

# 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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Rick

## Author's Note

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# Table of Contents

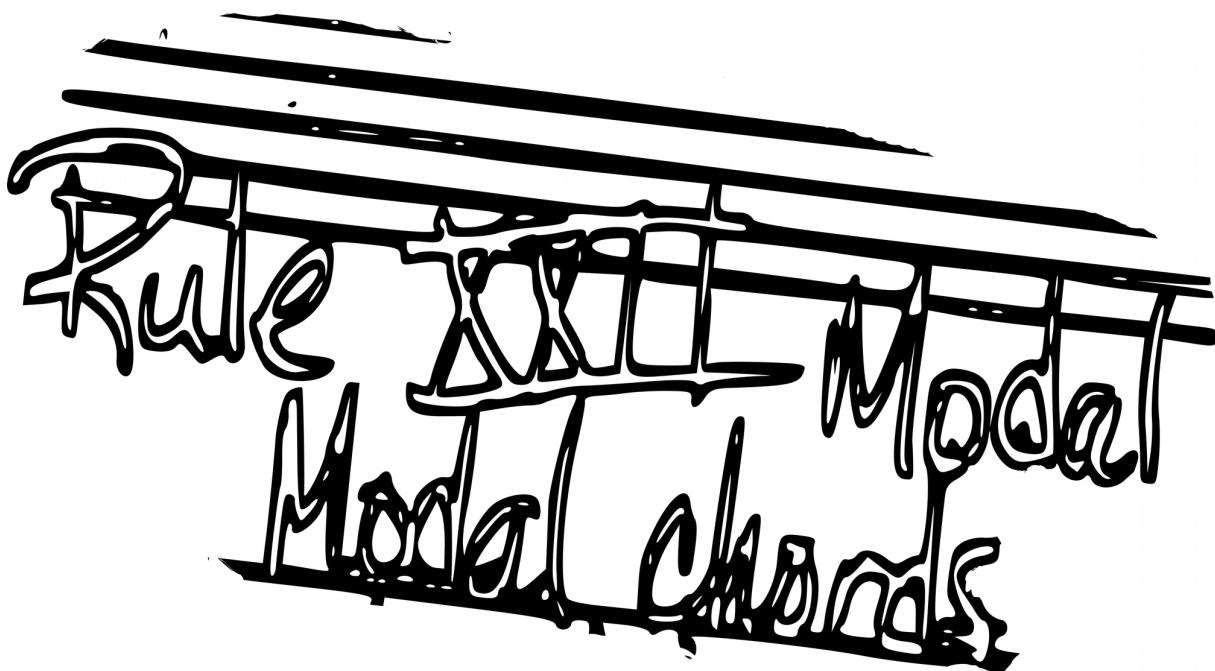
<b>Chapter 1: Theory and Harmony</b>	<b>7</b>
Interval Names and Symbols	8
Naming Intervals	9
Enharmonic Intervals	11
The Circle of Fifths	12
Chords and Their Formulas	13
Building Diatonic Triads	14
Building Diatonic Seventh Chords	15
Major Scale (Triads & Sevenths)	16
Natural Minor Scale	17
Melodic Minor Scale	18
Harmonic Minor Scale	19
Harmonic Major Scale	20
Double Harmonic Major Scale	21
More About Seventh Chords	22
Relative and Parallel Major/Minor	23
Chords for Songwriters	24
Modal Mixture for Songwriters	26
Basic Triads	27
Advanced Triads	28
Suspended Triads and Other Three Note Structures	29
Chord Scales	31
Chord Families and Their Scales	33
Scale Degree Names and Basic Progressions	36
More About Roman Numeral Analysis	40
Cycle of Fifths and Back Cycling	42
Roman Numeral Analysis and Chord Scale Choice	43
Basic Rules for Chord Substitutions	45
Triads Over Bass Notes	59
Triads and Seventh Chords Over Bass Notes and Polychords	62
Reharmonization and Chord Substitutions	68
Advanced Reharmonizations	70
Reharmonization of Standard Forms	83
Common Tone Reharmonization	85
Modal Harmony and Theory	88
Sharp and Flat Direction Modal Modulation	90

