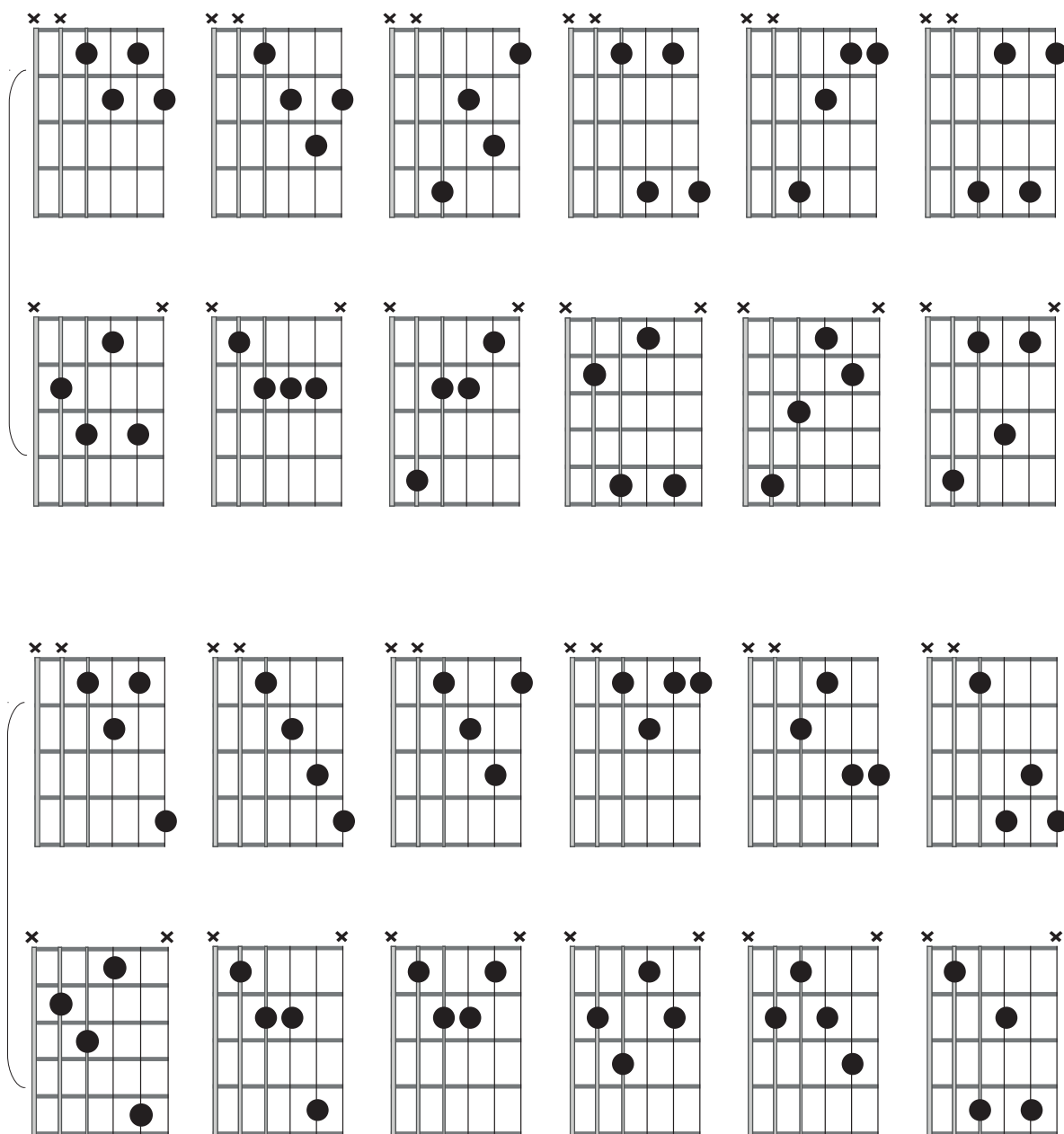
The voicings are grouped in pairs because they are the same shapes transposed.

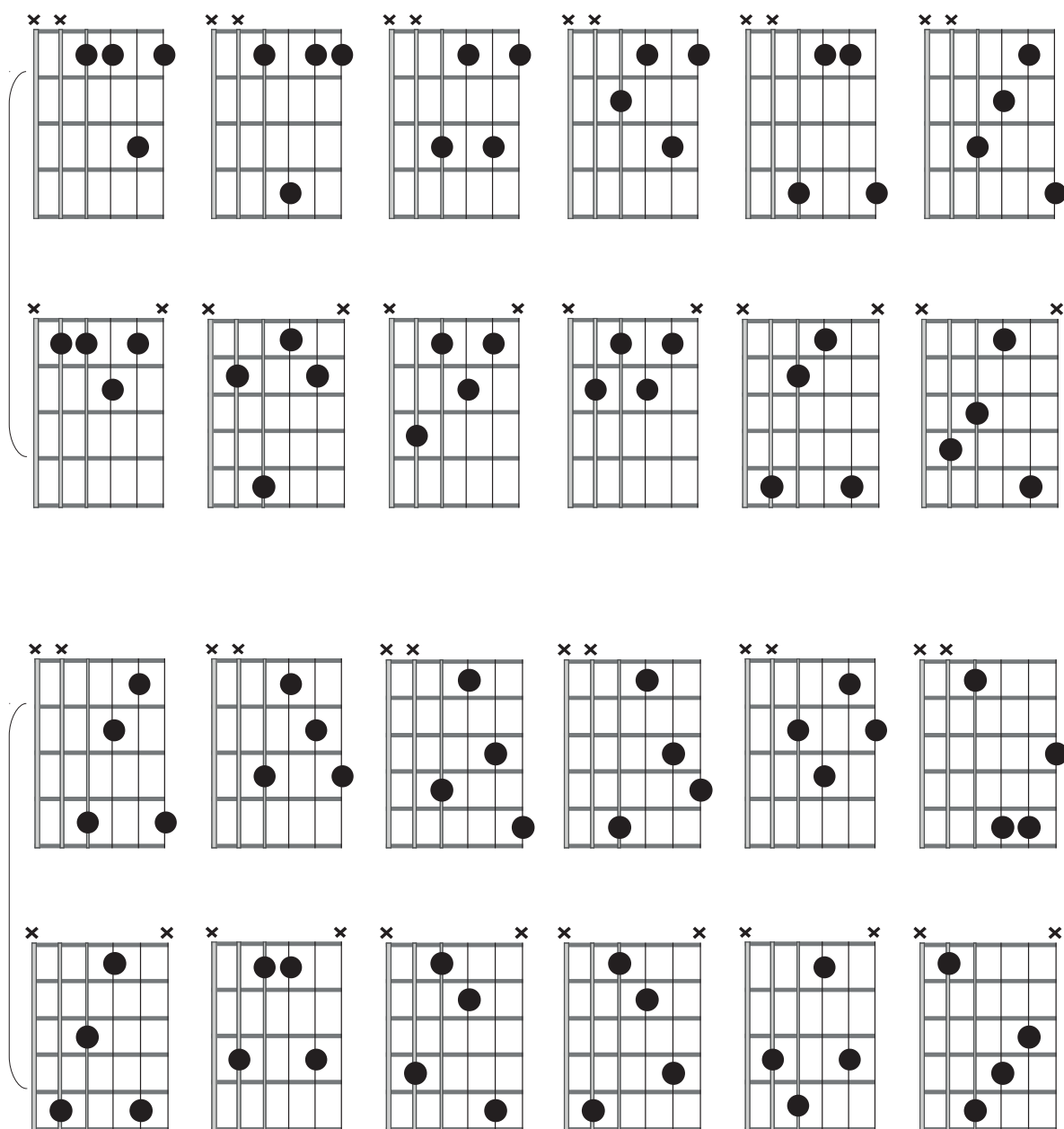
Ex. 150

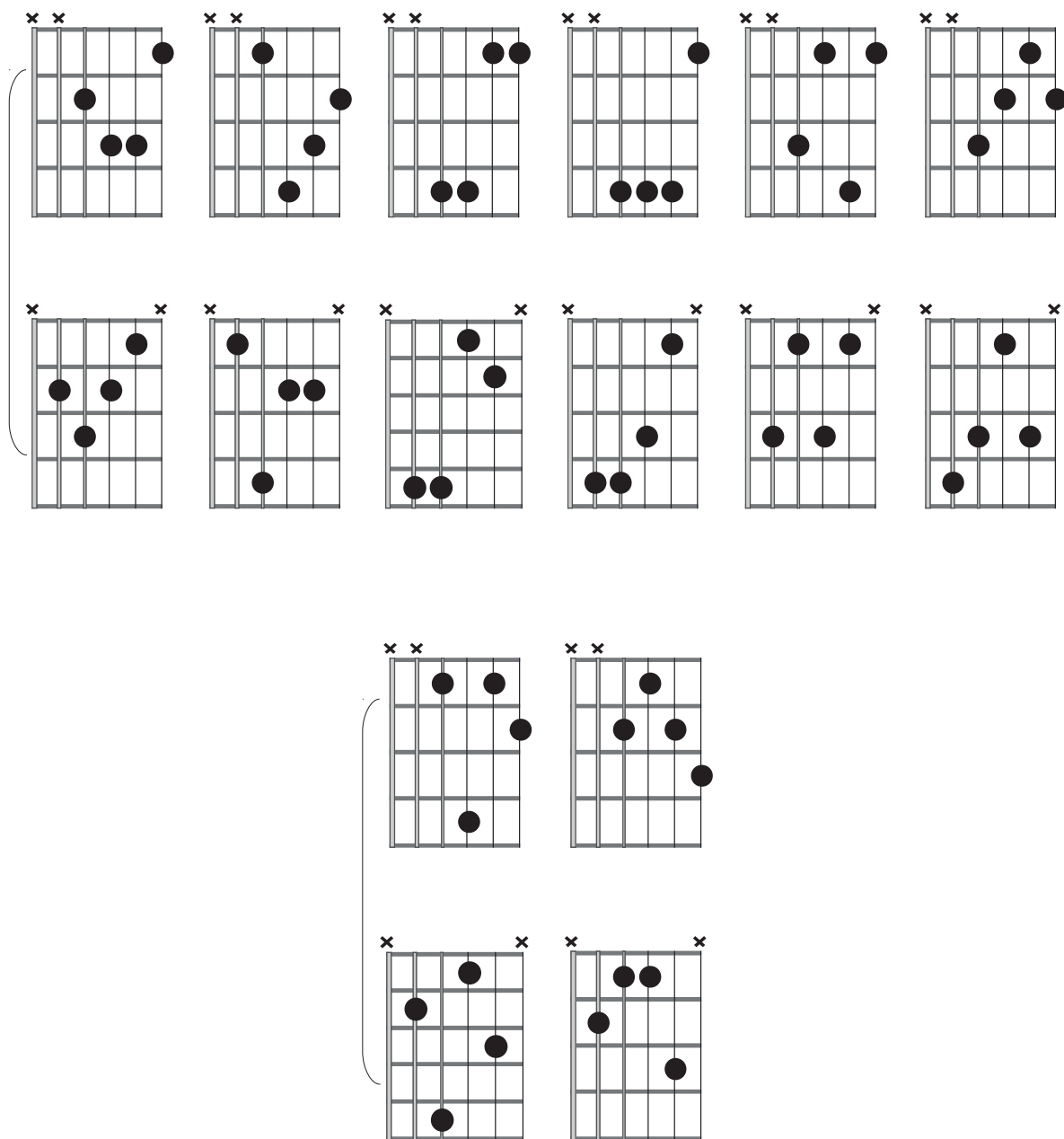


Remember, all of the voicings are moveable by minor thirds.

Dim⁷ Type Comping Voicings







Stretch Voicings

For lack of a better term, the following harmonies are called stretch voicings. I recommend that you practice these voicings for no more than ten minutes at a time. This will prevent any left hand discomfort caused by the reaches involved. If you experience some pain it may simply be related to the stretching of the left hand muscles.

This pain, however, should diminish as your left hand muscles become more accustomed to the stretches.

I would also like to remind you that all of these voicings can be moved modally on the fingerboard.

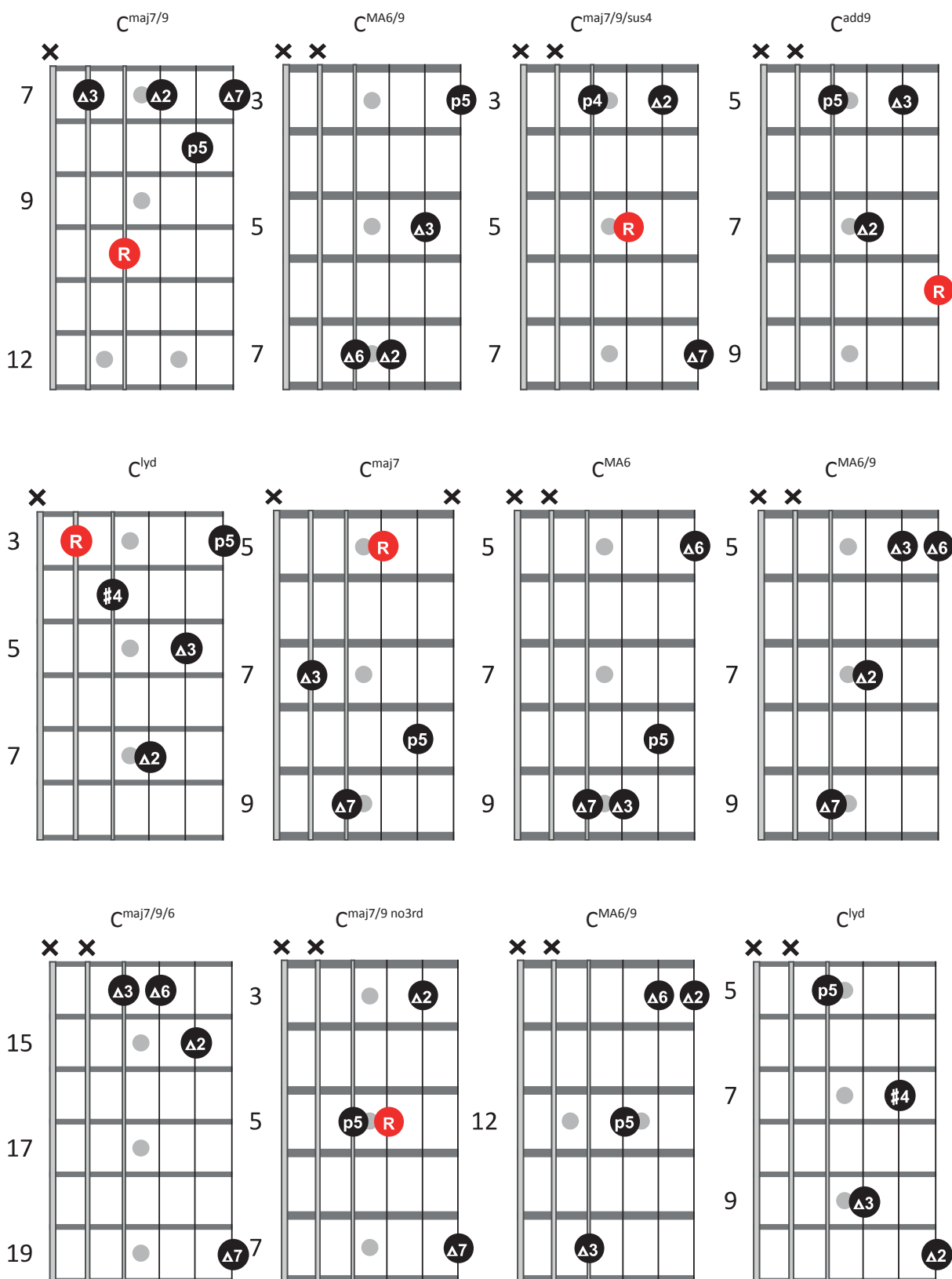
Ex. 151

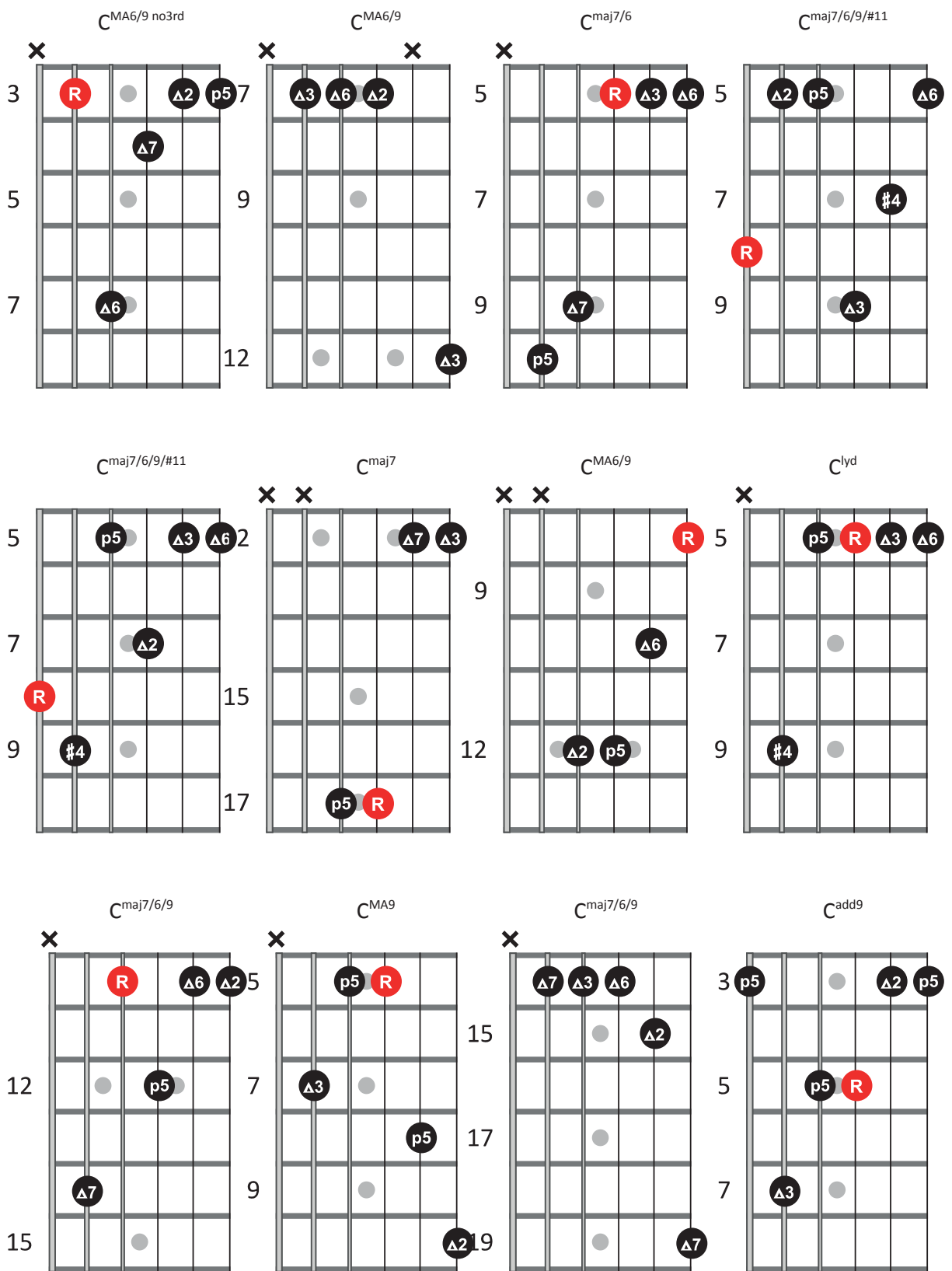
The diagram shows a musical staff with a treble clef. It contains seven triads, each consisting of three notes. The first triad is labeled 'original voicing from key of Cmajor' and consists of the notes C4, E4, and G4. A bracket below the staff, labeled 'Modal Movement in Cmajor', spans the remaining six triads. These triads are: 1) C4, E4, G4; 2) C4, E4, A4; 3) C4, E4, B4; 4) C4, E4, C5; 5) C4, E4, D5; 6) C4, E4, E5; and 7) C4, E4, F5. The notes are written on the staff lines, with some notes extending above the staff. The triads are arranged in a sequence that demonstrates the modal movement of the C major triad across the fingerboard.

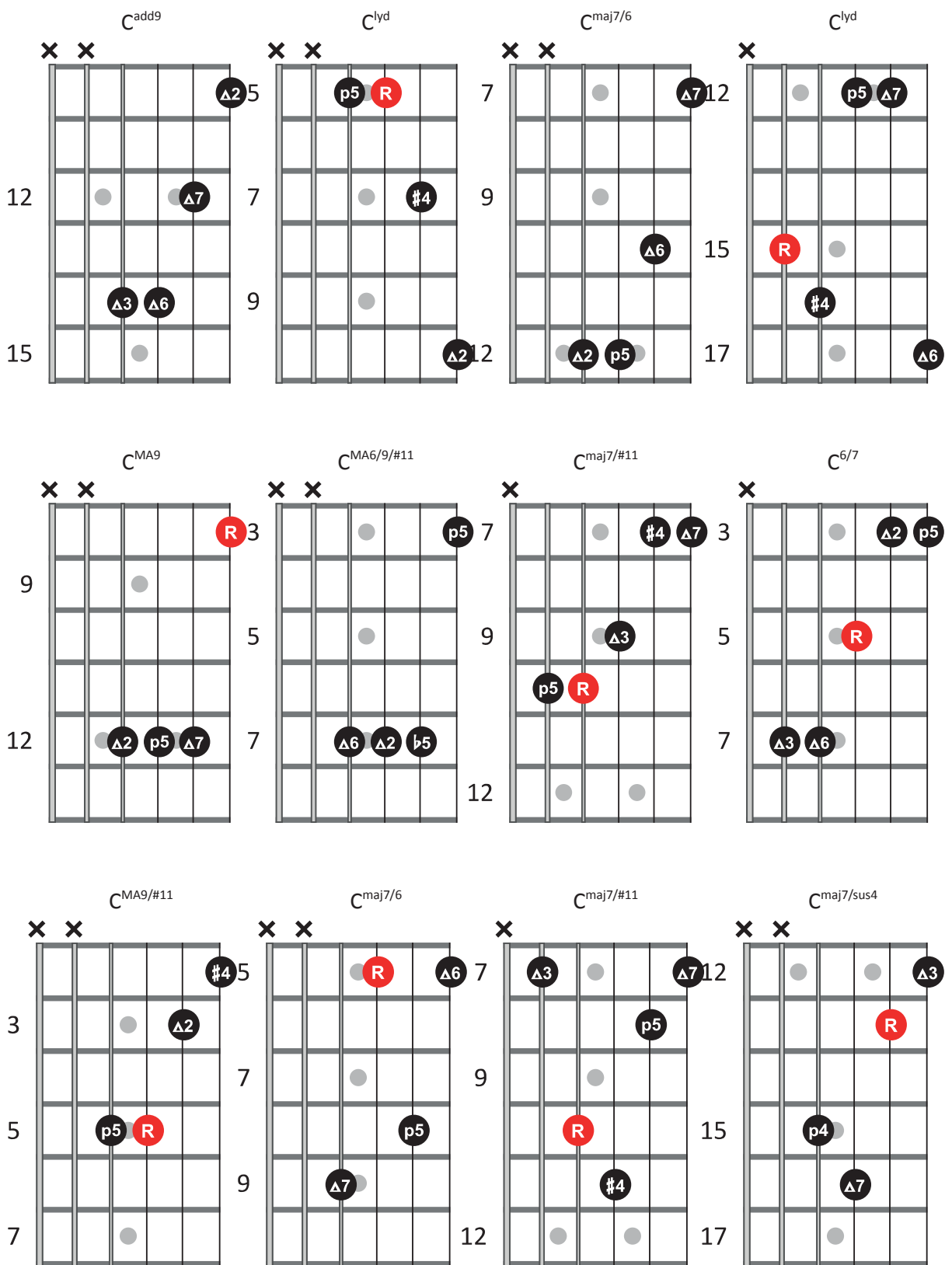
original
voicing
from key of
Cmajor

Modal Movement in Cmajor

Stretch Voicings







Chordal Lines (ii⁷ V⁷ I^{maj7})

Here are some chordal lines for ii⁷ V⁷ I^{major7} progressions. I have used some single notes for variety.

Try transposing these to all twelve keys. Transposing helps you to better understand the variety of chord fingerings on different string groups.

After mastering these, work out some of your own for minor ii V's.

Ex. 152a

The first system of musical notation is in 4/4 time, featuring a treble clef and a key signature of one flat (B-flat). It consists of three measures. The first measure is labeled 'D-7' and contains a whole note chord with notes D2, F2, A2, and B2. The second measure is labeled 'G7' and contains a whole note chord with notes G2, Bb2, D3, and F3. The third measure is labeled 'C6' and contains a whole note chord with notes C3, Eb3, G3, Bb3, and D4. The system ends with a double bar line.

Ex. 152b

The first system of the musical score is in 4/4 time. It features three measures. The first measure is labeled 'D-7' and contains a descending eighth-note scale: D4, C4, B3, A3. The second measure is labeled 'G7alt' and contains a descending eighth-note scale: G4, F#4, E4, D4. The third measure is labeled 'CMA7' and contains a whole note chord: C4, E4, G4, B3. The notation is written on a single staff with a treble clef.

Ex. 152c

Ex. 152d

Ex. 152e

D-9 G7^{b5}(13) C⁶₉

Here are some examples of ii⁷ V⁷ I^{maj7} chord lines in the key of Fmajor. The arrows are used to designate the use of the same voicing.

Ex. 153a

(D7^{b9}) (D7^{b9}) (D7^{b9}) (D7^{b9}) single note

G-7 F#o7 G-7 A^{o7} G-7 G-7 A^{o7} G-7 G-7 F#o7 G-7 C7alt S.N. F_{MA}7

Ex. 153b

(D7^{b9})

G-7 G-7 F#o7 G-7 C7^{b5} (G-^{MA7}) C7 F_{MA}7

Ex. 153c

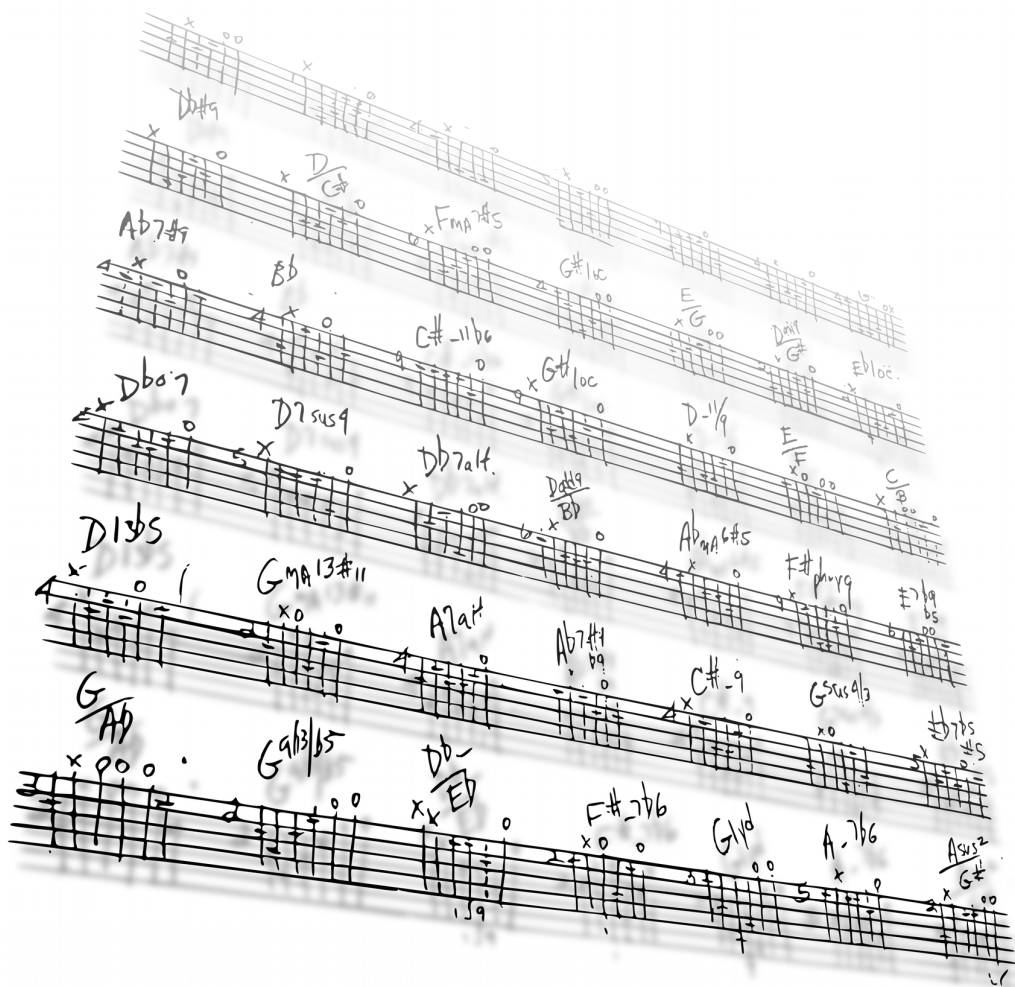
G-7 C7alt Fmaj7

Ex. 153d

G-7 C7alt F_{MA}7

CHAPTER 3

SCALES + ARPEGGIOS



Chapter 3

Mode (Scale) Practice

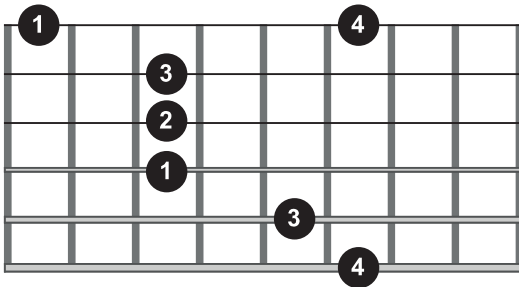
Modes should be practiced every day to warm-up the hands and develop fingerboard understanding. They should be practiced to a metronome in a variety of rhythms (eighths, quarters, eighth-note triplets, sixteenths, sixteenth-note triplets and dotted rhythms) paying particular attention to sound clarity.

Thorough knowledge of scale fingerings (two and three notes per string) will enable you to execute even the most difficult passages.

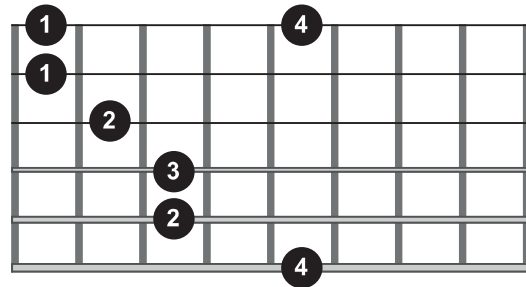
I would recommend practicing one scale group (major, melodic minor or harmonic minor) per day, isolating one mode for the purpose of interval studies. Practicing too many interval or arpeggio studies in one sitting will only add to your confusion.

Triads

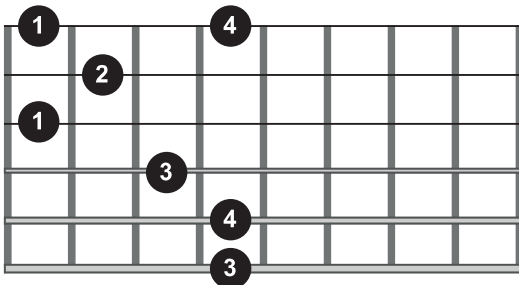
Major (Root Position)



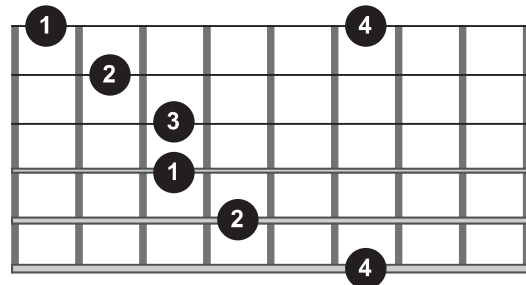
Major (3rd in Bass)



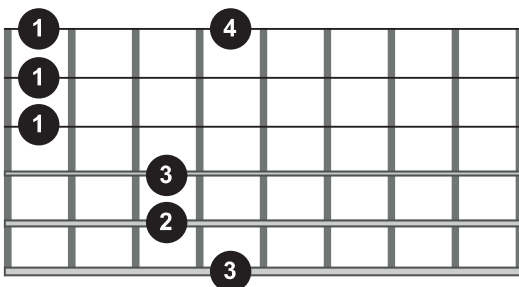
Major (5th in Bass)



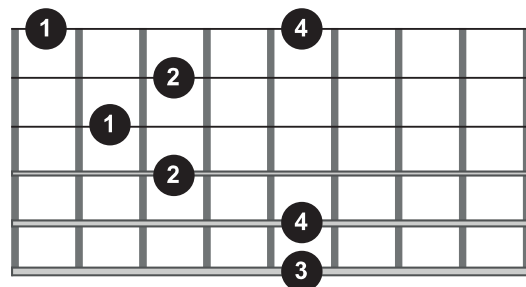
Minor (Root Position)



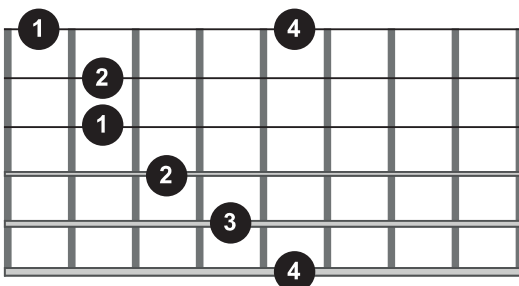
Minor (3rd in Bass)



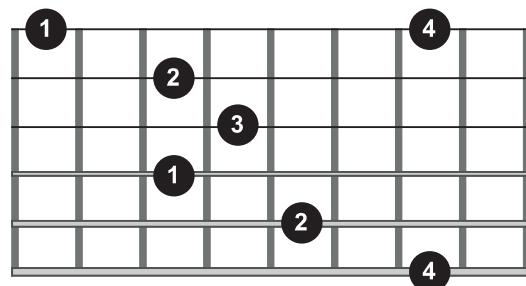
Minor (5th in Bass)



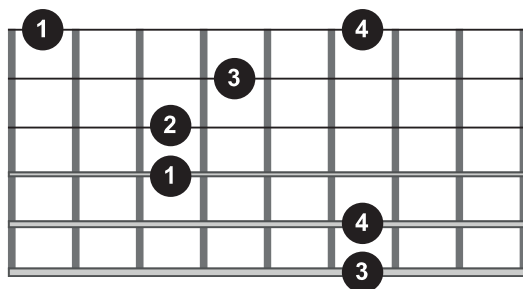
Augmented



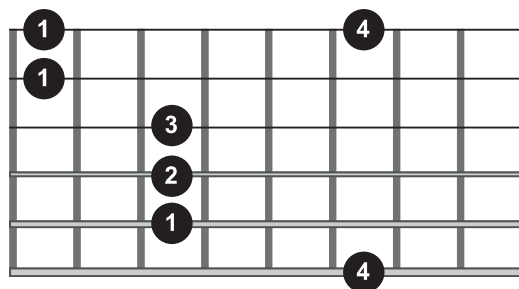
Diminished



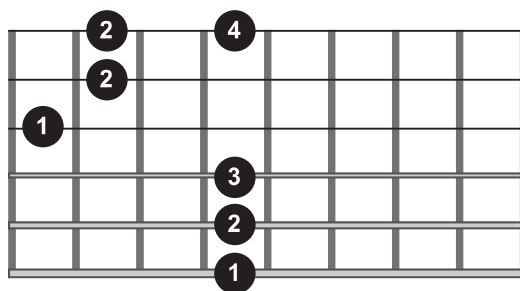
Sus⁴



Sus²

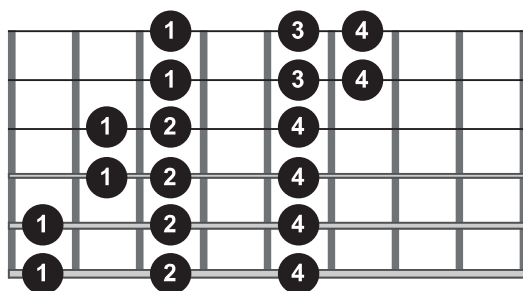


Quartal

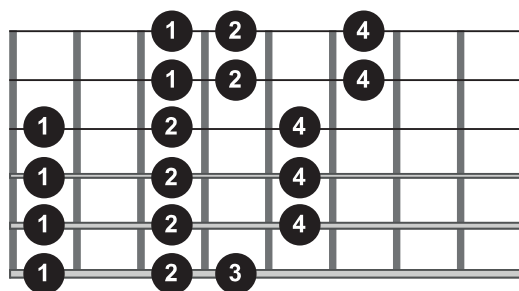


Modes of the Major Scale

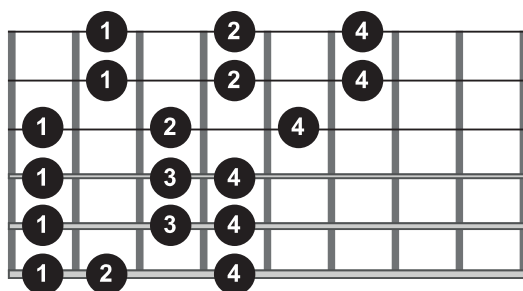
Ionian



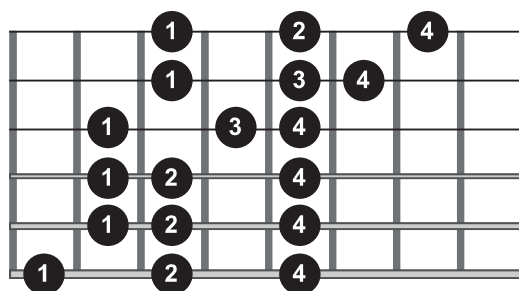
Dorian



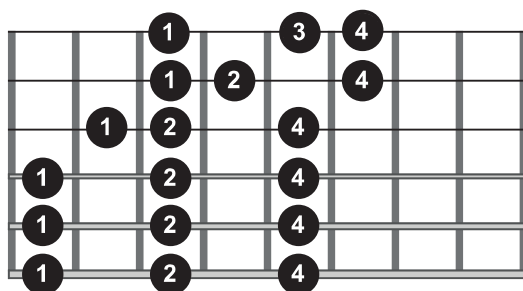
Phrygian



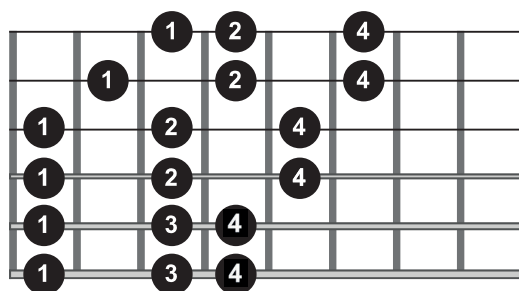
Lydian



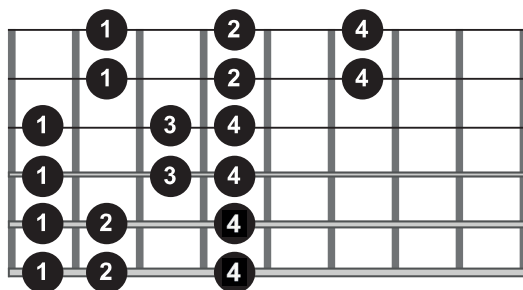
Mixolydian



Aeolian

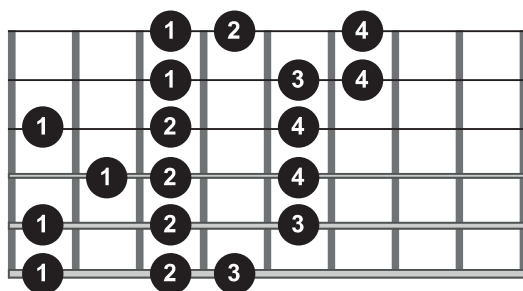


Locrian

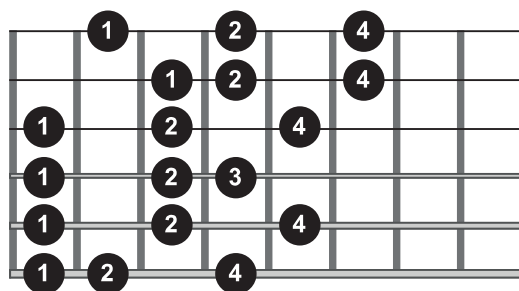


Modes of the Melodic Minor Scale

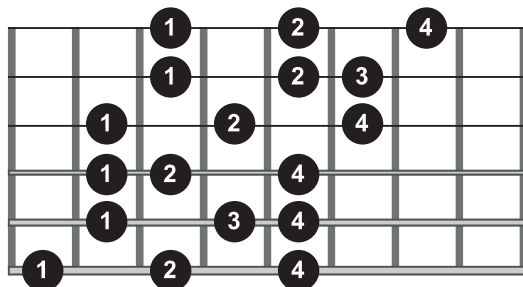
Melodic Minor



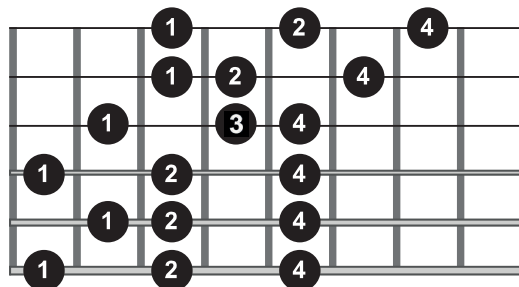
Dorian b2



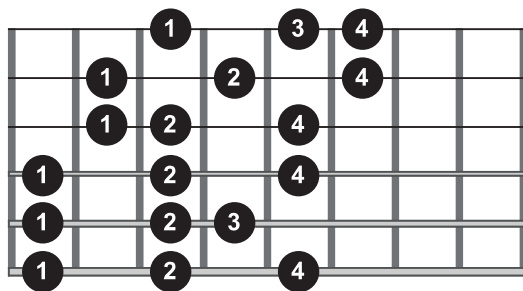
Lydian Augmented



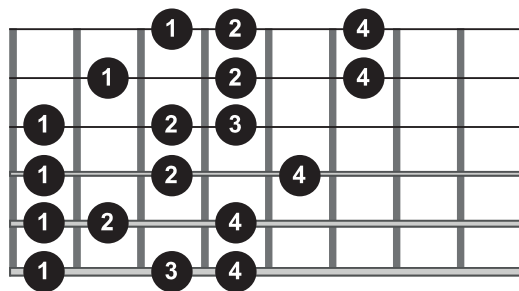
Mixolydian #11



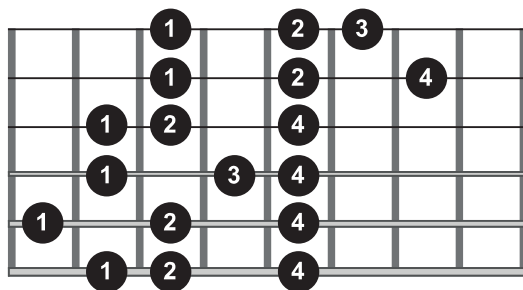
Mixolydian b6



Locrian nat.2

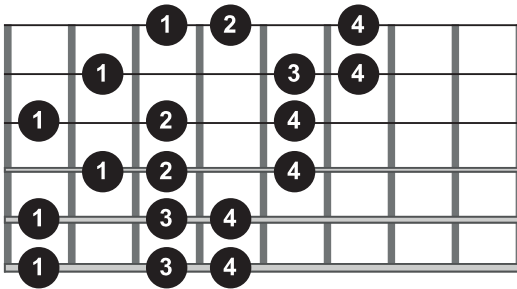


Altered Dominat

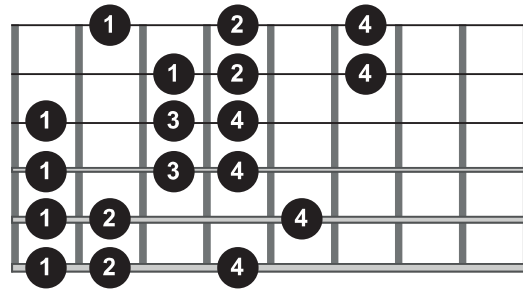


Modes of the Harmonic Minor Scale

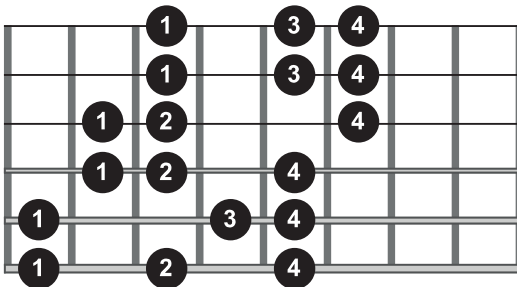
Harmonic Minor



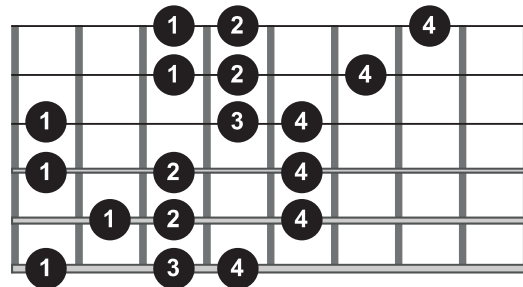
Locrian nat. 6



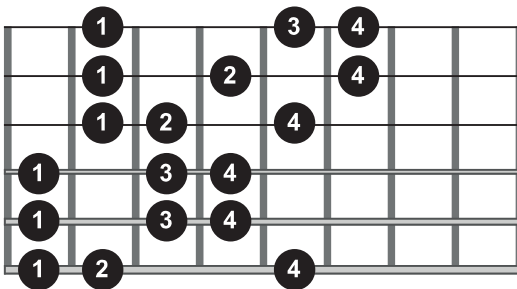
Ionian Augmented



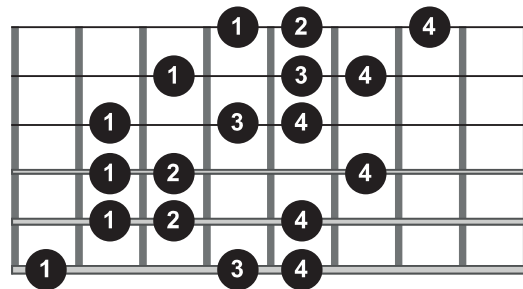
Dorian #4



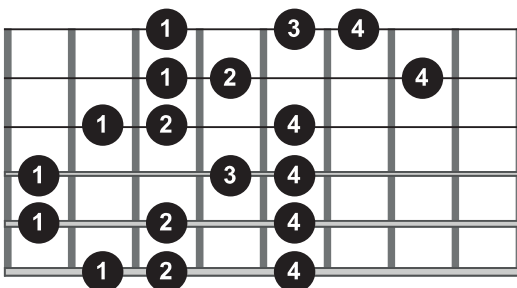
Phrygian Major



Lydian #9

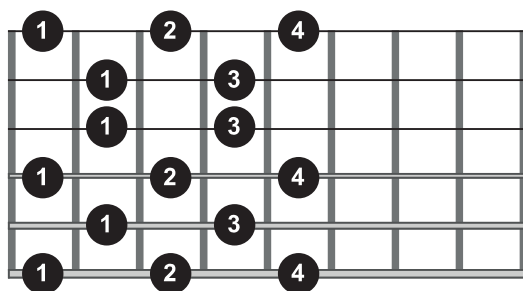


Altered Dominant bb7

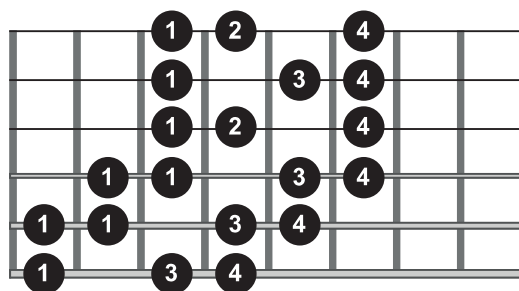


Miscellaneous Scales

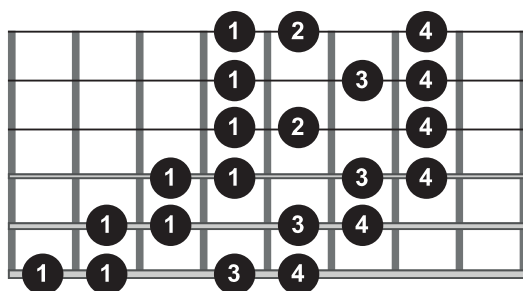
Whole Tone



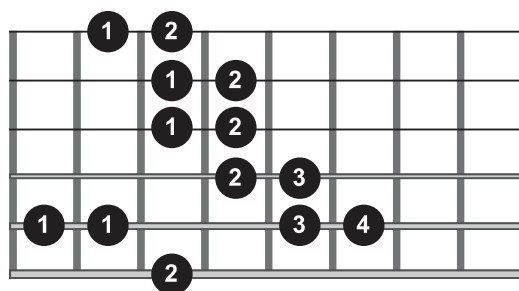
Tonic Diminished



Dominant Diminished



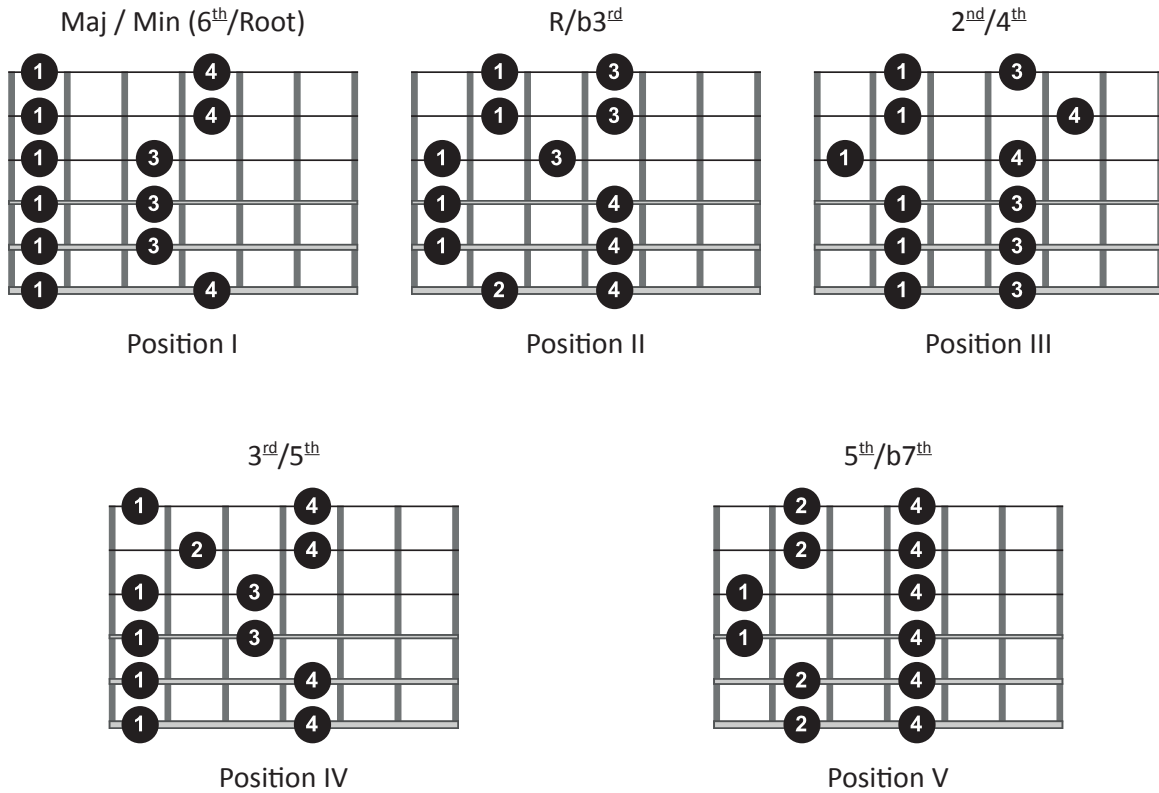
Augmented



Blues and Pentatonic Scales

Pentatonic Scales:

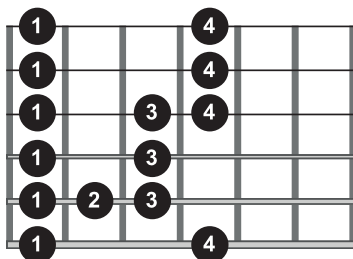
Major:	1	2	3	5	6
Minor:	1	b3	4	5	b7



Blues Scales:

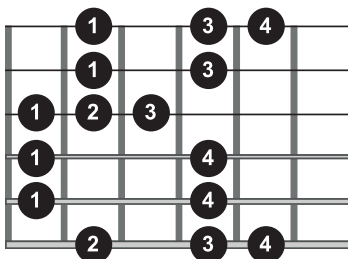
Major:	1	2	b3	3	5	6
Minor:	1	b3	4	#4	5	b7

Maj / Min (6th/Root)



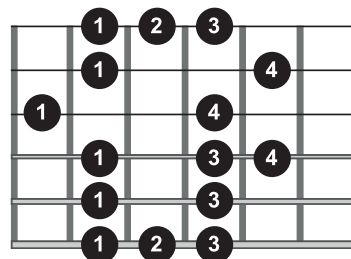
Position I

R/b3rd



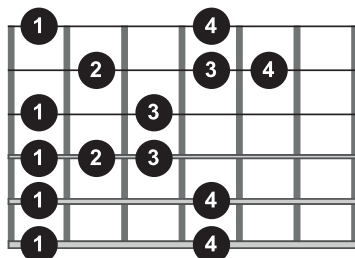
Position II

2nd/4th



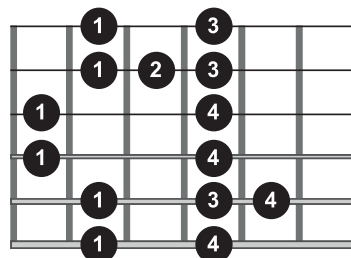
Position III

3rd/5th



Position IV

5th/b7th



Position V

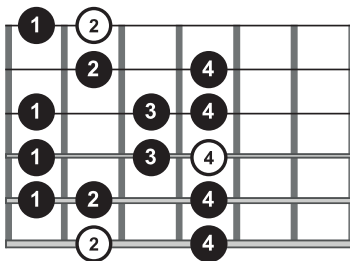
Close Position Fingerings

Close position fingerings work on a one finger per fret principle. This allows the left hand to be in a compact position giving the fingers greater striking power.

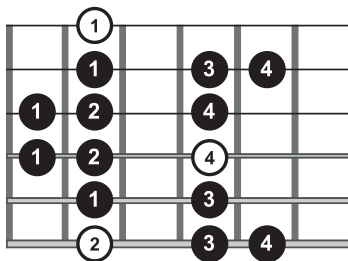
The added striking power creates a percussive attack aurally resembling a picked note. If you are already familiar with these fingerings move on to the two note per string scales.

Major Scale

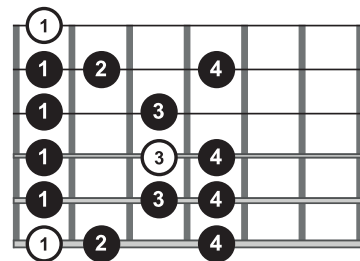
Ionian



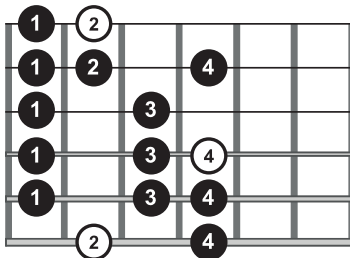
Dorian



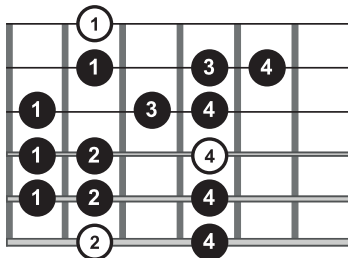
Phrygian



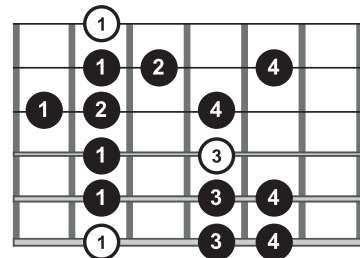
Lydian



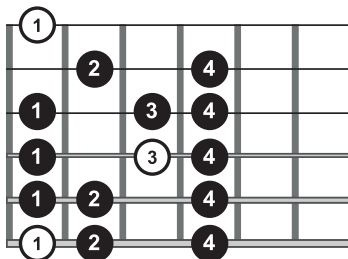
Mixolydian



Aeolian

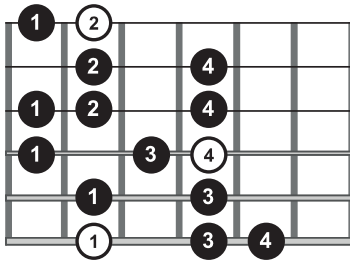


Locrian

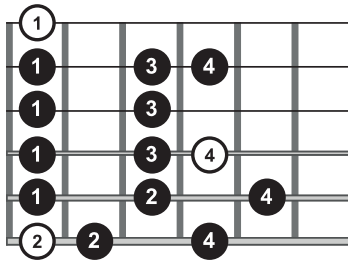


Melodic Minor Scale

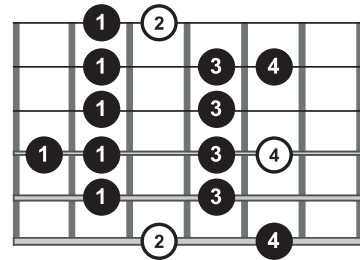
Melodic Minor



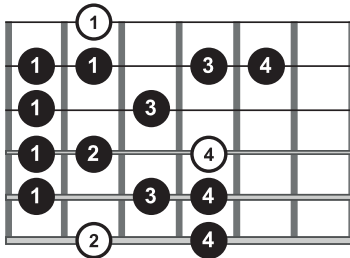
Dorian b2



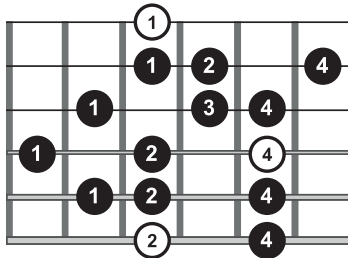
Lydian Augmented



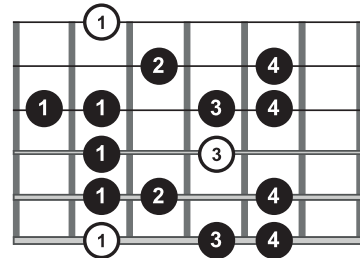
Mixolydian #11



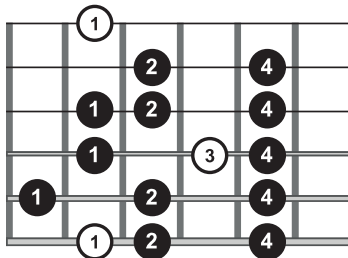
Mixolydian b6



Locrian nat.2

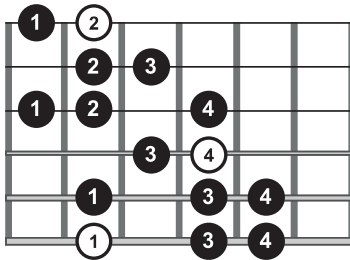


Altered Dominant

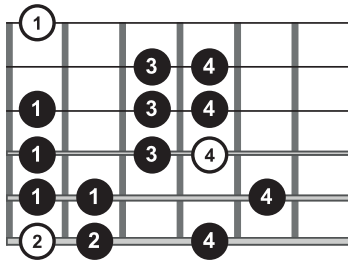


Harmonic Minor Scale

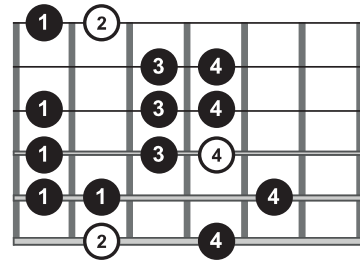
Harmonic Minor



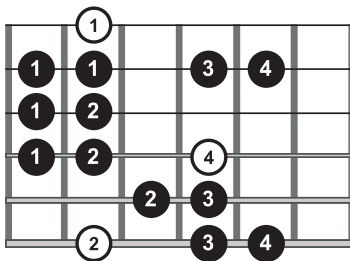
Locrian nat.6



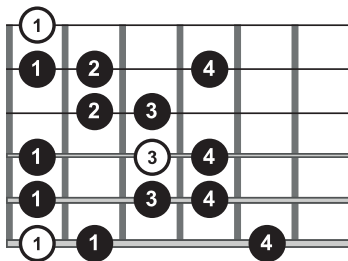
Ionian Augmented



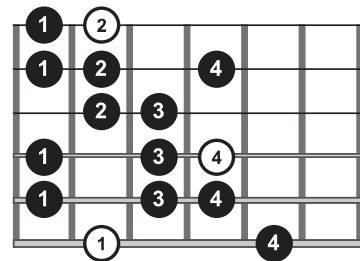
Dorian #4



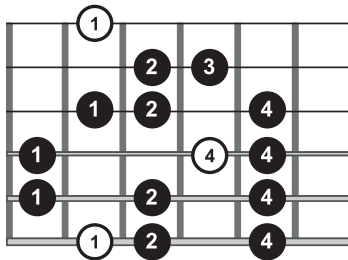
Phrygian Major



Lydian #9



Altered Dominant bb7



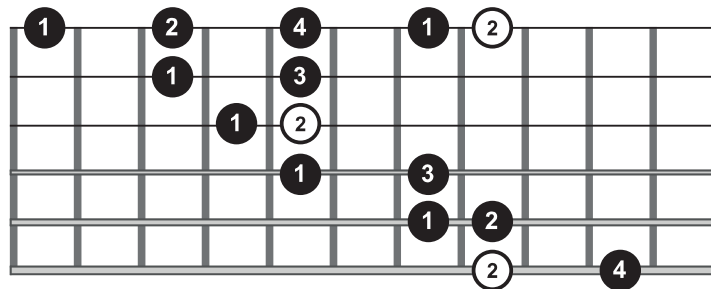
Scales with two notes per string

When playing through the following scale examples you will discover that unlike most scales, these ascend in pitch while the left hand moves towards the nut (this is generally associated with a descent in pitch).

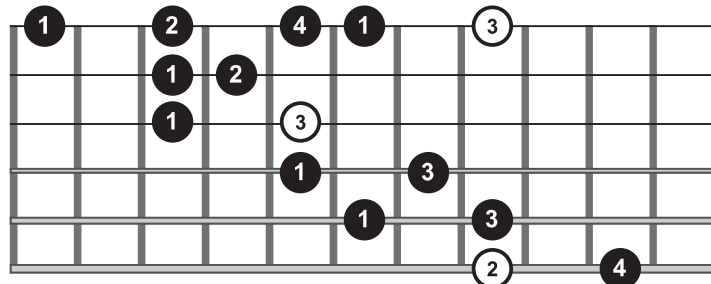
This unusual movement will open up your fingering possibilities and lead you in different directions while improvising. These fingerings work nicely if you slur on each string.

Modes of the Major Scale

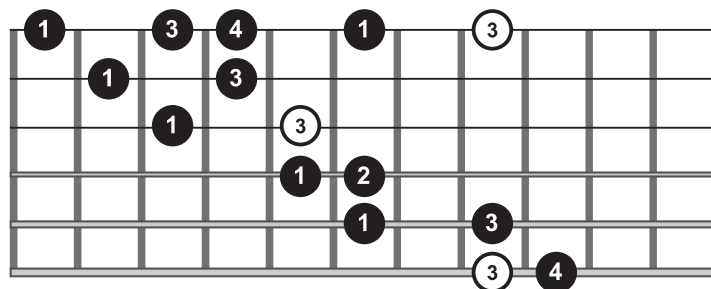
Ionian:



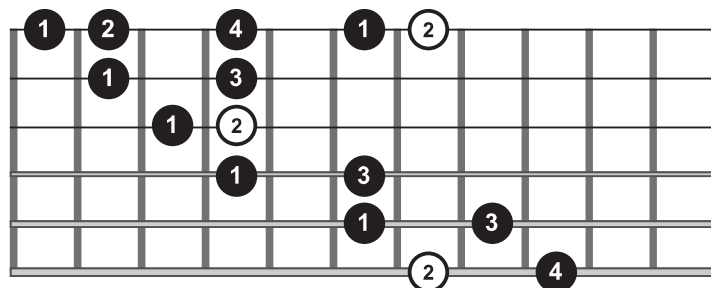
Dorian:



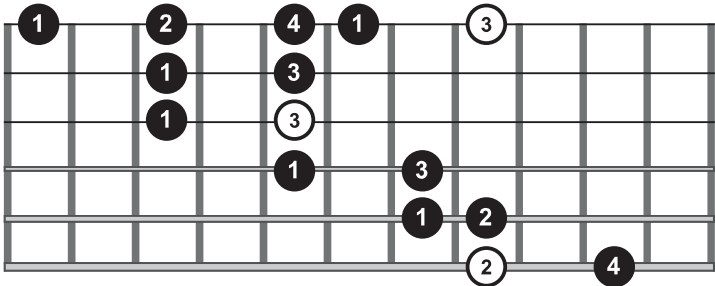
Phrygian:



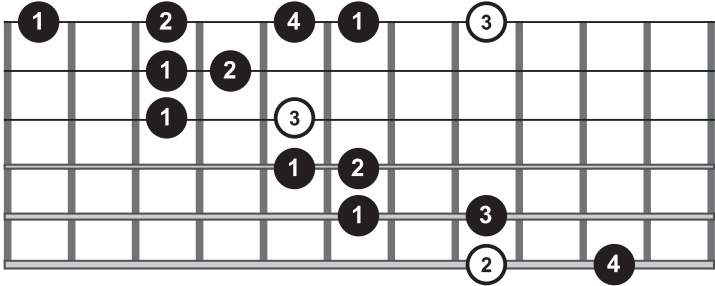
Lydian:



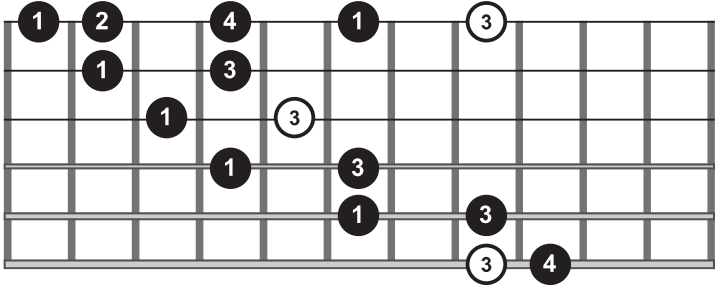
Mixolydian:



Aeolian:

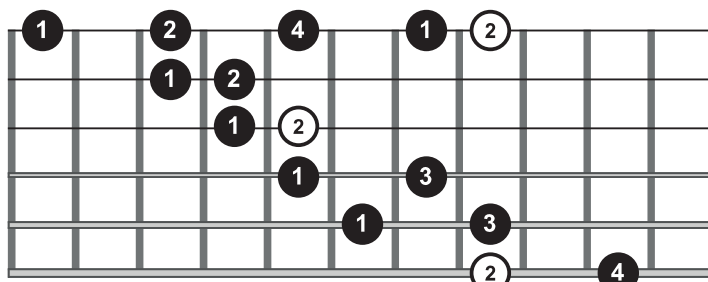


Locrian:

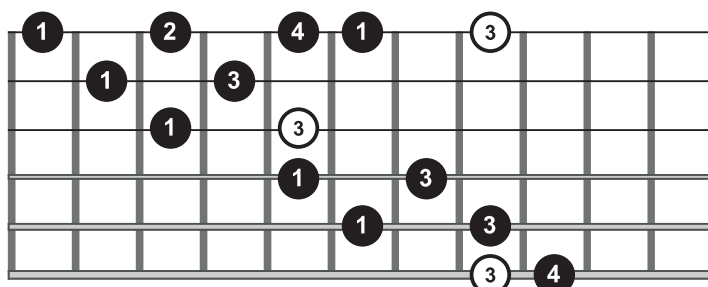


Modes of the Melodic Minor Scale

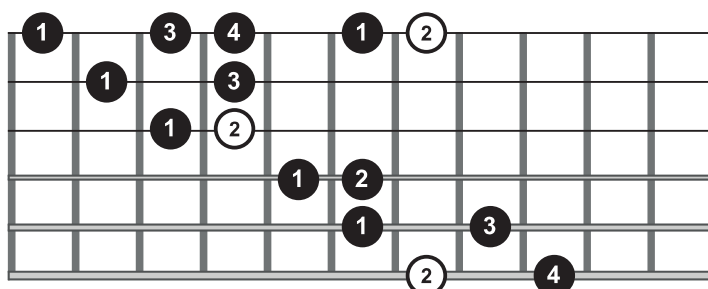
Melodic Minor:



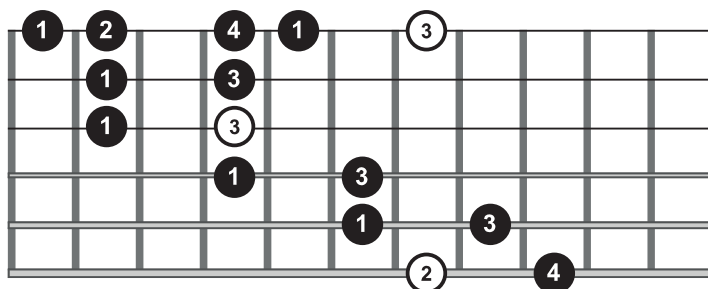
Dorian b2



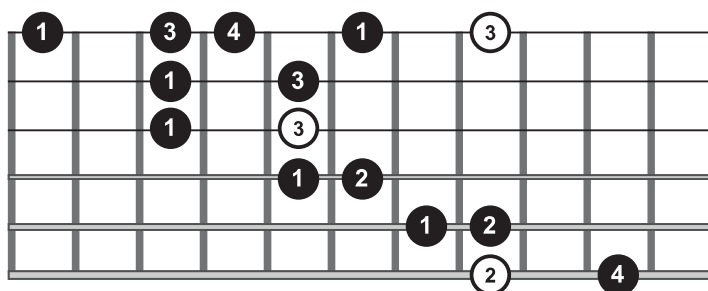
Lydian Augmented



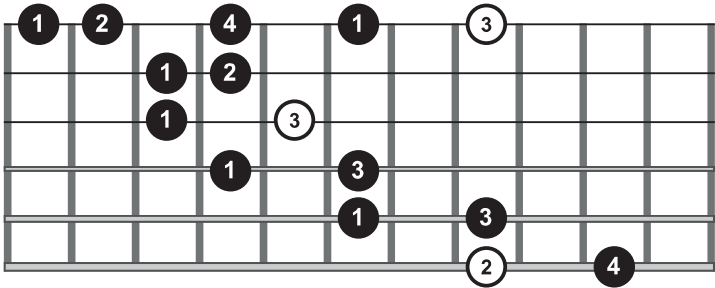
Mixolydian #11



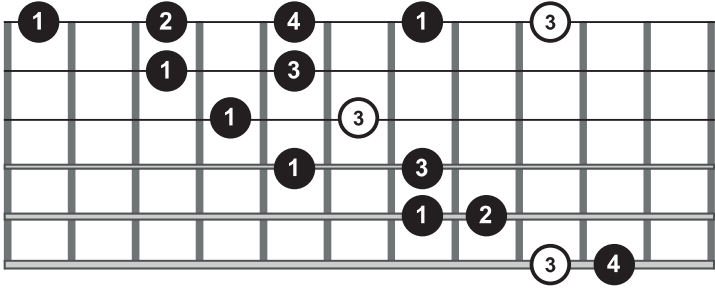
Mixolydian b6



Locrian nat.2

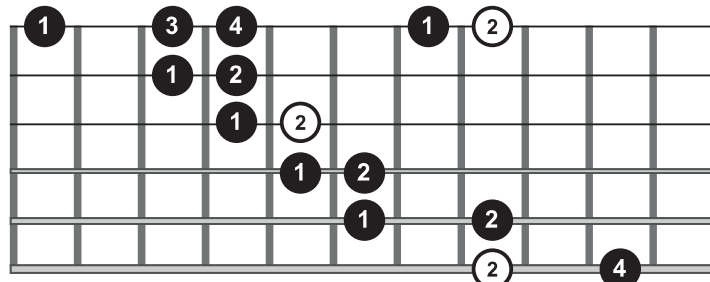


Altered Dominant

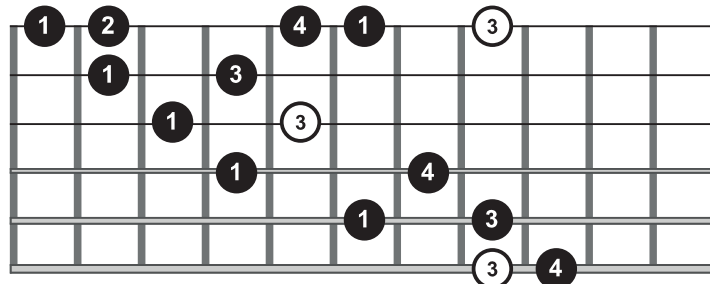


Modes of the Harmonic Minor Scale

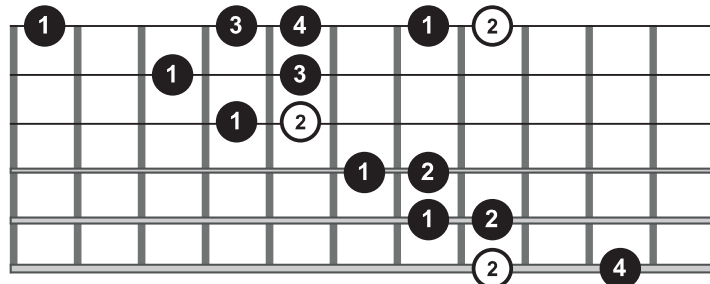
Harmonic Minor:



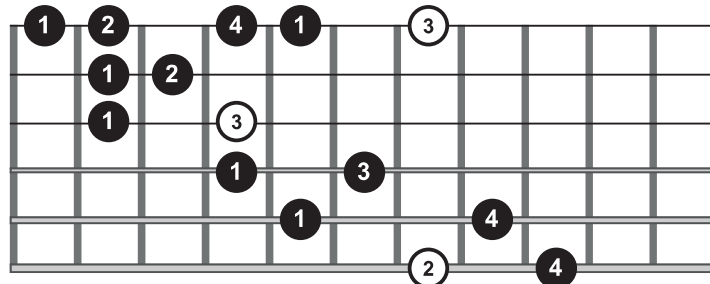
Locrian nat.6



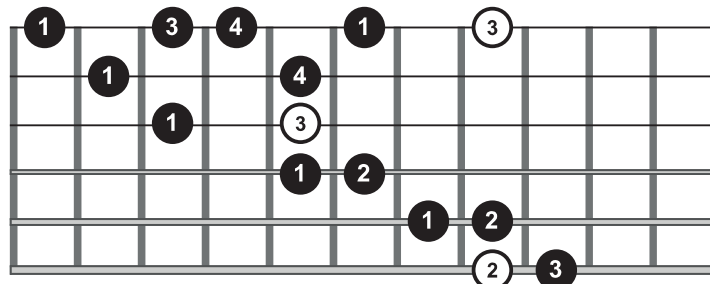
Ionian Augmented



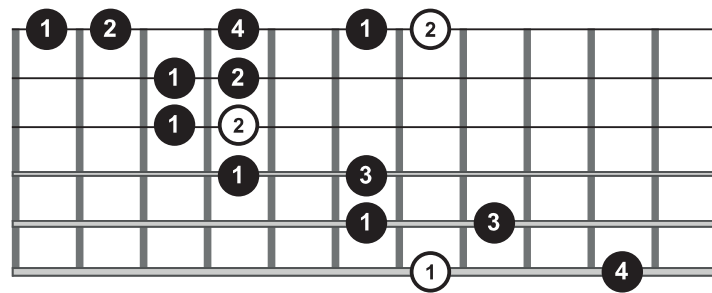
Dorian #4



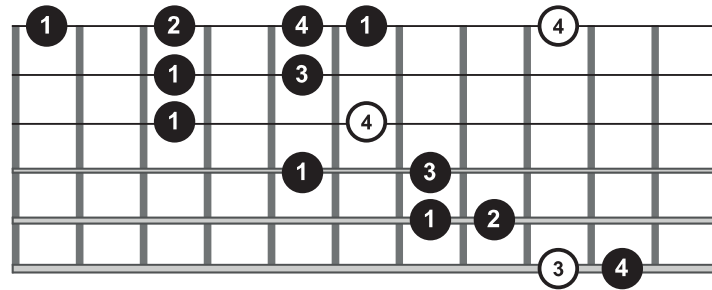
Phrygian Major



Lydian #9

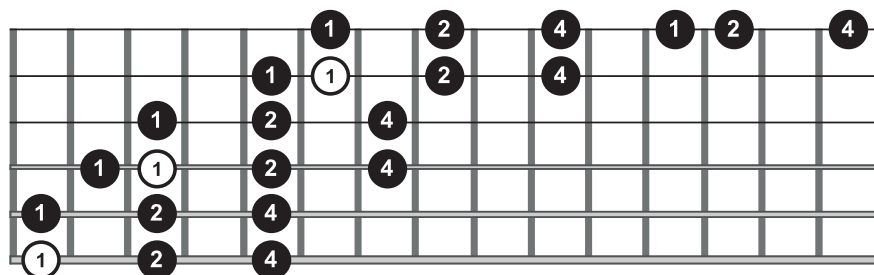


Altered Dominant bb7

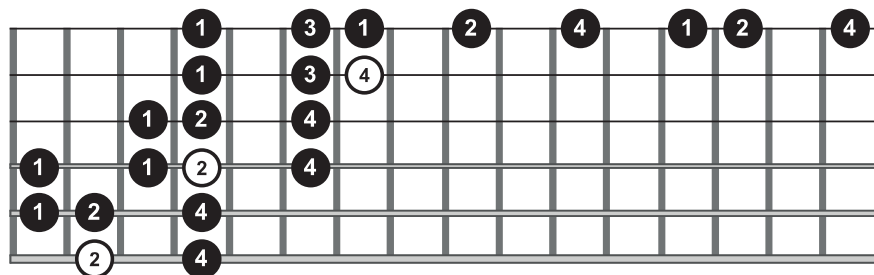


Examples of Extended Range Scale Fingerings

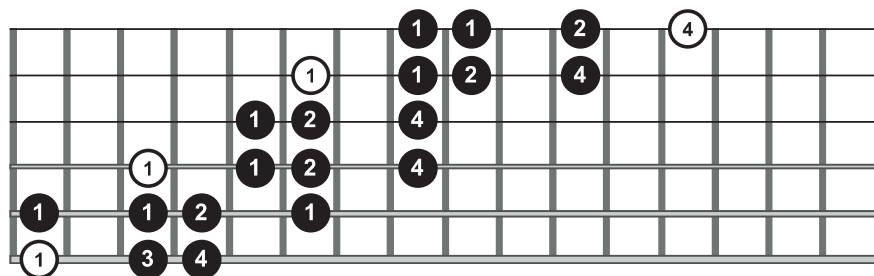
Major:



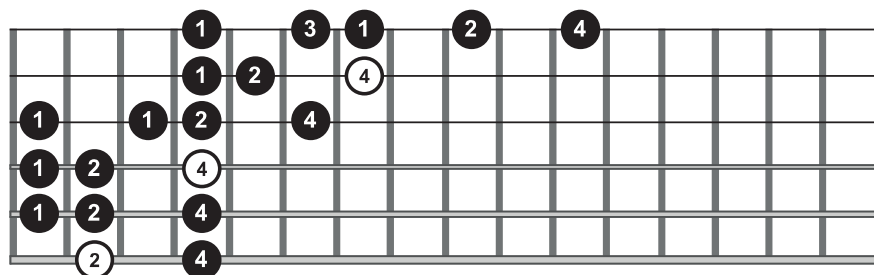
Major:



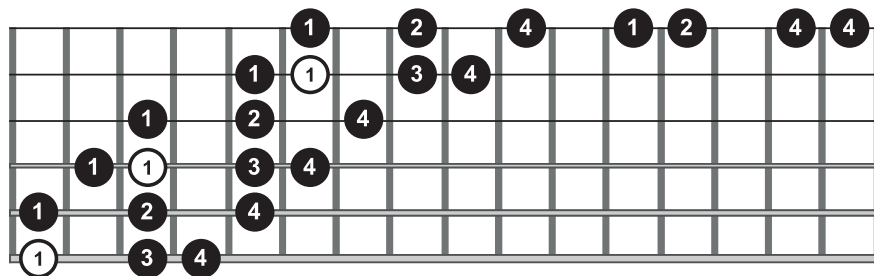
Aeolian:



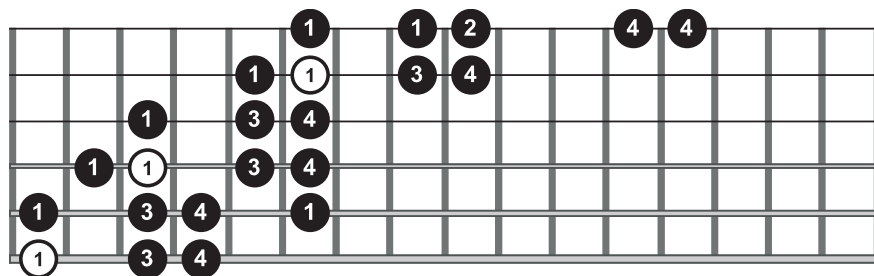
Mixolydian:



Melodic Minor:



Harmonic Minor:



Diatonic Intervals

Practicing scales in diatonic interval combinations should be part of your daily practicing. It will help you develop both technical and improvisational skills as well as improving left and right hand coordination.

Here is a example of the diatonic intervals of a (C) major scale.

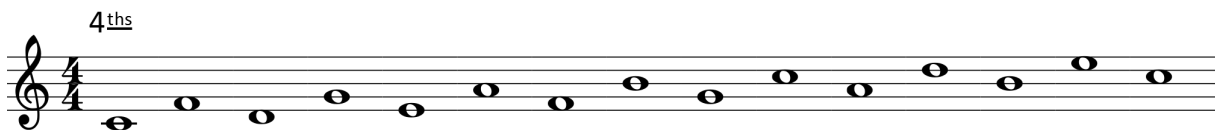
Ex. 154a



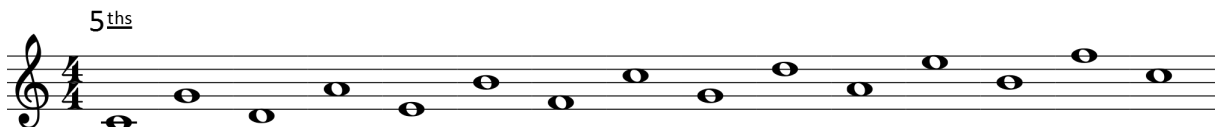
Ex. 154b



Ex. 154c



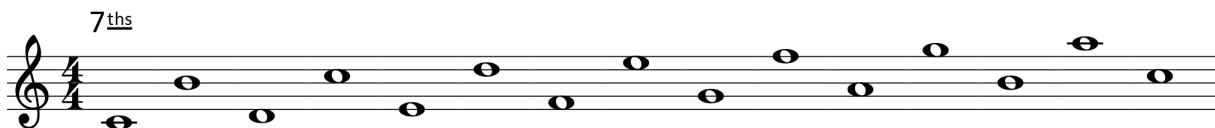
Ex. 154d



Ex. 154e



Ex. 154f



Also practice descending. Then practice all scales and modes in intervals including all auxiliary scales such as the diminished, augmented, whole-tone, pentatonics and Blues.

Diatonic Arpeggios

In addition to intervals, all scales should be broken into both diatonic triads and seventh chords. I suggest practicing these within the close (2 note per string) and open (3 note per string) fingering systems.

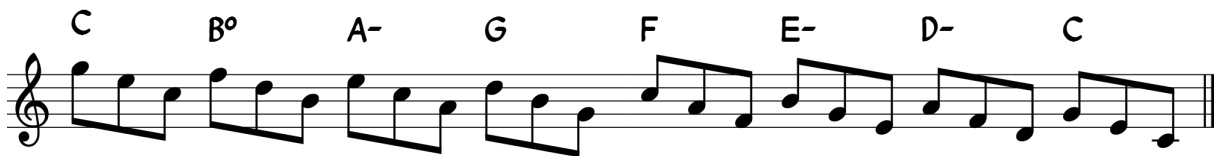
Here are a few practice examples.

Triads (in C Major)

Ex. 155a



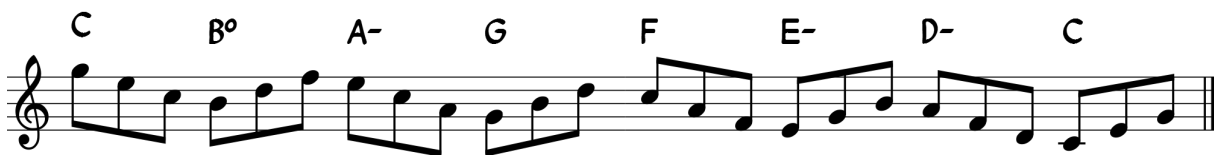
Ex. 155b



Ex. 155c



Ex. 155d



Seventh Chords

Ex. 156a

C_{MA}7 D-7 E-7 F_{MA}7 G7 A-7 B-7^{b5} C_{MA}7



Ex. 156b

C_{MA}7 B-7^{b5} A-7 G7 F_{MA}7 E-7 D-7 C_{MA}7



Ex. 156c

C_{MA}7 D-7 E-7 F_{MA}7 G7 A-7 B-7^{b5} C_{MA}7



Ex. 156d

C_{MA}7 B-7^{b5} A-7 G7 F_{MA}7 E-7 D-7 C_{MA}7



Try to experiment with as many variations of note and chord order as possible.

Triad Variation

Ex. 157

C D- E- F G A- B° C



Seventh Chord Variation

Ex. 158

C_{MA}^7 $D-^7$ $E-^7$ F_{MA}^7 G^7 $A-^7$ $B-^7\flat^5$

The musical notation for Ex. 158 is written on a single staff with a treble clef. It consists of seven chords: C_{MA}^7 , $D-^7$, $E-^7$, F_{MA}^7 , G^7 , $A-^7$, and $B-^7\flat^5$. The first three chords are played with eighth notes, and the last four are played with quarter notes. The sequence ends with a double bar line.

Spread Triad Arpeggios

Ascending & Descending

The image displays six staves of guitar arpeggios, each featuring an ascending and descending line and a corresponding guitar fretboard diagram. The diagrams show fingerings (8, 7, 10) and positions (8, 7, 10) for various triads.

Staff 1: C Major Triad

- Ascending: C (8), C/E (7), C/G (8), C (10), C/G (8), C/E (7), C (8)
- Descending: C (8), C/E (7), C/G (8), C (10), C/G (8), C/E (7), C (8)

Staff 2: C Minor Triad

- Ascending: Cm (8), Cm/E $\flat$ (10), Cm/G (10), Cm (10), Cm/G (10), Cm/E $\flat$ (10), Cm (8)
- Descending: Cm (8), Cm/E $\flat$ (10), Cm/G (10), Cm (10), Cm/G (10), Cm/E $\flat$ (10), Cm (8)

Staff 3: C Diminished Triad

- Ascending: C $^\circ$ (8), C $^\circ$ /E $\flat$ (10), C $^\circ$ /G $\flat$ (9), C $^\circ$ (10), C $^\circ$ /G $\flat$ (9), C $^\circ$ /E $\flat$ (10), C $^\circ$ (8)
- Descending: C $^\circ$ (8), C $^\circ$ /E $\flat$ (10), C $^\circ$ /G $\flat$ (9), C $^\circ$ (10), C $^\circ$ /G $\flat$ (9), C $^\circ$ /E $\flat$ (10), C $^\circ$ (8)

Staff 4: C Augmented Triad

- Ascending: C+ (8), C+/E (10), C+/G $\sharp$ (9), C+ (10), C+/G $\sharp$ (9), C+/E (10), C+ (8)
- Descending: C+ (8), C+/E (10), C+/G $\sharp$ (9), C+ (10), C+/G $\sharp$ (9), C+/E (10), C+ (8)

Staff 5: C Suspended 4 Triad

- Ascending: Csus4 (8), Csus4/F (10), Csus4/G (10), Csus4 (10), Csus4/G (10), Csus4/F (10), Csus4 (8)
- Descending: Csus4 (8), Csus4/F (10), Csus4/G (10), Csus4 (10), Csus4/G (10), Csus4/F (10), Csus4 (8)

Staff 6: C Lydian Triad

- Ascending: Clyd (8), Clyd/F $\sharp$ (10), Clyd/G (10), Clyd (10), Clyd/G (10), Clyd/F $\sharp$ (10), Clyd (8)
- Descending: Clyd (8), Clyd/F $\sharp$ (10), Clyd/G (10), Clyd (10), Clyd/G (10), Clyd/F $\sharp$ (10), Clyd (8)

Seventh Chord Arpeggios

I have compiled this chart of seventh chord arpeggios by combining all of the possible chromatic alterations of the basic chord tones. the naming of arpeggios relates to the intervals above the root (see seventh chord formula chart).