Resolution Tendencies Between Modal Groups	96
Voice Leading	97
Mirror Modal Equivalents	100
<b>Chapter 2: Chord Forms</b>	<b>103</b>
Triad (and Suspension) Chord Forms	104
Drop Voicings	112
Triads Over Bass Notes	185
Spread Triads Over Bass Notes	204
Quartal Voicings	226
Skipped String Voicings	245
Open String Voicings	250
Polychords (Triads Over Triads)	261
Using Comping Voicings in New Ways	264
Constructing Chord Scales	265
Diminished Scale Voicings	275
Stretch Voicings	279
Chordal Lines (ii7 V7 Imaj7)	283
<b>Chapter 3: Scales and Arpeggios</b>	<b>285</b>
Mode (Scale) Practice	286
Close Position Fingerings	295
Scales With Two Notes Per String	298
Diatonic Intervals	305
Diatonic Arpeggios	306
Spread Triad Arpeggios	309
Seventh Chord Arpeggios	310
Seventh Chord Arpeggios Root 6	312
Seventh Chord Arpeggios Root 5	318
Bitonal Arpeggios	324
More About Practicing Scales and Arpeggios	334
<b>Chapter 4: Linear Studies</b>	<b>335</b>
ii V I Progressions	336
ii7 V7 Imaj7 Substitute Patterns	350
Turnarounds	351
Turnarounds Over Four Measures	355
Turnaround Substitutions	358
Cycle of Fifths	359
Cycle of Fifth Exercise	361
Pentatonic Scales	362

Triadic Superimposition	367
Seventh Chord Superimposition	375
Hybrid Arpeggios	382
Playing Over Unusual Resolutions	387
Melodic Ideas	392
Modes: Linear Approach	400
Modal Mixture	418
Using One Interval Set Over Many Chords	420
Outside Playing Over One Chord	424
Chromaticism And Twelve Tone Applications	427
Twelve Tone Triadic Formulas	431
Modal Shapes	439
Unorthodox Left Hand Technique	443
Modern Linear Examples	444
Pedal Point Soloing	447
Modal Studies	448
Ultra Mega Arpeggios	461
String Skipping Studies	464
<b>Chapter 5: Technique and Practice</b>	<b>468</b>
Bass Lines	469
Comping Rhythms	481
Solos Over Standard Forms	482
Practicing	496

# 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

A musical staff with a treble clef and a key signature of C major. It shows a sequence of notes starting from a C note at step 0. The notes are: C (Unison), D (m2), E (M2), F (m3), G (M3), A (P4), B (A4/d5), C# (P5), D (m6), E (M6), F (m7), G (M7). The staff is divided into measures by vertical bar lines.

### 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

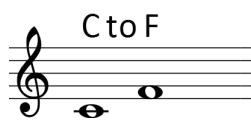
F	G	A
1	2	3

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.

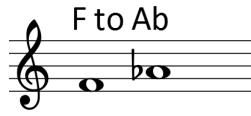
### **Ex. 4**



C C# D D# E F    5 half steps = P4 perfect fourth  
 v v v v v  
 1 2 3 4 5

$\frac{1}{2}$  steps spanned

### **Ex. 5**



F F# G Ab    3 half steps = m3 minor third  
 v v v  
 1 2 3

$\frac{1}{2}$  steps spanned

### **Ex. 6**

Here are some more examples of intervals:  
 (D=Doubly)