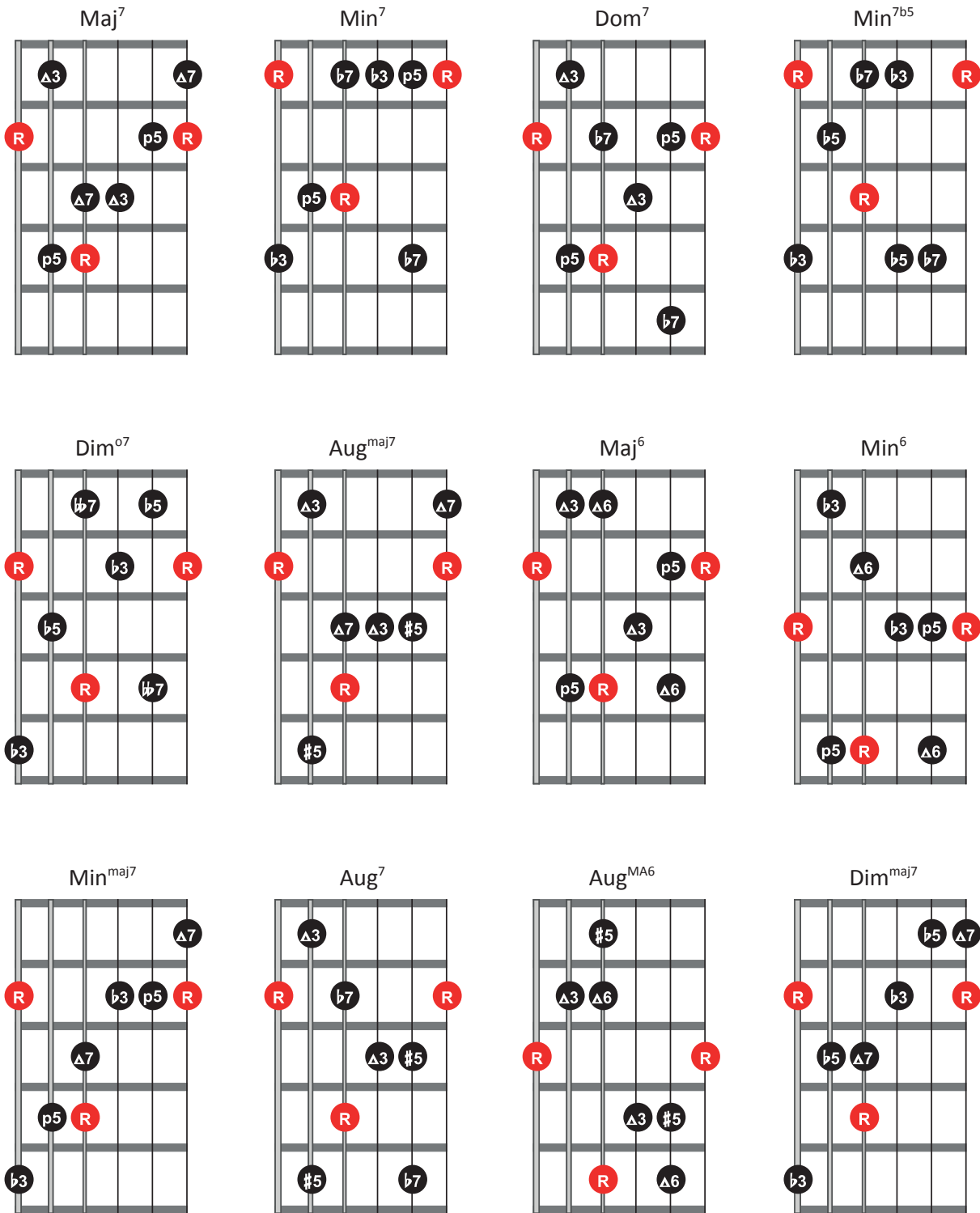
Seventh Chord Formulas

Maj ⁷	1	3	5	7	MajΔ ^{add9}	1	4	5	bb7
					5				
Dom ⁷	1	3	5	b7	Maj ^{7/b5/sus4}	1	4	b5	7
Maj ⁶	1	3	5	6 (bb7)	Dom ^{7/b5/sus4}	1	4	b5	b7
Aug ^{maj7}	1	3	#5	7	MajΔ ^{b9}	1	4	b5	bb7
					5				
Aug ⁷	1	3	#5	b7	Maj ^{7/sus4/#5}	1	4	#5	7
Aug ^{MA6}	1	3	#5	6 (bb7)	MinΔ ^{add9}	1	4	#5	b7
					5				
Min ^{maj7}	1	b3	5	7	MajΔ ^{#9}	1	4	#5	bb7
					5				
Min ⁷	1	b3	5	b7	Maj ^{7/sus2}	1	2	5	7
Min ⁶	1	b3	5	6	Dom ^{7/sus2}	1	2	5	b7
Tonic Dim	1	b3	#5	7	Maj ^{6/sus2}	1	2	5	6 (bb7)
MajΔ ^{add9}	1	b3	#5	b7	Maj ^{7/sus2/#5}	1	2	#5	7
3									
Min ^{6/#5}	1	b3	#5	6 (bb7)	Dom ^{7/sus2/#5}	1	2	#5	b7
Maj ^{7/b5}	1	3	b5	7	Dim ^{MA9/b13}	1	2	#5	bb7
Dom ^{7/b5}	1	3	b5	b7	Maj ^{7/b5/sus2}	1	2	b5	7
Ø ⁴ ₃	1	3	b5	bb7	Dom ^{7/b5/sus2}	1	2	b5	b7
Dim ^{maj7}	1	b3	b5	7	Dom ⁴ ₂	1	2	b5	bb7 (6)
Min ^{7/b5}	1	b3	b5	b7	Maj ^{7/bb5}	1	3	4 (bb5)	7
Dim ⁷	1	b3	b5	bb7	Dom ^{7/bb5}	1	3	4	b7
Maj ^{7/sus4}	1	4	5	7	Maj ^{6/bb5}	1	3	4	bb7
Dom ^{7/sus4}	1	4	5	b7	Min ^{maj7/bb5}	1	b3	4	7
Min ^{7/bb5}	1	b3	4	b7	Min ^{6/bb5}	1	b3	4	6 (bb7)
Maj ^{7/sus2/bb5}	1	2	4	7	Dom ^{7/sus2/bb5}	1	2	4	b7
Maj ^{6/sus2/bb5}	1	2	4	6 (bb7)					

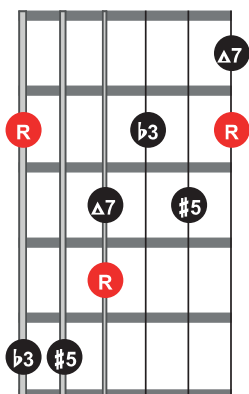
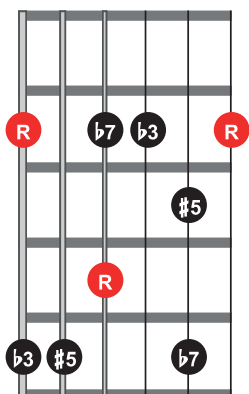
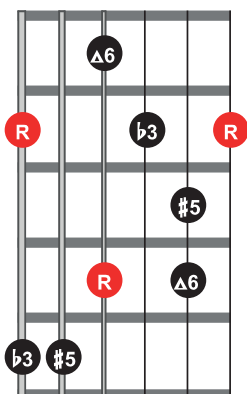
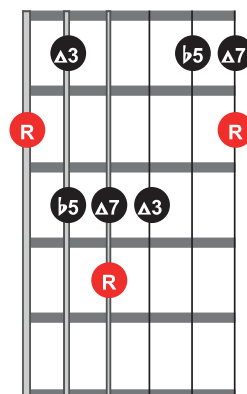
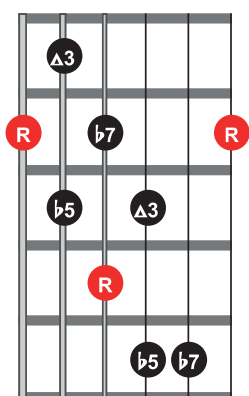
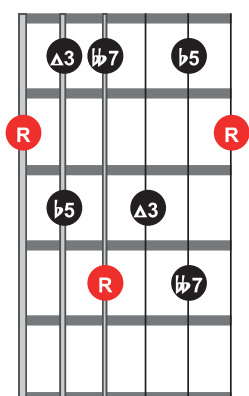
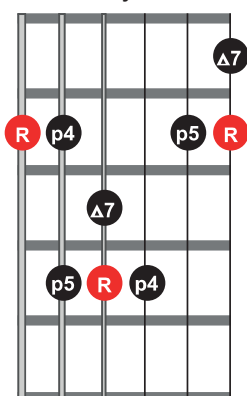
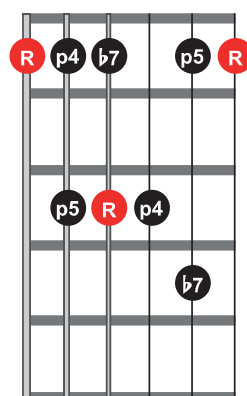
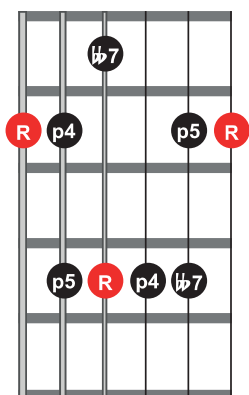
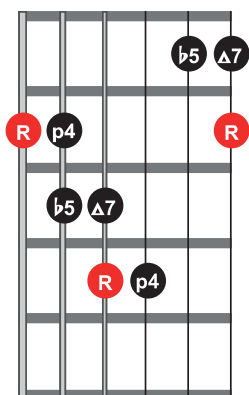
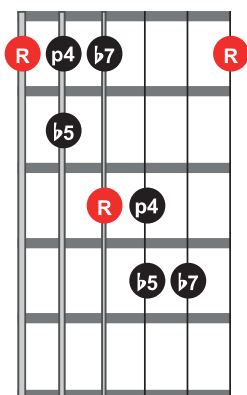
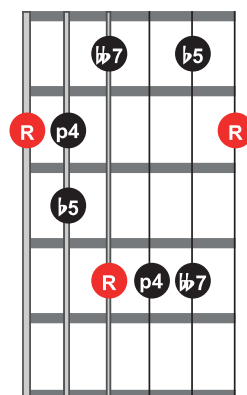
Triads and Suspensions

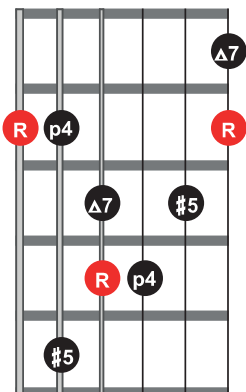
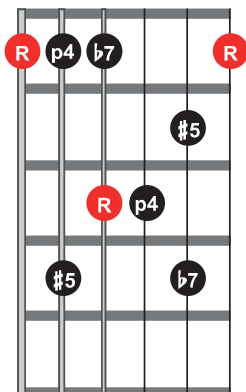
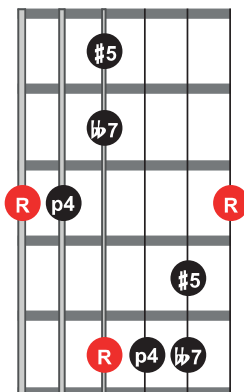
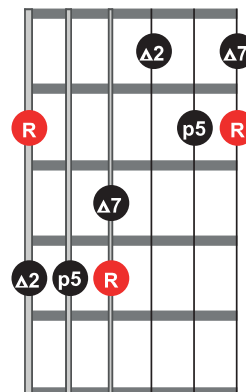
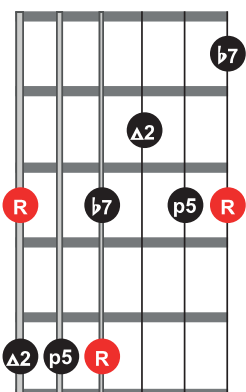
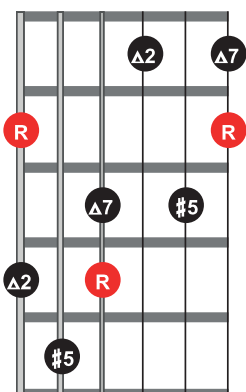
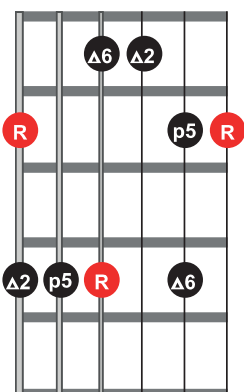
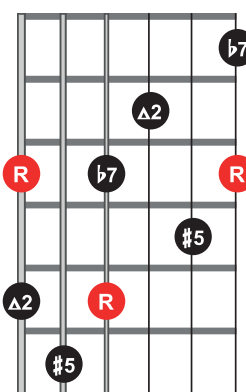
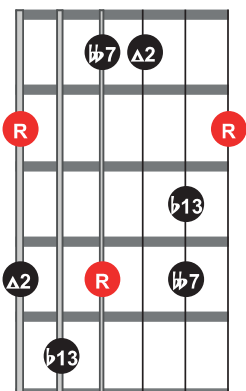
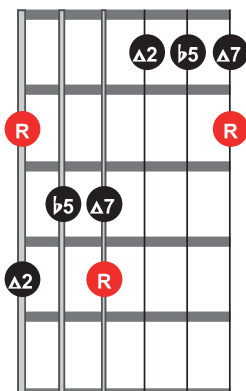
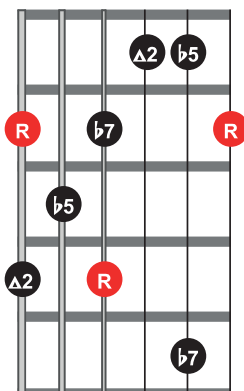
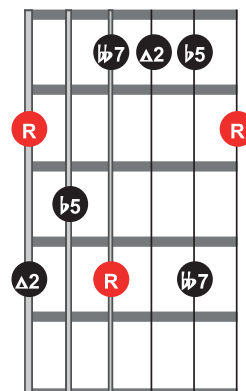
Maj	1	3	5	#7 (8)	Phryg.Δ	1	b2	5	8
Min	1	b3	5	8	Loc.Δ	1	b2	b5	8
Dim	1	b3	b5	8	Lyd.Δ	1	#4	5	8
Aug	1	3	#5	8	MajΔ ^{b5}	1	3	#4	8
ΔSus ⁴ (no 5th)	1	3	4	8	Q ⁺⁴	1	4	7	8
-ΔSus ⁴ (no 5th)	1	b3	4	8	Q	1	4	b7	8
Sus ²	1	2	5	8	+4Q	1	#4	7	8
Sus ^{2b5}	1	2	b5	8	+4 ^{d4}	1	#4	b7	8
Sus ^{2/4} (no 5th)	1	2	4	8					
Sus ^{2#5}	1	2	#5	8					
Sus ⁴	1	4	5	8					
Sus ^{4b5}	1	4	b5	8					
Sus ^{4#5}	1	4	#5	8					

Seventh Chord Arpeggios Root 6

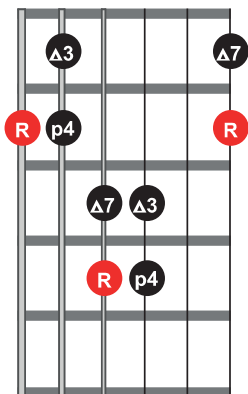


Tonic Dim

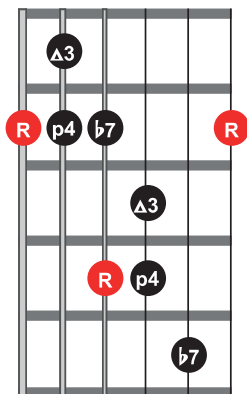
Maj $\Delta^{add9}/3^{rd}$ Min $^{6/\#5}$ Maj $^{7/b5}$ Dom $^{7/b5}$  $\emptyset^4_3$ Maj 7sus4 Dom 7sus4 Maj $\Delta^{add9}/5^{th}$ Maj $^{7/b5/sus4}$ Dom $^{7/b5/sus4}$ Maj $\Delta^{b9}/5^{th}$ 

Maj^{7/sus4/#5}MinΔ^{add9/5th}MajΔ^{add9/5th}Maj^{7sus2}Dom^{7sus2}Maj^{7/sus2/#5}Maj^{6/sus2}Dom^{7/sus2/#5}Dim^{o7/MA9/b13}Maj^{7/b5/sus2}Dom^{7/b5/sus2}Dom⁴₂

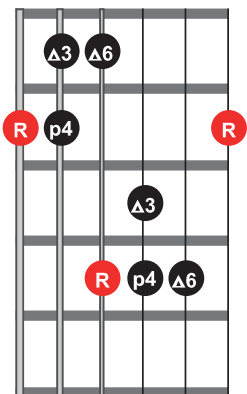
Maj^{7/bb5}



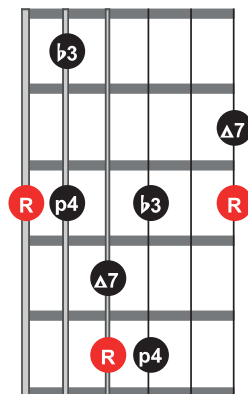
Dom^{7/bb5}



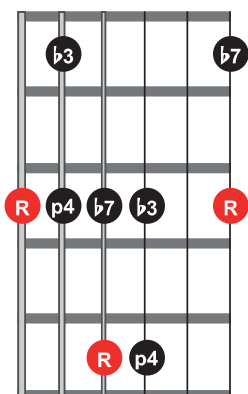
Maj^{6/bb5}



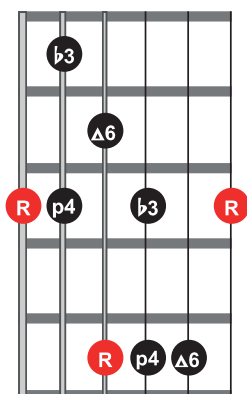
Min^{maj7/bb5}



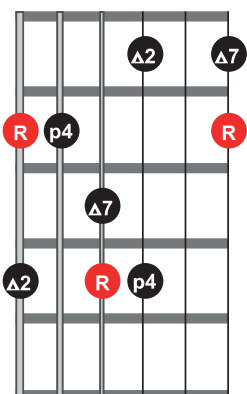
Min^{7/bb5}



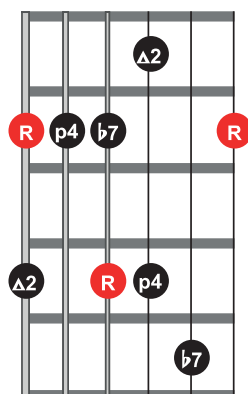
Min^{6/bb5}



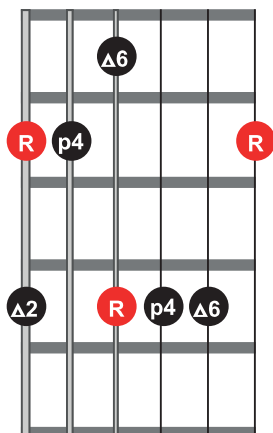
Maj^{7/sus2/bb5}



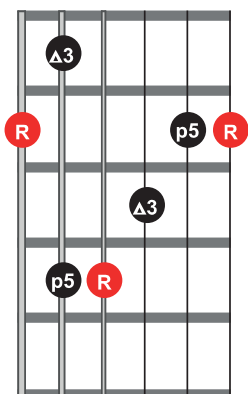
Dom^{7/sus2/bb5}



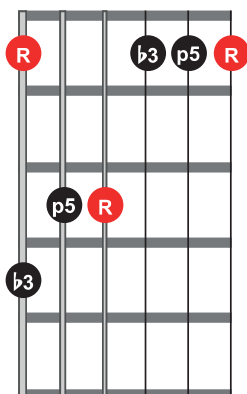
Maj^{6/sus2/bb5}



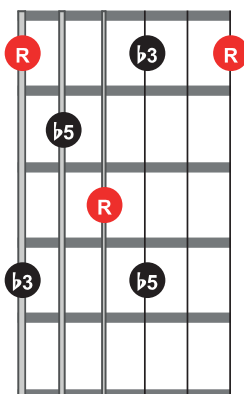
Maj



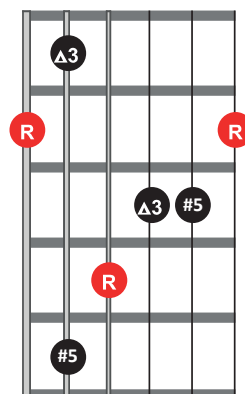
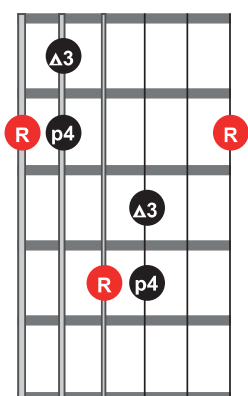
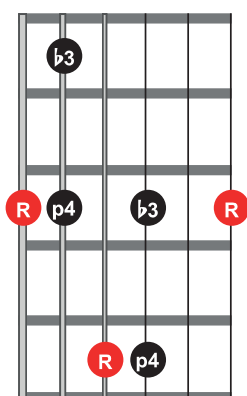
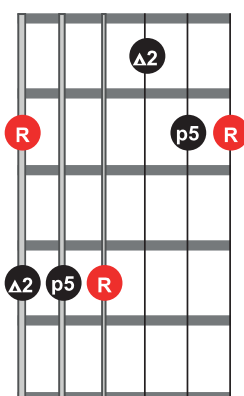
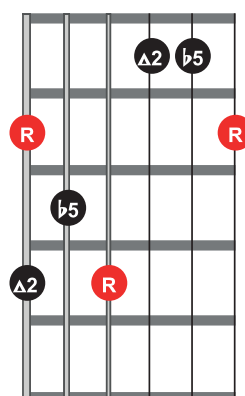
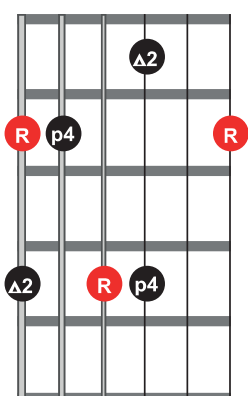
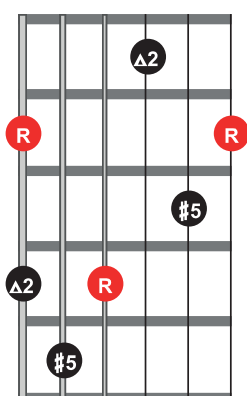
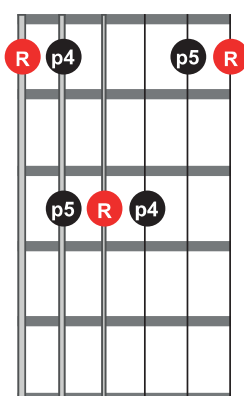
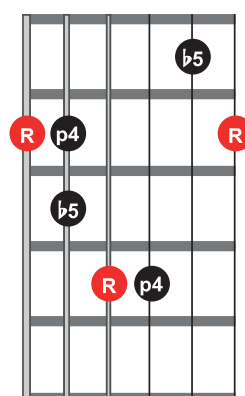
Min

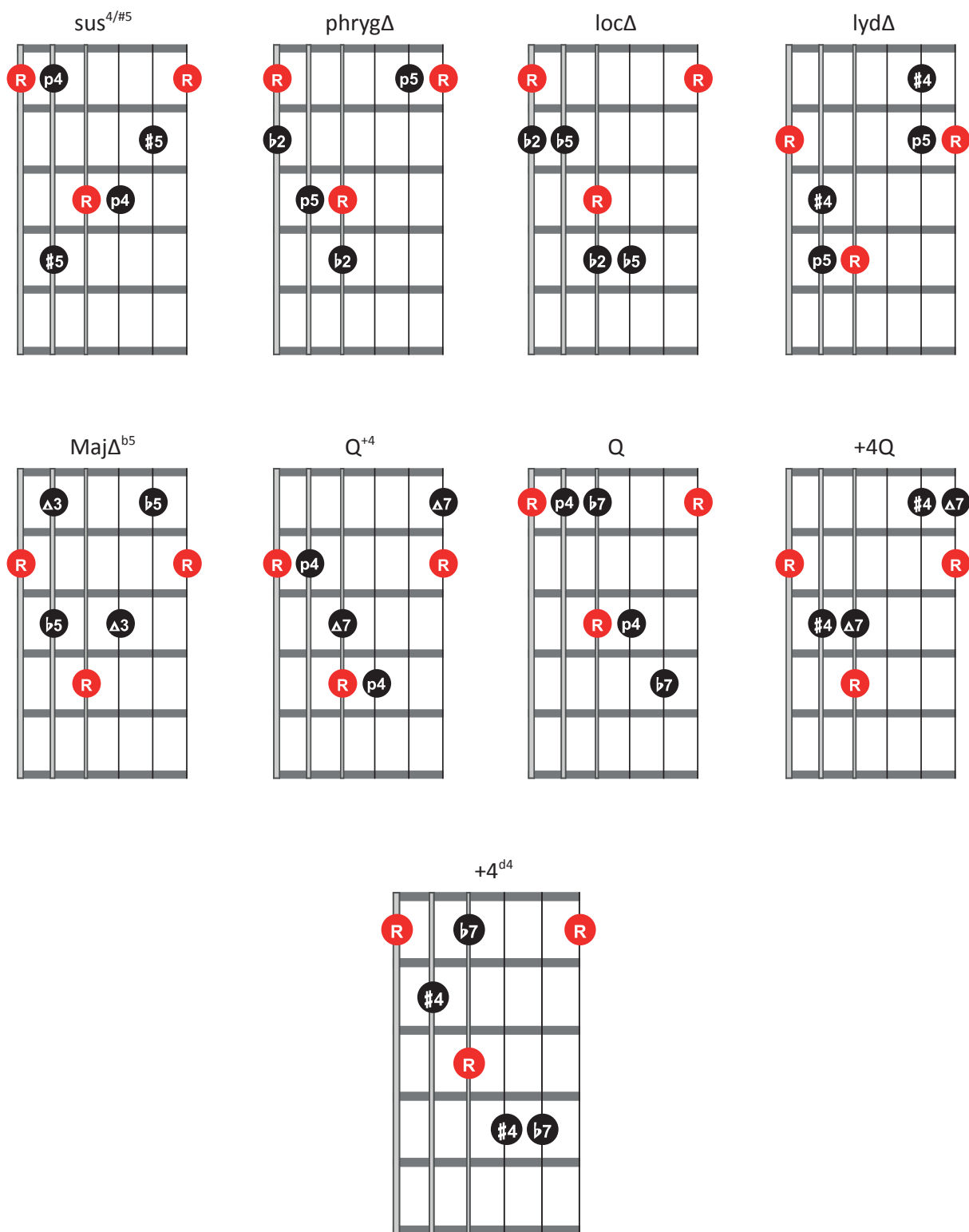


Dim

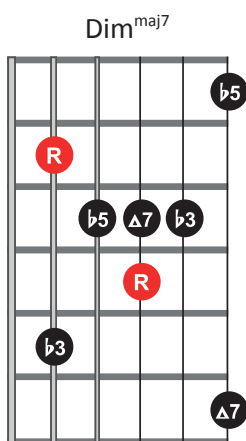
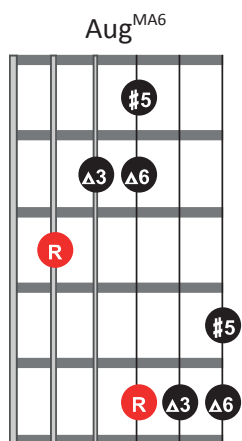
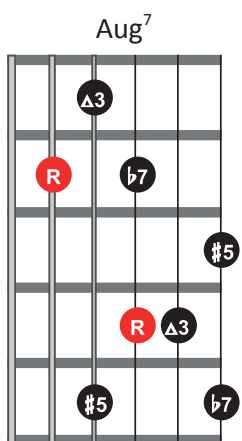
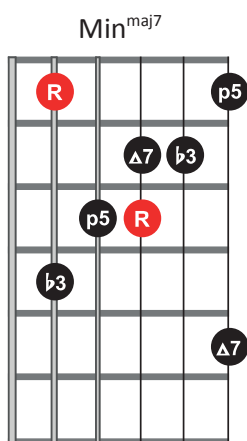
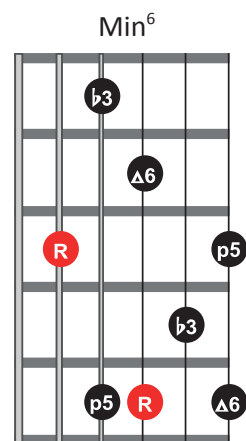
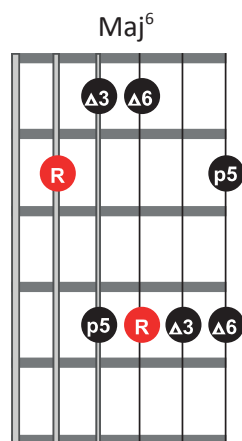
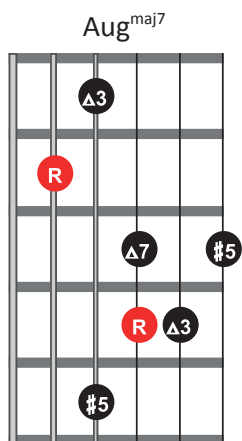
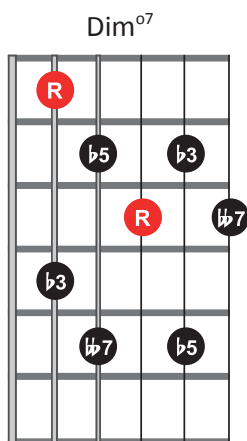
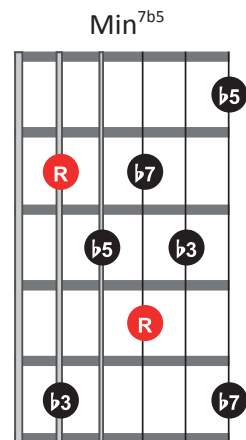
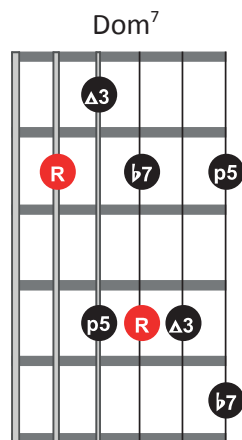
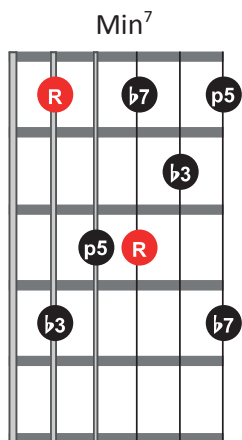
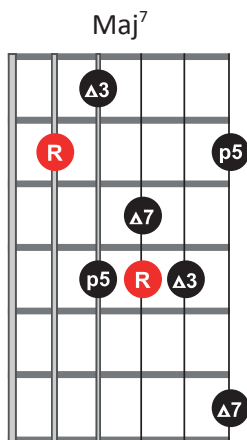


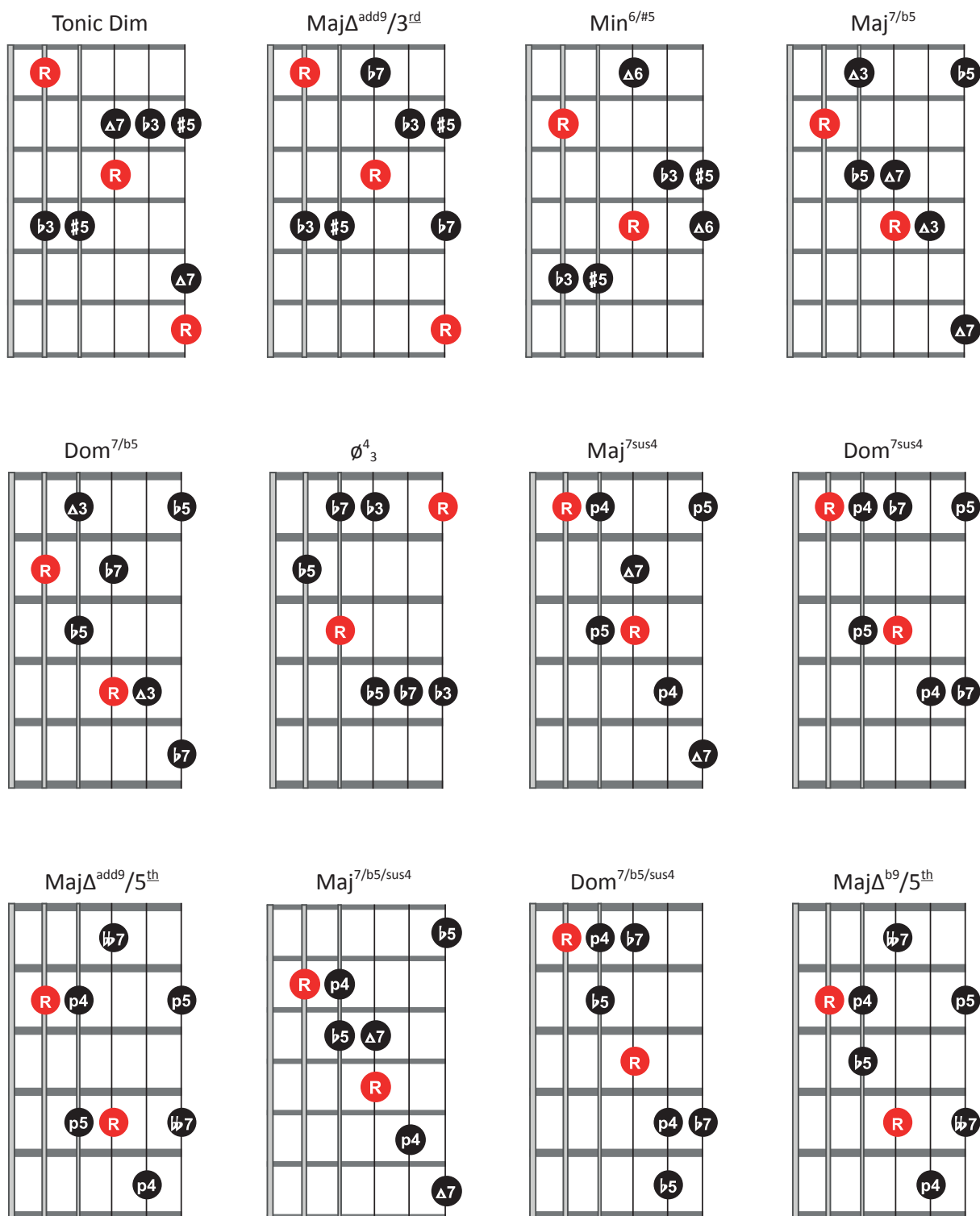
Aug

 Δsus^4 no 5th $-\Delta sus^4$ no 5thsus²sus^{2/b5}sus^{2/4} no 5thsus^{2/#5}sus⁴sus^{4/b5}

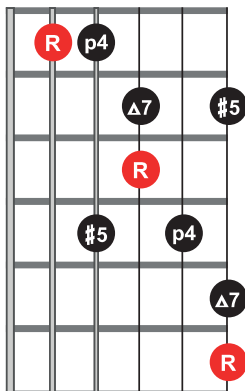


Seventh Chord Arpeggios Root 5

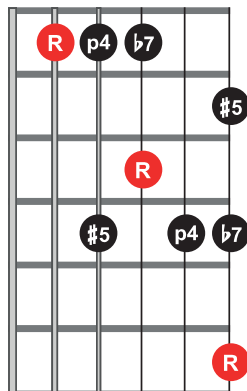




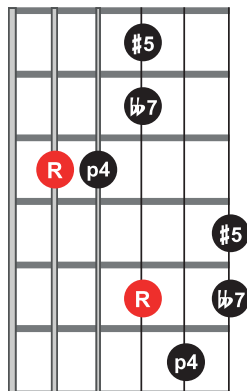
Maj^{9/sus4/#5}



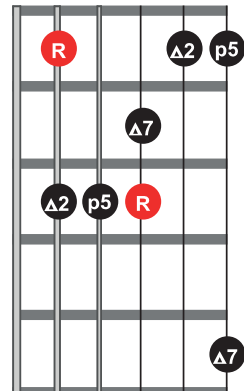
MinΔ^{add9/5th}



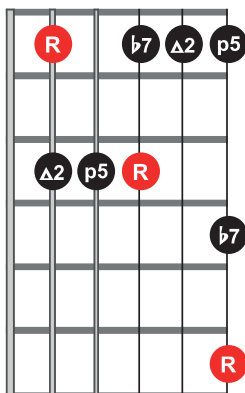
MajΔ^{#9/5th}



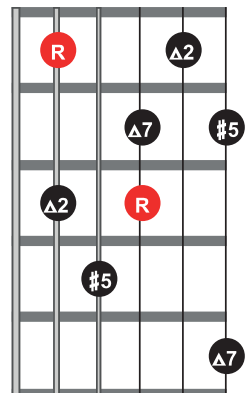
Maj^{7sus2}



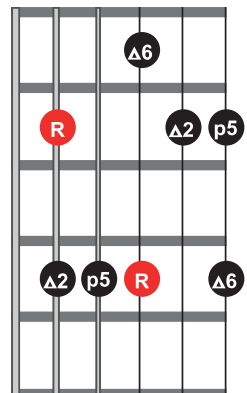
Dom^{7sus2}



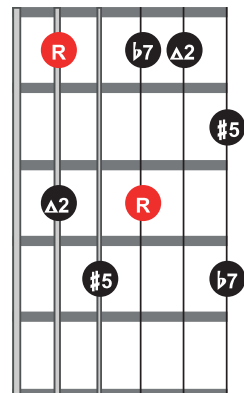
Maj^{7/sus2/#5}



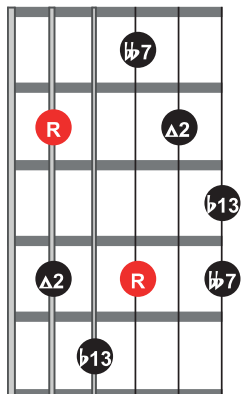
Maj^{6/sus2}



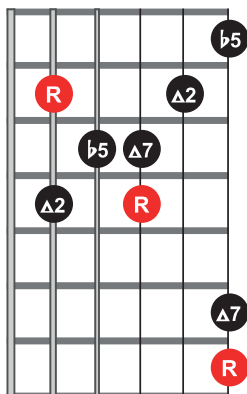
Dom^{7/sus2/#5}



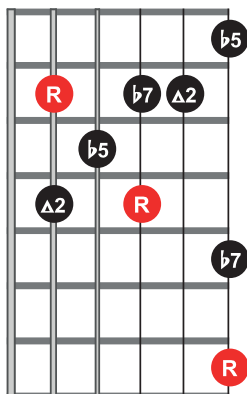
Dim^{o7/MA9/b13}



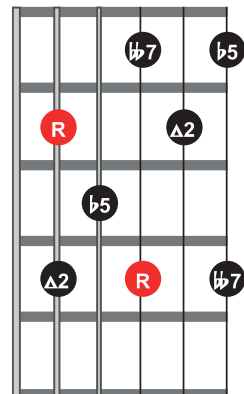
Maj^{7/b5/sus2}

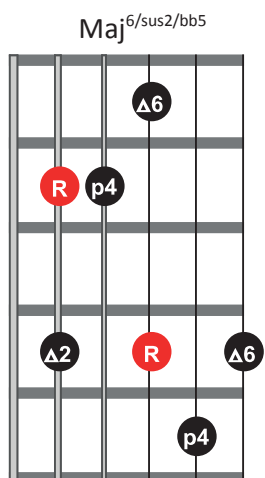
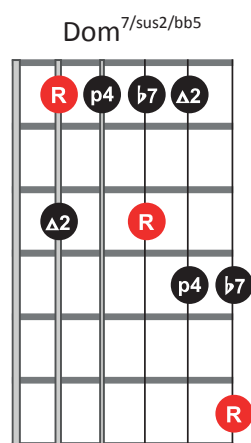
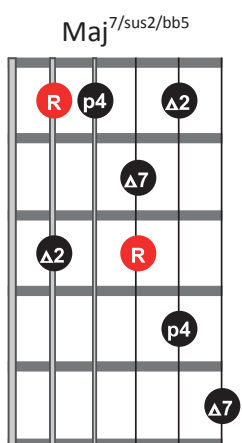
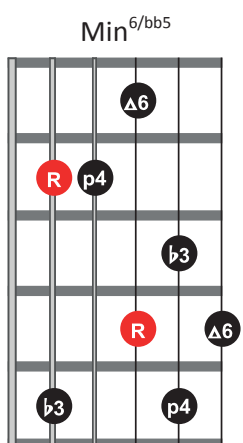
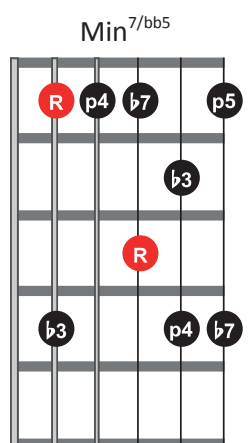
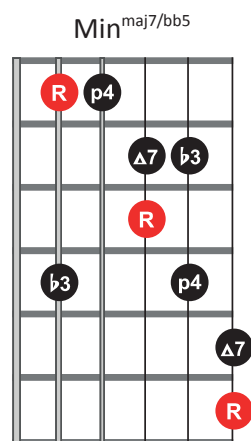
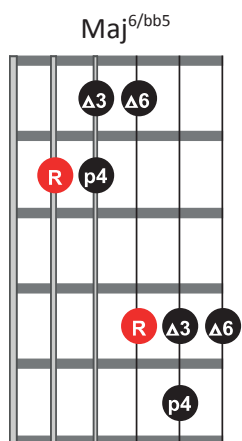
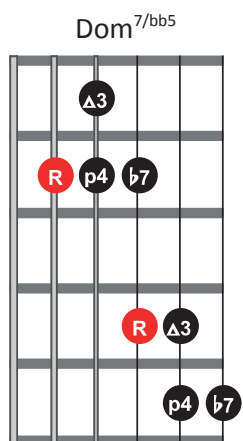
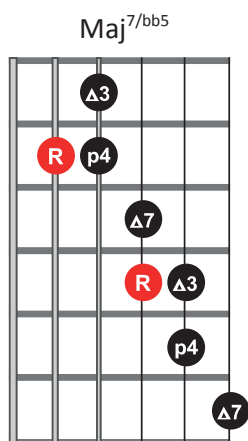


Dom^{7/b5/sus2}

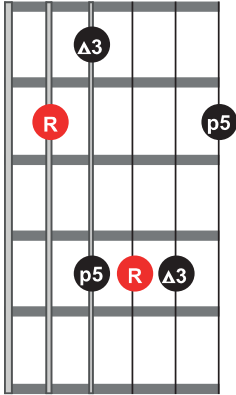


Dom⁴₂

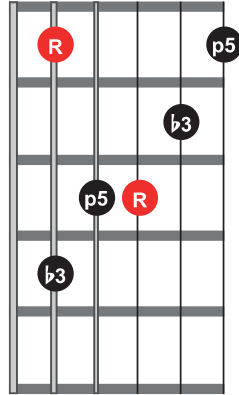




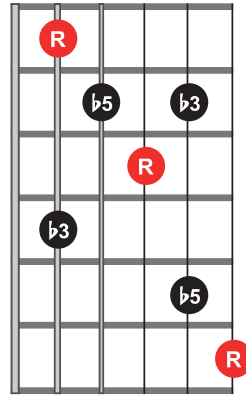
Maj



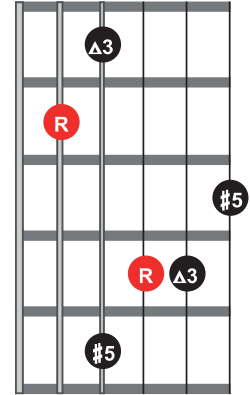
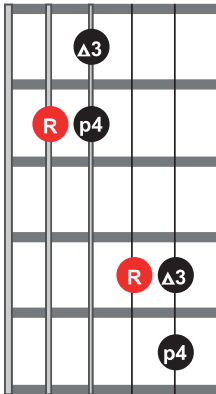
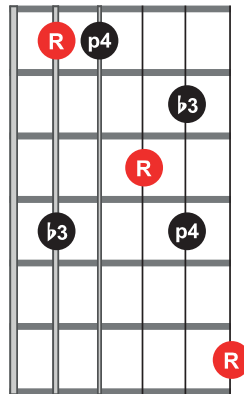
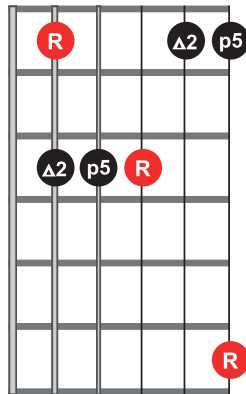
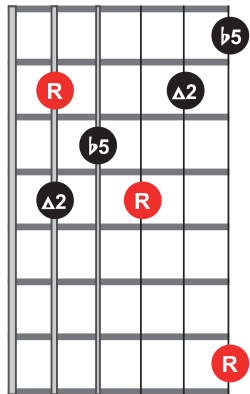
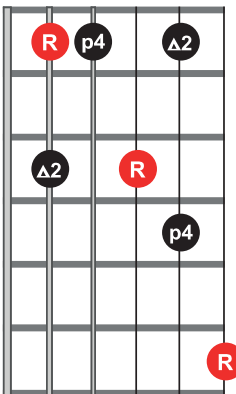
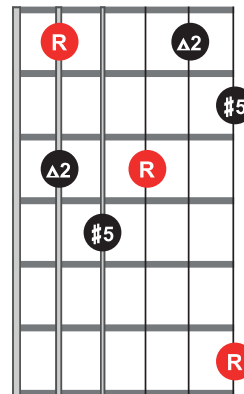
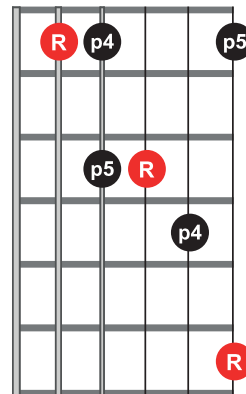
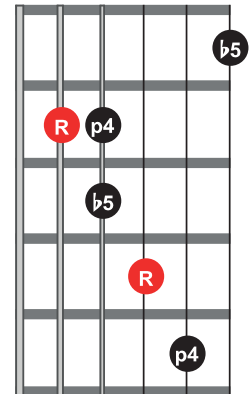
Min



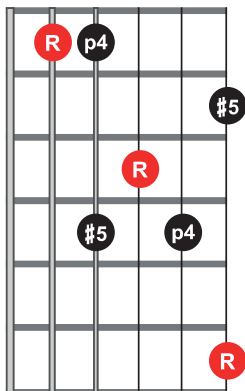
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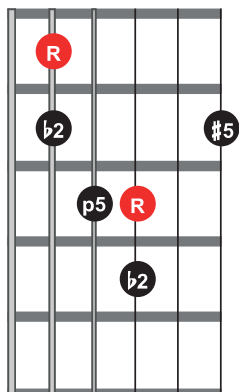
Aug

 Δ sus⁴ no 5th-Δsus⁴ no 5thsus²sus^{2/b5}sus^{2/4} no 5thsus^{2/#5}sus⁴sus^{4/b5}

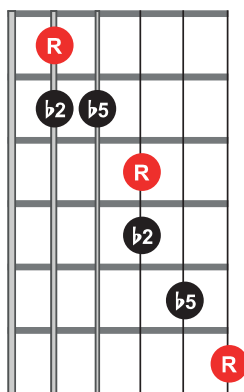
sus^{A/#5}



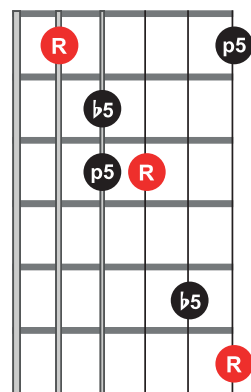
Phryg Δ



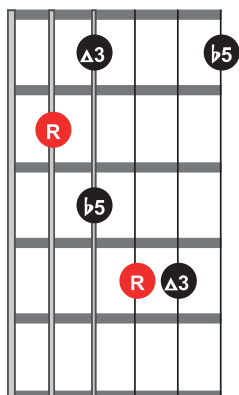
Loc Δ



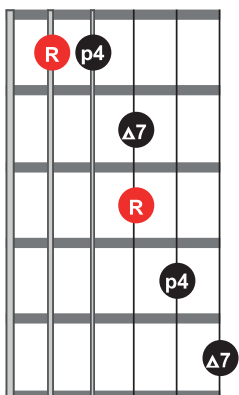
Lyd Δ



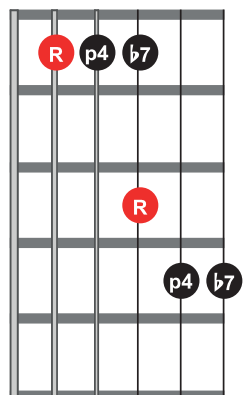
Maj Δ ^{b5}



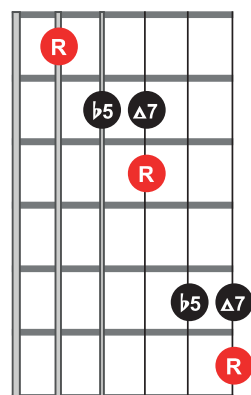
Q⁺⁴



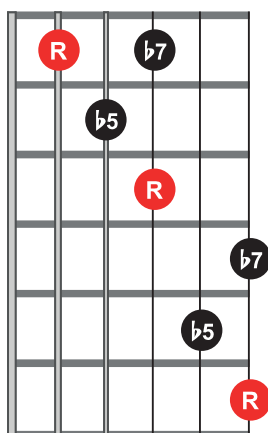
Q



+4Q



+4^{d4}



Bitonal Arpeggios

These particular bitonal arpeggios alternate between the bottom and top triads.