## Enharmonic Intervals

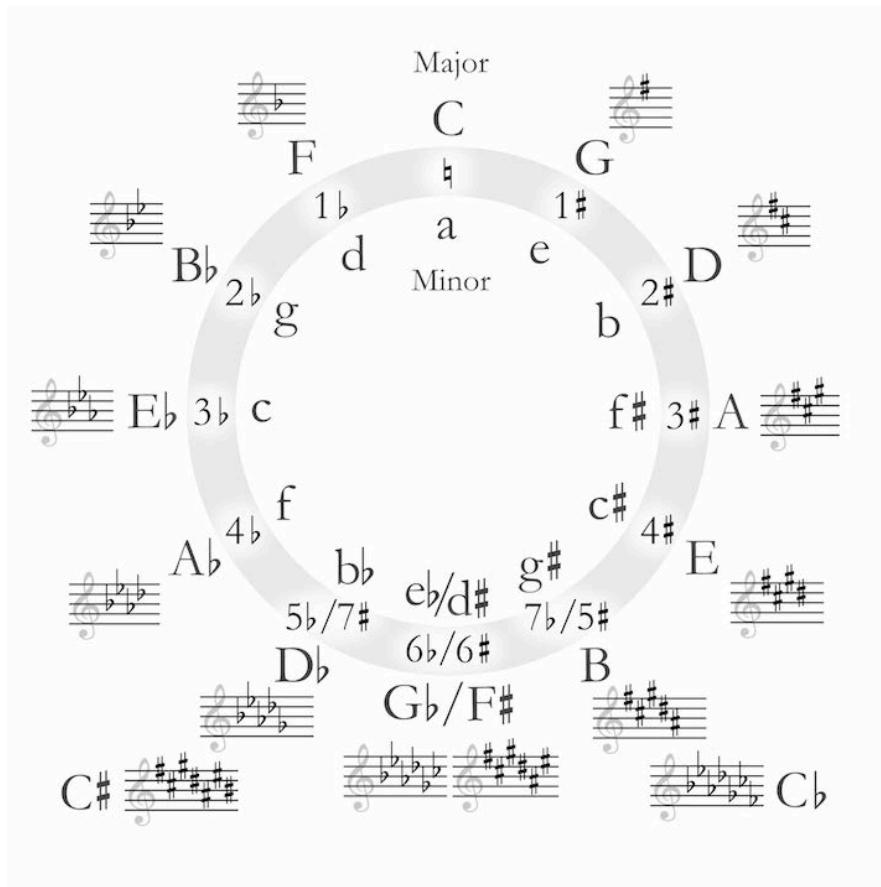
Interval types that contain an equivalent number of half steps but have different names (e.g., Augmented Second and Minor Third) are **enharmonically equivalent**. In other words, they are aurally identical but theoretically different.

## 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**

A musical staff in G clef (soprano) shows seven chords: C, D-, E-, F, G, A-, and B°. The chords are represented by vertical stacks of three notes (triads). The notes are positioned on the first, third, and fifth lines of the staff. Below the staff, Roman numerals indicate the chord function: I, ii, iii, IV, V, vi, and vii°. The Roman numeral 'i' is omitted.

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

#### Roman Numeral Symbols

upper case	=	major triad
lower case	=	minor triad
°	=	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*

A musical staff in G clef. It shows a C major triad (C-E-G). Intervals are labeled: M3 between C and E, m3 between E and G.

= C major = 1 3 5

#### *Ex. 10*

A musical staff in G clef. It shows a C minor triad (C-D-G). Intervals are labeled: M3 between C and D, m3 between D and G.

= C minor = 1 b3 5

#### *Ex. 11*

A musical staff in G clef. It shows a C diminished triad (C-D-F). Intervals are labeled: m3 between C and D, m3 between D and F.

= C dim = 1 b3 b5

#### *Ex. 12*

A musical staff in G clef. It shows a C augmented triad (C-E-G#). Intervals are labeled: M3 between C and E, M3 between E and G#.

= C aug = 1 3 #5

## Building Diatonic Seventh Chords

Seventh Chords are composed of three thirds stacked vertically.

### **Ex. 13**

	<b>C<sub>MA</sub>7</b>	<b>D-7</b>	<b>E-7</b>	<b>F<sub>MA</sub>7</b>	<b>G7</b>	<b>A-7</b>	<b>B-7<sup>b5</sup></b>
<b>C Major</b>							
<b>Roman Numeral</b>	I <sup>MA7</sup>	ii <sup>7</sup>	iii <sup>7</sup>	IV <sup>MA7</sup>	V <sup>7</sup>	vi <sup>7</sup>	vii <sup>7b5</sup>

	<b>C-<sup>MA</sup>7</b>	<b>D-7</b>	<b>E<sup>b</sup><sub>MA</sub>7</b>	<b>F7</b>	<b>G7</b>	<b>A-7<sup>b5</sup></b>	<b>B-7<sup>b5</sup></b>
<b>C mel. minor</b>							
<b>Roman Numeral</b>	i <sup>MA7</sup>	ii <sup>7</sup>	bIII <sup>+MA7</sup>	IV <sup>7</sup>	V <sup>7</sup>	vi <sup>7b5</sup>	vii <sup>7b5</sup>