Ex. 159a

C
C-

C-

Ex. 159b

B
C

C

Ex. 159c

F#
C-

closest available chord tones

C-

Major and Minor Bitonal Arpeggios

The charts include only major and minor triads over major, minor, diminished and augmented triads.

$$\frac{C-}{C} = 1 \quad 3 \quad 5 \quad \#9$$

$$\frac{Db}{C} = 1 \quad 3 \quad 5 \quad b6 \quad b9 \quad 11$$

$$\frac{Db-}{C} = 1 \quad 3 \quad 5 \quad b6 \quad b9$$

$$\frac{D}{C} = 1 \quad 3 \quad 5 \quad 13 \quad 9 \quad \#11$$

$$\frac{D-}{C} = 1 \quad 3 \quad 5 \quad 6 \quad 9 \quad 11$$

$$\frac{Eb}{C} = 1 \quad 3 \quad 5 \quad b7 \quad \#9$$

$$\frac{Eb-}{C} = 1 \quad 3 \quad 5 \quad b7 \quad \#9 \quad \#11$$

$$\frac{E}{C} = 1 \quad 3 \quad 5 \quad \#5 \quad 7$$

$$\frac{E-}{C} = 1 \quad 3 \quad 5 \quad 7$$

$$\frac{F}{C} = 1 \quad 3 \quad 5 \quad 6 \quad 11$$

$$\frac{F-}{C} = 1 \quad 3 \quad 5 \quad b6 \quad 11$$

$$\frac{F\#}{C} = 1 \quad 3 \quad 5 \quad b7 \quad b9 \quad \#11$$

$$\frac{F\#-}{C} = 1 \quad 3 \quad 5 \quad 13 \quad b9 \quad \#11$$

$$\frac{G}{C} = 1 \quad 3 \quad 5 \quad 7 \quad 9$$

$$\frac{G-}{C} = 1 \quad 3 \quad 5 \quad b7 \quad 9$$

$$\frac{Ab}{C} = 1 \quad 3 \quad 5 \quad \#5 \quad \#9$$

$$\frac{Ab-}{C} = 1 \quad 3 \quad 5 \quad \#5 \quad 7 \quad \#9$$

$$\frac{A}{C} = 1 \quad 3 \quad 5 \quad 6 \quad b9$$

$$\frac{A-}{C} = 1 \quad 3 \quad 5 \quad 6$$

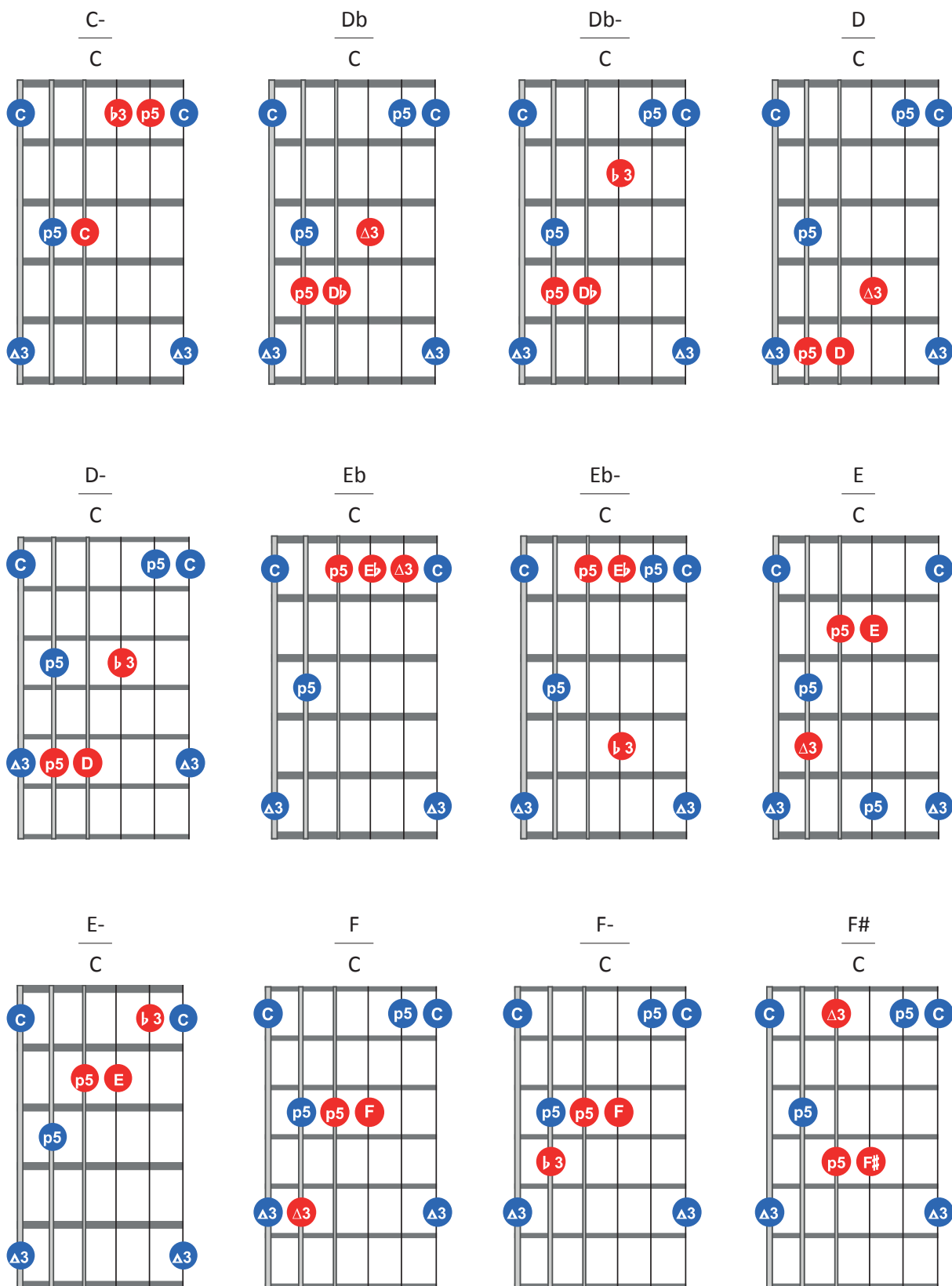
$$\frac{Bb}{C} = 1 \quad 3 \quad 5 \quad b7 \quad 9 \quad 11$$

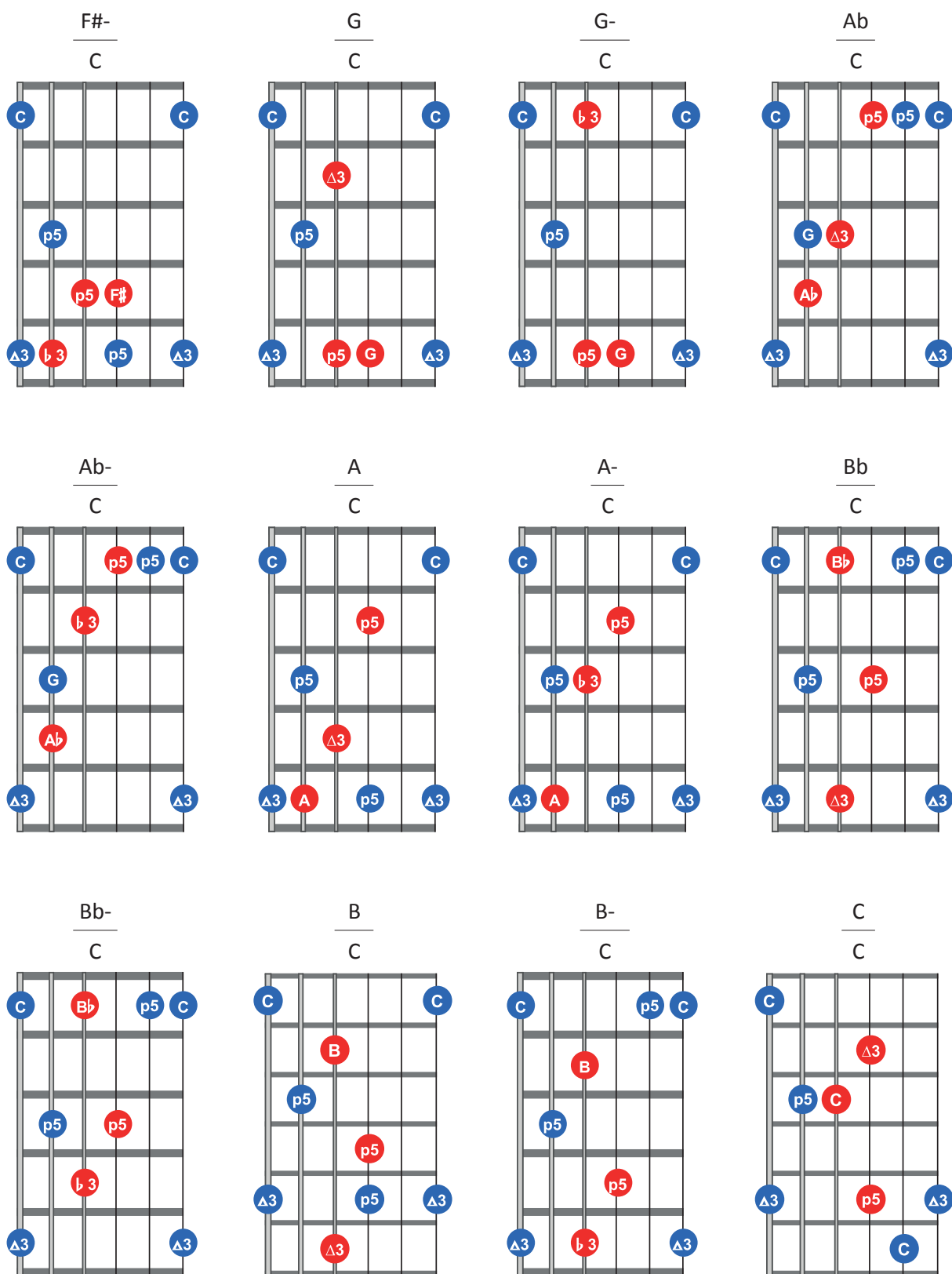
$$\frac{Bb-}{C} = 1 \quad 3 \quad 5 \quad b7 \quad b9 \quad \text{sus4}$$

$$\frac{B}{C} = 1 \quad 3 \quad 5 \quad 7 \quad \#9 \quad \#11$$

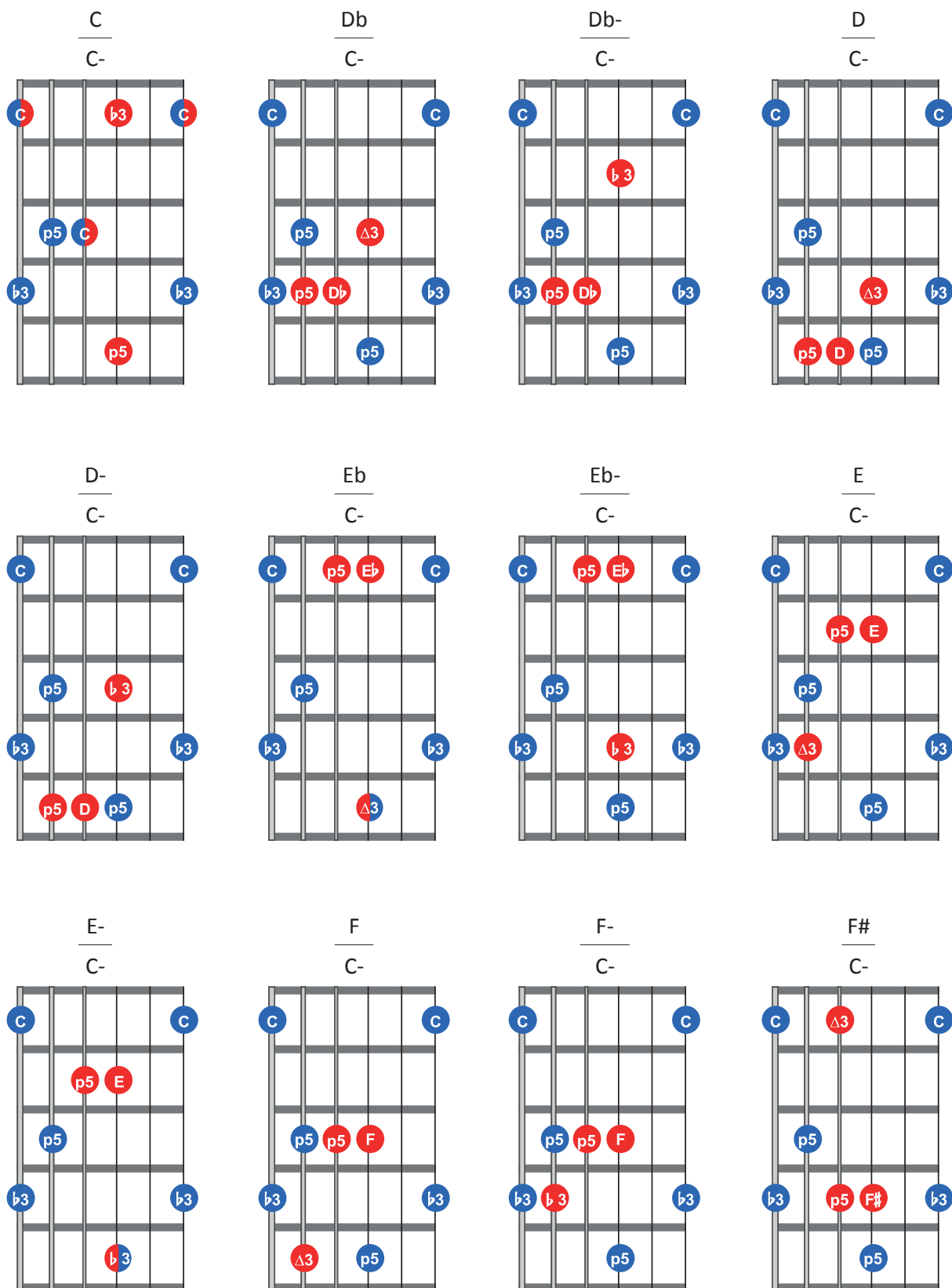
$$\frac{B-}{C} = 1 \quad 3 \quad 5 \quad 7 \quad 9 \quad \#11$$

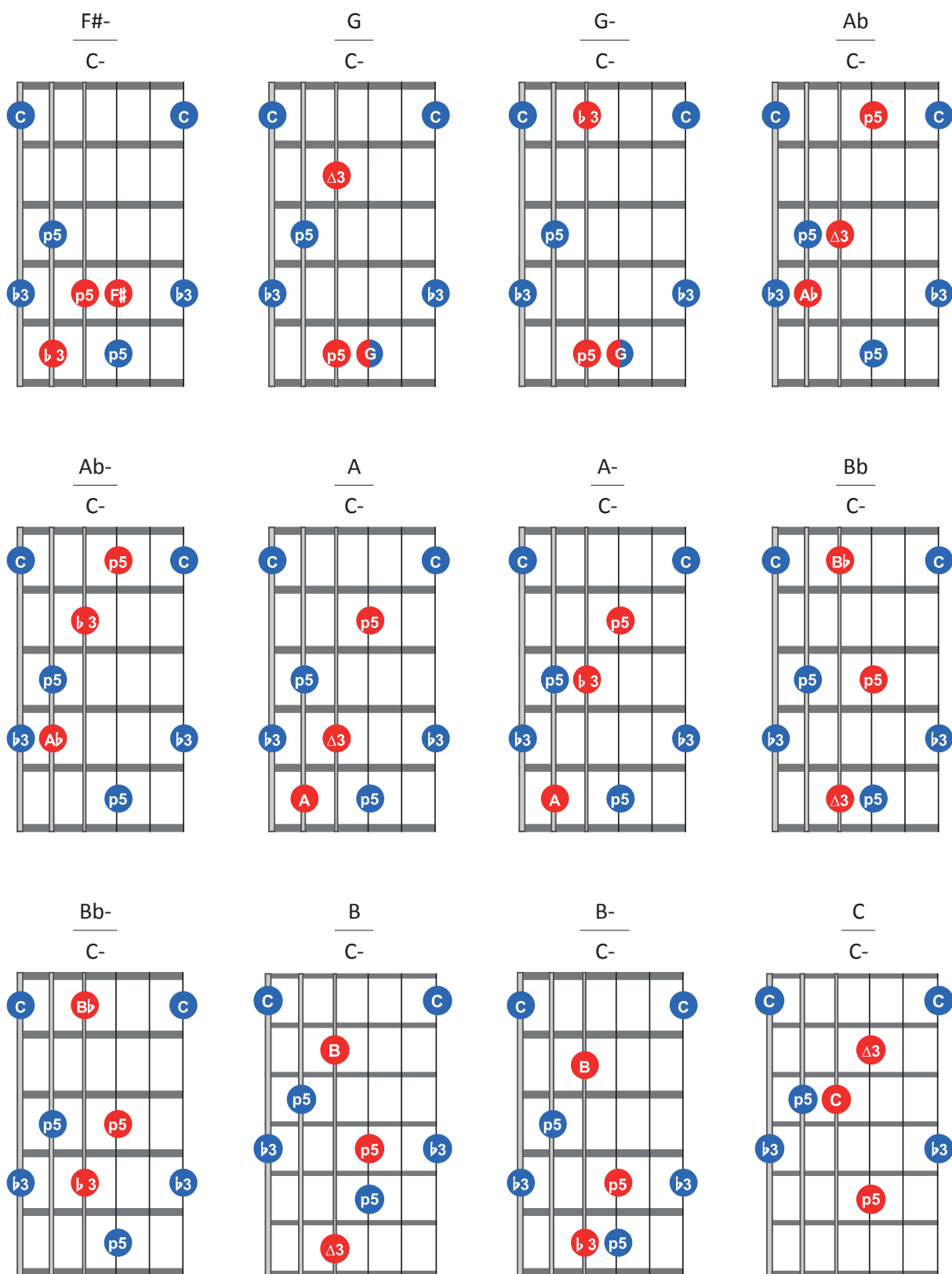
Major Bitonal Arpeggios (over C at the 8th fret)



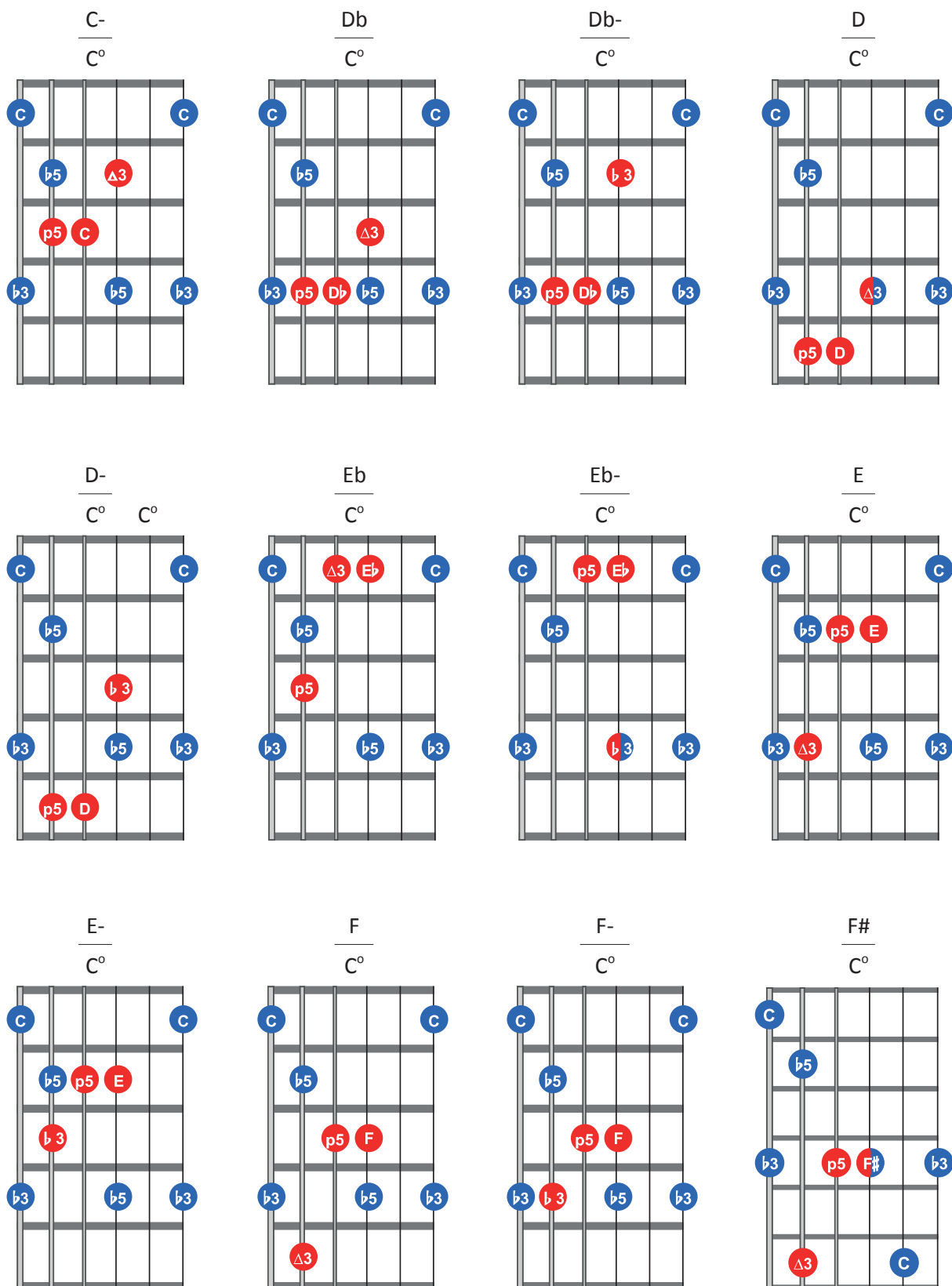


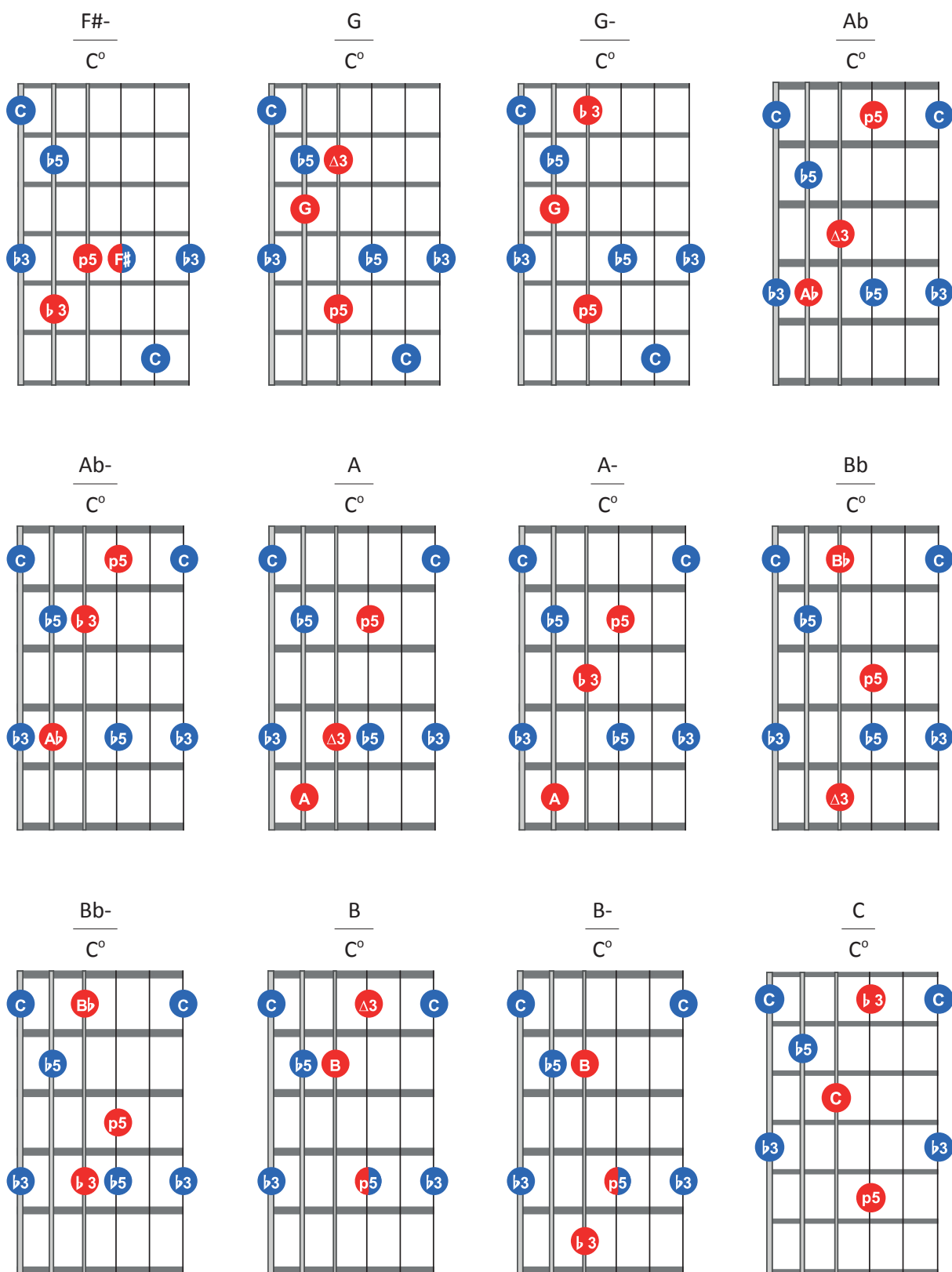
Minor Bitonal Arpeggios (over C- at the 8th fret)



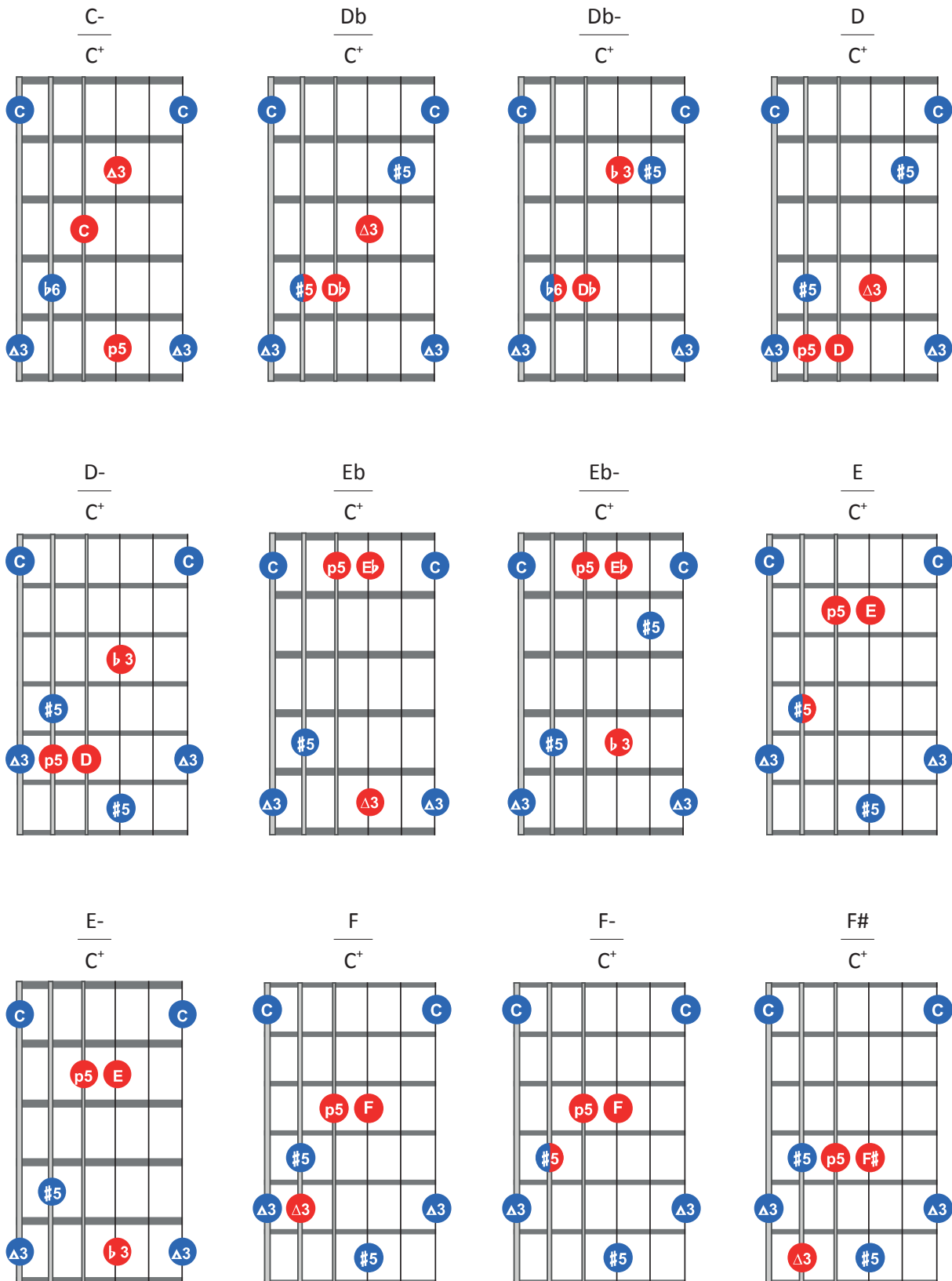


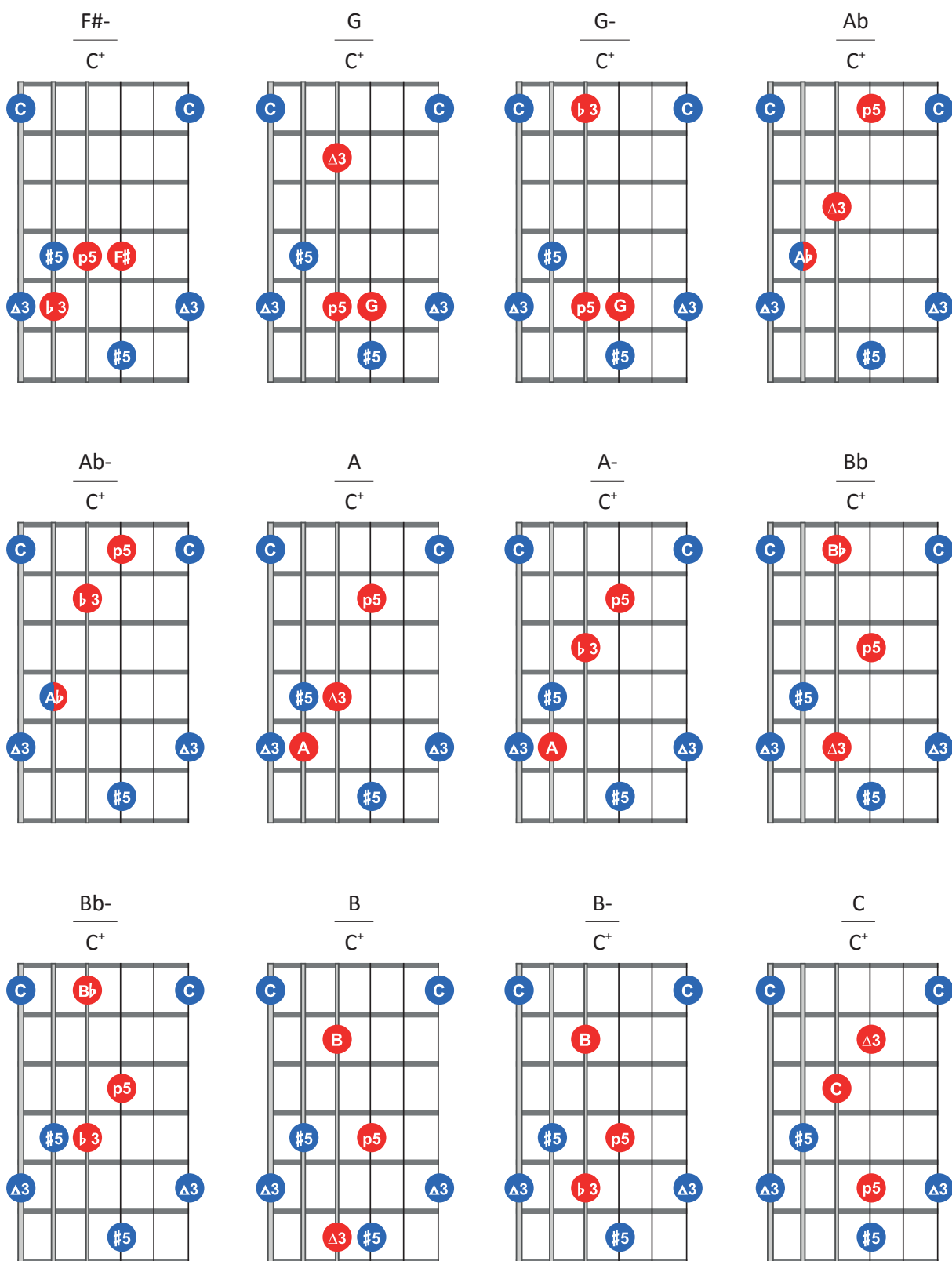
Diminished Bitonal Arpeggios (over C° at the 8th fret)





Augmented Bitonal Arpeggios (over C⁺ at the 8th fret)





More About Practicing Scales and Arpeggios

In order to maximize your practicing time, scales should be practiced in the combinations in which they fall in a particular chord progression.

Ex. 160

	ii^7	V^7	I^{MA7}
			
Comb. 1	D-Dorian	G-Mixolydian	C-Ionian
Parent Scale	(C-Major)	(C-Major)	(C-Major)
Comb. 2	D-Dorian	G-Alt.Dom.	C-Lydian
Parent Scale	(C-Major)	(Ab-Mel. Min.)	(G-Major)

There are many combinations to choose from if you consider all the possible scale choices for each chord.

Ex. 161

ii^7	V^7	I^{maj7}
Dorian	Mixolydian	Ionian
Melodic Minor	Mixolydian #11	Lydian
Aeolian	Whole Tone	Lydian Augmented
Phrygian	Dominant Diminished	Major Pentatonic
Minor Pentatonic	Altered Dominant	Major Pentatonic P5 ↑
Major Pentatonic M2↓	Major Pentatonic Tritone ↑↓	Major Pentatonic M2 ↑
Harmonic Minor	Phrygian Major	

After getting comfortable with the mode changes you should begin connecting them by diatonic interval patterns.

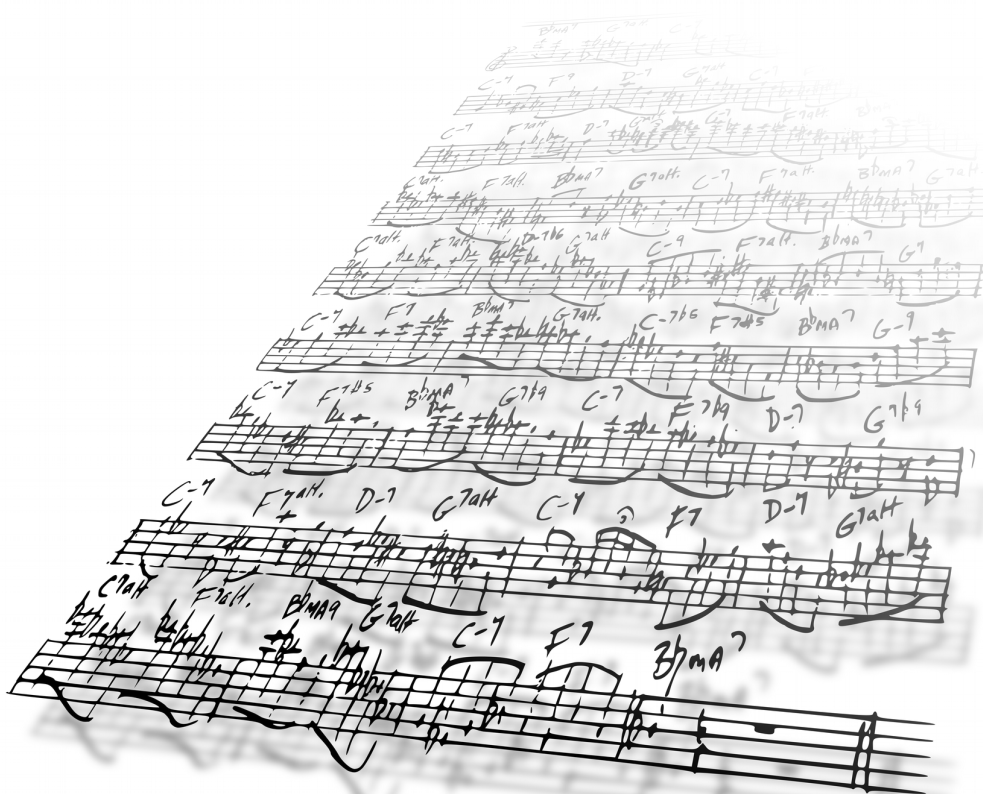
Ex. 162

$D-7$ (Dorian)	$G7^{alt}$ (Alt. Dom.)	$CMA7^{\#11}$ (Lydian)
		

As you can see, the interval pattern continues on the closest available note of the next mode.

CHAPTER 4

LINEAR STUDIES



Chapter 4: Linear Studies

ii V I Progressions

The major (key) ii V I progression can fall into a number of different categories.

Ex. 163

- a)**
- | | | |
|-------------------|--------------------|-------------------|
| ii | V ⁷ | I ^{maj7} |
| Dmin ⁷ | G ⁷⁽¹³⁾ | C ^{maj7} |
- unaltered (basic)
-
- b)**
- | | | |
|-------------------|----------------------|-------------------|
| ii ⁷ | V ^{7alt} | I ^{maj7} |
| Dmin ⁷ | G ^{7/#5/b9} | C ^{maj7} |
- with altered Dom. Chord
-
- c)**
- | | | |
|-----------------|-------------------|--------------------|
| ii ⁷ | V ⁷ | I ⁷ |
| D- ⁷ | G ⁷⁽⁹⁾ | C ⁷⁽¹³⁾ |
- Dom.⁷ tonic chord with unaltered V⁷
-
- d)**
- | | | |
|-----------------|----------------------|----------------------|
| ii ⁷ | V ^{7alt} | I ^{7alt} |
| D- ⁷ | G ^{7/#9/#5} | C ^{7/b9/b5} |
- altered Dom.⁷ tonic chord with altered V⁷
-
- e)**
- | | | |
|--------------------|--------------------|-------------------------|
| ii ^{7/b6} | V ^{7alt} | I ^{maj7/#5} |
| D- ^{7/b6} | Ab ^{sus4} | C ^{maj7/#4/#5} |
| | <hr/> G | |
- modal ii V I

The minor (key) ii V i Progression contains a half-diminished supertonic chord, an altered dominant seventh chord and a minor or minor-major seventh tonic chord.

Ex. 164

ii ^{7b5}	V ^{7alt}	I ^{7 (maj7)}
D ^{-7b5}	G ^{7/#5/b9}	C ^{-7 (maj7)}

The following examples are in two or four bar phrase lengths. The interval relationship of the melody notes to the chords should be analyzed as follows.

Ex. 165

G⁻⁷ C^{7(#11)} F^{M[♯]7}

1 b3 5 b7 #11 13

ii V's in One Measure

Ex. 166

Major keys

a)

Gm7 C7alt Fmaj7

5 6 7 4 5 5 8

b)

Gm7 C7alt Fmaj7

8 11 10 9 9 8 11 10

c)

Gm7 C7 Fmaj7

13 11 10 12 10 12 9 12 10

d)

Gm7 C7 Fmaj7

7 8 5 7 6 5 8 6 10 8

e)

Gm7 C7b9 Fmaj7

3 3 6 5 6 5 3 2

f)

Gm7 C7alt Fmaj7

10 7 8 11 9 10 9 8

g)

Gm7 **C7b9** **Fmaj7**

TAB: 7 6 7 6 5 5 8 (8) 6 5

h)

Gm7 **C7** **Fmaj7**

TAB: 7 5 8 5 6 8 5 7 4 (4)

i)

Gm7 **C7b9** **Fmaj7**

H P

TAB: 7 8 7 9 10 8 9 8 11 10

j)

Em7b5 **A7alt** **Dm7**

Minor keys

TAB: 5 8 7 5 6 8 5 6 7

k)

Em7b5 **A7alt** **Dm9**

TAB: 7 8 8 10 10 8 10 11 12 (12)

l)

Em7b5 **A7alt** **Dm9**

sl. P

TAB: 3 3 2 5 2 3 2 5 5

m)

Em7 $\flat$ 5 A7alt Dm9

Exercise m) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 8, 6, 5, 7, 6, 5, 5, 8. The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: 6, 5, 7, 4.

n)

Em7 $\flat$ 5 A7alt Dm9

Exercise n) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 5, 2, 3, 5, 2, 4, 5, 2. The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: 3.

o)

Em7 $\flat$ 5 A7alt Dm9

Exercise o) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 8, (8), 5, 6, 6, 5, 7, 5, (5). The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: 3.

p)

Em7 $\flat$ 5 A7alt Dm9

Exercise p) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 7, 8, 7, 5, 5, 5, 7, 8, 7, 8, 8, 7, 5, 8. The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: 3.

q)

Em7 $\flat$ 5 A7alt Dm11

Exercise q) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 5, 2, 3, 2, 5, 3. The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: (3).

r)

Em7 $\flat$ 5 A7alt Dm11

Exercise r) consists of two measures. The first measure contains a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, and G5, with a trill on G5. The fretboard diagram below shows the sequence of frets: 8, 7, 8, 5, 6, 4, 5, 8. The second measure contains a melodic line with notes G4, F#4, E4, D4, C4, and B3, with a trill on B3. The fretboard diagram shows the sequence of frets: (8).

One Measure ii V I's in Major

Ex. 167

a)

Am7 D7

Gmaj7

b)

Am7 D7 Gmaj7

c)

Am7 D7 Gmaj7

d)

Am7 D7 Gmaj7

e)

Am7

T
A
B

7 10 9 8 7 8 9 7 10 9 8 10 8 7 9 7 10 9

f)

Am7 D7 Gmaj7

T
A
B

10 9 12 12 10 12 12 11 9 9 12 (12) 9 12 11 12 12 11 9

g)

Am7 D7

T
A
B

10 10 12 12 8 9 12 11 10 12 11 10

h)

Am7 D7

T
A
B

7 10 9 9 9 10 9 12 12 11 10 9 10 9 10 11 9 12 10 12 13 10

i)

Cm7 F7alt Bmaj7

T
A
B

10 10 12 12 13 13 10 13 8 11 11 10 13 13 13 14 14 11 11 12 14 14 11 9 9 8 11 6 4 4 5 5

j)

F#m7 **B7alt** **Emaj7**

TAB

2 4 6 4 5 4 7 5 4 7 7 7 8 5 5 6 8 8 6 5 5 4 7 7 9 8 9 7 6 7 11 (11)

k)

Am7 **D7alt** **Gmaj7**

TAB

12 12 14 15 12 14 12 14 15 14 12 13 12 14 14 13 15 12 13 15 13 15 13 15 12 15 15 13 15 12 13 12 11 14 12 14 14 14 11 14

l)

Bm7 **E7alt**

TAB

0 0 2 2 0 2 2 3 2 2 3 2 2 2 4 2 2 4 3 1 1 3 3 3 1 1 3 1 1 3 3 3 3 1

Amaj7

TAB

0 5 4 2 2 4 1 2 4 2 5 2 4 2 2 1 4 2

m)

Gm7 **C7alt** **Fmaj7**

TAB

10 13 10 12 13 12 13 12 10 13 10 13 11 10 13 11 13 10 12 13 12 11 10 13 11 13 10 12 13 12 11 10 13 11 11 10 13 12

n)

Gm7 **C7alt** **Fmaj7**

Exercise n) is a 12-measure piece in 4/4 time. The first staff shows a melodic line with slurs and slides (sl.) over the notes. The second staff shows the fretboard with fingerings: T (7-8), A (7-10), B (10-11) for Gm7; T (11-10), A (9-8), B (11-10) for C7alt; and T (7-9), A (9-11), B (11-13) for Fmaj7. The piece ends with a final measure on the B string (14).

o)

Dm7 **G7alt** **Cmaj9**

Exercise o) is a 12-measure piece in 3/4 time. The first staff shows a melodic line with slurs and slides (sl.) over the notes. The second staff shows the fretboard with fingerings: T (12-10), A (10-8), B (8-12) for Dm7; T (11-9), A (9-7), B (11-10) for G7alt; and T (7-9), A (9-10), B (10-8) for Cmaj9. The piece ends with a final measure on the B string (10).

p)

Dm7 **G7alt** **Cmaj7**

Exercise p) is a 12-measure piece in 4/4 time. The first staff shows a melodic line with slurs and slides (sl.) over the notes. The second staff shows the fretboard with fingerings: T (10-12), A (12-14), B (10-9) for Dm7; T (13-10), A (9-11), B (11-13) for G7alt; and T (12-9), A (9-7), B (12-8) for Cmaj7. The piece ends with a final measure on the B string (9).

q)

Dm7 **G13b9** **Cmaj9**

Exercise q) is a 12-measure piece in 4/4 time. The first staff shows a melodic line with slurs and slides (sl.) over the notes. The second staff shows the fretboard with fingerings: T (12-10), A (10-9), B (12-11) for Dm7; T (11-9), A (9-7), B (11-10) for G13b9; and T (12-10), A (10-8), B (12-9) for Cmaj9. The piece ends with a final measure on the B string (7).

r)

Dm7 **G7b9** **Cmaj7**

Exercise r) is a 12-measure piece in 4/4 time. The first staff shows a melodic line with slurs and slides (sl.) over the notes. The second staff shows the fretboard with fingerings: T (12-14), A (14-15), B (12-15) for Dm7; T (14-13), A (13-12), B (14-15) for G7b9; and T (12-15), A (15-12), B (12-14) for Cmaj7. The piece ends with a final measure on the B string (14).

s)

Dm7 **G7alt** **Cmaj7**

sl. P H P H P P H P P H P H P

10 12 12 10 10 12 12 10 11 8 11 8 6 8 11 8 11 8 6 8 10 8 10 9 6 9 10 7 10 12 10 12 10 7 12

t)

Dm7 **G7** **Cmaj7**

P P H P P H P P H P P H P

10 10 9 12 10 12 9 (9) 12 10 10 13 10 12 12 (12) 9 12 10 9 9 12

One Measure ii V I's in Minor

Ex. 168

a)

Dm7 $\flat$ 5 **G7alt** **Cm7**

b)

Dm7 $\flat$ 5 **G7 $\flat$ 9** **Cm7**

c)

Dm7 $\flat$ 5 **G7alt** **Cm7**

d)

Dm7 $\flat$ 5 **G7alt** **Cm7**

e)

Dm7 $\flat$ 5 **G7alt** **Cm7**

f)

Dm7 $\flat$ 5 **G7alt** **Cm7**

T
A
B

g)

Dm7 $\flat$ 5 **G7alt** **Cm7**

T
A
B

h)

Dm7 $\flat$ 5 **G7alt** **Cm7**

T
A
B

i)

Gm7 $\flat$ 5 **C7alt** **Fm7**

T
A
B

j)

Gm7 $\flat$ 5 **C7alt** **Fm7**

T
A
B

k)

Gm7b5 **C7alt** **Fm7**

T A B

l)

Gm7b5 **C7alt** **Fm7**

T A B

m)

Gm7b5 **C7alt** **Fm7**

T A B

n)

Gm7b5 **C7alt** **Fm7**

T A B

o)

Gm7b5

T A B

Fm7

The musical score for "The Wind" by John Williams is presented in two staves. The top staff is for the piano, and the bottom staff is for the harp. The piano part is in G major, 4/4 time, and the harp part is in G major, 4/4 time. The score includes a key signature change from G major to E major at the end of the piece.