	<b>C-<sup>MA</sup>7</b>	<b>D-7<sup>b5</sup></b>	<b>E<sup>b</sup><sub>MM</sub>7</b>	<b>F-7</b>	<b>G7</b>	<b>A<sup>b</sup><sub>MA</sub>7</b>	<b>B<sup>o</sup>7</b>
<b>C harm. minor</b>							
<b>Roman Numeral</b>	i <sup>-MA7</sup>	ii <sup>7b5</sup>	bIII <sup>+MA7</sup>	iv <sup>7</sup>	V <sup>7</sup>	bVI <sup>MA7</sup>	vii <sup>o7</sup>

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*

	C	D-	E-	F	G	A-	B°	
Triads								
R.N.	I	ii	iii	IV	V	vi-	vii°	
	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian	
Seventh								
R.N.	I MA7	ii 7	iii 7	IV MA7	V 7	vi 7	vii 7b5	

Triads              maj              =              I, IV, V

min              =              ii, iii, vi

dim              =              vii°

Seventh          maj<sup>7</sup>              =              I<sup>maj7</sup>, IV<sup>maj7</sup>

min<sup>7</sup>              =              ii<sup>7</sup>, iii<sup>7</sup>, vi<sup>7</sup>

dom<sup>7</sup>              =              V<sup>7</sup>

min<sup>7b5</sup>              =              vii<sup>7b5</sup>

## Natural Minor Scale

*Ex. 14b*

	C-	D°	E♭	F-	G-	A♭	B♭	
Triads								
R.N.	i	ii°	III	iv	v	VI	VII	
	Aeolian	Locrian	Ionian	Dorian	Phrygian	Lydian	Mixolydian	
Seventh	C-7	D-7 <sup>b5</sup>	E♭ <sub>MA</sub> 7	F-7	G-7	A♭ <sub>MA</sub> 7	B♭7	
	i <sup>7</sup>	ii <sup>7b5</sup>	III <sup>MA7</sup>	iv <sup>7</sup>	v <sup>7</sup>	VI <sup>MA7</sup>	VII <sup>7</sup>	

Triads      maj      =      III, VI, VII

min      =      i, iv, v

dim      =      ii°

Seventh      maj<sup>7</sup>      =      III<sup>maj7</sup>, VI<sup>maj7</sup>

min<sup>7</sup>      =      i<sup>7</sup>, iv<sup>7</sup>, v<sup>7</sup>

dom<sup>7</sup>      =      VII<sup>7</sup>

min<sup>7b5</sup>      =      ii<sup>7b5</sup>

## Melodic Minor Scale

*Ex. 15*

Triads	C-	D-	E <sup>b</sup> +	F	G	A <sup>o</sup>	B <sup>o</sup>
R.N.	i	ii-	III+	IV	V	vi <sup>o</sup>	vii <sup>o</sup>
	Melodic Minor	Dorian b2	Lydian augmented	Mixolydian #11 (Lydian b7)	Mixolydian b6	Locrian 2	Altered Dominant

Seventh	C- <sup>MA7</sup>	D- <sup>7</sup>	E <sup>b</sup> + <sup>MA7</sup>	F <sup>7</sup>	G <sup>7</sup>	A- <sup>5A7</sup>	B- <sup>5A7</sup>
R.N.	i <sup>MA7</sup>	ii <sup>7</sup>	III+ <sup>MA7</sup>	IV <sup>7</sup>	V <sup>7</sup>	vi <sup>7b5</sup>	vii <sup>7b5</sup>

Triads	maj	=	IV, V
	min	=	i, ii
	dim	=	vi <sup>o</sup> , vii <sup>o</sup>
	aug	=	III+
Seventh	min <sup>maj7</sup>	=	i <sup>maj7</sup>
	min <sup>7</sup>	=	ii
	dom <sup>7</sup>	=	IV <sup>7</sup> , V <sup>7</sup>
	min <sup>7b5</sup>	=	vi <sup>7b5</sup> , vii <sup>7b5</sup>
	aug <sup>maj7</sup>	=	III+ <sup>maj7</sup>

## Harmonic Minor Scale

*Ex. 16*

	C-	D°	E♭+	F-	G	A♭	B°	
Triads								
R.N.	i-	ii°	III+	iv	V	Phrygian Major	VI	vii°
			Locrian nat. 6	Ionian augmented			Lydian #9	
				Dorian #4				Altered Dominant bb7
Seventh								
R.N.	i <sup>MA7</sup>	ii <sup>7b5</sup>	III <sup>+MA7</sup>	iv <sup>7</sup>	V <sup>7</sup>	VI <sup>MA7</sup>	vii <sup>i°7</sup>	

Triads	maj	=	V, VI
	min	=	i, iv
	dim	=	ii°, vii°
	aug	=	III+
Seventh	maj <sup>7</sup>	=	VI <sup>maj7</sup>
	min <sup>maj7</sup>	=	i <sup>maj7</sup>
	min <sup>7</sup>	=	iv <sup>7</sup>
	dom <sup>7</sup>	=	V <sup>7</sup>
	min <sup>7b5</sup>	=	ii <sup>7b5</sup>
	aug <sup>maj7</sup>	=	III <sup>+maj7</sup>
	dim <sup>7</sup>	=	vii <sup>i°7</sup>

## Harmonic Major Scale

**Ex. 17**

	C <sub>maj</sub>	D <sup>o</sup>	E-	F-	G <sub>maj</sub>	A <sup>b+</sup>	B <sup>o</sup>
Triads							
R.N.	I	ii <sup>o</sup> Dorian b5	iii Harmonic Major (Ionian b6)	iv Phrygian b4 Lydian b3 (Melodic Minor #4)	V Mixolydian b2	VI <sup>+</sup> Lydian Augmented #2	vii <sup>o</sup> Locrian bb7
Seventh							
R.N.	I <sup>maj7</sup>	ii <sup>7b5</sup>	iii <sup>maj7</sup>	iv <sup>maj7</sup>	V <sup>7</sup>	VI <sup>+maj7</sup>	vii <sup>o7</sup>

Triads	maj	=	I, V
	min	=	iii, iv
	dim	=	ii <sup>o</sup> , vii <sup>o</sup>
	aug	=	VI <sup>+</sup>
Seventh	maj <sup>7</sup>	=	I <sup>maj7</sup>
	min <sup>maj7</sup>	=	iv <sup>maj7</sup>
	min <sup>7</sup>	=	iii <sup>7</sup>
	dom <sup>7</sup>	=	V <sup>7</sup>
	min <sup>7b5</sup>	=	ii <sup>7b5</sup>
	aug <sup>maj7</sup>	=	VI <sup>+maj7</sup>
	dim <sup>7</sup>	=	vii <sup>o7</sup>

## Double Harmonic Major Scale

*Ex. 18*

Triads	Cmaj	D <sub>b</sub> maj	E-	F-	Gmaj <sup>b5</sup>	A <sub>b</sub> +	B'sus <sup>2b5</sup>
R.N.	I Double Harmonic Major	II Lydian #2 #6	III Ultraphrygian	IV Hungarian Minor	V <sup>b5</sup> Oriental	VI+ Ionian Augmented #2	vii i° Locrian bb3 bb7
Seventh	Cmaj <sup>7</sup>	D <sub>b</sub> maj <sup>7</sup>	E- <sup>b7</sup>	F-maj <sup>7</sup>	G <sup>7b5</sup>	A <sub>b</sub> +maj <sup>7</sup>	D <sub>b</sub> <sup>7</sup> /B
R.N.	I <sup>maj7</sup>	II <sup>maj7</sup>	III <sup>bb7</sup>	IV <sup>maj7</sup>	V <sup>7b5</sup>	VI <sup>+maj7</sup>	VII <sup>4/2</sup>