Piano Part: The piano part begins with a series of eighth-note triplets, each marked with a *p* (piano) dynamic. The triplets are: G4-A4-B4, A4-B4-C5, B4-C5-D5, and C5-D5-E5. This is followed by a series of eighth-note triplets, each marked with a *sl.* (sforzando) dynamic. The triplets are: D5-E5-F5, E5-F5-G5, F5-G5-A5, and G5-A5-B5. The piece concludes with a final triplet marked with a *H* (fortissimo) dynamic: A5-B5-C6.

Harp Part: The harp part is a single melodic line. It begins with a series of eighth-note triplets, each marked with a *p* (piano) dynamic. The triplets are: G4-A4-B4, A4-B4-C5, B4-C5-D5, and C5-D5-E5. This is followed by a series of eighth-note triplets, each marked with a *sl.* (sforzando) dynamic. The triplets are: D5-E5-F5, E5-F5-G5, F5-G5-A5, and G5-A5-B5. The piece concludes with a final triplet marked with a *H* (fortissimo) dynamic: A5-B5-C6.

ii⁷ V⁷ I^{maj7} substitute patterns

The substitutions presented in this section may be used over the major ii V⁷ I^{maj7} progression. I have indicated the root relationship of the first substitute chord to the supertonic chord to better facilitate the transposition of these progressions.

Ex. 169

ii⁷ V⁷ I^{maj7} Substitues

Interval Relation	D- ⁷		G ⁷		C ^{maj7}
R	D ^{maj7}	F ⁷	Ab ⁷	B ⁷	C ^{maj7}
R	D ^{maj7}	F ⁷	Bb ^{maj7}	Db ⁷	C ^{maj7}
TT ⇕	Ab ^{maj7}	B ⁷	E ^{maj7}	G ⁷	C ^{maj7}
R	D- ⁷	G ⁷	Ab- ⁷	Db ⁷	C ^{maj7}
R	D- ⁷		F- ⁷		C ^{maj7} (E- ⁷)
R	D- ⁷		Db- ⁷		C ^{maj7}
M2 ↑	E ⁷	A ⁷	D ⁷	G ⁷	C ^{maj7}
M3 ↓	Bb ⁷	Eb ⁷	Ab ⁷	Db ⁷	C ^{maj7}
TT ⇕	Ab- ⁷	Eb- ⁷	Bb- ⁷	F- ⁷	C ^{maj7}
M2 ↑	E- ⁷	B- ⁷	Gb- ⁷	Db- ⁷	C ^{maj7}
R	D- ⁷	Eb ⁷	Ab ⁷	Db ⁷	C ^{maj7}
M3 ↓	Bb ⁷	Eb ⁷	Ab ⁷	G ⁷	C ^{maj7}
m3 ↓	B- ⁷	Gb ⁷	Db- ⁷	Ab- ⁷	C ^{maj7}
M2 ↑	E- ⁷	B- ⁷	F#- ⁷	C#- ⁷	C ^{maj7}

Examples off ii⁷-V⁷-I^{maj7} Substitutions

Ex. 170

Original: (Dm7)

(G7)

(Cmaj7)

Dm7

A^b7

D^b7

Cmaj7

a)

b)

c)

Turnarounds

The term turnaround commonly refers to a four chord progression found in the last two measures of most AABA and blues form tunes.

Its purpose is to relieve monotony and help to aurally define the form of a tune by creating strong harmonic motion which ultimately resolves to the tonic chord. The frequent use of turnarounds in the jazz idiom requires the improviser to have a large variety of harmonic and melodic variations from which to draw upon.

I^{VI7}/ii7 V7 Exercise

Ex. 171

B^bmaj7 G7alt Cm7 F7^b9 Dm7 G7^b9 Cm7 F7

13—10 13—12 13—12—10 11—12—10—11—10—9 9—10—13—9 11—10—13—11—12 10—13—12

Dm7 G7alt Cm7 F7alt Dm7 G7[#]5 Cm7 F7alt

10—10—12—10—9—12—13 10—10—12—13—9—11—13—11—12—13—10—12—8—9—10—7—9—10—7—8—10—11—13—11

Dm7 G7alt Cm7 F7alt B^bmaj7 G7alt

10—13—11—12—15 13—16—14 15—11—10—8—9—12—11—8 12—10—10—8—9—9—10—11

C7alt F7alt B^bmaj7 G7alt Cm7 Cm7 B^bmaj7 G7alt

11—8—9—11—11—14—14—13 12—10—13—12—14—10—12—13—10—11—13—11—14—10—12—10—13—11—12—10

C7alt F7alt Dm7^b6 G7alt Cm9 F7alt B^bmaj7 Gm7

11—11—11—9—10—9—10—12—11—10—13—13—11—11—10—13—12—11—11—13—14—13—13—12—13—9—12—12—10

Cm7 F7#5 B♭maj7 G7♭9 Cm7♭5 F7#5 B♭maj7 Gm7

Cm7 F7#5 B♭maj7 G7♭9 Cm7 F7♭9 Dm7 G7♭9

Cm7 F7alt Dm7 G7alt Cm9 F7 Dm7 G7alt

C7alt F7alt B♭maj9 G7alt Cm7 F7 B♭maj7

Turnarounds Over Four Measures

Ex. 172a

Fmaj7 **D7alt**

Gm7 **C7alt** **Fmaj7**

Fmaj7 **D7alt** **Gm7**

C7alt **Fmaj7**

Fmaj7 **D7alt** **Gm7**

C7alt H H sl. **Fmaj7**

TAB: 8 5 7 4 6 7 6 4 3

d) **Amaj7** F#7alt Bm7

TAB: 11-12 9 11-12 9 11-12 9 10-12 9 10-12 10 11 8-10 11 8-11 10 8-7 9-7 8-7 10 9 7 6-9 10 7-9 10 9-10 12 9 10 11

E7alt P P sl. P **Amaj7**

TAB: 9 12 11 9 10 12 9 12 10 11 10 8 8 11 10 8 7

e) **Bbmaj7** G7b9 Cm7

TAB: 7 8 7 10 10 11 10 13 11 12 13 10 8 9 8 11 10 13 12 10 11 13 10 11

F7b9 H P P **Bbmaj7**

TAB: 12 14 11 12 11 13 11 14 10 12 10 13

f) **Bbmaj7** G7b9 Cm7

TAB: 10 8 7 10 10 9 8 7 6 8 7 5 4 6 5 3 6 5 8 7 10 9 8 8

g) **Bbmaj7** **G7b9**



10 12 10 11 13 10 11 13 12 13 10 11 12 13 9 10

The musical score is divided into three systems, each with a treble clef staff and a tablature staff.

- System 1:** The treble staff shows a chromatic scale from Bb to B. The tablature staff shows the corresponding fret numbers: 12, 9, 10, 12, 13, 10, 12, 11, 10, 13, 11, 13, 14, 13, 11, 10.
- System 2:** The treble staff shows a chromatic scale from Bb to B. The tablature staff shows the corresponding fret numbers: 12, 9, 10, 12, 13, 10, 12, 11, 10, 13, 11, 13, 14, 13, 11, 10.
- System 3:** The treble staff shows a chromatic scale from Bb to B. The tablature staff shows the corresponding fret numbers: 12, 9, 10, 12, 13, 10, 12, 11, 10, 13, 11, 13, 14, 13, 11, 10.

h)

B $\flat$ maj7 **G7 $\flat$ 9**

p *p* *sl.* *p*

TAB 10 12 10 11 10 13 12 11 10 13 12 10 9 12 10 13 10 11

Cm7

F7 $\flat$ 9

P *sl.*

P *sl.*

TAB

12 13 10 11 12 13 14 13 11 12 11 13 12 12 10 13 12 13 12 10

Turnaround Substitutions

The following examples demonstrate the use of triadic substitutions over to turnaround progression. Try to come up with your own lines based on these principles.

Additional substitutions can be found in the triadic superimposition chart later in this chapter.

Ex. 173

The Triads are labeled for analysis

Fmaj7(Am7) D7alt Gm7(G7) C7alt Fmaj7(Am7)

a)

T
A
B

7 5 6 5 4 5 6 4 6 7 6 8 7

b)

TAB

5 8 7 5 8 6 5 4 6 4 6 5 5 3 2

c)

8 10 10 8 9 8 10 11 11 8 10 9 11 8 8 11 10

d)

Diagram illustrating a musical exercise (d) on a guitar fretboard. The exercise is written in treble clef and consists of a sequence of notes: G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The notes are grouped into four measures, each with a chord symbol above it: Fadd9, Db, Ab, and Fdim. The fretboard diagram below the staff shows the positions of the fingers for each note: 7, 10, 8, 9, 11, 10, 9, 8, 10, 11, 10, 8, 8, 8, 6.

e)

[F] [Db] [Ab] [Bb]

sl.

3

sl.

sl.

T

A

B

5 7 5 6 6 6 6 4 5 4 6 6 7 6 6 8

8 7 6 6 6 6 6 6 5 4 6 8 7 6 6 8

Cycle of Fifths

The term cycle of fifths or simply cycle describes the movement of dominant seventh chords with a descending fifth or ascending fourth root pattern. The cycle may be superimposed over any progression as long as the intersecting chord's root is a P5 or m2 above its resolution chord.

Ex. 174

F#7 B7 E7 A7 D7 G7 C7 **F7** intersecting chord

4/4

F7 B $\flat$ 7 F7 F7 B $\flat$ 7

Ex. 175

a)

b)

c)

d)

Cycle of Fifths Exercise

Here is an extended cycle of fifths exercise
based on the shapes from the previous page.

Ex. 176

D7 G7 C7 F7 Bb7 Eb7 Ab7 Db7

F#7 B7 E7 A7 D7 G7 C7 F7

Bb7 Eb7 Ab7 Db7 F#7 B7 E7 A7

Ex. 177 Try to break up the rhythm in different ways.

a) D7 G7 C7 F7 Bb7 Eb7

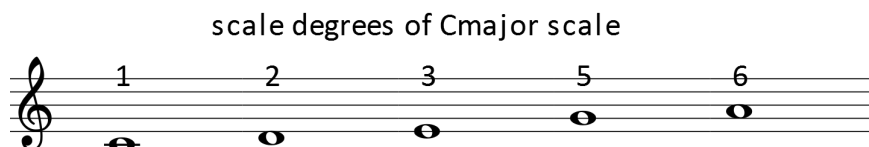
b) D7 G7 C7 F7 Bb7 Eb7

c) D7 G7 C7 F7 Bb7 Eb7

Pentatonic Scales

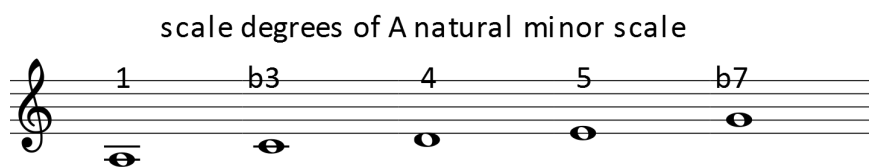
A pentatonic scale is simply a scale consisting of five notes. The two most common pentatonic scales are:

C major pentatonic:



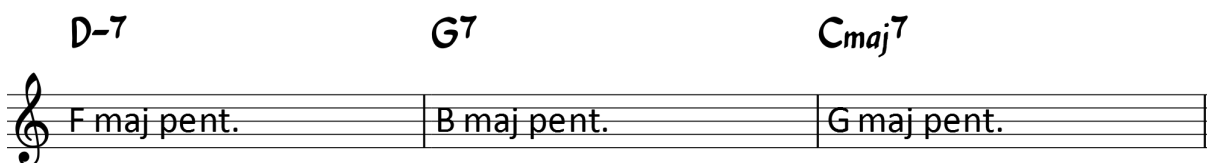
and

A minor pentatonic:

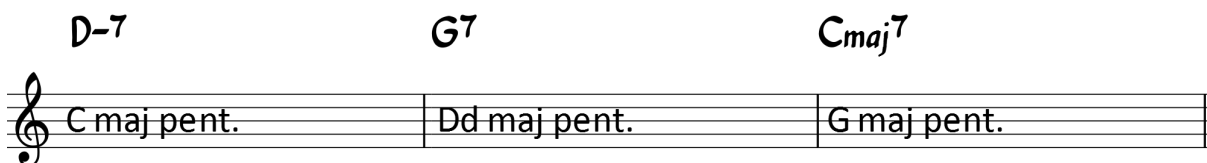


The following chart is of pentatonic scale usage over major⁷, min⁷, and Dom⁷ chords. They should also be grouped into progressions and used over chord changes.

Ex. 178a



Ex. 178b



D-7	G7	Cmaj7
Bb maj pent.	G maj pent.	C maj pent.

D-7 G7 Cmaj7

G maj pent.

Ex. 179

The image displays two lines of musical notation for guitar exercises, each consisting of a staff with a treble clef and a 4/4 time signature.

Line 1:

- First Measure:** Labeled **D-7**. The notes are C4, D4, E4, F4, G4, and A4, forming a C Major Pentatonic scale. Below the staff, it is labeled *C Maj. Pent.*
- Second Measure:** Labeled **G7alt**. The notes are Bb4, Ab4, Gb4, F4, E4, and D4, forming a D-flat Major Pentatonic scale. Below the staff, it is labeled *Db Maj. Pent.*

Line 2:

- First Measure:** Labeled **Cmaj7**. The notes are C4, E4, G4, Bb4, C5, and E5, forming a C Major Pentatonic scale. Below the staff, it is labeled *D Maj Pent.*
- Second Measure:** Labeled **Cmaj7**. The notes are C4, E4, G4, Bb4, C5, and E5, forming a C Major Pentatonic scale. Below the staff, it is labeled *D Maj Pent.*

Pentatonic Scales Over Maj⁽⁷⁾ Chords

start major pentatonic on	chord tones					start minor pentatonic on	Maj / Min Ex. C ^{maj7}
1) Root of chord	1	2	3	5	6	6 th of chord	C/A-
2) 5 th of chord	5	6	7	9	3	3 rd of chord	G/E-
3) 9 th of chord	9	3	#11	6	7	7 th of chord	D/B-

Pentatonic Scales Over Min⁽⁷⁾ Chords

start major pentatonic on	chord tones					start minor pentatonic on	Maj / Min Ex. C ⁻⁷
1) 3 rd of chord	b3	4	5	b7	1	Root of chord	Eb/C-
2) 4 th of chord	4	5	6	1	9	9 th of chord	F/D-
3) b6 th of chord	b6	b7	1	b3	4	4 th of chord	Ab/F-
4) b7 th of chord	b7	1	9	11	5	5 th of chord	Bb/G-

Pentatonic Scales Over Dom^{7th} Chords

start major pentatonic on	chord tones					start minor pentatonic on	Maj / Min Ex. C ⁷
1) Root of chord	1	2	3	5	6	6 th of chord	C/A-
2) b3 rd of chord	1	#9	11	5	b7	Root of chord	Eb/C-
3) 3 rd of chord	b9	3	#11	#5	7	b9 th of chord	E/Db-
4) #4 th of chord	#11	#5	b7	b9	#9	#9 th of chord	F#/D#-
5) b7 th of chord	b7	1	9	11	5	5 th of chord	Bb/G-
6) 6 th of chord	13	7	b9	3	#11	#4 th of chord	A/F#-

Or In Relation to One Pentatonic

C major Pentatonic		C	D	E	G	A	A minor pentatonic
Maj ⁷	C ^{maj7}	1	2	3	5	6	
	F ^{maj7}	5	6	7	9	3	
	Bb ^{maj7}	9	3	#11	6	7	
Min ⁷	A ⁻⁷	b3	11	5	b7	1	
	D ⁻⁷	b7	1	9	11	5	
	E ^{-7b6}	b6	b7	1	3	11	
Dom ⁷	G ⁻⁷	11	5	6	1	9	
	C ⁷	1	9	3	5	13	
	A ⁷	#9	11	5	b7	1	
	D ⁷	b7	1	9	11	5	
	F# ^{7 alt}	#11	#5	b7	b9	#9	
	Ab ^{7 alt}	3	#11	#5	(7)	b9	
	Eb ^{7 alt}	13	7	b9	3	#11	

Melodic Minor Pentatonics

By making a simple adjustment to the Major and Minor Pentatonics, we can create pentatonics from the Melodic Minor.

Ex. 180a

C Major Pentatonic	C Major b6 Pentatonic
1 2 3 5 6	1 2 3 5 (b6)

Ex. 180b

A Minor Pentatonic	A Minor b5 Pentatonic
1 b3 4 5 b7	1 b3 4 (b5) b7

Other Melodic Minor Pentatonics can also be created with different combinations of 5 note patterns.

Ex. 181a

B7#9#5 (B Altered Pentatonic)	D Minor 6(9) Pentatonic
1 #9 3 #5 b7	1 2 b3 5 6

Ex. 181b

Bb Augmented Major Pentatonic	G Dorian b2 Pentatonic
1 3 #4 #5 7	1 b2 4 5 b7

Triadic Superimposition

Triadic Superimposition is the melodic or harmonic stacking of triads over existing harmonies.

Ex. 182a

Harmonic superimposition.

Ex. 182b

Melodic superimposition.

The addition of lower chord members (3rds, 5ths, 7ths) in melodic and harmonic usage will keep the superimpositions from sounding detached from the harmony (though this may be desirable in a more modern context).

The triadic superimposition chart is broken down into the basic chord types maj^7 , min^7 and dom^7 , all with C as the tonic. I would suggest transposing these to different keys in order to create harmonic and melodic lines over common chord progressions.

Make a list of a few superimpositions over ii V I progressions and then try to improvise over one or more of the chords using triads.

Ex. 182c

	F ⁻⁷	Bb ⁷	Eb ^{maj7}
①	Ab triad	E triad	Csus ⁴
②	F-	Bsus ⁴	Dsus ⁴
③	Absus ⁴ (aeolian)	G Triad	F triad

The Ab^{sus4} triad used on the Fm⁷ chord produces an aeolian sound where a dorian sound is normally heard. This type of interchange is called modal mixture (which will be discussed later in this chapter).

Check the scale derivation column to see if the chord function matches with the scale or not.

Triadic Superimposition Chart (Maj⁷)

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
C ^{maj7}	C	Root	1	3	5	Ionian, Lydian
	C+	Root	1	3	#5	Lydian Aug. (Ionian Aug.)
	C ^{sus4}	Root	1	sus4	5	Ionian
	D	M2↑	9	#11	13	Lydian (Lydian Aug.)
	D ^o	M2↑	9	#11	#5	Lydian Aug.
	D ^{sus4}	M2↑	9	5	13	Ionian, Lydian
	E	M3↑	3	#5	7	Lydian Aug.
	E-	M3↑	3	5	7	Ionian, Lydian
	E+	M3↑	3	#5	1	Lydian Aug. (Ionian Aug.)
	E ^{sus4}	M3↑	3	13	7	Ionian, Lydian
	F	P4↑	sus4	13	1	Ionian
	F-	P4↑	sus4	#5	1	Ionian Aug.
	F ^o	P4↑	sus4	#5	7	Ionian Aug.
	F#-	+4↕	#11	13	b9	
	F# ^o	+4↕	#11	13	1	Lydian (Aug.)
	F# ^{sus4}	+4↕	#11	7	b9	
	G	P4↓ P5↑	5	7	9	Ionian, Lydian
	G ^{sus4}	P4↓ P5↑	5	1	9	Ionian, Lydian
	G#-	M3↓ m6↑	#5	7	#9	
	G# ^o	M3↓ m6↑	#5	7	9	Lydian Aug.
	A-	m3↓ M6↑	13	1	3	Ionian, Lydian
	A ^{sus4}	m3↓ M6↑	6	9	3	Ionian, Lydian
	B	m2↓ M7↑	7	#9	#11	Lydian #9
	B-	m2↓ M7↑	7	9	#11	Lydian
	B ^o	m2↓ M7↑	7	9	sus4	Ionian
	B ^{loc}	m2↓ M7↑	7	3	sus4	Ionian
	B ^{sus4}	m2↓ M7↑	7	3	#11	Lydian (Aug.)

Triadic Superimposition Chart (Min^{7(b5)})

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
C ^{-7(b5)}	C-	Root	1	b3	5	Minor (all)
	C ^{sus4}	Root	1	4	#5	Minor (all except Locrian type)
	Db+	m2↑	b9	11	13	Dorian b2 (Dom ⁷ function)
	Db ^{lyd}	m2↑	b9	5	b6	Phrygian
	D-	M2↑	9	11	13	Dorian
	D ⁺	M2↑	9	#11	b7	Dorian #4 (Dom ⁷ also)
	D ^o	M2↑	9	11	b6	Aeolian
	D ^{sus4}	M2↑	9	5	13	Dorian
	D ^{loc}	M2↑	9	5	b6	Aeolian
	Eb	m3↑	b3	5	b7	Minor (all without b5)
	Eb-	m3↑	b3	b5	b7	Locrian (all), Dorian #4
	Eb ^o	m3↑	b3	b5	13	Locrian nat.6, Dorian #4
	Eb ⁺	m3↑	b3	5	7	Melodic + Harmonic Minor
	Eb ^{sus4}	m3↑	b3	b6	b7	Aeolian
	Eb ^{lyd}	m3↑	b3	13	b7	Dorian
	F	P4↑	11	13	1	Dorian
	F-	P4↑	11	b6	1	Aeolian, Phrygian
	F ⁺	P4↑	11	13	b9	Dorian b2
	F ^o	P4↑	11	b6	7	Harmonic Minor
	F ^{sus4}	P4↑	11	b7	1	Minor (all without 7)
	F# ^o	+4↕	#4	13	1	Dorian #4, Locrian nat.6
	F# ⁺	+4↕	b5	b7	9	Dorian #4, Locrian nat.2
	G	P4↓ P5↑	5	7	9	Melodic + Harmonic Minor
	G-	P4↓ P5↑	5	b7	9	Dorian, Aeolian
	G ^o	P4↓ P5↑	5	b7	b9	Phrygian
	G ⁺	P4↓ P5↑	5	7	b3	Melodic + Harmonic Minor
	G ^{sus4}	P4↓ P5↑	5	1	9	Dorian, Aeolian
	An	M3↓ m6↑	b6	1	b3	Aeolian, (Phrygian)
	Ab-	M3↓ m6↑	b6	7	b3	Harmonic Minor
	Ab ^{sus4}	M3↓ m6↑	b6	b9	b3	Phrygian, Locrian
	Ab ^{lyd}	M3↓ m6↑	b6	9	b3	Aeolian

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
	A ^o	m3↓ M6↑	13	1	b3	Dorian
	A ⁺	m3↓ M6↑	13	b9	11	Dorian b2
	A ^{loc}	m3↓ M6↑	13	9	b3	Dorian (#4)
	Bb	M2↓ m7↑	b7	9	11	Dorian, Aeolian
	Bb ^{sus4}	M2↓ m7↑	b7	b3	11	Dorian, Phrygian, Aeolian

Triadic Superimposition Chart (Dom⁷)

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal Sound (scale derivation)
C ⁷	C-	Root	1	3	5	Mixolydian
	C-	Root	1	#9	5	Dom.Dim.
	C ^o	Root	1	#9	#11	Dom.Dim., Alt.Dom.
	C ⁺	Root	1	3	#5	Whole Tone, Alt.Dom.
	C ^{sus4}	Root	1	4	5	Mixolydian
	C ^{lyd}	Root	1	#4	5	Mixolydian #11, Dom.Dim.
	Db	m2↑	b9	11	#5	Phrygian (major)
	Db-	m2↑	b9	3	#5	Alt.Dom., Phrygian Major
	Db ^o	m2↑	b9	3	5	Dom.Dim.
	Db ⁺	m2↑	b9	11	6	Dorian b2
	Db ^{sus4}	m2↑	b9	#11	#5	Alt.Dom.
	Db ^{lyd}	m2↑	b9	5	#5	Phrygian Major
	Db ^{loc}	m2↑	b9	#11	5	Dom.Dim.
	D	M2↑	9	#11	6	Mixolydian #11
	D-	M2↑	9	11	6	Mixolydian
	D ^o	M2↑	9	11	#5	Mixolydian b6
	D ⁺	M2↑	9	#11	b7	Mixolydian #11, Whole Tone
	D ^{sus4}	M2↑	9	5	13	Mixolydian
	Eb	m3↑	#9	5	b7	Dom.Dim.
	Eb-	m3↑	#9	#11	b7	Dom.Dim., Alt.Dom.
	Eb ^o	m3↑	#9	#11	13	Dom.Dim.
	Eb ^{sus4}	m3↑	#9	#5	b7	Alt.Dom.
	E ^o	M3↑	3	5	b7	Mixolydian (#11)
	E ⁺	M3↑	3	#5	1	Whole Tone, Alt.Dom.
	E ^{loc}	M3↑	3	13	b7	Mixolydian (#11)
	F	P4↑	11	6	1	Mixolydian
	F-	P4↑	11	#5	1	Phrygian major
	F ⁺	P4↑	11	6	b9	Dorian b2 (Dom ⁷ function)
	F ^{sus4}	P4↑	11	b7	1	Mixolydian
	F#	+4↕	#11	b7	b9	Alt.Dom., Dom.Dim.
	F# ^o	+4↕	#11	6	1	Mixolydian #11

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
	F# ⁺	+4↕	#11	b7	9	Mixolydian #11
	F# ^{sus4}	+4↕	#11	(7)	b9	Upper Extension
	G-	P4↓ P5↑	5	b7	9	Mixolydian
	G ^o	P4↓ P5↑	5	b7	b9	Dom.Dim., Phrygian Major
	Ab	M3↓ m6↑	#5	1	#9	Alt.Dom.
	Ab ⁺	M3↓ m6↑	#5	1	3	Whole Tone, Alt.Dom.
	Ab ^{sus4}	M3↓ m6↑	#5	b9	#9	Alt.Dom.
	A	m3↓ M6↑	13	b9	3	Dom.Dim., Dorian b2
	A-	m3↓ M6↑	13	1	3	Mixolydian
	A ^o	m3↓ M6↑	13	1	#9	Dom.Dim.
	A ⁺	m3↓ M6↑	13	b9	11	Dorian b2 (Dom ⁷ function)
	A ^{sus4}	m3↓ M6↑	13	9	3	Mixolydian
	A ^{lyd}	m3↓ M6↑	13	#9	3	Dom.Dim.
	Bb	M2↓ m7↑	b7	9	11	Mixolydian
	Bb-	M2↓ m7↑	b7	b9	11	Dorian b2, Phrygian Major
	Bb ^o	M2↓ m7↑	b7	b9	3	Dom.Dim., Alt.Dom.
	Bb ⁺	M2↓ m7↑	b7	b9	#11	Dom.Dim., Alt.Dom.
	Bb ^{lyd}	M2↓ m7↑	b7	3	11	Mixolydian
	Bb ^{loc}	M2↓ m7↑	b7	#9	3	Dom.Dim., Alt.Dom.

Triadic Improvisation

Ex. 183a

G7(b9)

Handwritten musical notation for Ex. 183a, G7(b9). The staff shows a melodic line with slurs, triplets, and accents. The fretboard diagram below shows fingerings for the G, Db, Eb, E, G, Db, E, and Bb triads.

Ex. 183b

G7(b9)

Handwritten musical notation for Ex. 183b, G7(b9). The staff shows a melodic line with slurs and accents. The fretboard diagram below shows fingerings for the E, Bb, Db, G, E, Bb, G, and Db triads.

Ex. 183c

G7alt

Handwritten musical notation for Ex. 183c, G7alt. The staff shows a melodic line with slurs and accents. The fretboard diagram below shows fingerings for the Db, Eb, Absus4, Ebadd9, Ebsus4, and Absus4 triads.

Ex. 183d

G7alt

Handwritten musical notation for Ex. 183d, G7alt. The staff shows a melodic line with slurs and accents. The fretboard diagram below shows fingerings for the Absus4, Absus4, Bbsus4, and Ebsus4 triads.

Ex. 183e This one uses some added note arpeggios.

G7alt

Handwritten musical notation for Ex. 183e, G7alt. The staff shows a melodic line with slurs and accents. The fretboard diagram below shows fingerings for the Abm, Db, Eb, Dbadd9, Eb sus4, Eb*, Eb sus4, and Dbadd9 triads.

Seventh Chord Superimposition

Seventh chord superimposition works the same way as triadic superimposition.
We are just stacking a seventh chord instead of triads.

Ex. 184a Melodic usage

Am7 **D7alt** **Gmaj7**

Em7 Cmaj7 Gbmaj7(b5)

Ex. 184b Harmonic usage

Am7 **D7alt** **Gmaj7**

Cmaj7 Am7 Cmaj7 Cmaj7 Ab7 Bbsus4(9) Cm7b5 Bm7

Once again, try to group these together in progressions to facilitate the contextual integration of this concept.

Seventh Chord Superimposition Chart (Maj⁷)

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
C ^{maj7}	D ⁶	M2 ↑	9	#11	13	7	Lydian
	D ⁷	M2 ↑	9	#11	13	1	Lydian
	D ^{7/sus4}	M2 ↑	9	5	13	1	Ionian
	E ⁻⁷	M3 ↑	3	5	7	9	Ionian
	E ^{7/#5}	M3 ↑	3	#5	1	9	Lydian
	E ^{7/sus4}	M3 ↑	3	13	7	9	Ionian
	F# ^{-7b5}	+4 ↕	#11	13	1	3	Lydian
	G ⁶	P4 ↓ P5 ↑	5	7	9	3	Ionian
	G ^{maj7}	P4 ↓ P5 ↑	5	7	9	#11	Lydian
	G ^{maj7/sus4}	P4 ↓ P5 ↑	5	1	9	#11	Lydian
	G# ^{-7b5}	M3 ↓ m6 ↑	#5	7	9	#11	Lydian Augmented
	A ⁻⁶	m3 ↓ M6 ↑	13	1	3	#11	Lydian
	A ⁻⁷	m3 ↓ M6 ↑	13	1	3	5	Ionian
	A ^{-maj7}	m3 ↓ M6 ↑	13	1	3	#5	Lydian Augmented
	A ^{maj7/sus4}	m3 ↓ M6 ↑	13	9	3	#5	Lydian Augmented
	A ^{7/sus4}	m3 ↓ M6 ↑	13	9	3	5	Ionian
	B ⁻⁶	m2 ↓ M7 ↑	7	9	#11	#5	Lydian Augmented
	B ⁻⁷	m2 ↓ M7 ↑	7	9	#11	13	Lydian
	B ^{7/sus4}	m2 ↓ M7 ↑	7	3	#11	13	Lydian

Seventh Chord Superimposition Chart (Min⁷ (b5)(^b7))

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
C ⁻⁷ (b5)(^b 7)	C ⁻⁶	Root	1	b3	5	6	Dorian Types
	C ^{-maj7}	Root	1	b3	5	7	Melodic + Harmonic Minor
	C ^{-7b5}	Root	1	b3	b5	b7	Locrian Types
	C ^{7/sus4}	Root	1	4	5	b7	Dorian, Aeolian, Phrygian
	C ^{-maj7/#5}	Root	1	b3	#5	7	Harmonic Minor
	C ^{-7/#5}	Root	1	b3	#5	b7	Aeolian, Phrygian
	D ^b ^{maj7}	m2↑	b2	11	b6	1	Phrygian
	D ^b ^{maj7/b5}	m2↑	b2	11	5	1	Phrygian
	D ^b ^{maj7/#5}	m2↑	b2	11	6	1	Dorian b2
	D ^b ^{maj7/sus4}	m2↑	b2	b5	b6	1	Locrian
	D ^b ^{lyd/maj7}	m2↑	b2	5	b6	1	Phrygian
	D ⁻⁷	M2↑	9	11	6	1	Dorian
	D ^{-7/b5}	M2↑	9	11	b6	1	Aeolian
	D ^{7/#5}	M2↑	9	b5	b7	1	Locrian
	D ^{7/b5}	M2↑	9	b5	b6	1	Locrian nat.2
	E ^b ^{MA6}	m3↑	b3	5	b7	1	Dorian, Aeolian, Phrygian
	E ^b ^{maj7}	m3↑	b3	5	b7	9	Dorian, Aeolian
	E ^b ⁷	m3↑	b3	5	b7	b2	Phrygian
	E ^b ⁻⁷	m3↑	b3	b5	b7	b2	Locrian
	E ^b ^{maj7/b5}	m3↑	b3	5	6	9	Dorian
	E ^b ^{maj7/#5}	m3↑	b3	5	7	9	Melodic + Harmonic Minor
	E ^b ^{lyd/maj7}	m3↑	b3	6	b7	9	Dorian
	F ^{MA6}	P4↑	11	6	1	9	Dorian, Melodic Minor
	F ⁻⁷	P4↑	11	b6	1	b3	Aeolian, Phrygian
	F ⁻⁶	P4↑	11	b6	1	9	Aeolian
	F ^{7/sus4}	P4↑	11	b7	1	b3	Dorian, Aeolian, Phrygian
	F ^{lyd/dom7}	P4↑	11	7	1	b3	Melodic + Harmonic Minor
	F [#] ^{MA6}	+4↕	b5	b7	b2	b3	Locrian
	F [#] ^{maj7}	+4↕	b5	b7	b2	11	Locrian
	F [#] ^{maj7/b5}	+4↕	b5	b7	1	11	Locrian
	F [#] ^{maj7/#5}	+4↕	b5	b7	2	11	Locrian nat. 2

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
	F# ^{lyd/maj7}	+4↕	b5	1	b2	11	Locrian
	G ⁷	P4↓ P5↑	5	7	2	11	Melodic + Harmonic Minor
	G- ⁷	P4↓ P5↑	5	b7	2	11	Dorian, Aeolian
	G- ^{7b5}	P4↓ P5↑	5	b7	b2	11	Phrygian, Dorian b2
	G ^{7/b5}	P4↓ P5↑	5	7	2	11	Melodic + Harmonic Minor
	Ab ^{MA6}	M3↓ m6↑	b6	1	b3	11	Aeolian, Phrygian
	Ab ^{maj7}	M3↓ m6↑	b6	1	b3	5	Aeolian, Phrygian
	Ab ⁷	M3↓ m6↑	b6	1	b3	b5	Locrian
	Ab ^{7/b5}	M3↓ m6↑	b6	1	2	b5	Locrian nat. 2
	Ab ^{maj7/sus4}	M3↓ m6↑	b6	b2	b3	5	Phrygian
	Ab ^{lyd/maj7}	M3↓ m6↑	b6	2	b3	5	Aeolian
	Ab ^{lyd/dom7}	M3↓ m6↑	b6	2	b3	b5	Dorian #4
	A- ^{7/b5}	m3↓ M6↑	6	1	b3	5	Dorian
	A ^{7/sus4/b5}	m3↓ M6↑	6	2	b3	5	Dorian
	Bb ^{MA6}	M2↓ m7↑	b7	2	11	5	Dorian, Aeolian
	Bb ^{maj7}	M2↓ m7↑	b7	2	11	6	Dorian
	Bb- ⁷	M2↓ m7↑	b7	b2	11	b6	Phrygian
	Bb- ⁶	M2↓ m7↑	b7	b2	11	5	Phrygian
	Bb ^{7/#5}	M2↓ m7↑	b7	2	b5	b6	Locrian nat. 2
	Bb ^{maj7/sus4}	M2↓ m7↑	b7	b3	11	6	Dorian
	Bb ^{7/sus4}	M2↓ m7↑	b7	b3	11	b6	Aeolian, Phrygian
	B ^{7/#5}	m2↓ M7↑	7	b3	5	6	Melodic Minor

Seventh Chord Superimposition Chart (Dom⁷)

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
C ⁷	C ⁶	Root	1	3	5	6	Mixolydian
	C ⁷	Root	1	3	5	b7	Mixolydian
	C ⁺⁷	Root	1	3	#5	b7	Whole Tone, Alt. Dom.
	C ^{7/b5}	Root	1	3	b5	b7	Whole Tone, Alt. Dom., Mix.#11
	C ^{7/sus4}	Root	1	4	5	b7	Mixolydian
	C ^{lyd/b7}	Root	1	#4	5	b7	Mixolydian #11
	Db ⁶	m2↑	b9	11	#5	b7	Phrygian Major
	Db ^{maj7}	m2↑	b9	11	#5	1	Phrygian Major
	Db ⁻⁶	m2↑	b9	3	#5	b7	Alt. Dom., Phrygian Major
	Db ^{-maj7}	m2↑	b9	3	#5	1	Alt. Dom., Phrygian Major
	Db ^{o7}	m2↑	b9	3	5	b7	Dom. Dim.
	Db ^{omaj7}	m2↑	b9	3	5	1	Dom. Dim.
	Db ^{maj7/b5}	m2↑	b9	11	5	1	Phrygian Major
	Db ^{maj7/sus4}	m2↑	b9	b5	#5	1	Alt. Dom.,
	Db ^{lyd/maj7}	m2↑	b9	5	#5	1	Phrygian Major
	Db ^{-maj7/#5}	m2↑	b9	3	13	1	Dom. Dim.
	D ⁷	M2↑	9	#11	13	1	Mixolydian #11
	D ⁻⁷	M2↑	9	11	13	1	Mixolydian
	D ^{7/#5}	M2↑	9	#11	13	1	Mixolydian #11
	D ^{7/b5}	M2↑	9	#11	#5	1	Whole Tone
	D ^{7/sus4}	M2↑	9	5	13	1	Mixolydian
	Eb ⁷	m3↑	#9	5	b7	b9	Dom. Dim.
	Eb ⁻⁷	m3↑	#9	#11	b7	b9	Dom. Dim., Alt. Dom.,
	Eb ⁻⁶	m3↑	#9	#11	b7	1	Dom. Dim., Alt. Dom.,
	Eb ^{-7/b5}	m3↑	#9	#11	13	b9	Dom. Dim.
	Eb ^{7/b5}	m3↑	#9	5	13	b9	Dom. Dim.
	Eb ^{7/sus4}	m3↑	#9	#5	b7	b9	Alt. Dom.
	Eb ^{lyd/b7}	m3↑	#9	13	b7	b9	Dom. Dim.
	E ^{-7b5}	M3↑	3	5	b7	9	Mixolydian
	E ^{o7}	M3↑	3	5	b7	b9	Dom. Dim

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
	E ^{omaj7}	M3↑	3	5	b7	#9	Dom. Dim
	E ^{maj7/#5}	M3↑	3	#5	1	#9	Alt. Dom.
	E ^{maj7/b5}	M3↑	3	#5	b7	#9	Alt. Dom.
	E ^{7b5}	M3↑	3	#5	b7	9	Whole Tone
	E ^{-maj7/#5}	M3↑	3	5	1	#9	Dom. Dim
	F ^{maj7/sus4}	P4↑	11	b7	1	3	Mixolydian
	F ^{#6}	+4↕	#11	b7	b9	#9	Dom. Dim, Alt. Dom.
	F ^{#7}	+4↕	#11	b7	b9	3	Dom. Dim, Alt. Dom.
	F ^{#-7}	+4↕	#11	13	b9	#9	Dom. Dim
	F ^{#-6}	+4↕	#11	13	b9	#9	Dom. Dim
	F ^{#-7b5}	+4↕	#11	13	1	3	Dom. Dim
	F ^{#7#5}	+4↕	#11	b7	4	3	Mix. #11, Whole Tone
	F ^{#7b5}	+4↕	#11	b7	1	3	Mix. #11, Whole Tone
	F ^{#lydb7}	+4↕	#11	1	b9	3	Dom. Dim, Alt. Dom.
	G ⁻⁷	P4↓ P5↑	5	b7	9	11	Mixolydian
	G ⁻⁶	P4↓ P5↑	5	b7	9	3	Mixolydian
	G ^{-maj7}	P4↓ P5↑	5	b7	9	#11	Mixolydian #11
	G ^{-7b5}	P4↓ P5↑	5	b7	b9	11	Phrygian Major
	G ^{o7}	P4↓ P5↑	5	b7	b9	3	Dom. Dim
	G ^{omaj7}	P4↓ P5↑	5	b7	b9	#11	Dom. Dim
	G ^{maj7/sus4}	P4↓ P5↑	5	1	9	#11	Mixolydian #11
	G ^{7sus4}	P4↓ P5↑	5	1	9	11	Mixolydian
	G ^{-maj7/#5}	P4↓ P5↑	5	b7	#9	#11	Dom. Dim
	Ab ⁷	M3↓ m6↑	#5	1	#9	#11	Alt. Dom.
	Ab ^{7#5}	M3↓ m6↑	#5	1	3	#11	Whole Tone
	Ab ^{7sus4}	M3↓ m6↑	#5	b9	#9	#11	Alt. Dom.
	A ⁶	m3↓ M6↑	13	b9	3	#11	Dom. Dim
	A ⁷	m3↓ M6↑	13	b9	3	5	Dom. Dim
	A ⁻⁷	m3↓ M6↑	13	1	3	5	Mixolydian
	A ⁻⁶	m3↓ M6↑	13	1	3	#11	Mixolydian #11
	A ^{-7b5}	m3↓ M6↑	13	1	#9	5	Dom. Dim
	A ^{7sus4}	m3↓ M6↑	13	9	3	5	Mixolydian
	A ^{lyd/b7}	m3↓ M6↑	13	#9	3	5	Dom. Dim
	Bb ⁶	M2↓ m7↑	b7	9	11	5	Mixolydian

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
	Bb ^{maj7}	M2↓ m7↑	b7	9	11	13	Mixolydian
	Bb ⁻⁷	M2↓ m7↑	b7	b9	11	#5	Phrygian Major
	Bb ⁻⁶	M2↓ m7↑	b7	b9	11	5	Phrygian Major
	Bb ^{-7b5}	M2↓ m7↑	b7	b9	3	#5	Alt. Dom.
	Bb ^{o7}	M2↓ m7↑	b7	b9	3	5	Dom. Dim
	Bb ^{omaj7}	M2↓ m7↑	b7	b9	3	13	Dom. Dim
	Bb ^{maj7/#5}	M2↓ m7↑	b7	9	#11	13	Mixolydian #11
	Bb ^{7/#5}	M2↓ m7↑	b7	9	#11	#5	Whole Tone
	Bb ^{maj7/b5}	M2↓ m7↑	b7	9	3	13	Mixolydian
	Bb ^{7b5}	M2↓ m7↑	b7	9	3	#5	Whole Tone
	Bb ^{lyd/maj7}	M2↓ m7↑	b7	3	11	13	Mixolydian
	Bb ^{-maj7/#5}	M2↓ m7↑	b7	b9	#11	13	Dom. Dim

Also From The Dominant Diminished Scale

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
	C ^{o7}	Root	1	#9	b5	13	Dom. Dim
	Eb ^{o7}	m3↑	#9	b5	13	1	Dom. Dim
	F# ^{o7}	+4↕	b5	13	1	#9	Dom. Dim
	A ^{o7}	m3↓ M6↑	13	1	#9	b5	Dom. Dim

Hybrid Arpeggios

Hybrid Arpeggios do not fall into triadic or seventh chord categories but contain pieces of each. Added note chords are types of hybrid arpeggios.

Ex. 185a-c

1 9 3 5 Cadd9	1 3 #11 5 Cadd#11	1 3 4 5 Csus4(3)			
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;"> T A B 3 5 2 5 </td> <td style="width: 33%; text-align: center;"> 3 2 4 5 </td> <td style="width: 33%; text-align: center;"> 3 2 3 5 </td> </tr> </table>			T A B 3 5 2 5	3 2 4 5	3 2 3 5
T A B 3 5 2 5	3 2 4 5	3 2 3 5			

This next chart contains several possible hybrid arpeggios over each of the four chord types.

Hybrid Arpeggio Chart (Maj⁷)

Chord	Hybrid Structure	Note functions of superimposition				Modal sound (scale derivation)	
C ^{maj7}	C ^{add9}	1	9	3	5	Ionian, Lydian	
	G ^{add9}	5	6	7	9	Ionian, Lydian	
	D ^{add9}	9	3	#11	13	Lydian (Augmented)	
	E ^{add9}	3	#11	#5	7	Lydian Augmented	
	C ^{add11}	1	3	4	5	Ionian	
	D ^{add11}	9	#11	5	13	Lydian	
	E ^{add11}	3	#5	13	7	Lydian Augmented	
	G ^{add11}	5	7	1	9	Ionian, Lydian	
	C ^{add#11}	1	3	#11	5	Lydian	
	D ^{add#11}	9	#11	5	13	Lydian	
	C ^{add9/11}	1	9	3	11	5	Ionian
	G ^{add9/11}	3	13	7	1	9	Ionian, Lydian
	D ^{add9/11}	9	3	#11	5	13	Lydian
	C ^{add9/#11}	1	9	3	#11	5	Lydian
	D ^{add9/#11}	9	3	#11	5	13	Lydian
	A ^{-add9}	6	7	1	3	Ionian, Lydian	
	B ^{-add11}	7	9	3	#11	Lydian	
	E ^{-add9}	3	#11	5	7	Lydian	
	E ^{-add9/11}	3	#11	5	13	7	Lydian
	A ^{-add9/11}	6	7	1	9	3	Ionian, Lydian

Hybrid Arpeggio Chart (Minor⁷)

Chord	Hybrid Structure	Note functions of superimposition					Modal sound (scale derivation)
C ⁻⁷	E ^b _{add9}	b3	11	5	b7		Dorian, Aeolian, Phrygian
	F _{add9}	11	5	13	1		Dorian
	G _{add9}	5	13	7	9		Melodic Minor
	B ^b _{add9}	b7	1	9	11		Dorian, Aeolian
	D ^b _{add9}	b9	b3	11	b6		Phrygian
	E ^b _{add11}	b3	5	b6	b7		Aeolian
	F _{add11}	11	13	b7	1		Dorian
	B ^b _{add11}	b7	9	b3	11		Dorian, Aeolian
	G _{add11}	5	7	1	9		Melodic Minor
	E ^b _{add#11}	b3	5	13	b7		Dorian (b2)
	F _{add#11}	11	13	7	1		Melodic Minor
	D ^b _{add#11}	b9	11	5	b6		Phrygian
	D ^b _{add9/#11}	b9	b3	11	5	b6	Phrygian
	E ^b _{add9/#11}	b3	11	5	13	b7	Dorian
	F _{add9/#11}	11	5	13	7	1	Melodic Minor
	C ⁻ _{add9}	1	9	b3	5		Dorian, Aeolian
	G ⁻ _{add9}	5	13	b7	9		Dorian
	F ⁻ _{add9}	11	5	b6	1		Aeolian
	C ⁻ _{add9/11}	1	9	b3	11	5	Dorian, Aeolian
	F ⁻ _{add9/11}	11	5	b6	b7	1	Aeolian
	G ⁻ _{add9/11}	5	13	b7	1	9	Dorian

Hybrid Arpeggio Chart (Min^{7b5})

Chord	Hybrid Structure	Note functions of superimposition					Modal sound (scale derivation)
C ^{-7b5}	Eb ^{-add9}	b3	11	b5	b7		Locrian
	F ^{#add9}	b5	b6	b7	b9		Locrian
	F ^{#add#11}	b5	b7	1	b9		Locrian
	F ^{#add9/#11}	b5	b6	b7	1	b9	Locrian
	Ab ^{add11}	b6	1	b9	b3		Locrian
	Eb ^{-add9/11}	b3	11	b5	b6	b7	Locrian (nat. 2)
	Ab ^{add9/11}	b6	b7	1	b9	b3	Locrian

Hybrid Arpeggio Chart (Dom⁷)

hord	Hybrid Structure	Note functions of superimposition					Modal sound (scale derivation)
C ⁷	C ^{add9}	1	9	3	5		Mixolydian
	C ^{add11}	1	3	11	5		Mixolydian
	C ^{add#11}	1	3	#11	5		Mixolydian #11
	D ^{add9}	9	3	#11	13		Mixolydian #11
	D ^{add11}	9	3	#11	5	13	Mixolydian #11
	D ^{add#11}	9	#11	#5	13		Mixolydian b6
	F ^{#add9}	#11	#5	b7	b9		Altered Dominant
	F ^{#add#11}	#11	b7	1	b9		Altered Dominant
	G ^{#add9}	#5	b7	1	#9		Altered Dominant
	G ^{#add11}	#5	b9	1	#9		Altered Dominant
	A ^{add#11}	13	b9	ä9	3		Dominant Diminished
	Bb ^{add9}	b7	1	9	11		Mixolydian
	Bb ^{add#11}	b7	9	3	11		Mixolydian
	Db ^{add9}	b9	#9	3	#5		Altered Dominant
	G ^{-add9}	5	13	b7	9		Mixolydian
	C ^{add9/11}	1	9	3	11	5	Mixolydian
	C ^{add9/#11}	1	9	3	#11	5	Mixolydian #11
	Db ^{add9/11}	b9	#9	3	#11	#5	Altered Dominant
	D ^{add9/11}	9	3	#11	5	13	Mixolydian #11
	D ^{add9/#11}	9	3	#11	#5	13	Mixolydian b6
	F ^{#add9/#11}	#11	#5	b7	1	b9	Altered Dominant
	G ^{-add9/11}	5	13	b7	1	9	Mixolydian
	G ^{#add9/11}	#5	b7	1	b9	#9	Altered Dominant
	Bb ^{add9/#11}	b7	1	9	3	11	Mixolydian

Playing Over Unusual Resolutions

① Dim7 chords resolving down by ½ step to minor

Tunes found in: All the Things You Are
Wave
Triste
Night and Day
Body and Soul
Here's That Rainy Day

The resolution tendencies are as follows:

Scales

B⁰⁷ (tonic dim.)



B $\flat$ _m⁷ (dorian)



Ex. 186a

½ step resolutions

The image shows two musical staves. The top staff is for **B^b7 (Tonic Dim.)** and the bottom staff is for **B^b-7 (Dorian)**. Both staves show the notes of the chords: 1, 9, b3, 11, and b13. The notes are written on a five-line staff with a treble clef. The notes are: 1 (F), 9 (A), b3 (D), 11 (B), and b13 (E).

Ex. 186b

whole step resolution

Ex. 186c

Bdim7 1/2 step resolution

Musical notation for Ex. 186c. The top staff is in 4/4 time, showing a melodic line with a half step (H) and a whole step (P) resolution. The bottom staff shows the fretboard with fingerings: 9, 6, 7, 8, 6, 9, 7, 10, 11. A slide (sl.) is indicated from the 10th fret to the 11th fret.

Ex. 186d

Bdim7 Whole step resolution

Bbm7

Musical notation for Ex. 186d. The top staff is in 4/4 time, showing a melodic line with a whole step (H) resolution. The bottom staff shows the fretboard with fingerings: 3, 6, 4, 3, 5, 4, 3, 5, (5), 6, 6, 5, 8, 8. A slide (sl.) is indicated from the 5th fret to the 6th fret.

② Dom7 chords resolving up by whole step

Tunes found in: Just Friends
Yardbird Suite
There Will Never Be Another You
Donna Lee
Cherokee
Stella By Starlight

Scales

E^b7 (mixolydian #11)



Fmaj7 (ionian, lydian)



Ex. 187a

½ step resolutions

E^b7 1 9 #11 5 13 b7

Fmaj7 13 7 7 11 #11 #11 #5 13

Weak

Ex. 187b

whole step resolutions

E^b7 1 9 3 #11 5 13 b7

Fmaj7 1 9 1 3 9 #11 5 13 #5

Ex. 187c

Ex. 187c musical notation. Treble clef, 4/4 time. Chords: Eb7, Fmaj7. Fingering: 8, 5, 6, 6, 5, 8, 7, (7). Includes a triplet of eighth notes.

Ex. 187d

Ex. 187d musical notation. Treble clef, 4/4 time. Chords: Eb7, Fmaj7. Includes slurs, triplets, and slurs. Fingering: 6, 8, 5, 8, 5, 7, 8, 5, 8, 5, 6, 8, 6, 5, 6, 7, 5, 6, 8, 8, 6, 5, (5).

You will find the whole step resolutions are not as strong as half-step ones. The harmonic tendencies of Eb7 to Fmaj7 are the same for the chords.

Ex. 188

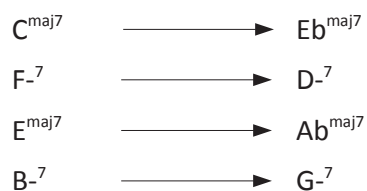
- 1 Eb7 → FMAJ7
- 2 A7ALT → Dm7
- 3 A7ALT → BbMAJ7
- 4 Eb7 → BbMAJ7
- 5 A7ALT → FMAJ7 or F7
- 6 Eb7 → Am7
- 7 A7ALT → Am7

Further explanation of this concept can be found in the harmony chapter.

Other Resolutions To Know

1. Third related chords (similar types)

Ex. 189



2. ii V's moving up and down by half steps

Ex. 190a

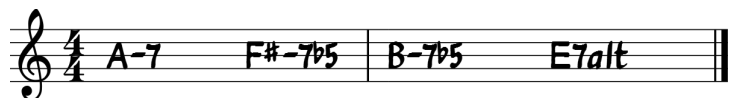


Ex. 190b



3. i⁷ vi^{7b5} ii^{7b5} V^{7alt}

Ex. 191



Many of the other resolution possibilities are covered in the harmony chapter.

Remember: Try to take advantage of half step resolutions because they make the transitions much smoother.

Melodic Ideas

A small collection of scale tones can bear a large amount of melodic material through the use of octave displacement.

A four note order such as G C D E can become this.

Ex. 192 & 193

Try this over C, Csus4, Bbmaj7, F#7alt, Em7b6. Odd number note ideas metrically overlap in the measure.

The image shows a musical exercise for guitar. The top staff is a treble clef with notes and slurs. The bottom staff is a guitar TAB with fret numbers and slurs. Brackets below the TAB indicate '5 Note Grouping'.

Staff 1 (Treble Clef):

- Measure 1: Notes G4, A4, B4, C5, D5. Slur from G4 to D5. Label 'H' above G4, 'P' above D5.
- Measure 2: Notes E5, F5, G5, A5, B5. Slur from E5 to B5. Label 'P' above B5.
- Measure 3: Notes C6, D6, E6, F6, G6. Slur from C6 to G6. Label 'P' above G6.
- Measure 4: Notes A6, B6, C7, D7, E7. Slur from A6 to E7. Label 'H' above E7.

Staff 2 (Guitar TAB):

- Measure 1: Fret numbers 3, 4, 5, 7, 4. Slur from 3 to 4. Label 'H' above 3, 'P' above 4.
- Measure 2: Fret numbers 5, 7, 4, 5, 3. Slur from 5 to 3. Label 'P' above 3.
- Measure 3: Fret numbers 7, 5, 8, 7, 8. Slur from 7 to 8. Label 'P' above 8.
- Measure 4: Fret numbers 7, 8, 7, 8, 8. Slur from 7 to 8. Label 'H' above 8.

Brackets:

- Bracket 1: Under frets 3, 4, 5, 7, 4. Label '5 Note Grouping'.
- Bracket 2: Under frets 5, 7, 4, 5, 3. Label '5 Note Grouping'.
- Bracket 3: Under frets 7, 5, 8, 7, 8. Label '5 Note Grouping'.

Try this over Em7b5, Cmaj7, F#7alt, D7#11

I have included some more examples like these from different scales.

Ex. 194a

Ex. 194a musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194b

Ex. 194b musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194c

Ex. 194c musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194d

Ex. 194d musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194e

Ex. 194e musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194f

Ex. 194f musical notation and guitar TAB. The melody is in 4/4 time, featuring slurs and accents (H, P). The TAB shows fret numbers and fingerings.

Ex. 194g

The image shows a musical score for a guitar exercise. The top staff is a treble clef staff with a key signature of one sharp (F#) and a 4/4 time signature. The melody consists of the following notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (half). The bottom staff is a guitar tablature staff with six lines. The fret numbers are: 7, 8, 9, 10, 7, 7, 8, 7, 9, 7, 8, 6, 9. A bracket is placed under the first two measures of the tablature, spanning the first six frets.

Major Scale Impressions

Ex. 195a

C

8-12-10-8 12-10-8-10 12-8-9-10-7-9-10-7 10-7-10-8-7-8-10-7-3 3-5-5-7-8-8

Ex. 195b

B $\flat$

10-7-8-10-8-10 8-10-10-11 8-10-8-10-11 10-10-10-8-10

8-10-12-8-10-12 10-12-8-10-10-8 8-10-8-10-12-8

Ex. 195c

A $\flat$

4-6-8-6-6-8 5-6-8-6-8-9 8-9-11-8-9-8

10-11-11-8-9-11 9-8-10-8-8-5 6-6-8-5-6-3 3

Ex. 195d

F H P P P P P

TAB: 7 10 9 7 10 8 7

Ex. 195e

D P H P P P P P

TAB: 11 10 11 10 14 12 14 10 12 11 14 12 11 12 14 11 12 14 12 10

Ex. 195f

B P P P P P P

TAB: 7 6 9 6 7 6 7 9 9 7 9 8 9 9 9 8 9 8 9 7 9 6 7

Ex. 195g

A H H H H H H

TAB: 7 6 7 9 6 9 6 9 7 6 7 9 10 9 7 9 9 11 12 12 14 16

H P P P H sl.

TAB: 12 14 12 10 14 11 13 14 11 14 12 12 9 11 7 7 5

Ex. 195h

D^b

Ex. 195i

E^b

Ex. 195j

C

Ex. 195k

G

Ex. 195l

C

Ex. 195m

E

The first system of the musical score for 'The Wind' is shown. It consists of a treble clef staff and a tablature staff. The treble staff contains a melody with a triplet of eighth notes (G4, A4, B4) followed by a series of eighth notes: G4, F#4, E4, D4, C4, B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, B0, A0, G0, F#0, E0, D0, C0, B-1, A-1, G-1, F#-1, E-1, D-1, C-1, B-2, A-2, G-2, F#-2, E-2, D-2, C-2, B-3, A-3, G-3, F#-3, E-3, D-3, C-3, B-4, A-4, G-4, F#-4, E-4, D-4, C-4, B-5, A-5, G-5, F#-5, E-5, D-5, C-5, B-6, A-6, G-6, F#-6, E-6, D-6, C-6, B-7, A-7, G-7, F#-7, E-7, D-7, C-7, B-8, A-8, G-8, F#-8, E-8, D-8, C-8, B-9, A-9, G-9, F#-9, E-9, D-9, C-9, B-10, A-10, G-10, F#-10, E-10, D-10, C-10, B-11, A-11, G-11, F#-11, E-11, D-11, C-11, B-12, A-12, G-12, F#-12, E-12, D-12, C-12, B-13, A-13, G-13, F#-13, E-13, D-13, C-13, B-14, A-14, G-14, F#-14, E-14, D-14, C-14, B-15, A-15, G-15, F#-15, E-15, D-15, C-15, B-16, A-16, G-16, F#-16, E-16, D-16, C-16, B-17, A-17, G-17, F#-17, E-17, D-17, C-17, B-18, A-18, G-18, F#-18, E-18, D-18, C-18, B-19, A-19, G-19, F#-19, E-19, D-19, C-19, B-20, A-20, G-20, F#-20, E-20, D-20, C-20, B-21, A-21, G-21, F#-21, E-21, D-21, C-21, B-22, A-22, G-22, F#-22, E-22, D-22, C-22, B-23, A-23, G-23, F#-23, E-23, D-23, C-23, B-24, A-24, G-24, F#-24, E-24, D-24, C-24, B-25, A-25, G-25, F#-25, E-25, D-25, C-25, B-26, A-26, G-26, F#-26, E-26, D-26, C-26, B-27, A-27, G-27, F#-27, E-27, D-27, C-27, B-28, A-28, G-28, F#-28, E-28, D-28, C-28, B-29, A-29, G-29, F#-29, E-29, D-29, C-29, B-30, A-30, G-30, F#-30, E-30, D-30, C-30, B-31, A-31, G-31, F#-31, E-31, D-31, C-31, B-32, A-32, G-32, F#-32, E-32, D-32, C-32, B-33, A-33, G-33, F#-33, E-33, D-33, C-33, B-34, A-34, G-34, F#-34, E-34, D-34, C-34, B-35, A-35, G-35, F#-35, E-35, D-35, C-35, B-36, A-36, G-36, F#-36, E-36, D-36, C-36, B-37, A-37, G-37, F#-37, E-37, D-37, C-37, B-38, A-38, G-38, F#-38, E-38, D-38, C-38, B-39, A-39, G-39, F#-39, E-39, D-39, C-39, B-40, A-40, G-40, F#-40, E-40, D-40, C-40, B-41, A-41, G-41, F#-41, E-41, D-41, C-41, B-42, A-42, G-42, F#-42, E-42, D-42, C-42, B-43, A-43, G-43, F#-43, E-43, D-43, C-43, B-44, A-44, G-44, F#-44, E-44, D-44, C-44, B-45, A-45, G-45, F#-45, E-45, D-45, C-45, B-46, A-46, G-46, F#-46, E-46, D-46, C-46, B-47, A-47, G-47, F#-47, E-47, D-47, C-47, B-48, A-48, G-48, F#-48, E-48, D-48, C-48, B-49, A-49, G-49, F#-49, E-49, D-49, C-49, B-50, A-50, G-50, F#-50, E-50, D-50, C-50, B-51, A-51, G-51, F#-51, E-51, D-51, C-51, B-52, A-52, G-52, F#-52, E-52, D-52, C-52, B-53, A-53, G-53, F#-53, E-53, D-53, C-53, B-54, A-54, G-54, F#-54, E-54, D-54, C-54, B-55, A-55, G-55, F#-55, E-55, D-55, C-55, B-56, A-56, G-56, F#-56, E-56, D-56, C-56, B-57, A-57, G-57, F#-57, E-57, D-57, C-57, B-58, A-58, G-58, F#-58, E-58, D-58, C-58, B-59, A-59, G-59, F#-59, E-59, D-59, C-59, B-60, A-60, G-60, F#-60, E-60, D-60, C-60, B-61, A-61, G-61, F#-61, E-61, D-61, C-61, B-62, A-62, G-62, F#-62, E-62, D-62, C-62, B-63, A-63, G-63, F#-63, E-63, D-63, C-63, B-64, A-64, G-64, F#-64, E-64, D-64, C-64, B-65, A-65, G-65, F#-65, E-65, D-65, C-65, B-66, A-66, G-66, F#-66, E-66, D-66, C-66, B-67, A-67, G-67, F#-67, E-67, D-67, C-67, B-68, A-68, G-68, F#-68, E-68, D-68, C-68, B-69, A-69, G-69, F#-69, E-69, D-69, C-69, B-70, A-70, G-70, F#-70, E-70, D-70, C-70, B-71, A-71, G-71, F#-71, E-71, D-71, C-71, B-72, A-72, G-72, F#-72, E-72, D-72, C-72, B-73, A-73, G-73, F#-73, E-73, D-73, C-73, B-74, A-74, G-74, F#-74, E-74, D-74, C-74, B-75, A-75, G-75, F#-75, E-75, D-75, C-75, B-76, A-76, G-76, F#-76, E-76, D-76, C-76, B-77, A-77, G-77, F#-77, E-77, D-77, C-77, B-78, A-78, G-78, F#-78, E-78, D-78, C-78, B-79, A-79, G-79, F#-79, E-79, D-79, C-79, B-80, A-80, G-80, F#-80, E-80, D-80, C-80, B-81, A-81, G-81, F#-81, E-81, D-81, C-81, B-82, A-82, G-82, F#-82, E-82, D-82, C-82, B-83, A-83, G-83, F#-83, E-83, D-83, C-83, B-84, A-84, G-84, F#-84, E-84, D-84, C-84, B-85, A-85, G-85, F#-85, E-85, D-85, C-85, B-86, A-86, G-86, F#-86, E-86, D-86, C-86, B-87, A-87, G-87, F#-87, E-87, D-87, C-87, B-88, A-88, G-88, F#-88, E-88, D-88, C-88, B-89, A-89, G-89, F#-89, E-89, D-89, C-89, B-90, A-90, G-90, F#-90, E-90, D-90, C-90, B-91, A-91, G-91, F#-91, E-91, D-91, C-91, B-92, A-92, G-92, F#-92, E-92, D-92, C-92, B-93, A-93, G-93, F#-93, E-93, D-93, C-93, B-94, A-94, G-94, F#-94, E-94, D-94, C-94, B-95, A-95, G-95, F#-95, E-95, D-95, C-95, B-96, A-96, G-96, F#-96, E-96, D-96, C-96, B-97, A-97, G-97, F#-97, E-97, D-97, C-97, B-98, A-98, G-98, F#-98, E-98, D-98, C-98, B-99, A-99, G-99, F#-99, E-99, D-99, C-99, B-100, A-100, G-100, F#-100, E-100, D-100, C-100, B-101, A-101, G-101, F#-101, E-101, D-101, C-101, B-102, A-102, G-102, F#-102, E-102, D-102, C-102, B-103, A-103, G-103, F#-103, E-103, D-103, C-103, B-104, A-104, G-104, F#-104, E-104, D-104, C-104, B-105, A-105, G-105, F#-105, E-105, D-105, C-105, B-106, A-106, G-106, F#-106, E-106, D-106, C-106, B-107, A-107, G-107, F#-107, E-107, D-107, C-107, B-108, A-108, G-108, F#-108, E-108, D-108, C-108, B-109, A-109, G-109, F#-109

Ex. 195n

G_b

Ex. 195o

Ab

12

TAB

4 3 6 4 3 6 4 3 6 5 3 6 5 3 6 5 3 6 5 3 6 4 5 6 4 3 6 4 8 6 3

Ex. 195p

F

The first system of music features a treble clef staff with a key signature of one flat (B-flat). The melody consists of eighth notes, some beamed in pairs, and rests. Below the staff is a tablature section labeled 'TAB' with fret numbers (12, 15, 13, 12, 15, 14, 12, 15) corresponding to the notes on the staff.

Ex. 195q

C

The image shows a musical score for the song "The Rose Tree". It consists of a vocal melody line and a guitar accompaniment line. The vocal line is written in treble clef with a key signature of one flat (B-flat) and a 4/4 time signature. The melody is simple and consists of eighth and quarter notes. The guitar accompaniment is written in a standard six-string format with a key signature of one flat and a 4/4 time signature. It features a bass line with a steady eighth-note rhythm and a treble line with chords and single notes. The score is divided into three measures, each containing a vocal line, a guitar line, and a guitar tablature line. The tablature line shows the fret numbers for the guitar notes, with a 'T' for the treble and a 'B' for the bass. The first measure has a 'T' and a 'B' on the first line, the second measure has a 'T' and a 'B' on the second line, and the third measure has a 'T' and a 'B' on the third line. The tablature line shows the fret numbers for the guitar notes, with a 'T' for the treble and a 'B' for the bass. The first measure has a 'T' and a 'B' on the first line, the second measure has a 'T' and a 'B' on the second line, and the third measure has a 'T' and a 'B' on the third line.

Ex. 195r

F#

[illegible]

Ex. 195s

E $\flat$

6 8 8 5 6 8 7 8 5 7 8 5 6 8 5 6 8 5

Ex. 195t

B

7 6 7 9 6 7 6 7 9 6 8 6 8 9 6 8 7 8 9 7 9 9 6 9

Modes: Linear Approach

The following line studies should be practiced in all keys and positions on the guitar. Each study concentrates on a particular mode and strives to bring out its own distinctive flavor.

This is done through the use of target notes and intervallic structures.

Since no harmonic analysis has been provided, it will be your job to look for harmonic structures such as broken intervals, diatonic triads and seventh chords.

Ex. 196

[F Lydian Major] [F] [Fadd9] [D# Lydian +] [D7sus4] [B +7] #9

B7alt

[illegible]

This can also be used over:

F#m11, Ebmaj7#5, Am9b5, Cmmaj7, D7/sus4/b9 (C melodic minor chords)

Before we go on I would like to make an important point regarding passing tones.

Because of the abundance of linear possibilities using only scale tones, I would encourage developing lines without passing tones so as to not cluster your playing with superfluous notes. This is why most of the examples contain only scale tones (a great starting place for developing these kinds of lines are the diatonic triads and seventh chords we covered in both chapters 1+3).

Modal Lines (Major Scale)

Ex. 197a

C Ionian

10 12 12 9 10 12 12 10 12 9 10 12 12 10 12 10

Ex. 197b

A Lydian

5 7 4 6 4 7 7 4 6 4 6

Ex. 197c

G Dorian

8 6 8 5 7 5 8 5 6 5 7 5 7 5 8 6 8 5 7

Ex. 197d

C Phrygian

8 9 8 10 10 11 10 12 13 9 13 12 10 11 10 10 8 9 8 9 8 10

Ex. 197e

B $\flat$ Mixolydian

6 6 8 6 8 8 6 9 6 8 8 6 8 6 5

Ex. 197f

E Aeolian

Handwritten musical notation for the E Aeolian scale. The top staff shows the scale in treble clef with natural harmonics (H) marked above the notes. The bottom staff shows the fretboard positions for the thumb (T), index (A), and middle (B) fingers, with fret numbers 7, 9, 10, 11, 12, 14, 15.

Ex. 197g

A Locrian

Handwritten musical notation for the A Locrian scale. The top staff shows the scale in treble clef with natural harmonics (H) and slurs (sl.) marked. The bottom staff shows the fretboard positions for the thumb (T), index (A), and middle (B) fingers, with fret numbers 7, 6, 5, 7, 5, 7, 7, 8, 5, 10, 8, 6, 5, 8, 4, 5, 8, 5, 4, 7, 5, 5, 8, 5, 6, 8, 5, 6, 5.

Ex. 197h

A Ionian

Handwritten musical notation for the A Ionian scale. The top staff shows the scale in treble clef with natural harmonics (H) marked. The bottom staff shows the fretboard positions for the thumb (T), index (A), and middle (B) fingers, with fret numbers 9, 12, 12, 9, 9, 12, 10, 10, 12, 9, 10, 11, 9, 9, 12.

Ex. 197i

G Lydian

Handwritten musical notation for the G Lydian scale. The top staff shows the scale in treble clef with natural harmonics (H), slurs (sl.), and accents (P) marked. The bottom staff shows the fretboard positions for the thumb (T), index (A), and middle (B) fingers, with fret numbers 7, 8, 7, 10, 9, 7, 8, 7, 10, 8, 7, 9, 11, 9, 10, 10, 9, 12.

Ex. 197j

C Aeolian

Handwritten musical notation for the C Aeolian scale. The top staff shows the scale in treble clef with natural harmonics (H), slurs (sl.), and accents (P) marked. The bottom staff shows the fretboard positions for the thumb (T), index (A), and middle (B) fingers, with fret numbers 11, 8, 11, 8, 8, 9, 8, 9, 11, 8, 8, 10, 10, 7, 8, 10, 11, 8.

Ex. 197k
D Mixolydian

Handwritten musical notation for Ex. 197k: D Mixolydian. The top staff shows a melodic line in treble clef with notes D4, E4, F#4, G4, A4, B4, A4, G4, F#4, E4, D4. It includes triplets and slurs. The bottom staff shows the fretboard with strings T, A, B. Fret numbers are indicated below the strings.

Ex. 197l
D Dorian

Handwritten musical notation for Ex. 197l: D Dorian. The top staff shows a melodic line in treble clef with notes D4, E4, F4, G4, A4, B4, A4, G4, F4, E4, D4. It includes slurs. The bottom staff shows the fretboard with strings T, A, B. Fret numbers are indicated below the strings.

Ex. 197m
G Phrygian

Handwritten musical notation for Ex. 197m: G Phrygian. The top staff shows a melodic line in treble clef with notes G4, A4, Bb4, C5, D5, E5, D5, C5, Bb4, A4, G4. It includes slurs. The bottom staff shows the fretboard with strings T, A, B. Fret numbers are indicated below the strings.

Ex. 197n
E Aeolian

Handwritten musical notation for Ex. 197n: E Aeolian. The top staff shows a melodic line in treble clef with notes E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4. It includes slurs. The bottom staff shows the fretboard with strings T, A, B. Fret numbers are indicated below the strings.

Ex. 197o
A Dorian

Handwritten musical notation for Ex. 197o: A Dorian. The top staff shows a melodic line in treble clef with notes A4, B4, C5, D5, E5, F#5, E5, D5, C5, B4, A4. It includes slurs. The bottom staff shows the fretboard with strings T, A, B. Fret numbers are indicated below the strings.

Ex. 197p

E Mixolydian

Top staff: Melodic line in E Mixolydian. Notes: E4 (H), F#4 (H), G4 (H), A4 (H), B4 (H), A4 (H), G4 (H), F#4 (H), E4 (H), D4 (H), C#4 (H), B3 (H), A3 (H), G3 (H), F#3 (H), E3 (H). Triplets are marked over the first three notes of the first two measures. Slurs connect groups of notes in measures 3, 4, 5, and 6. 'H' and 'P' markings are present above several notes.

Bottom staff: Guitar fretboard for strings T, A, and B. Fret numbers: T (11-14), A (12-11, 11-12, 11-14, 15), B (12-15, 14-11, 13-12, 12-14, 15, 14-17, 14-13, 14-15).

Ex. 197q

F# Phrygian

Top staff: Melodic line in F# Phrygian. Notes: F#4 (H), G#4 (H), A4 (H), B4 (H), C#5 (H), B4 (H), A4 (H), G#4 (H), F#4 (H), E4 (H), D4 (H), C#4 (H), B3 (H), A3 (H), G#3 (H), F#3 (H). Triplets are marked over the first three notes of the first two measures. Slurs connect groups of notes in measures 3, 4, 5, and 6. 'H' and 'P' markings are present above several notes.

Bottom staff: Guitar fretboard for strings T, A, and B. Fret numbers: T (2-3, 2-4, 2-3, 2-4, 4-4, 4-5), A (4-5, 5-4, 2-3, 2-4, 5-4, 5-6), B (2-3, 2-4, 2-3, 2-4, 4-4, 4-5).

Top staff: Continuation of the melodic line. Notes: F#4 (H), G#4 (H), A4 (H), B4 (H), C#5 (H), B4 (H), A4 (H), G#4 (H), F#4 (H), E4 (H), D4 (H), C#4 (H), B3 (H), A3 (H), G#3 (H), F#3 (H). Triplets are marked over the first three notes of the first two measures. Slurs connect groups of notes in measures 3, 4, 5, and 6. 'H' and 'P' markings are present above several notes.

Bottom staff: Continuation of the guitar fretboard. Fret numbers: T (7-8, 7-7, 8-10, 8-11, 12-11, 8-10), A (10-10, 9-10, 12-10, 10-9), B (10-10, 9-10, 12-10, 10-9).

Modal Lines (Melodic Minor)

Ex. 198a

D Melodic Minor

5 7 8 7 6 7 6 5 9 10 9 5 8 7 6

Ex. 198b

F Lydian Augmented

7 8 7 9 6 9 10 7 9 7 10 9 7 10 9 7 6 7 9 6 7 9 10

9 12 10 10 12 10 9 10 9 12 10

Ex. 198c

A Dorian b2

5 6 5 9 7 9 6 5 8 5 7 7

Ex. 198d

E Mixolydian #11

12 12 14 11 11 12 11 13 14 12

Ex. 198e

B Locrian ♭ 2

Ex. 198f

C# Altered Dominant

Ex. 198g

E♭ Melodic Minor

Ex. 198h

C Lydian Augmented

Ex. 198i
G Altered Dominant

Staff notation: G^b A B^b C D E^b F G A^b B^b C D E^b F G. Fingering: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. Slurs and accents: P, H, sl., P, sl.

Tablature: T (15, 12, 13, 12, 10, 11), A (13, 11, 10, 11, 13, 10, 8, 9, 8, 11, 10, 8, 6), B (14, 13, 11, 10, 11, 13, 10, 8, 9, 8, 11, 10, 8, 6).

Ex. 198j

F Dorian $\flat 2$

Staff notation: F G A^b B^b C D E^b F G A^b B^b C D E^b F. Fingering: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Slurs and accents: H, sl., H, sl., H, sl., H, P, P.

Tablature: T (1, 2, 3, 4, 5, 6, 7, 8, 9, 10), A (1, 2, 3, 4, 5, 6, 7, 8, 9, 10), B (1, 2, 3, 4, 5, 6, 7, 8, 9, 10).

Ex. 198k
E $\flat$ Mixolydian $\sharp 11$

Staff notation: E^b F G A^b B^b C D E^b F G A^b B^b C D E^b F. Fingering: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13. Slurs and accents: H, H, H, P.

Tablature: T (11, 10, 13, 10, 11, 10, 10, 11, 13, 10, 11, 13, 10, 12, 13, 11), A (11, 10, 13, 10, 11, 10, 10, 11, 13, 10, 11, 13, 10, 12, 13, 11), B (11, 10, 13, 10, 11, 10, 10, 11, 13, 10, 11, 13, 10, 12, 13, 11).

Ex. 198l
F $\sharp$ Locrian $\flat 2$

Staff notation: F[#] G A^b B^b C D E^b F G A^b B^b C D E^b F. Fingering: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13. Slurs and accents: P, P, P, P.

Tablature: T (13, 10, 12, 13, 9, 12, 10, 11, 9, 10, 12, 9, 11), A (13, 10, 12, 13, 9, 12, 10, 11, 9, 10, 12, 9, 11), B (13, 10, 12, 13, 9, 12, 10, 11, 9, 10, 12, 9, 11).

Ex. 198m
D Altered Dominant

Staff notation: D E F[#] G A^b B^b C D E^b F G A^b B^b C D. Fingering: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Slurs and accents: P, P, H, H.

Tablature: T (5, 8, 5, 6, 8, 4, 8, 7, 8, 6, 6, 10), A (5, 8, 5, 6, 8, 4, 8, 7, 8, 6, 6, 10), B (5, 8, 5, 6, 8, 4, 8, 7, 8, 6, 6, 10).

Ex. 198n
E Melodic Minor

Ex. 198o
A $\flat$ Lydian Augmented

Ex. 198p
G Altered Dominant

Ex. 198q
C Mixolydian #11

Blues Sounds

Ex. 199a

A7

Staff 1: H (half note), P (quarter note), H (half note), P (quarter note), H (half note), P (quarter note), H (half note), P (quarter note).
 Staff 2: TAB 5 6 5 8 7 6 5 7 | 5 6 7 5 7 5 3 4 | 5.

Ex. 199b

G7

Staff 1: H (half note), sl. (slide), P (quarter note), H (half note), P (quarter note), H (half note), P (quarter note).
 Staff 2: TAB 3 6 3 6 7 6 3 6 | 3 6 5 3 5 3 4 | 5.

Ex. 199c

F7

Staff 1: H (half note), P (quarter note), P (quarter note), H (half note), P (quarter note), P (quarter note), P (quarter note), H (half note), P (quarter note), P (quarter note), P (quarter note).
 Staff 2: TAB 6 7 5 7 8 5 7 6 | 5 8 5 6 7 5 8 6 | 9 6 10 9 6 8 5 | 6 10.

Ex. 199d

Staff 1: H (half note), 3 (triple), P (quarter note), 3 (triple), P (quarter note), 3 (triple), P (quarter note), 3 (triple), P (quarter note), 3 (triple), P (quarter note), 3 (triple), P (quarter note).
 Staff 2: TAB 4 5 4 6 | 7 6 4 6 4 4 4 1/4 | 6 4 6 5 4 7 1/2 | 4.

Ex. 199e

B7

Staff 1: H (half note), H (half note), H (half note), H (half note), H (half note), H (half note), H (half note), H (half note).
 Staff 2: TAB 9 7 9 | 7 7 9 7 8 9 7 8 | 7 7 8 7 10 8 7 10.

Staff 1: H (half note), H (half note), H (half note), H (half note), H (half note), H (half note), H (half note), H (half note).
 Staff 2: TAB 7 7 10 7 10 10 7 10 | 11 14 11 14 10 7 7 6 | 9 7 8 9.

Ex. 199f

C7_H

Handwritten notes above the staff: H, H, H, H, sl., P, P, P, H.

Fretboard diagram (T, A, B strings):

- T: 5, 8, 10, 8, 11, 12, 11, 8, 11
- A: 6, 7, 5, 7, 8, 7, 8
- B: 8, 9, 10, 8, 9, 10

Ex. 199g

E $\flat$ 7

Handwritten notes above the staff: 1/2, 1/2, 1/2.

Fretboard diagram (T, A, B strings):

- T: 8, 8, 6, 9, 6, 7, 6
- A: 6, 8, 6, 6, 4, 5
- B: 8, 9, 10, 8, 9, 10

Ex. 199h

B $\flat$ 7

Handwritten notes above the staff: H, H, P, P, P, P, P, sl., P.

Fretboard diagram (T, A, B strings):

- T: 6, 7, 8, 6, 7, 8, 7, 8, 6, 9, 7, 8, 6, 8, 9, 10, 9
- A: 6, 7, 8, 6, 7, 8, 6, 7, 8, 9, 7, 8, 9, 7, 8, 9
- B: 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10

Ex. 199i

A7

Handwritten notes above the staff: H, P.

Fretboard diagram (T, A, B strings):

- T: 7, 5, 6, 7, 5, 6, 7, 8, 6, 7, 8, 9, 7, 8, 9, 7, 9
- A: 8, 9, 7, 8, 10, 7, 8, 10, 8, 9, 8
- B: 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10

Ex. 199j

D $\flat$ 7

Handwritten notes above the staff: H, H, H, P, H, H, H, P.

Fretboard diagram (T, A, B strings):

- T: 4, 7, 6, 4, 6, 7, 3, 6, 4, 4, 6, 4
- A: 3, 6, 4, 6, 4, 4, 6, 6, 7, 4, 6, 6
- B: 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10, 8, 9, 10

The musical notation for the guitar solo is presented in two staves. The top staff is a standard musical staff with a treble clef, showing a sequence of notes and rests. The notes are: G4 (quarter), A4 (quarter), Bb4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (half). There are three triplets marked with a '3' and a slur. The first triplet is G4-A4-Bb4. The second triplet is A4-G4-F4. The third triplet is E4-D4-C4. There are also two pairs of beamed eighth notes: G4-A4 and Bb4-A4. The bottom staff is a guitar tablature staff with six lines, labeled 'TAB' on the left. It shows the fret numbers for each note: 4, 4, 7, 6, 4, 7, 6, 4, 6, 5, 7, 5, 6, 4, 6, 5, 4, 7, 4. There are three pairs of beamed eighth notes: 4-4, 6-4, and 5-4. There are also three triplets marked with a '3' and a slur: 4-7-6, 7-6-4, and 6-5-4. There are also two pairs of beamed eighth notes: 4-4 and 6-4. The notation is in the key of D major (one sharp, F#4) and 4/4 time.

Diminished Sounds

Ex. 200a

D^bdim7

9 8 11 9 8 11 8 9 11 9 8 11 10 8 9 11 8 9 11 9 8 11 9 11 8 9 8 11 9 8 11 8 10

Repeat down an octave

Ex. 200b

F13(b9)

8 7 8 10 8 7 8 8 7 8 9 6 7 6 7 7 6 7

Repeat down an octave

Ex. 200c

Bdim7

6 7 8 6 9 7 8 10 11 8 9 10 8 9 10 12 9 7 9 8 10

Ex. 200d

G^b7(b9)

3 3 6 6 4 4 7 6 5 5 8 8 5 6 7 8

Ex. 200e

E^bdim7

10 11 9 9 10 8 11 12 13 10 12 9 8 10 9 7 6

Ex. 200f

E7(b9)

Ex. 200g

Gdim7

Ex. 200h

Bbdim7

Ex. 200i

E7(#9)

Ex. 200j

Bbdim7

Musical notation for an exercise. The staff shows a sequence of notes with fingerings P, H, and slurs. The tablature below shows fret numbers: 14, 11, 14, 12, 13, 14, 9, 11, 8, 11, 11, 10, 8, 8, 8, 7.

Ex. 200k

A $\flat$ 7(b9)

Musical notation for Ex. 200k. The staff shows a sequence of notes with slurs. The tablature below shows fret numbers: 12, 11, 8, 9, 10, 10, 7, 7, 9, 9, 6, 6, 8, 8, 9, 9.

Ex. 200l

E $\flat$ dim7

Musical notation for Ex. 200l. The staff shows a sequence of notes. The tablature below shows fret numbers: 8, 6, 7, 9, 5, 8, 4, 6, 7, 5, 5, 8, 4, 6, 7, 5, 4.

Ex. 200m

F13(#9)

Musical notation for Ex. 200m. The staff shows a sequence of notes with fingerings H and slurs. The tablature below shows fret numbers: 1, 3, 4, 4, 1, 2, 3, 4, 5, 6, 3, 4, 4, 6, 7, 7.

Ex. 200n

Bdim7

Musical notation for Ex. 200n. The staff shows a sequence of notes with fingerings H and P. The tablature below shows fret numbers: 9, 11, 9, 8, 10, 7, 8, 9, 9, 11, 10, 12, 12, 9, 11, 10, 9, 11, 8, 8, 11, 9, 12, 10, 11, 9, 8, 7, 6.

Ex. 200o

A13(b9)

Musical notation for Ex. 200o. The staff shows a sequence of notes. The tablature below shows fret numbers: 6, 7, 9, 10, 7, 8, 8, 10, 10, 7, 9, 8, 8, 8, 10, 8, 11, 9, 7, 10, 8.

Ex. 200p

Cdim7

Ex. 200p, Cdim7. The top staff shows a melodic line with slurs, slurs, and accents (sl., H, sl., P). The bottom staff shows a guitar fretboard with fingerings (8, 9, 10, 11, 12) and a capo (C) at the 8th fret.

Ex. 200q

G7(b9)

Ex. 200q, G7(b9). The top staff shows a melodic line with slurs, slurs, and accents (sl., H, sl., P, sl.). The bottom staff shows a guitar fretboard with fingerings (7, 5, 6, 7, 8, 9, 10, 11, 12) and a capo (C) at the 7th fret.

Whole Tone Lines

Ex. 201a

D7(#5)

Tablature for Ex. 201a, D7(#5):

String 1 (T): 7-9 7-9 6 7-9 6 | 9 9 7-9 7 7-9 7 | 10 7-9 5 6 8 5 6 | 7 4 6 7 6 4 7 6

String 2 (B): 7-9 8 7-9 10 11-9 | 6-8 7 6-8 9 10-8 | 10-12 11 10-10 10-12 13 | 10 11-13 12-10 13-11 14 12

Ex. 201b

B7(b5)

Tablature for Ex. 201b, B7(b5):

String 1 (T): 7-9 8 7-9 10 11-9 | 6-8 7 6-8 9 10-8 | 10-12 11 10-10 10-12 13 | 10 11-13 12-10 13-11 14 12

String 2 (B): 7-9 8 7-9 10 11-9 | 6-8 7 6-8 9 10-8 | 10-12 11 10-10 10-12 13 | 10 11-13 12-10 13-11 14 12

Ex. 201c

C7(#5)

Tablature for Ex. 201c, C7(#5):

String 1 (T): 10-12 9 11-9 12 | 9 11 9 11-9 11-9 | 12 9 11 12 9 12-10 11-13 13 12

String 2 (B): 10-12 9 11-9 12 | 9 11 9 11-9 11-9 | 12 9 11 12 9 12-10 11-13 13 12

Ex. 201d

F7(b5)

Tablature for Ex. 201d, F7(b5):

String 1 (T): 1 3 5 2 4 5 2 3 | 5 7 9 6 8 5 6 8 | 4 6 8 5 7 9 6 7 | 9 5 7 9 6 8 10 8

String 2 (B): 1 3 5 2 4 5 2 3 | 5 7 9 6 8 5 6 8 | 4 6 8 5 7 9 6 7 | 9 5 7 9 6 8 10 8

Ex. 201e

F#7(#5)

Tablature for Ex. 201e, F#7(#5):

String 1 (T): 14 13 17 15 16 | 15 14 18 16 17 16 | 15 19 17 18 17 | 17 21 19 19 18 22 20 21

String 2 (B): 14 13 17 15 16 | 15 14 18 16 17 16 | 15 19 17 18 17 | 17 21 19 19 18 22 20 21

Ex. 201f
C#7(b5)

The musical score for Ex. 201f, C#7(b5), is presented in two staves. The top staff is in treble clef and the bottom staff is in bass clef. Both staves have a key signature of one sharp (F#). The score is divided into two measures by a double bar line.

Measure 1:

- Treble Staff:** Starts with a trill on F#4, followed by a grace note on F#4 and a trill on F#4. Then, a grace note on F#4 and a trill on F#4. Finally, a grace note on F#4 and a trill on F#4.
- Bass Staff:** Starts with a trill on B2, followed by a grace note on B2 and a trill on B2. Then, a grace note on B2 and a trill on B2. Finally, a grace note on B2 and a trill on B2.

Measure 2:

- Treble Staff:** Starts with a trill on F#4, followed by a grace note on F#4 and a trill on F#4. Then, a grace note on F#4 and a trill on F#4. Finally, a grace note on F#4 and a trill on F#4.
- Bass Staff:** Starts with a trill on B2, followed by a grace note on B2 and a trill on B2. Then, a grace note on B2 and a trill on B2. Finally, a grace note on B2 and a trill on B2.

Modal Mixture

Modal Mixture is the combination of one or more modal scales over a given chord change.

Ex. 202

B♭maj7

B♭ pent. B♭ ionian B♭ lydian B♭ lydian aug.

color tones

[Pentatonic] [Ionian] [Lydian] [Lydian Augmented]

B♭maj7

a)

TAB: 12 10 12 10 13 12 10 11 10 12 10 12 11 9 12 12

b)

TAB: 12 12 10 10 11 12 13 12 10 10 12 9 11 12 12 10

c)

TAB: 1 1 5 6 3 6 3 5 7 8 5 7 9 7 7 8

d)

TAB: 7 7 7 8 6 7 7 6 9 7 8 8 5 7 7 8

The color tones are the most characteristic notes of the mode. I have used them as structural points from which to build my lines.

Minor Sounds

Ex. 203

[Dorian] [Aeolian] [Phrygian] [Locrian] [Aeolian]

Em7

Dominant Sounds

Ex. 204

[F Pent.] [Mix.] [Mix. #11] [Dom. Dim.] [Alt. Dom.] [Tonic Dim.]

F7

Using One Interval Set Over Many Chords

Many of the greatest players have been the ones who learned to incorporate a limited amount of melodic material into the most harmonic structures.

Ex. 205a
Esus⁴/₃

Ex. 205b
Esus⁴/₃

Cmaj7sus4

= Cmaj7sus4, D-7/13, F/E, G7sus4,
A-7b6, B-7b5, Cmaj7, D7/sus4/b9,
Ebmaj7/#5, F7b5, A-7b5/#9, B7alt

This particular Esus4/3 hybrid structure could be used over these chords.

E^{maj7}, E^{sus4}, F#-7/9, A/G#, A^{maj7}, B^{7sus4}, A/B, C#-7b6, D#-7b5, A-^{maj7}, B7/sus4/b9, C^{maj7}#5, D^{7b5}, E^{7sus4}, F#-9b5, G#^{7alt}

Hybrid structures are useful in these instances because many can be found in more than one scale.

This concept can be similarly applied by transposing a particular interval structure over many chord changes

The interval structure used is comprised of a whole-step half-step alternation

--H-- = Half-Step
--W-- = Whole-Step
--m3-- = Minor Third

Ex. 206a

A7(#9) Ddim7

Ex. 206b For the sake of variety

Up 1 half-step

Because of its interval structure, this type of idea can function in a variety of ways

Ex. 207a

F7alt Bbmaj7

Ex. 207b

Bbm6 Am7

This example is over a standard progression

Ex. 208

E^ø A7alt Cm7 F7

#9 b9 R b7 11 b3 9 1 b7 3 13 5 #11 3

Fm7 Variation Bb7 Ebmaj7

b3 3 9 1 b7 3 #9 b9 R b7 3

Ab7 Bbmaj7 E^ø A7alt Dm7

R b7 13 5 3 3 b2 R b7 #9 b9 R b7 3

B^ø Bbm6 Am7 D7alt Variation Gm7 C7alt Variation

4 3 2 R R 3 b9 R b7 3 b9 R b7 3 b9 R b7

A^ø D7alt G7(#9)

3 b2 R b7 3 b2 R b7 #11 3 #9 b9 5

Another great way to practice is to take a particular chord shape (triad, seventh chord, hybrid structure) and use it over as many chord changes as possible in a tune

Ex. 209

E^o

B^badd9

Cm⁷/₉

G^b7#5

5 8 7 8 7 5

8 11 10 11 10 8

10 13 12 13 12 10

9 11 11 12 11 9

3 5

5 7

7 9

2 4

Outside Playing Over One Chord

Here are a few examples of outside playing approaches on one chord. You provide the analysis.

Ex. 210a

Gm7

Ex. 210b

Dm7

Ex. 210c

F7

Ex. 210d

A♭maj7

Ex. 210e
Fmaj7

Staff notation for Ex. 210e, Fmaj7. The melody consists of eighth and quarter notes with slurs and accents. The tablature shows fingerings: 9-10-9-8-9-10-8, 8-10-11-9-10-11-8-9, 8-12-11-8-10-9-8-10, and 7-10.

Ex. 210f
C7

Staff notation for Ex. 210f, C7. The melody features triplets and slurs. The tablature shows fingerings: 6-4-5-3-4-7-5-6-5-4-5, 7-7-4-6-7-5-8-5-0-4-4.

Continuation of staff notation for Ex. 210f, C7. The melody continues with triplets and slurs. The tablature shows fingerings: 6-6-6-6-8-8-7-7-7-4-4-4-5, 5-5-6-6-7-4-4-5.

Ex. 210g
A7

Staff notation for Ex. 210g, A7. The melody includes slurs and accents. The tablature shows fingerings: 9-10-9-11-12-12-7, 8-9-10-10-11-9-8-8-9-9-10-11-10-10, 11.

Ex. 210h
Bb7alt

Staff notation for Ex. 210h, Bb7alt. The melody features slurs and accents. The tablature shows fingerings: 7-7-9-6-9-9-11-9-9, 8-9-8-6-9-9-7-6-9-7-7-9-9-6-7.

Continuation of staff notation for Ex. 210h, Bb7alt. The melody continues with slurs and accents. The tablature shows fingerings: 5-6-9-10-8-10-8-10-8-11-11-3-2-3, 3-5-5-2-3-3-1-1-0-3-3-1-4-3-2-1.

Ex. 210i

Emaj7

Ex. 210j

E $\flat$ 7

Ex. 210k

G7

Chromaticism And Twelve-Tone Applications

Chromaticism and twelve-tone techniques are not commonly discussed in jazz improvisation books for reasons that are unclear to me. The use of chromaticism in jazz became popular during the bebop era through the use of approach notes and chromatic enclosure of chord tones.

Ex. 211a

Gm7 **C7** **Fmaj7**

8 7 10 7 8 9 5 6 7 8 4 5 8 6 7 (7) 7 5 8 5

Ex. 211b

Bbm7

8 7 6 8 6 9 8 7 6 9

Eb7 **Abmaj7**

8 7 6 9 8 7 6 8 5 5 8 7 6 6 5 4 8 7 6 3 6 4 3 4

Ex. 211c

D7

5 4 3 5 2 5 4 3 1 2 5 2 3 4 3 2 6 5 4 3 5 2 5

Here are a few examples of common chromatic approach usage.

Ex. 212a

Ex. 212b

Cmaj7

Ex. 212c

The B natural is a target note from A# while also functioning as part of a diatonic enclosure idea.

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Chromatic usage in diatonic scale lines (without discussing enclosure) is usually best if confined to filling in whole steps with one chromatic passing tone. The bebop dominant scale is an example of this kind of idea.

Ex. 213

D7 (D Bebop Dom)

You might try the same thing with both major and minor type scales as long as the passing tone falls on a weak beat.

Ex. 214

Am7

Here is an example of an A-dorian line using passing tones.

An example of usage on a Dom⁷ chord.

Ex. 215a

C7

5 6 5 8 5 7 5 4 7 8 6 7 8 5 7 5 4 8 7 7 6 5 8 5 6 7 5 8 7 6 8 5 6 5 3

Ex. 215b

or a Maj⁷ chord

Gmaj7

7 9 7 8 7 10 9 8 7 10 9 10 7 9 10 7 9 7 10 7 10 9 8 10 7 10 14 13 12 11 10 13 12 11 10

Gmaj9

Twelve Tone Triadic Formulas

Here are some formulas for creating twelve tone rows comprised of triadic groupings. This is an incomplete list but should provide the basis for creating your own rows.

Group					
I		Cm	Dm	E	F#
	Formula	Min M2↑	Min M2↑	Maj M2↑	Maj TT↕
II		C ⁺	Dm	Eb ⁺	F#
	Formula	Aug M2↑	Min m2↑	Aug M2↑	Maj TT↕
III		C ⁺	Eb	F#m	B ^o
	Formula	Aug m3↑	Maj m3↑	Min P4↑	Dim m2↑
IV		C ^o	F ^o	Gm	A
	Formula	Dim P4↑	Dim M2↑	Min M2↑	Maj m3↑
V		C ⁺	Db ⁺	D ⁺	Eb ⁺
	Formula	Aug m2↑	Aug m2↑	Aug m2↑	Aug M6↑
Vi		C ^{sus4}	Db ^{sus2}	D	E ^{lyd}
	Formula	Sus4 m2↑	Sus2 m2↑	Maj M2↑	Lyd m6↑
VII		C ^{sus4}	D ^{lyd}	Bb ^o	B
	Formula	Sus4 M2↑	Lyd m6↑	Dim m2↑	Maj m2↑
VIII		C ^{sus4}	D ⁺	G#m	A
	Formula	Sus4 M2↑	Aug TT↕	Min m2↑	Maj m3↑

I have given the interval relationships between triads to facilitate transposition. The formula can be started on any of the triads and continued around the loop. For example:

Group III Formulas

①	Aug m3 ↑	Maj m3 ↑	Min P4 ↑	Dim m2 ↑
②	Dim m2 ↑	Aug m3 ↑	Maj m3 ↑	Min P4 ↑
③	Min P4 ↑	Dim m2 ↑	Aug m3 ↑	Maj m3 ↑
④	Maj m3 ↑	Min P4 ↑	Dim m2 ↑	Aug m3 ↑

In four different keys it might look like this.

①	C ⁺	E ^b	F [#] m	B [°]
②	D ^{b°}	D ⁺	F	A ^b m
③	E	G ^m	C [°]	D ^{b+}
④	A ^m	D [°]	E ^{b+}	F [#]

On the next page you will find a few lines that demonstrate this concept.

Ex. 216a

Group I

Cm7

Chords: Cm, Dm, E, F#, H, Cm, Dm, E, F#, Cm

Tablature: T, A, B strings with fret numbers 5, 8, 6, 5, 8, 7, 6, 4, 5, 7, 6, 9, 8, 8, 7, 10, 8, 7, 6, 9, 8, 6, 7, 8.

Ex. 216b

Group I

Cm7

Chords: Cm, Dm, E, F#, Cm, Dm, E, F#

Tablature: T, A, B strings with fret numbers 3, 3, 6, 5, 3, 7, 6, 9, 9, 7, 6, 9, 8, 8, 7, 10, 8, 7, 6, 9, 8, 6, 7, 8.

Ex. 217 This one combines two groups as well as a transposed group.

Group III

Group I

Group III transposed

Chords: C7, C+, Eb, F#m, Bdim, Cm, Dm, E, F#, Gm, Cdim Db+

Tablature: T, A, B strings with fret numbers 4, 8, 7, 5, 8, 8, 6, 7, 10, 10, 7, 9, 10, 8, 8, 10, 10, 12, 14, 13, 12, 14, 15, 11, 13, 11, 7, 8, 10, 11, 10, 10.

Group IV transposed

Chords: E, G, Bbdim, Ebdim, Fm

Tablature: T, A, B strings with fret numbers 12, 13, 14, 12, 12, 10, 11, 9, 11, 10, 11, 8, 10, 10, 11, 10, (10).

Ex. 218

Resolution notes become members of other triads and a new row is continued.

Group VI

Group VII

Chords: Db7sus4, F lydian, Eb, Dsus2, C7sus4, D lydian, B, Bdim

Tablature: T, A, B strings with fret numbers 11, 11, 13, 12, 10, 10, 8, 8, 10, 7, 11, 13, 12, 10, 10, 12, 13, 14, 11, 14, 13, 13, 11, 14.

The line above might work over Db7sus4, C7alt, F7alt, G7alt etc.

Remember it is usually a good idea to connect the triads as smoothly as possible to create a more seamless effect.

Twelve-Tone Formulas Using Seventh Chords

Twelve-tone rows can also be formed by combining three seventh chords. This is an example of a twelve tone row using seventh chords:

Ex. 219

Row of 3 seventh chords

Try to come up with your own progressions and lines from this concept.

A few thoughts about triadic an seventh chord rows.

1. Because they are cycles (keep repeating) they can be continued and will keep producing twelve-tone rows.
2. In order to find chords that the rows sound best with, try to take advantage of the cyclical nature of the formulas. Begin and end on the same triads or seventh chords. In the example below, the row begins on an Eb- triad and uses Group III's formula we get C, Eb-, Ab°, A+, triads whose harmonic rhythm may be broken down like this:

Ex. 220

This progression could be used over an Eb⁻⁷ chord because of the beginning chord Eb- or on an F#^{7alt} chord because the beginning chord Eb- produces an F#¹³ chord and the departure chord to the next measure is a C major triad which produces an F#^{7/b5/b9} chord.

Ex. 221

F#7alt **Bmaj7 (Min7)**

Ebm **Abo** **A+** **C**

F#13 **F#7b5b9**

The outer chords are most important because they establish the tonality and then lead you to the next tonality.

Non-Tertian Twelve-Tone Rows

Dodecaphonic rows can be constructed through interval systems. Grouping of thirds might look like this.

Ex. 222

As we can see in the previous example, the interval relationships are not always strict in nature (some may have extra intervals for linking purposes).

Ex. 223

Fourth based row

Fifth based row

Sixth based row

Non-Systematic Row

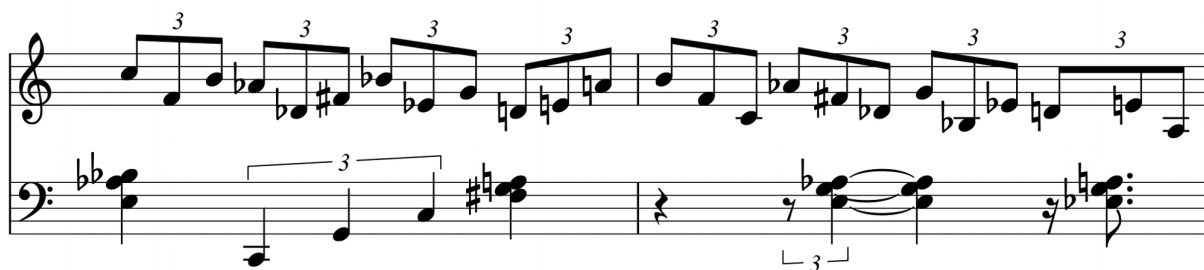
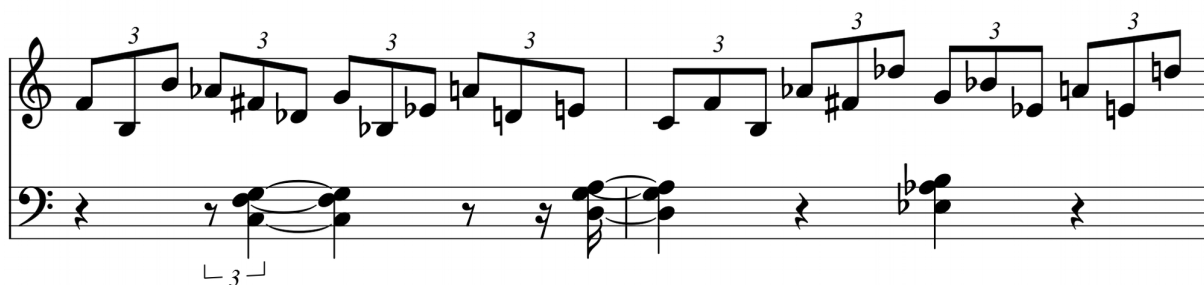
Non-Systematic Rows may use many interval combinations but should avoid any harmonic structures in order to maintain the equality of each note.

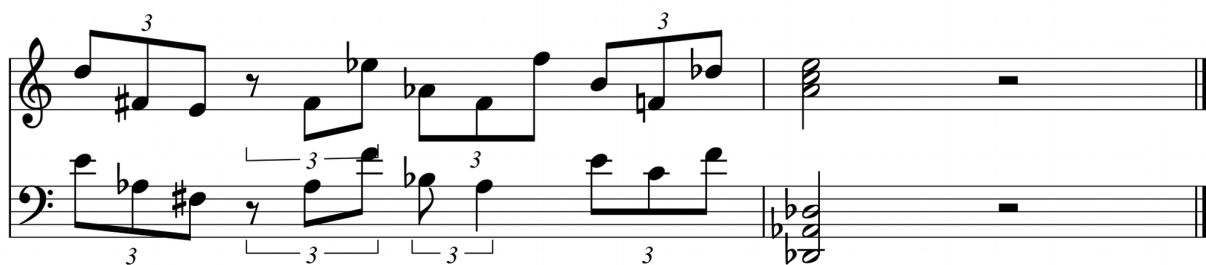
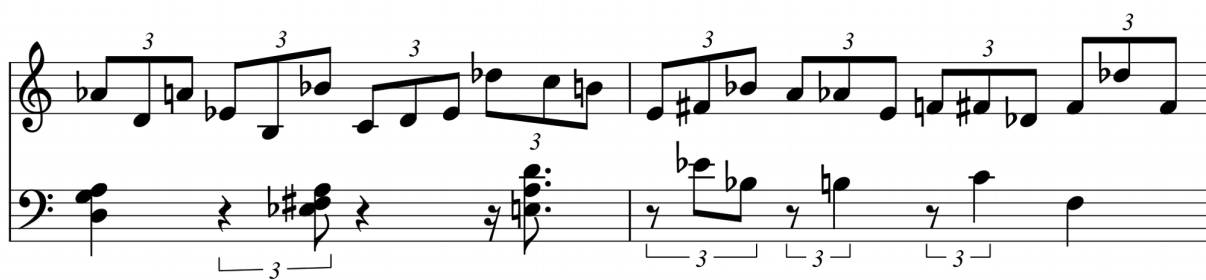
Ex. 224

Row 1 [] Row 2 []

This type of line works equally well over free tunes and chords such as C7alt. Twelve-tone rows may be played in inversion (mirror of intervals), retrograde (backwards) and retrograde inversion (mirror of intervals and backwards).

12-Tone Triad Etude No.1

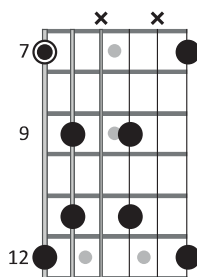




Modal Shapes

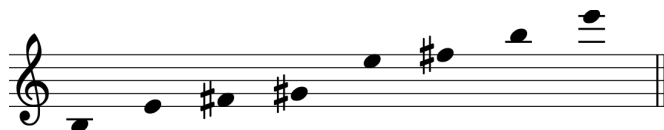
A modal shape is a fingerboard pattern whose intervals produce a modal or chordal sound.

Ex. 225



This shape (Ex. 222) if played in an ascending manner would look like this:

Ex. 226



These notes form an E^{add9} hybrid structure which is derived from these scales: E-ianian, E-lydian, E-mixolydian, E-mixolydian b6 and E-mixolydian #11.

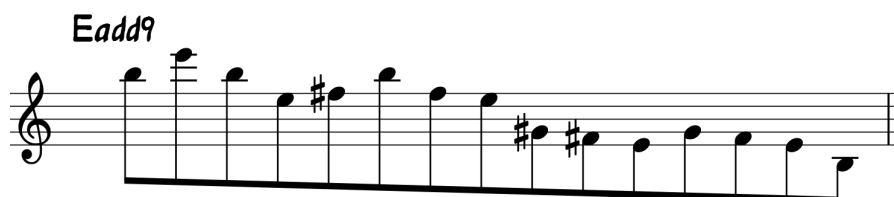
This shape may also be played over any chords derived from the parent scales B-melodic minor, E-major, B-major, A-major and A-melodic minor.

Ex. 227

Bb^{7alt}, E^{maj7}, A^{maj7/#11}, F#m¹¹, E/F#, D/C#, E^{7sus4}, D^{maj7/#11}, C^{maj7#5}, Am^{maj7}, D^{7#11}, etc.

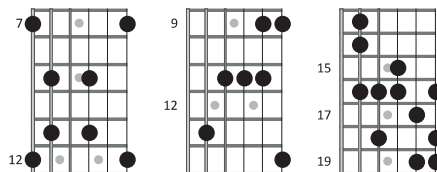
Experiment playing the shapes in different interval combinations as well as combining them together to create longer lines.

Ex. 228



Combination of two hybrid structures
Eadd9 and F#add9 over Bb7alt.

These are the three hybrid structures involved in this line.



Next is an example of a free line using harmonic shapes.

Ex. 230

8va

Tablature for Ex. 230, first system:

T: 12 12 12 14 10 15 10 17 12 16 14 13 14 16

B: 12 12 12 14 10 15 10 17 12 16 14 13 14 16

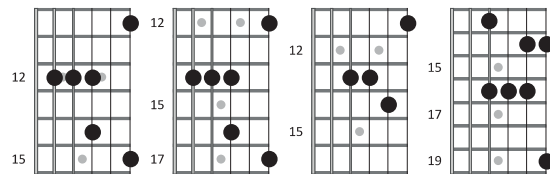
8va

Tablature for Ex. 230, second system:

T: 11 14 13 13 11 12 14 11 14 19 21

B: 11 14 13 13 11 12 14 11 14 19 21

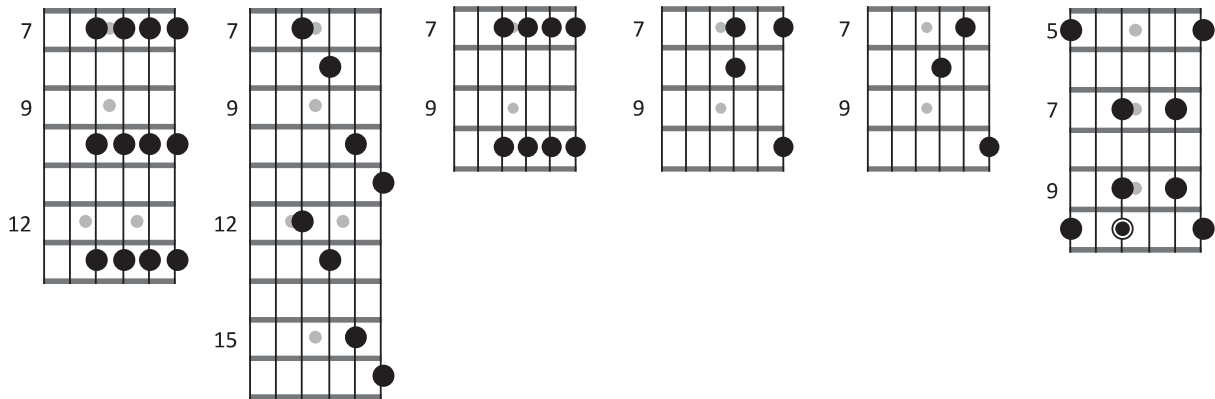
Shapes used:



Tonic and Dominant Diminished Scale Shapes

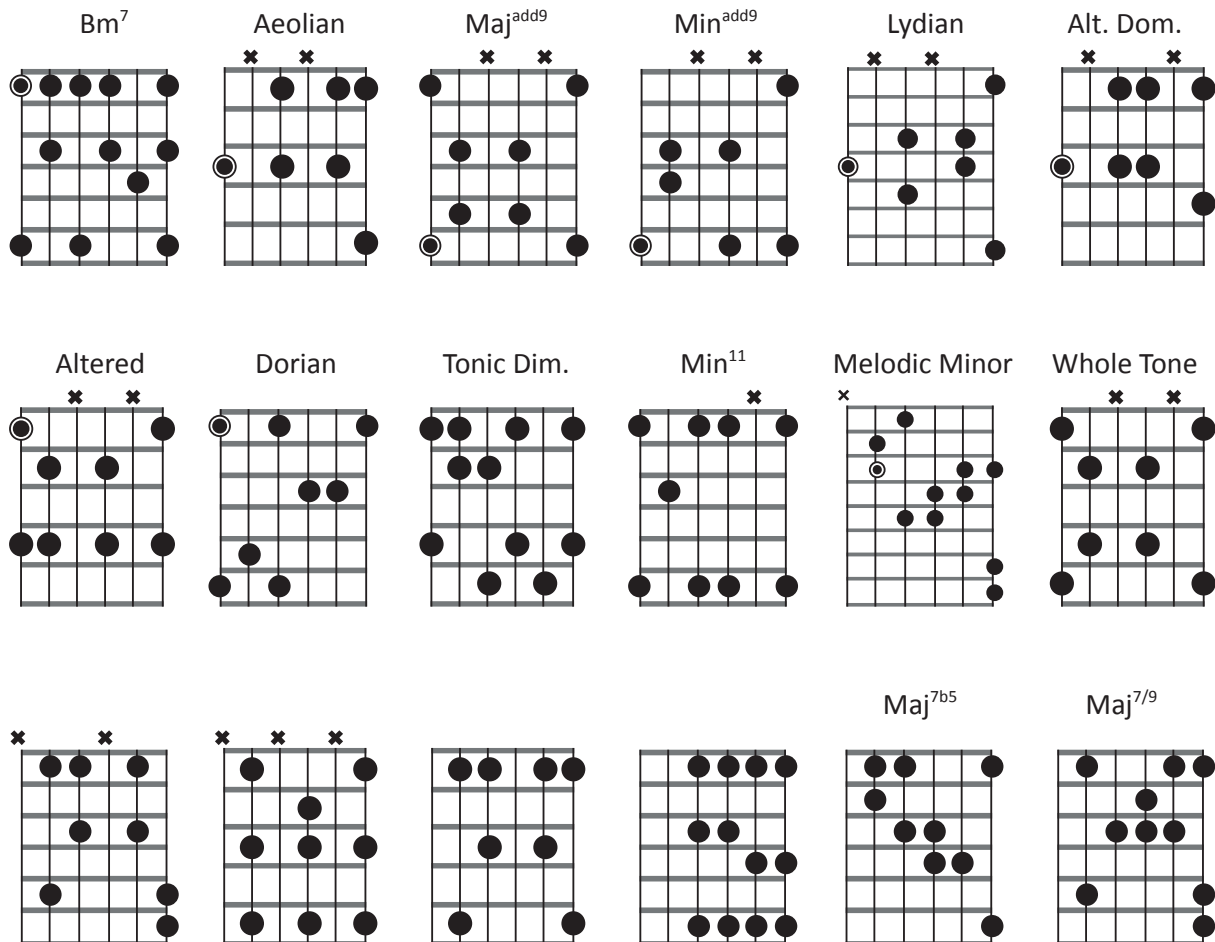
These shapes will work over the chords: $F\sharp^{o7}$, A^{o7} , C^{o7} , E_b^{o7} , F^{13b9} , D^{13b9} , B^{13b9} , A_b^{13b9}

Ex. 231



Here are examples of some other shapes

Ex. 232



Unorthodox Left Hand Techniques

This section will deal with melodic patterns utilizing large intervals on one string. The execution of these lines will require an unusually large stretch of the left hand. Be careful not to over-practice these techniques because the wide hand stretches and may lead to injury if not approached with caution.

Ex. 233a

Ex. 233a is a musical exercise in 4/4 time. The treble clef staff shows a melodic line with notes G4, A4, B4, C5, D5, E5, F#5, G5, A5, B5, C6, D6, E6, F#6, G6, A6, B6, C7, D7, E7, F#7, G7, A7, B7, C8, D8, E8, F#8, G8, A8, B8, C9, D9, E9, F#9, G9, A9, B9, C10, D10, E10, F#10, G10, A10, B10, C11, D11, E11, F#11, G11, A11, B11, C12, D12, E12, F#12, G12, A12, B12, C13, D13, E13, F#13, G13, A13, B13, C14, D14, E14, F#14, G14, A14, B14, C15, D15, E15, F#15, G15, A15, B15, C16, D16, E16, F#16, G16, A16, B16, C17, D17, E17, F#17, G17, A17, B17, C18, D18, E18, F#18, G18, A18, B18, C19, D19, E19, F#19, G19, A19, B19, C20, D20, E20, F#20, G20, A20, B20, C21, D21, E21, F#21, G21, A21, B21, C22, D22, E22, F#22, G22, A22, B22, C23, D23, E23, F#23, G23, A23, B23, C24, D24, E24, F#24, G24, A24, B24, C25, D25, E25, F#25, G25, A25, B25, C26, D26, E26, F#26, G26, A26, B26, C27, D27, E27, F#27, G27, A27, B27, C28, D28, E28, F#28, G28, A28, B28, C29, D29, E29, F#29, G29, A29, B29, C30, D30, E30, F#30, G30, A30, B30, C31, D31, E31, F#31, G31, A31, B31, C32, D32, E32, F#32, G32, A32, B32, C33, D33, E33, F#33, G33, A33, B33, C34, D34, E34, F#34, G34, A34, B34, C35, D35, E35, F#35, G35, A35, B35, C36, D36, E36, F#36, G36, A36, B36, C37, D37, E37, F#37, G37, A37, B37, C38, D38, E38, F#38, G38, A38, B38, C39, D39, E39, F#39, G39, A39, B39, C40, D40, E40, F#40, G40, A40, B40, C41, D41, E41, F#41, G41, A41, B41, C42, D42, E42, F#42, G42, A42, B42, C43, D43, E43, F#43, G43, A43, B43, C44, D44, E44, F#44, G44, A44, B44, C45, D45, E45, F#45, G45, A45, B45, C46, D46, E46, F#46, G46, A46, B46, C47, D47, E47, F#47, G47, A47, B47, C48, D48, E48, F#48, G48, A48, B48, C49, D49, E49, F#49, G49, A49, B49, C50, D50, E50, F#50, G50, A50, B50, C51, D51, E51, F#51, G51, A51, B51, C52, D52, E52, F#52, G52, A52, B52, C53, D53, E53, F#53, G53, A53, B53, C54, D54, E54, F#54, G54, A54, B54, C55, D55, E55, F#55, G55, A55, B55, C56, D56, E56, F#56, G56, A56, B56, C57, D57, E57, F#57, G57, A57, B57, C58, D58, E58, F#58, G58, A58, B58, C59, D59, E59, F#59, 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D252, E252, F#252, G252, A252, B252, C253, D253, E253, F#253, G253, A253, B253, C254, D254, E254, F#254, G254, A254, B254, C255, D255, E255, F#255, G255, A255, B255, C256, D256, E256, F#256, G256, A256, B256, C257, D257, E257, F#257, G257, A257, B257, C258, D258, E258, F#258, G258, A258, B258, C259, D259, E259, F#259, G259, A259, B259, C260, D260, E260, F#260, G260, A260, B260, C261, D261, E261, F#261, G261, A261, B261, C262, D262, E262, F#262, G262, A262, B262, C263, D263, E263, F#263, G263, A263, B263, C264, D264, E264, F#264, G264, A264, B264, C265, D265, E265, F#265, G265, A265, B265, C266, D266, E266, F#266, G266, A266, B266, C267, D267, E267, F#267, G267, A267, B267, C268, D268, E268, F#268, G268, A268, B268, C269, D269, E269, F#269, G269, A269, B269, C270, D270, E270, F#270, G270, A270, B270, C271, D271, E271, F#271, G271, A271, B271, C272, D272, E272, F#272, G272, A272, B272, C273, D273, E273, F#273, G273, A273, B273, C274, D274, E274, F#274, G274, A274, B274, C275, D275, E275, F#275, G275, A275, B275, C276, D276, E276, F#276, G276, A276, B276, C277, D277, E277, F#277, G277, A277, B277, C278, D278, E278, F#278, G278, A278, B278, C279, D279, E279, F#279, G279, A279, B279, C280, D280, E280, F#280, G280, A280, B280, C281, D281, E281, F#281, G281, A281, B281, C282, D282, E282, F#282, G282, A282, B282, C283, D283, E283, F#283, G283, A283, B283, C284, D284, E284, F#284, G284, A284, B284, C285, D285, E285, F#285, G285, A285, B285, C286, D286, E286, F#286, G286, A286, B286, C287, D287, E287, F#287, G287, A287, B287, C288, D288, E288, F#288, G288, A288, B288, C289, D289, E289, F#289, G289, A289, B289, C290, D290, E290, F#290, G290, A290, B290, C291, D291, E291, F#291, G291, A291, B291, C292, D292, E292, F#292, G292, A292, B292, C293, D293, E293, F#293, G293, A293, B293, C294, D294, E294, F#294, G294, A294, B294, C295, D295, E295, F#295, G295, A295, B295, C296, D296, E296, F#296, G296, A296, B296, C297, D297, E297, F#297, G297, A297, B297, C298, D298, E298, F#298, G298, A298, B298, C299, D299, E299, F#299, G299, A299, B299, C300, D300, E300, F#300, G300, A300, B300, C301, D301, E301, F#301, G301, A301, B301, C302, D302, E302, F#302, G302, A302, B302, C303, D303, E303, F#303, G303, A303, B303, C304, D304, E304, F#304, G304, A304, B304, C305, D305, E305, F#305, G305, A305, B305, C306, D306, E306, F#306, G306, A306, B306, C307, D307, E307, F#307, G307, A307, B307, C308, D308, E308, F#308, G308, A308, B308, C309, D309, E309, F#309, G309, A309, B309, C310, D310, E310, F#310, G310, A310, B310, C311, D311, E311, F#311, G311, A311, B311, C312, D312, E312, F#312, G312, A312, B312, C313, D313, E313, F#313, G313, A313, B313, C314, D314, E314, F#314, G314, A314, B314, C315, D315, E315, F#315, G315, A315, B315, C316, D316, E316, F#316, G316, A316, B316, C317, D317, E317, F#317, G317, A317, B317, C318, D318, E318, F#318, G318, A318, B318, C319, D319, E319, F#319, G319, A319, B319, C320, D320, E320, F#320, G320, A320, B320, C321, D321, E321, F#321, G321, A321, B321, C322, D322, E322, F#322, G322, A322, B322, C323, D323, E323, F#323, G323, A323, B323, C324, D324, E324, F#324, G324, A324, B324, C325, D325, E325, F#325, G325, A325, B325, C326, D326, E326, F#326, G326, A326, B326, C327, D327, E327, F#327, G327, A327, B327, C328, D328, E328, F#328, G328, A328, B328, C329, D329, E329, F#329, G329, A329, B329, C330, D330, E330, F#330, G330, A330, B330, C331, D331, E331, F#331, G331, A331, B331, C332, D332, E332, F#332, G332, A332, B332, C333, D333, E333, F#333, G333, A333, B333, C334, D334, E334, F#334, G334, A334, B334, C335, D335, E335, F#335, G335, A335, B335, C336, D336, E336, F#336, G336, A336, B336, C337, D337, E337, F#337, G337, A337, B337, C338, D338, E338, F#338, G338, A338, B338, C339, D339, E339, F#339, G339, A339, B339, C340, D340, E340, F#340, G340, A340, B340, C341, D341, E341, F#341, G341, A341, B341, C342, D342, E342, F#342, G342, A342, B342, C343, D343, E343, F#343, G343, A343, B343, C344, D344, E344, F#344, G344, A344, B344, C345, D345, E345, F#345, G345, A345, B345, C346, D346, E346, F#346, G346, A346, B346, C347, D347, E347, F#347, G347, A347, B347, C348, D348, E348, F#348, G348, A348, B348, C349, D349, E349, F#349, G349, A349, B349, C350, D350, E350, F#350, G350, A350, B350, C351, D351, E351, F#351, G351, A351, B351, C352, D352, E352, F#352, G352, A352, B352, C353, D353, E353, F#353, G353, A353, B353, C354, D354, E354, F#354, G354, A354, B354, C355, D355, E355, F#355, G355, A355, B355, C356, D356, E356, F#356, G356, A356, B356, C357, D357, E357, F#357, G357, A357, B357, C358, D358, E358, F#358, G358, A358, B358, C359, D359, E359, F#359, G359, A359, B359, C360, D360, E360, F#360, G360, A360, B360, C361, D361,

Sweep picking is an exciting technique because it enables the guitarist to execute ideas that are next to impossible with conventional alternate picking. The following ideas demonstrate some different arpeggio structures made possible through sweeping. Make sure to pay particular attention to the strokes indicated. Strict odd-even (odd number of notes on a string allow sweeping,

Ex. 234a

even number allow direction change) sweep technique is not always followed. The position changes can be derived through stroke indications.

Am7

Ex. 234b

Gm11

Ex. 234c

C#7alt

Ex. 234d

Bm7 or A/D

C#m7b6

Ex. 234e

Amaj7

Ex. 234f

Treble clef, key signature of one sharp (F#), 4/4 time signature. The melody features eighth and quarter notes with triplets and slurs. The bass staff shows fret numbers for the T, A, and B strings. The piece ends with a slide (sl) on the B string.

Ex. 234f
Bm7 or E7sus4

Treble clef, key signature of one sharp (F#), 4/4 time signature. The melody features eighth and quarter notes with triplets and slurs. The bass staff shows fret numbers for the T, A, and B strings. The piece ends with a slide (sl) on the B string.

Ex. 234g

Treble clef, key signature of one sharp (F#), 4/4 time signature. The melody features eighth and quarter notes with triplets and slurs. The bass staff shows fret numbers for the T, A, and B strings. The piece ends with a slide (sl) on the B string.

Treble clef, key signature of one sharp (F#), 4/4 time signature. The melody features eighth and quarter notes with triplets and slurs. The bass staff shows fret numbers for the T, A, and B strings. The piece ends with a slide (sl) on the B string.

Ex. 234h

F#m7

Treble clef, key signature of one sharp (F#), 4/4 time signature. The melody features eighth and quarter notes with triplets and slurs. The bass staff shows fret numbers for the T, A, and B strings. The piece ends with a slide (sl) on the B string.

Ex. 234i

Treble staff: Melodic line with triplets and a slide (sl.) at the end.

Guitar TAB: Fret numbers 16, 14, 13, 13, 12, 11, 12, 14, 14, 14, 16, 17, 14, 16, 18, 16, 17, 17, 19.

Ex. 234i

A7alt D $\flat$ maj7#5 B $\flat$ mmaj7 E $\flat$ 7#11

Treble staff: Melodic line with triplets and a slide (sl.) at the end.

Guitar TAB: Fret numbers 1, 3, 5, 5, 4, 5, 6, 6, 9, 8, 8, 11, 6, 8, 10, 8, 10, 11, 10, 13, 15, 15, 18.

Treble staff: Melodic line with triplets and a slide (sl.) at the end.

Guitar TAB: Fret numbers 13, 15, 17, 15, 16, 17, 18, 18, 17, 15, 16, 15, 13, 18, 17, 17, 15, 16, 15, 15, 13, 15.

Ex. 234j

E7#5

Treble staff: Melodic line with triplets and a slide (sl.) at the end.

Guitar TAB: Fret numbers 12, 11, 10, 9, 9, 8, 10, 8, 9, 9, 10, 11, 12, 10, 9, 8, 7, 7, 6, 8, 6, 7, 7, 8, 9, 10.

Treble staff: Melodic line with triplets and a slide (sl.) at the end.

Guitar TAB: Fret numbers 8, 7, 6, 5, 5, 4, 6, 4, 5, 5, 6, 7, 8, 6, 5, 4, 3, 3, 2, 4, 2, 3, 3, 4, 5, 6.

Make sure to practice the arpeggios in chapter three with the sweep articulations indicated. These will give you the technique and melodic material to develop your own sweep ideas.

Pedal Point Soloing

Pedal point can be used in two different ways in soloing.

1. Lower pedal point – the pedal note occurs at the bottom of the melodic line

Ex. 235

Pedal Point

T
B

7 9 6 7 7 9 7 7 9 10 7 7 7 7

2. Upper pedal point – the pedal point note occurs at the top of the melodic line.

Ex. 236

Pedal Point

Try these few lines to get a feel for the use of this device.

Ex. 237a

Cmaj7 **Dm7** **E $\flat$ dim7** **Em7**

TAB

9 9 12 10 10 10 11 11 10 12

10 10 10

Ex. 237b

Cmaj7
gva

TAB

8	8	7	7	10	10	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10

Ex. 237c

8va

Pedal Point

New Pedal

New Pedal

New Pedal

TAB

12

10-12 13

12-15 13-15 12-15 13-12 13-14 13-14

12-16 14-16 12-16 16

A Ionian to A Mixolydian Study

Instagram (5/25/20)

B VII

First system of musical notation for the A Ionian to A Mixolydian study. The staff shows a sequence of notes with articulations (H, P, ⊕). The guitar tablature includes fret numbers and a bass line.

Second system of musical notation. The staff shows a sequence of notes with articulations (H, P, ⊕). The guitar tablature includes fret numbers and a bass line.

Slower

Third system of musical notation, marked 'Slower'. The staff shows a sequence of notes with articulations (H, P, ⊕). The guitar tablature includes fret numbers and a bass line.

Quick

Fourth system of musical notation, marked 'Quick'. The staff shows a sequence of notes with articulations (H, P, ⊕). The guitar tablature includes fret numbers and a bass line.

C Dorian Study

(Instagram 1/20/20)

First system of musical notation for C Dorian Study. It features a treble clef staff with a key signature of one sharp (F#) and a 4/4 time signature. The melody starts with a whole note chord of F#, C, and G, followed by a series of eighth and quarter notes. Fingering numbers (1, 8, 10, 11, 13) and breath marks (H, P) are indicated above the notes. Below the staff is a tablature section with three staves labeled T, A, and B, showing fret numbers and slurs.

Second system of musical notation for C Dorian Study. It continues the melody from the first system, featuring a mix of eighth and quarter notes. Fingering numbers (8, 10, 7, 5, 8, 11) and breath marks (H, P) are present. The tablature section below shows corresponding fret numbers and slurs.

Accelerando

Third system of musical notation for C Dorian Study, marked "Accelerando". The tempo increases, and the melody becomes more complex with sixteenth and thirty-second notes. Fingering numbers (11, 13, 15, 18) and breath marks (H, P) are used. The tablature section below shows the corresponding fret numbers and slurs.

Fourth system of musical notation for C Dorian Study. The melody continues with a mix of eighth and quarter notes. Fingering numbers (12, 13, 11, 8, 10, 7) and breath marks (H, P) are present. The tablature section below shows the corresponding fret numbers and slurs.

Ritardando

Fifth system of musical notation for C Dorian Study, marked "Ritardando". The tempo slows down, and the melody concludes with a final chord. Fingering numbers (11, 13, 15, 16, 17) and breath marks (H, P) are used. The tablature section below shows the corresponding fret numbers and slurs.

A Lydian Study

Instagram (10/3/19)

First system of musical notation. Treble clef, 4/4 time. Notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. Fingerings: H, H, H, H, P, H, sl., P. TAB: 6-7-5, 6-7, 4-6, 7-4, 4-6, 9-6, 8-9, 7-9-12, 9-10, 9-11, 9-11.

Second system of musical notation. Treble clef, 4/4 time. Notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. Fingerings: H, H, H, P, H, sl., P. TAB: 13-14, 11-13-14, 12-16, 12-16-14-12, 14-12-10, 14-12-10-9, 11-9, 11-8, 11-9, 8-9, 9-9.

Third system of musical notation. Treble clef, 4/4 time. Notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. Fingerings: H, H, H, H, H, H. TAB: 11-12, 9-11-12, 9-11, 9-11, 7-9, 9-11, 7-9, (9-7-9, 5-7-9, 5-6-7, 5-7-9, 8-10, 12-19-16).

Fourth system of musical notation. Treble clef, 4/4 time. Notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. Fingerings: P, H, H, H, P, H, P, H. TAB: 14-16-14, 17-16, (16), 12-14-16, 12-14-16-12, 14-16, 13-14, 16-12, 14-16-13.

Fifth system of musical notation. Treble clef, 4/4 time. Notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. Fingerings: P, H, P, H, P, H. TAB: 14-16-13, 14-16, 12-14, 16-13, 14-16, 12-14, 9-7-5.

C Mixolydian Study

Instagram (4/30/20)

Slowly Accelerate

Handwritten musical notation for the 'Slowly Accelerate' section. The notation includes a treble clef, 4/4 time signature, and a tempo marking of quarter note = 100. The melody starts with a half note, followed by eighth notes, and includes a half note with a 'P' (piano) marking. The key signature has one flat (Bb). The guitar tablature below shows fret numbers for the Treble (T), Middle (A), and Bass (B) staves, with fingerings (H) and a 'P' marking.

A Little Quicker

Handwritten musical notation for the 'A Little Quicker' section. The notation includes a treble clef, 7/4 time signature, and a 'Rit.' (ritardando) marking. The melody includes triplets of eighth notes and half notes. The key signature has one flat (Bb). The guitar tablature shows fret numbers and fingerings (H) for the Treble (T), Middle (A), and Bass (B) staves.

Quick Again

Handwritten musical notation for the 'Quick Again' section. The notation includes a treble clef, 7/4 time signature, and a 'P' (piano) marking. The melody includes eighth notes and a half note. The key signature has one flat (Bb). The guitar tablature shows fret numbers and fingerings (P) for the Treble (T), Middle (A), and Bass (B) staves.

Fast

Rit.

Gracefully

Handwritten musical notation for the final section, which includes 'Fast', 'Rit.', and 'Gracefully' markings. The notation includes a treble clef, 7/4 time signature, and a 'let ring' instruction. The melody includes eighth notes and a half note. The key signature has one flat (Bb). The guitar tablature shows fret numbers and fingerings (circled numbers) for the Treble (T), Middle (A), and Bass (B) staves.

E Mixolydian Study

Instagram (11/23/19)

Ritardando

D Bebop Dominant Study

Instagram (7/23/19)

D7 ①

① P H P P H ① P H ① P H H 5-10-8-(8)-7 10-8-7 9-7 11-10-9 12-10

T 11 9 12 9 11 11 9 9 7 7-9 5-10-8-(8)-7 10-8-7 9-7 11-10-9 12-10

A 12 12 10 9 10 12 10 12 12 10 9 10 10 9 7 7-9 10 9 7 10 9

B 10 12 12 10 9 10 12 10 12 12 10 9 10 10 9 7 7-9 10 9 7 10 9

3 H 3 P H P P P H D7

H 12-17 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12 9 12

T 12-14 15 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12 9 12

A 12-14 15 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12 9 12

B 9 12-10 12 14 12-14 15 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12 9 12

Instagram (8/21/19)

Instagram (8/21/19)

14 11 12 9 12 11 12 9 7 9 7 9 7 9 7 9 7 9 7 9 7 10 7

D Aeolian Study

Instagram (5/30/20)

Andante

Handwritten musical notation for the first system, marked **Andante**. The notation includes a treble clef, a key signature of one flat (Bb), and a 3/4 time signature. The melody is in the treble clef, and the bass line is in the bass clef. The piece starts with a whole note chord of Bb, D, and F. The first system ends with a double bar line.

Slow and Steady

Accelerando

Handwritten musical notation for the second system, marked **Slow and Steady** and **Accelerando**. The notation includes a treble clef, a key signature of one flat (Bb), and a 4/4 time signature. The melody is in the treble clef, and the bass line is in the bass clef. The piece starts with a half note chord of Bb and D. The first system ends with a double bar line.

Very Slow

Ritardando

Andante

Handwritten musical notation for the third system, marked **Very Slow**, **Ritardando**, and **Andante**. The notation includes a treble clef, a key signature of one flat (Bb), and a 4/4 time signature. The melody is in the treble clef, and the bass line is in the bass clef. The piece starts with a half note chord of Bb and D. The first system ends with a double bar line.

Quick

Ritard.

Handwritten musical notation for the fourth system, marked **Quick** and **Ritard.** The notation includes a treble clef, a key signature of one flat (Bb), and a 2/4 time signature. The melody is in the treble clef, and the bass line is in the bass clef. The piece starts with a half note chord of Bb and D. The first system ends with a double bar line.

Slow Ritard.

Steady

Ritard.

Sorrowful

Handwritten musical notation for the fifth system, marked **Slow Ritard.**, **Steady**, **Ritard.**, and **Sorrowful**. The notation includes a treble clef, a key signature of one flat (Bb), and a 4/4 time signature. The melody is in the treble clef, and the bass line is in the bass clef. The piece starts with a half note chord of Bb and D. The first system ends with a double bar line.

C Mixolydian #11 Study

The musical score is written in 4/4 time and features a C7 chord. The melody consists of the following notes and fingerings: C4 (P), D4 (T), E4 (T), F4 (P), G4 (T), A4 (b), B4 (T), C5 (P), D5 (P), E5 (H), F5 (P), G5 (H), A5 (P), B5 (H), C6 (P), D6 (P), E6 (H), F6 (P), G6 (H), A6 (P), B6 (H), C7 (P). The tablature below the staff shows the fret numbers for each note: 8, 10, 7, 8, 10, 7, 8, 9, 7, 8, 9, 6, 8, 10, 6, 14, 10, 11, 10, 11, 10, 15, 14, 10, 11, 10, 11, 10, 14.

The musical notation for the guitar solo in "Hotel California" is presented in two staves. The top staff is in treble clef, and the bottom staff is in bass clef. The key signature is one flat (Bb). The solo begins with a triplet of eighth notes (Bb, A, G) marked with 'H' and 'P' above and below. This is followed by a series of eighth and sixteenth notes, including a sharp sign (#) on the first note of the second measure. The solo concludes with a C7 chord indicated by a sharp sign (#) and the text 'C7' above the staff. The bottom staff shows the fretting hand positions with numbers 7, 8, 7, 10, 7, 9, 10, 7, 9, 10, 7, 8, and a final C7 chord indicated by a sharp sign (#) and the text 'C7' above the staff.

E Altered Dominant Study

Instagram (1/11/20)

The first system of musical notation is in 4/4 time. The treble clef staff contains a melodic line with various articulations: slurs, accents, and slurs. The bass clef staff contains a bass line with fingerings (5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) and slurs. The system ends with a double bar line.

The second system of musical notation is in 4/4 time. The treble clef staff contains a melodic line with various articulations: slurs, accents, and slurs. The bass clef staff contains a bass line with fingerings (10, 11, 8, 10, 13, 10, 8, 11, 10, 8, 9, 10, 8, 11, 8, 9, 11, 8, 10, 12, 10, 8, 9, 8, 10, 11, 9, 8, 10, 9, 10, 8, 9, 10, 11, 10, 8) and slurs. The system ends with a double bar line.

The third system of musical notation is in 4/4 time. The treble clef staff contains a melodic line with various articulations: slurs, accents, and slurs. The bass clef staff contains a bass line with fingerings (7, 9, 7, 7, 5, 5, 7, 6, 8, 7, 8, 8, 10, 8, 10, 10, 11) and slurs. The system ends with a double bar line.

The fourth system of musical notation is in 4/4 time. The treble clef staff contains a melodic line with various articulations: slurs, accents, and slurs. The bass clef staff contains a bass line with fingerings (10, 12, 8, 13, 8, 13, 8, 12, 13, 8, 12, 9, 12, 8, 12, 10, 10, 12, 8, 13, 8, 13, 15, 12, 13) and slurs. The system ends with a double bar line.

The fifth system of musical notation is in 4/4 time. The treble clef staff contains a melodic line with various articulations: slurs, accents, and slurs. The bass clef staff contains a bass line with fingerings (15, 18, 16, 15, 18, 17, 17, 15, 13, 15, 12, 15, 12, 13, 15, 12, 14, 15, 12, 15, 13, 11, 15, 13, 12, (12), 6, 8, 10, 5, 8) and slurs. The system ends with a double bar line.

Whole Tone Study

Instagram (11/1/19)

The first system of musical notation consists of a treble clef staff and a bass staff. The treble staff contains a melodic line in 4/4 time, starting with a half note (H) and followed by eighth notes (P). The bass staff contains a corresponding line with fingerings (11-13-9, 10, 10, 11, 10, 11, 8-12-10, 11, 8, 9, 10-8, 9, 11, 7, 8, 9, 7, 8, 9, 6, 7, 5, 9, 8, 6, 7, 6) and breath marks (H, P, H, P, H, P, H).

The second system of musical notation continues the piece. The treble staff features a melodic line with eighth notes and quarter notes, marked with 'P' and 'H'. The bass staff provides fingerings (10, 9, 7, 8, 7, 11, 10-8, 9, 8, 8-12-10, 12-10, 11, 10, 8, 10-8, 9, 8, 6, 8, 6, 7, 8, 6, 7, 8) and breath marks (P, H, P, P, P, P, P, P, P).

The third system of musical notation concludes the piece. The treble staff shows a melodic line ending with a whole note chord. The bass staff provides fingerings (5, 6, 7, 5, 6, 7, 4, 5, 3, 4, 4, 3, 4, 3, 4, 3) and breath marks (P). The system ends with a double bar line.

E Augmented Scale Study

mf

The musical score is written for guitar in 4/4 time. The melody is in E augmented scale, which consists of the notes E, F#, G, A, B, C, D, E. The guitar TAB system is written below the melody staff. The first system of music is marked *mf*. The second system of music continues the melody. The third system of music continues the melody. The fourth system of music ends with a double bar line and a key signature change to E major (one sharp).

System 1: Treble clef, 4/4 time, *mf*. Melody: E4, F#4, G4, A4, B4, C5, D5, E5. TAB: 12, 11, 12, 10, 11, 9, 10, 9.

System 2: Melody: E5, F#5, G5, A5, B5, C6, D6, E6. TAB: 13, 9, 12, 13, 9, 10, 9, 13.

System 3: Melody: E6, F#6, G6, A6, B6, C7, D7, E7. TAB: 11, 12, 13, 11, 16, 12, 15.

System 4: Melody: E7, F#7, G7, A7, B7, C8, D8, E8. TAB: 15, 11, 12, 13, 12, 9, 8, 9.

System 5: Melody: E8, F#8, G8, A8, B8, C9, D9, E9. TAB: 8, 10, 9, 10, 8, 10, 9, 11.

System 6: Melody: E9, F#9, G9, A9, B9, C10, D10, E10. TAB: 10, 11, 9, 11, 12, 8, 11.

System 7: Melody: E10, F#10, G10, A10, B10, C11, D11, E11. TAB: 5, 5, 6, 7, 0.

Instagram (12/22/19)

Ultra Mega Arpeggios

Cmaj7

mf

Cmin7

C7(11)

C9

Cmin7

C7

TAB

TAB

Cmaj7

TAB

TAB

C13b9

TAB

Cmin7 and Bbmaj

TAB

Cmin7, Bbmaj and Fadd9

TAB

The image displays a musical score for guitar, consisting of two staves. The top staff is in the treble clef, featuring a melody in B-flat major. The bottom staff is a fretboard diagram, with the letters 'T', 'A', and 'B' stacked vertically on the left side. The diagram uses numbers 1-13 to indicate fret positions and lines to show the sequence of notes. The melody is divided into three measures, each ending with a double bar line. The fretboard diagram includes various techniques such as bends (indicated by a curved line) and slurs (indicated by a curved line over the numbers).

Melody (Treble Clef):

- Measure 1: B-flat (1st fret), C (2nd fret), D (3rd fret), E-flat (4th fret), F (5th fret), G (6th fret), A-flat (7th fret), B-flat (8th fret).
- Measure 2: B-flat (8th fret), A-flat (7th fret), G (6th fret), F (5th fret), E-flat (4th fret), D (3rd fret), C (2nd fret), B-flat (1st fret).
- Measure 3: B-flat (1st fret), A-flat (7th fret), G (6th fret), F (5th fret), E-flat (4th fret), D (3rd fret), C (2nd fret), B-flat (1st fret).

Fretboard Diagram (Bass Clef):

- Measure 1: 10, 11, 13, 8, 10, 13, 8.
- Measure 2: 10, 8, 10, 10, 7, 5, 8, 8.
- Measure 3: (8).

D Minor Improv

Dm (add9)

G7/D

Chord diagrams for Dm (add9) and G7/D. The Dm (add9) diagram shows a treble clef with a 4/4 time signature and a key signature of one flat. The notes are D (open), F (first fret), A (second fret), and B (third fret). The G7/D diagram shows a treble clef with a 4/4 time signature and a key signature of one flat. The notes are D (open), F (first fret), A (second fret), and B (third fret).

Dm7 $\flat$ 6

Scale notation for Dm7 $\flat$ 6. The scale is written in a treble clef with a 4/4 time signature and a key signature of one flat. The notes are D (open), F (first fret), A (second fret), B (third fret), C (third fret), D (open), E (first fret), F (first fret), G (second fret), A (second fret), B (third fret), and C (third fret). The scale is played in a descending pattern: H, H, 13, 12, P, H, H, 13, 12, P, H.

B $\flat$ maj7/13

Scale notation for B $\flat$ maj7/13. The scale is written in a treble clef with a 4/4 time signature and a key signature of two flats. The notes are B $\flat$ (open), D (first fret), E (second fret), F (third fret), G (third fret), A (second fret), B $\flat$ (open), C (open), D (first fret), E (second fret), F (third fret), and G (third fret). The scale is played in a descending pattern: H, H, 12, 10, P, H, H, 12, 10, P, H.

Fmaj7

Scale notation for Fmaj7. The scale is written in a treble clef with a 4/4 time signature and a key signature of one flat. The notes are F (open), G (first fret), A (second fret), B (third fret), C (third fret), D (second fret), E (first fret), and F (open). The scale is played in a descending pattern: H, H, 10, 8, P, H, H, 10, 8, P, H.

A $\flat$ m7 $\flat$ 6

Scale notation for A $\flat$ m7 $\flat$ 6. The scale is written in a treble clef with a 4/4 time signature and a key signature of two flats. The notes are A $\flat$ (open), B $\flat$ (first fret), C (second fret), D (third fret), E (third fret), F (second fret), G (first fret), and A $\flat$ (open). The scale is played in a descending pattern: H, H, 8, 7, P, H, H, 8, 7, P, H.

E7b9#5

Handwritten musical notation for E7b9#5 in 6/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Handwritten musical notation for E7b9#5 in 6/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

A7b9

Handwritten musical notation for A7b9 in 5/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Handwritten musical notation for A7b9 in 5/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

A7b9

Ritardando

Handwritten musical notation for A7b9 in 4/4 time with a Ritardando marking. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Handwritten musical notation for A7b9 in 4/4 time with a Ritardando marking. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Dm9

Handwritten musical notation for Dm9 in 4/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Handwritten musical notation for Dm9 in 4/4 time. The staff shows a melodic line with slurs and accents. The tablature below shows fret numbers and fingerings.

Sunday Morning Warmup

Instagram (2/2/20)

Musical notation system 1 (Measures 1-4):

Staff 1 (Treble Clef, 25/16 time signature):

Staff 2 (TAB):

Staff 3 (Bass Clef):

Staff 4 (TAB):

Staff 5 (Bass Clef):

Musical notation system 2 (Measures 5-8):

Staff 1 (Treble Clef):

Staff 2 (TAB):

Staff 3 (Bass Clef):

Staff 4 (TAB):

Staff 5 (Bass Clef):

Musical notation system 3 (Measures 9-12):

Staff 1 (Treble Clef, key signature change to one sharp):

Staff 2 (TAB):

Staff 3 (Bass Clef):

Staff 4 (TAB):

Staff 5 (Bass Clef):

Musical notation system 4 (Measures 13-16):

Staff 1 (Treble Clef, key signature change to one sharp, measure 15 has 15/8 time signature):

Staff 2 (TAB):

Staff 3 (Bass Clef):

Staff 4 (TAB):

Staff 5 (Bass Clef):

Musical notation system 5 (Measures 17-20):

Staff 1 (Treble Clef, 13/16 time signature, measure 18 has 4/4 time signature):

Staff 2 (TAB):

Staff 3 (Bass Clef):

Staff 4 (TAB):

Staff 5 (Bass Clef):

A Little Slower

Handwritten musical notation for a piece titled "A Little Slower". The notation is in 7/8 time. The treble clef staff features a melodic line with slurs, accents (H), and a triplet of eighth notes. The bass clef staff shows a bass line with slurs and fingerings. The piece concludes with a sl. (sforzando) marking.

Tiny bit slower

Handwritten musical notation for a piece titled "Tiny bit slower". The notation is in 4/4 time. The treble clef staff features a melodic line with slurs, accents (H), and a triplet of eighth notes. The bass clef staff shows a bass line with slurs and fingerings. The piece concludes with a Ritardando marking.

A Little Faster

Handwritten musical notation for a piece titled "A Little Faster". The notation is in 16/16 time. The treble clef staff features a melodic line with slurs, accents (H), and a triplet of eighth notes. The bass clef staff shows a bass line with slurs and fingerings. The piece concludes with a Ritardando marking.

CHAPTER 5

TECHNIQUE AND PRACTICE



Chapter 5: Technique and Practice

Bass Lines

A good place to begin talking about bass lines is in relation to the two most common harmonic rhythms in jazz.

1. 2 chords per bar
2. 1 chord per bar

When we have two chords per bar there are three basic types of lines to choose from:

Two Chords per Bar:

1. Roots followed by upper or lower diatonic neighbor.

D.N. = Diatonic Neighbor
C.N. = Chromatic Neighbor
I = Inversion

Ex. 238

Cmaj7 D.N. **Am7** D.N. **Dm7** D.N. **G7** D.N.

TAB: 3 3 0 2 0 0 3 2

Ex. 239

2. Roots followed by chromatic neighbor.

Cmaj7 C.N. **Am7** C.N. **Dm7** C.N. **G7** C.N.

TAB: 3 6 0 4 0 4 3 2

Ex. 240

3. Ascending or descending inverted movement.

Bmaj7 **D7/A** **Gmaj7** **Bb7/F** **Ebmaj7**

TAB: 2 2 0 0 3 3 1 1 1

Ex. 241

4. Doubling the root on chromatic basslines.

Bbmaj7 **Bdim7** **Cm7** **C#dim7** **Dm7**

TAB: 6 6 7 7 8 8 9 9 10

One Chord per Bar:

1. Play the basic triad (in any inversion) on the first three beats and an upper or lower neighbor on the last.

Ex. 242

[Basic Triad] N.T. [Triad] N.T.

A $\flat$ maj7

F7 $\flat$ 9

B $\flat$ 7

2. Four chords a P5th descending apart.

Ex. 243

A. Scalar ascending (use appropriate modes)

A $\flat$ m7

N.T.

D7

N.T.

Gmaj7

N.T.

Cmaj7

On minor chords, neighbor tones fall on the 4th beat on Maj & Dom they fall on the 3rd.

Ex. 244

B. Scalar descending (use appropriate modes)

A $\flat$ m7

D7

Gmaj7

Cmaj7

Note: there are no passing tones in Ex. 244 because there are five scale tones between chords.

Ex. 245

3. Chromatic

A7

N.C.T.

N.C.T.

A $\flat$ m7

N.C.T.

N.C.T.

D7

N.C.T.

Gmaj7

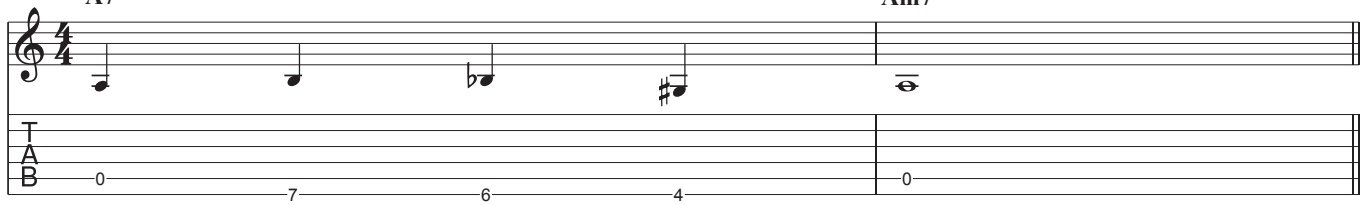
N.C.T. = Neighboring (Chromatic) Tones

Also Try:

Ex. 246a

A7

Am7

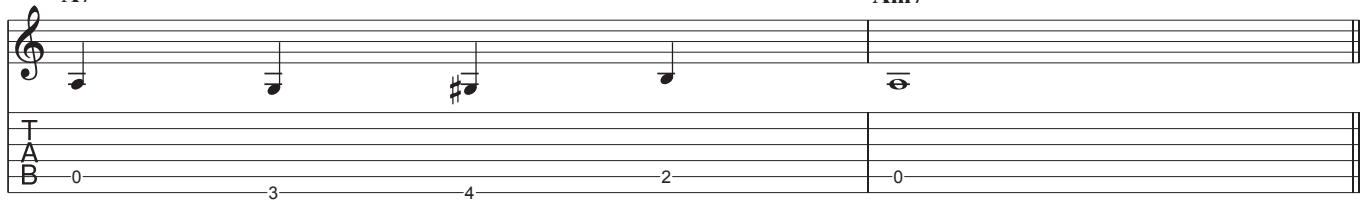


Ex. 246a is a musical exercise in 4/4 time. The first staff is a treble clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A4, B4, C#5, and D5. The second measure contains a whole note chord, A4-B4-C#5-D5. The second staff is a bass clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A2, B2, C#3, and D3. The second measure contains a whole note chord, A2-B2-C#3-D3.

Ex. 246b

A7

Am7

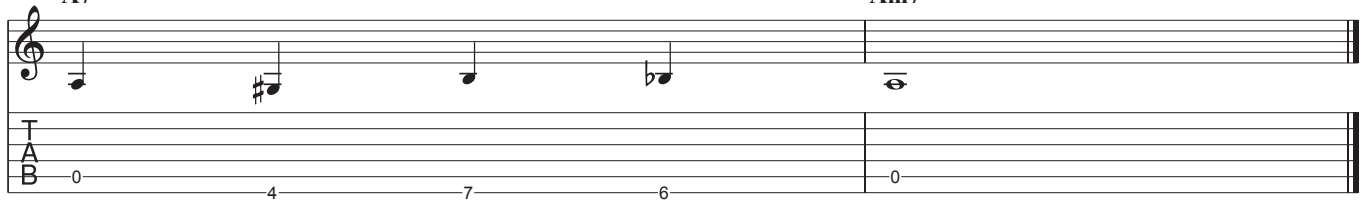


Ex. 246b is a musical exercise in 4/4 time. The first staff is a treble clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A4, B4, C#5, and D5. The second measure contains a whole note chord, A4-B4-C#5-D5. The second staff is a bass clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A2, B2, C#3, and D3. The second measure contains a whole note chord, A2-B2-C#3-D3.

Ex. 246c

A7

Am7



Ex. 246c is a musical exercise in 4/4 time. The first staff is a treble clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A4, B4, C#5, and D5. The second measure contains a whole note chord, A4-B4-C#5-D5. The second staff is a bass clef with a key signature of one sharp (F#). The first measure contains four eighth notes: A2, B2, C#3, and D3. The second measure contains a whole note chord, A2-B2-C#3-D3.

There are many combinations of chromatic type lines. Use these as a point of departure.

One Chord for Two Bars

In this instance we want to arrive on the fifth of A⁷ at the beginning of the second measure.

Ex. 247a

A⁷ 3 3 5th N.T. Am⁷

T
A
B

0 7 7 0 4 4 8 7 4 0 6 7

Ex. 247b

A⁷ N.T. 5th Am⁷

T
A
B

0 4 4 3 2 0 4 2 0

The second example used the F# (13th) on the A⁷ for the sake of variety.

Ex. 248

Open strings in bass lines can lead to more intervallic sounds.

E⁷ tritone sub (Bb7) Amaj⁷

T
A
B

7 0 4 5 6 7 7 6 0

Pedal Points

Pedal points are used in jazz to create excitement behind a solo. They many times provide a springboard to more chromatic type playing and can bring a solo or certain section of a tune to climax.

The most common type pedal points are:

Tonic Pedals

Ex. 249

F Blues

The musical score consists of three staves, each with a treble clef and a 4/4 time signature. The notes are represented by diagonal slashes. Chords are indicated by letters above the staves, and pedal markings are shown as dashed lines below the staves.

Staff 1: The first staff begins with a treble clef and a 4/4 time signature. Above the staff, the chord **F7** is written. The staff contains four measures of music, each with four diagonal slashes. Below the staff, a dashed line is labeled **F Pedal**.

Staff 2: The second staff begins with a treble clef and a 4/4 time signature. Above the staff, the chords **B $\flat$ 7**, **F7**, **A-7**, and **D7** are written. The staff contains four measures of music, each with four diagonal slashes. Below the staff, a dashed line is labeled **Pedal Cont.** and **Walk**.

Staff 3: The third staff begins with a treble clef and a 4/4 time signature. Above the staff, the chords **G-7**, **C7**, **F7**, **D7**, **G-7**, and **C7** are written. The staff contains four measures of music, each with four diagonal slashes. Below the staff, a dashed line is labeled **Pedal Cont.** and **Walk**.

Dominant Pedals

Ex. 250

A-7 D7 ^(Dominant Note) GMaj7 GMaj7

D Pedal -----

Rhythm Changes

Ex. 251

B $\flat$ Maj7 G7 C-7 F7 D-7 G7 C-7 F7

F Pedal -----

5 **F-7 B $\flat$ 7 E $\flat$ Maj7 E $\flat$ 7 B $\flat$ /F G7 C-7 F7**

----- E ----- F Pedal -----

↑ Break for the E $\flat$ 7 Chord

Pedals are best used

1. in even phase lengths (4,8,12,16 bars)
2. when a particular rhythmic pattern is used throughout.

Ex. 252

Rhythm Changes

B $\flat$ Maj7 G7 C-7 F7 D-7 G7 C-7 F7

Ex. 253a

Bbmaj7 G7alt Cm7 F7 Dm7 G7alt Cm7 F7

TAB
B 1 4 3 4 3 2 3 1 0 2 3 4 3 2 1 0

Fm7 Bb7 Ebmaj7 Edim7 Bb/F G7alt Cm7 F7

TAB
B 1 3 1 0 1 1 2 2 3 4 0 4 3 2 3 2

Bbmaj7 Bdim7 Cm7 C#dim7 Dm7 G7alt Cm7 F7

TAB
B 1 3 0 1 2 3 4 0 4 3 4 3 0 1 0

Bb7 Ebmaj7 Edim7 Bb/F Cm7 F7 Bbmaj7

TAB
B 1 0 3 2 1 3 2 3 3 3 3 1 1 0 3 1

Am7 D7 G7 Dm7 G7

TAB
B 0 2 3 4 0 2 0 4 3 2 2 1 0 2 3 4

C7 Gm7 C7 F7

TAB
B 3 2 3 4 0 4 3 0 1 3 3 3 1 3 3 0

Bbmaj7 Bb/Ab Eb/G Gbdim7 Bb/F Ebmaj7 Dm7 Cm7

TAB
B 1 1 4 4 3 3 2 2 1 1 1 1 0 4 3 2

B $\flat$ 7 **E $\flat$ maj7** **E $\dim$ 7** **B $\flat$ maj7** **Cm7** **F7** **B $\flat$ maj7** **Cm7** **F7**

T
 A
 B

1 — 3 — 0 — 1 — 1 — 0 — 1 — 2 — 3 — 3 — 3 — 3 — 1 — 2 — 3 — 1 —

Ex. 253b

Bbmaj7 G7alt Cm7 F7

Dm7 G7alt Cm7 F7 Fm7 Bb7 Ebmaj7 Edim7

Bb/F G7alt Cm7 F7 Bbmaj7 Bdim7 Cm7 C#dim7

Dm7 G7alt Cm7 F7 Bb7 Ebmaj7 Edim7

Bb/F Cm7 F7 Bbmaj7 Am7 D7

G7 Dm7 G7 C7 Gm7 C7

F7 Bbmaj7 Bb/Ab Eb/G Gbdim7

Bb/F Ebmaj7 Dm7 Cm7 Bb7 Ebmaj7 Edim7

B♭maj7 **Cm7** **F7** **B♭maj7** **Cm7** **F7**

The musical notation consists of a bass staff and a fretboard diagram below it. The bass staff contains the following notes: B♭2, B♭2, C3, D3, B♭2, B♭2, C3, D3. The fretboard diagram shows the fret numbers for each note: 3, 3, 3, 3, 1, 2, 3, 1.

When walking a bass line, chords can be interspersed to create a more complete harmonic backdrop (especially useful in solo & duo settings).

Ex. 254a

B♭maj7 G7alt Cm7 F7alt Dm7 G7♭9 Cm7

T 6 4 3 2 6 4 3
A 7 4 3 2 5 5 4
B 7 3 4 1 5 4 3

Ex. 254b

B♭maj7 G7alt Cm7 F7 Dm7 G7alt Cm7

T 5 4 4 2 4 7 4
A 5 4 3 2 7 5 5
B 4 2 2 1 5 4 3

Or combination

Ex. 254c

B♭maj7 A♭7#5 G7alt D♭m9 Cm7 F7

T 5 4 3 3 3
A 5 4 4 3 2
B 4 2 1 1 4

Dm7 A♭7#9 G7alt C♯m7 Cm7 F7 B♭7

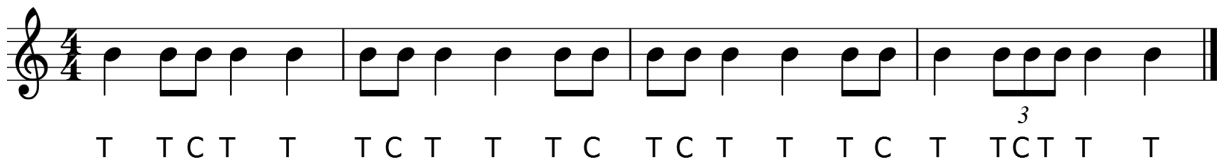
T 4 4 3 3 3
A 7 5 4 4 4
B 5 6 5 4 3 2 1

In the last example the patterns were alternated by measure.

Bassline Comping Variations

Ex. 255a

Rhythm Pattern No.1



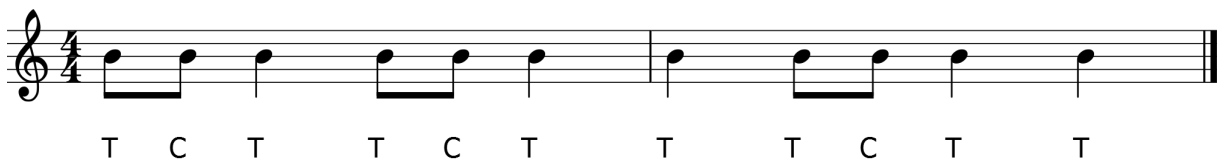
T= Thumb

C= Chord

Practice on one chord before moving on to progressions.

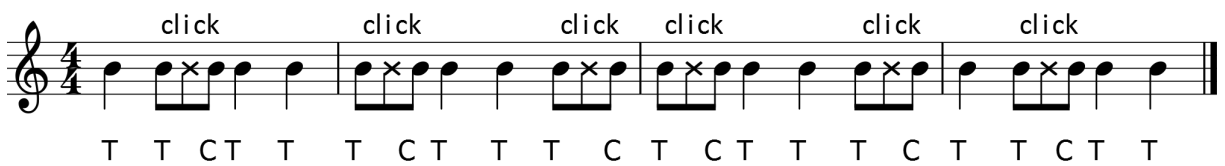
Ex. 255b

Rhythm Pattern No.2



Ex. 255c

Rhythm Pattern No.3



Comping Rhythms

I have written some basic comping patterns over a thirty two bar form. Feel free to divide this into shorter phrases (four and eight bars) for your own use.

Ex. 256

The musical notation for Ex. 256 consists of eight staves of music in 4/4 time. The key signature has one flat (B-flat). The notation includes various rhythmic values: quarter notes, eighth notes, sixteenth notes, and rests. A triplet of eighth notes is indicated in the first staff. The pattern concludes with a double bar line on the eighth staff.

Solos Over Standard Forms

I have included a few solos over standard chord progressions in order to incorporate some of the ideas that we have learned. Practice them slowly with the metronome on two and four to develop your swing feel. I also suggest doing your own harmonic analysis to study the devices used.

E♭alt **A♭maj7** **D♭maj7**

The image shows a musical score for a guitar exercise. The top staff is in treble clef and contains a melodic line. It starts with a triplet of eighth notes (E4, F4, G4) marked with a slur and 'sl.'. This is followed by another triplet (A4, B4, C5) marked with a slur and 'sl.'. Then, there are two more triplets (D5, E5, F5) and (G5, A5, B5), each marked with a slur and 'sl.'. The line continues with a quarter note (C5), a half note (B4), and a quarter note (A4). The bottom staff is a fretboard diagram with two lines, T (treble) and B (bass). It shows fingerings for the notes in the top staff. The fret numbers are: 9, 12, 9, 10, 12, 12, 9, 12, 10, 9, 8, 8, 10, 10, 11, 13, 10, 13, 10, 11, 13. The diagram is divided into two measures by a vertical line.

Cm7 **Fm7** **Bb9**

T
 A
 B

-10 -12 -13 10 -11 -12 11 -10 -13 -12 -10 15 13 -15 -13 15 -12 -15 13 15 13

[illegible][illegible]

D7alt **Gmaj7**

Handwritten notation for guitar fretboard (T, A, B strings) with fingerings (1-4) and slurs.

F#m7 **B7b9** **Emaj7**

Handwritten notation for guitar fretboard (T, A, B strings) with fingerings (1-4) and slurs.

C7alt **Fm7** **Bbm7**

Handwritten notation for guitar fretboard (T, A, B strings) with fingerings (1-4) and slurs.

Ebb7b9 **Abmaj7** **Dbmaj7**

Handwritten notation for guitar fretboard (T, A, B strings) with fingerings (1-4) and slurs.

Dbm7 **Cm7** **Bdim7**

Handwritten notation for guitar fretboard (T, A, B strings) with fingerings (1-4) and slurs.

Bbm7 **E7alt** **Abmaj7**

9 10 8 8 8 10 8 11 12 12 10 9 11 9 12 12 9 8 11 10 8 8 10 8 8 10 8 10 11

Gm7b5 **C7alt** **Fm7**

9 8 10 10 11 10 8 9 9 11 11 11 9 9 6 4 8 6 5 8 6

Solo No. 2

E^ø **A13(b9)** **Cm7**

Tablature for the first system:

String T: 7 9 10 8 7 10 7 8 10 6 9 10 8 11 12 11 12 10 13 12 13 10 12 13

String A: 7 9 10 8 7 10 7 8 10 6 9 10 8 11 12 11 12 10 13 12 13 10 12 13

String B: 7 9 10 8 7 10 7 8 10 6 9 10 8 11 12 11 12 10 13 12 13 10 12 13

F7(#5) **Fm7** **Bb7(#5)(#9)**

Tablature for the second system:

String T: 11 14 12 11 13 11 10 14 12 10 13 11 12 10 10 11 10 13 12 9 11 9 12 11 9 9 9 8 11 8 9

String A: 11 14 12 11 13 11 10 14 12 10 13 11 12 10 10 11 10 13 12 9 11 9 12 11 9 9 9 8 11 8 9

String B: 11 14 12 11 13 11 10 14 12 10 13 11 12 10 10 11 10 13 12 9 11 9 12 11 9 9 9 8 11 8 9

Ebmaj7 **Ab7(b5)** **Bbmaj7**

Tablature for the third system:

String T: 8 10 12 10 8 8 10 8 11 8 9 8 7 6 7 6 8 7 10 8 7 8 7 10

String A: 8 10 12 10 8 8 10 8 11 8 9 8 7 6 7 6 8 7 10 8 7 8 7 10

String B: 8 10 12 10 8 8 10 8 11 8 9 8 7 6 7 6 8 7 10 8 7 8 7 10

E^ø **A7(#5)** **Dm7** **Dm7/C** **B^ø** **Bbm6** **Am7** **D7(b9)**

Tablature for the fourth system:

String T: 7 10 7 7 10 10 9 10 8 10 7 7 9 6 9 7 8 6 5 8 7 5 5 4 7 12

String A: 7 10 7 7 10 10 9 10 8 10 7 7 9 6 9 7 8 6 5 8 7 5 5 4 7 12

String B: 7 10 7 7 10 10 9 10 8 10 7 7 9 6 9 7 8 6 5 8 7 5 5 4 7 12

Gm7 **C7(b9)** **A^ø** **D7(b9)**

Tablature for the fifth system:

String T: 10 12 13 12 10 9 12 11 10 11 10 9 13 11 10 12 11 13 13 13 13 13 14 11 12 11

String A: 10 12 13 12 10 9 12 11 10 11 10 9 13 11 10 12 11 13 13 13 13 13 14 11 12 11

String B: 10 12 13 12 10 9 12 11 10 11 10 9 13 11 10 12 11 13 13 13 13 13 14 11 12 11

G7(#5) **Cm7**

TAB

13-10-12 13 14-11-10 8-10 8-9 8-10 9-8 9-8 11-11-10 8-10 10-8

A $\flat$ 7(b5) **A/B $\flat$**

TAB

(10)-6-7-10-8 8-7 10 11-10-9-11 10 7 10-7-8-11 9-10-11-10

B $\flat$ maj7 **E $\circ$** **A7(#5)**

TAB

(10)-12-10-10 13-12 (12)-13-12-13 10 12-11-12 13 11-11-13-10 10-10 13-11

D $\circ$ **G13(b9)** **C $\circ$**

TAB

(11)-11-10-11 12-10-9 9-10 11-10 11-8 9 9-11 11-8 11-8 8-9 (9)-8-9 8-10 10-11 11-10

F7(#5) **B $\flat$ maj7**

TAB

9 10 11-8 11-12 10 12-13 12-10 10-9 12-11 10-12 10

Solo No. 3

Gmaj7 **Bb7** **Ebmaj7** **Abmaj7**

Fingerings: 9-8-7, 9-10-9, 8-10-11, 8-10-8, 7-8, 8-10, 10-10-8, 11-8-10-11, 8-10-7

Am7 **D7alt** **Gmaj7** **Dm7** **G7**

Fingerings: (7)-10-7, 9-7-8, 10-8-8, 9-8-11-10, (10)-9-7-7, 14-15-14, 13-12-10-12-10, 12-10

Cm7 **F7** **Bbmaj7** **Ebmaj7**

Fingerings: 11-12-13-12-10, 13-10-13-12-11-12-13-11, 10-11-12-10-12-9-12, 10-8-8-10-12-11-10

Am7 **D13(b9)** **Gmaj7** **Am7** **D7b9**

Fingerings: (10)-9-12-12-10-12-9-10, 11-12-13-11-10-11-10-12-9-8, 10-9-7, 10-9-8-10-9-7-8-10-9-7

Gmaj7 **Bb7** **Ebmaj7**

Fingerings: 7-10-9-7-9-10-7, 8-10-11-10-9-8-11-8-9-9-8, 8-8-6-8-8-5-6-5-8-8

A $\flat$ maj7 *sl.* **Am7** *H* **D7** *P*

TAB: 6 8 9 8 10 11 10 11 13 12 10 9 12 9 10 11 9 12 11 10 12 9 10

Gmaj7 *H* **Dm7** *P* **G7** *H* **Cmaj7** *sl.* *P*

TAB: (10) 9 10 9 7 7 6 9 8 6 8 5 6 5 7 7 9 8 6 6 8 5 6 7 5 7 9 7 9 10 7 9 8 7 6 10 7 10 9

Am7 **D7 $\flat$ 9** *P* **Bm7** *P* **B $\flat$ dim7** *sl.* *P*

TAB: 8 9 10 7 9 7 10 8 8 7 10 9 (9) 7 9 9 9 7 8 9 12 10 11 9 12 10

Am7 *P* **D7** *P* *sl.*

TAB: 9 10 9 12 11 12 10 12 9 10 8 6 6 8 7

Gmaj7 **E7alt** **Am7** **D7 $\flat$ 9** **Gmaj7**

TAB: 10 10 11 9 14 12 12 12 13 13 13 12 12 10 9 8 7 6 6 5 5 5 4 10 10 9 9

Blues

The first system of the musical score is in 4/4 time. It begins with a treble clef and a key signature of one flat (B-flat). The melody starts with a quarter rest, followed by a B-flat quarter note, then a triplet of eighth notes: A-flat, G, and F. This is followed by a double bar line. The second measure contains a C7 chord (C4, E4, G4, Bb4) with a pickup note C5, a quarter note E4, a quarter note G4, and a quarter note Bb4. The third measure contains a C7alt chord (C4, E4, G4, Bb4, Ab4) with a pickup note C5, a quarter note E4, a quarter note G4, and a quarter note Bb4. The fourth measure contains an F7 chord (F4, A4, C5, Eb5) with a pickup note F5, a quarter note A4, a quarter note C5, and a quarter note Eb5. The fifth measure contains an F#dim7 chord (F#4, A4, C5, Eb5) with a pickup note F#5, a quarter note A4, a quarter note C5, and a quarter note Eb5. The system ends with a double bar line.

Gm7 **C7alt** **F7**

sl. sl. sl. sl. sl. sl.

TAB

10 12 13 12 15 14 13 14 13 11 10 13 10 11 12 12 10 8 7

The first system of the musical score for 'The Sound of Silence' features a treble clef and a key signature of one flat (B-flat). The notation includes a series of eighth and quarter notes, with slurs and accents. Above the staff, the chords F7, F#dim7, C7, and A7alt are indicated. Below the staff, the guitar tablature is shown with fret numbers and a 'P' (pull-off) marking.

Dm7 **G7alt** **C7** **F7** **F#dim7**

H H H H H P

T -12- 12- 12- 13- 12- 13- (13)- 12-

A 15- 12-13- 12- 14- 12- 13- 14- 15- 12-13- 14- 13-

B

Gm7 **C7alt** **F7(#11)**

12 13 12 15 12 11 12 10 9 9 11 11 9 9 6 5 8 5 7 10 7 8 10 11 8 10 11 13 11

[illegible]

The musical score is divided into two systems. The first system is for the A7alt chord, and the second system is for the Dm7 chord. The melody is written in treble clef, and the bass line is written in bass clef. The bass line includes fret numbers and fingerings.

A7alt

Dm7

11 11 6 8 6 8 8 8 8 6 8 8 10

H sl P P H P P H P

10 12 8 6 8 8 8 6 8 8 12 9 11 8 9 9 12 11 12 8 10 10

The first system of the musical score for "The Sound of Silence" features a treble clef and a key signature of one flat (B-flat). The tempo is marked "Moderato". The first staff contains a melodic line with a Dm7 chord above the first measure and a G7alt chord above the second measure. The second staff contains a bass line with a C7 chord above the first measure. The first staff also includes a guitar tablature line with fret numbers 8, 5, 6, 9, 6, 8, 8, 6, 6, 6, 8, 6, 6, 8, 5, and 7.

Rhythm Changes

A

B♭maj7

G7alt

Cm7

G7alt

Dm7

G7alt

Cm7

F7alt

First system of musical notation (measures 1-4). The treble clef staff shows a melody with eighth and quarter notes, including slurs and accents. The bass staff shows a bass line with fingerings (12, 14, 13, 12, 15, 13, 11, 12, 10, 11, 10, 13, 12, 10, 10, 12, 9, 13, 10, 11, 12, 13, 12, 11, 10, 12) and slurs. The key signature has one flat (B♭).

Fm7

B♭7

E♭maj7

Edim7

B♭/F

G7alt

Cm7

F7

Second system of musical notation (measures 5-8). The treble clef staff shows a melody with eighth and quarter notes, including slurs and accents. The bass staff shows a bass line with fingerings (13, 11, 13, 11, 10, 12, 11, 13, 12, 13, 12, 10, 11, 13, 12, 10, 13, 12, 10, 11, 13, 10, 13, 11, 13, 14, 13, 12, 11, 13). The key signature has one flat (B♭).

A

B♭maj7

G7♭9

Cm7

F7

Dm7

G7alt

Cm7

F7alt

Third system of musical notation (measures 9-12). The treble clef staff shows a melody with eighth and quarter notes, including slurs and accents. The bass staff shows a bass line with fingerings (11, 10, 13, 12, 13, 12, 10, 10, 13, 11, 10, 12, 10, 13, 12, 10, 11, 12, 11, 12, 11, 13, 14). The key signature has one flat (B♭).

Fm7

B♭7(b5)

E♭maj7

Edim7

B♭/F

Cm7

F7

B♭maj7

Fourth system of musical notation (measures 13-16). The treble clef staff shows a melody with eighth and quarter notes, including slurs and accents. The bass staff shows a bass line with fingerings (10, 11, 13, 12, 11, 12, 13, 12, 11, 12, 10, 13, 10, 11, 12, 10, 12, 10, 13, 12, 10, 10, 13, 12, 13, 12, 10). The key signature has one flat (B♭).

B

Am7

Am7

D7alt

G7

Dm7

C7alt

Fifth system of musical notation (measures 17-20). The treble clef staff shows a melody with eighth and quarter notes, including slurs and accents. The bass staff shows a bass line with fingerings (12, 12, 14, 14, 13, 11, 12, 14, 10, 11, 10, 14, 13, 12, 13, 12, 15, 14, 12, 11, 14, 10, 9, 8, 9, 10, 8). The key signature has one flat (B♭).

C7 Gm7 D7 Gm7 C7 Cm7 Cm7 F7alt

T
A
B

[A] Bbmaj7 G7alt Cm7 F7alt Dm7 G7 Cm7 F7

T
A
B

Fm7 Bb7 Ebmaj7 Edim7 Bb/F Cm7 F7 Bbmaj7

T
A
B

Modern Approach To Rhythm Changes

A

B♭maj7

G7alt

Cm7

F7alt

B♭maj7

G7alt

Cm7

Bmaj

18-15 15-17-13 14-11 11 13-10 11-13-10 12 11-13 13-15 12-15 13-15 11-13 15-14 16-13 14

Fm7

B♭7

E♭maj7

Edim7

Dm7

G7(b9)

Cm7

G7alt

13-12 12-9 11 10 13 10 11 13-12 10 10 12 10-11 13 13-10 11-13 11-14 13-12 7 8

B♭

G7(b9)

Cm7

F7

B♭maj7

G7(b9)

Cm7

F7

10 11-10 9 10 11 11 11 9 13-14 11 12 12 13 10 12 12 9 9 10 11 12 12 14 14

Fm7

B♭7

E♭maj7

Edim7

B♭maj7

Cm7

F7

B♭maj7

11 11 13 13 8 8 7 8 8 8 8 7 8 9 8 9 11 8 9 8 9 6 8 9 7 6

B

D7

G7

14 13 14-10 13 12 12 14 17-14 16 17-16 15-17 14-16 14 14 14 12 14 14 12 12 12 14 12 11

C7 *P* *P* *sl.* **F7** *sl.* *sl.* *sl.* *sl.*

T 10 12 8 10 7 9 7 10 7 10 7 8 6 8 1 1 3 3 3 5 5 3 4 3 4 5 6

Bmaj7 **G7(b9)** **Cm7** **F7** **Dm7** **G7(b9)** **Cm7** **F7**

T 6 7 8 8 7 6 5 4 7 6 5 4 3 6 5 3 2 2 5 4 3 2 4 1

Bb7 **Ebmaj7** **Ebm7** **Bbmaj7** **F7alt** **Bbmaj7**

T 6 9 10 8 9 8 11 11 12 13 15 12 16 15 14 17 13 10 11 10 9 7 7 8 6 8 7 5 8 8

Practicing

Here are some important points for practicing:

- Use your time effectively (don't practice things that you already know).
- Divide your practice time by percentages:

1. Technique = 15%

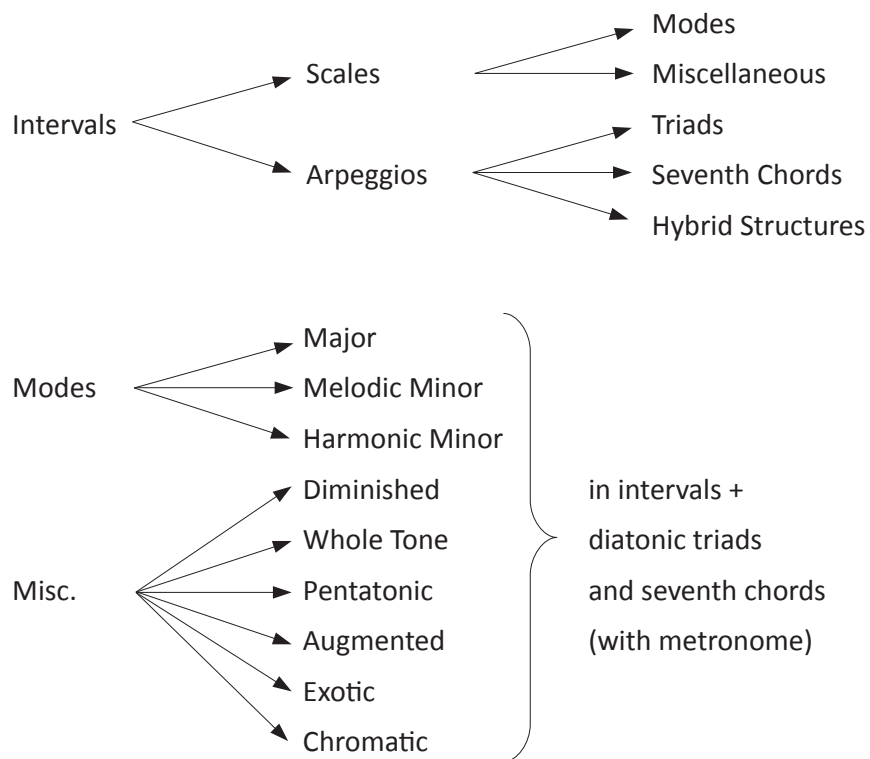
2. Ear Training = 15%

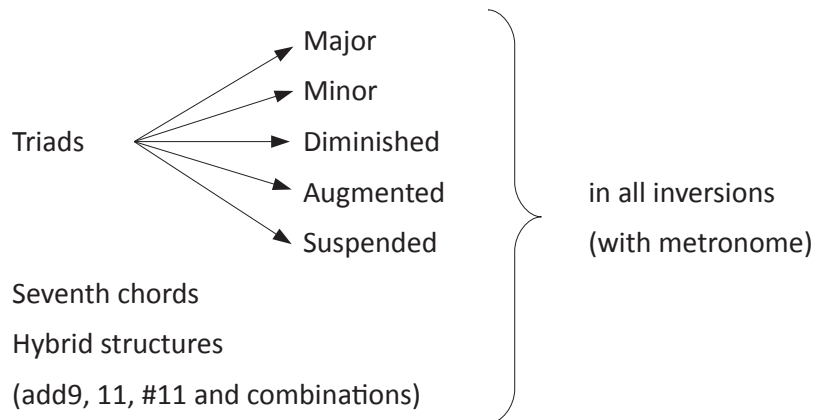
3. Review = 35%

4. New Material = 35%

100%

Technique





Left Hand

Finger independence drills (1,2,3,4, finger combinations)

1	2	3	4	2	3	4	1	3	4	1	2	4	1	2	3
1	2	4	3	2	3	1	4	3	4	1	2	4	1	3	2
1	3	2	4	2	1	3	4	3	2	1	4	4	2	3	1
1	3	4	2	2	1	4	3	3	2	4	1	4	2	1	3
1	4	3	2	2	4	3	1	3	1	2	4	4	3	1	2
1	4	2	3	22	4	1	3	3	1	4	2	4	3	2	1

Right Hand

I. w/pick

1. Rhythms w/ alternate picking
2. sweep picking
3. cross string exercises

II. w/fingers

1. Arpeggios studies
2. MI alteration on scales
3. tremolo studies IMA

Technique should be broken down into old/new material.

Review Material

- Consisting of things practiced in the past week
- Transcribed solos, new lines, voicings, tunes, compositions, etc.
- Keep a log to prevent the loss of previously learned material. Write down how, when and what was practiced using musical notation or chord diagrams when needed. Record any details such as fingerings and position changes

New Material

- New fingerings, chord substitutions, lines, transcribed solos, chord voicings, new techniques, phrasing, sight reading, etc.
- This Book!

Ear Training

- Transcribe solos
- Harmonic and melodic interval dictation (w/ a partner or tape)
- Melodic dictation
- Chord identification (EX. Maj^{7/#5})
- Mode identification (dorian, altered dominant for example)
- triad over bass note identification (Ex. Triad w/ b9 in the bass C/Db)
- Sight singing
- Play a note and sing an interval or scale above or below it
- Play three notes and identify intervals contained
- Play a chord and sing a line over it. Then write down the intervals you sang
- Try to write down harmonic progressions off recordings without your instrument (and with)
- Try to sing your favorite tunes in their original keys without your instrument and then check yourself to see if you are in the correct key
- Work on recognizing the exact pitch of a note (pitch color). You will find it easier on guitar than on a foreign instrument
- GOOD LUCK!



Rick Beato is a musician, teacher and father of three. He has a B.M. in Music Education and an M.M. in Jazz Performance from the New England Conservatory of Music. He is a record producer with numerous Platinum selling records and also co-wrote the RIAA certified Platinum selling song “Carolina” with Parmalee. In late 2013, “Carolina” climbed to Number One for 2 weeks on the Billboard Country Music Charts.

He is currently the co-founder of Intrvyl LLC a music education company which has developed The Beato Ear Training Program a relative pitch training platform for adults. In the past years he has grown his “Everything Music” Youtube Channel to 1.5 Million Subscribers and over 175 Million views.

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