Triads	maj	=	I, II
	maj <sup>b5</sup>	=	V <sup>b5</sup>
	min	=	III, IV
	dim	=	vii°
	aug	=	VI+
Seventh	maj <sup>7</sup>	=	I <sup>maj7</sup> , II <sup>maj7</sup>
	min <sup>maj7</sup>	=	IV <sup>maj7</sup>
	min <sup>bb7</sup>	=	III <sup>bb7</sup>
	dom4/2	=	VII <sup>4/2</sup>
	dom <sup>7b5</sup>	=	V <sup>7b5</sup>
	aug <sup>maj7</sup>	=	VI <sup>+maj7</sup>

## 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**

<b>C<sup>Ma7</sup></b> =1	3	5	7	<b>C7</b> =1	3	5	b7
<b>C-7</b> =1	b3	5	b7	<b>C-7<sup>b5</sup></b> =1	b3	b5	b7
<b>C°7</b> =1	b3	b5	bb7	<b>C<sup>+Ma7</sup></b> =1	3	#5	7
<b>C-<sup>Ma7</sup></b> =1	b3	5	7	<b>C<sup>+7</sup></b> =1	3	#5	b7
<b>C°<sup>Ma7</sup></b> =1	b3	b5	7	<b>C-7<sup>*5</sup></b> =1	b3	#5	b7

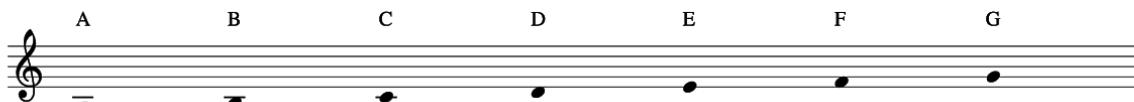
## Relative Major/Minor

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...

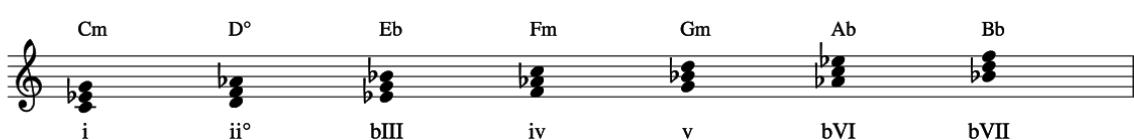
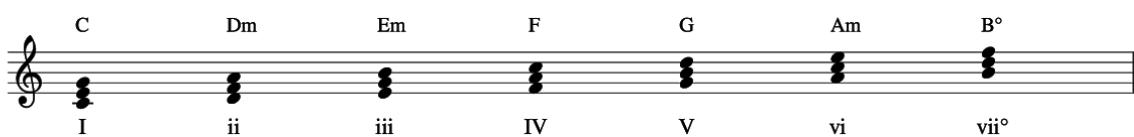


...and it's parallel minor, C Minor



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 <sup>Maj7</sup> I <sup>Maj7</sup>	Dm <sup>7</sup> ii <sup>7</sup>	Em <sup>7</sup> iii <sup>7</sup>	F <sup>Maj7</sup> IV <sup>Maj7</sup>	G <sup>7</sup> V <sup>7</sup>	Am <sup>7</sup> vi <sup>7</sup>	B <sup>Ø7</sup> vii <sup>7b5</sup>
Sec. V <sup>7</sup>		A <sup>7</sup> V <sup>7</sup> /ii	B <sup>7</sup> V <sup>7</sup> /iii	C <sup>7</sup> V <sup>7</sup> /IV	D <sup>7</sup> V <sup>7</sup> /V	E <sup>7</sup> V <sup>7</sup> /vi	
Sec. vii <sup>ø7</sup>		C# <sup>ø7</sup> vii <sup>ø7</sup> /ii	D# <sup>ø7</sup> vii <sup>ø7</sup> /iii	E <sup>ø7</sup> vii <sup>ø7</sup> /IV	F# <sup>ø7</sup> vii <sup>ø7</sup> /V	G# <sup>ø7</sup> vii <sup>ø7</sup> /vi	
Parallel Natural Minor	Cm <sup>7</sup> i <sup>7</sup>	D <sup>Ø7</sup> ii <sup>7b5</sup>	Eb <sup>Maj7</sup> bIII <sup>Maj7</sup>	Fm <sup>7</sup> iv <sup>7</sup>	Gm <sup>7</sup> v <sup>7</sup>	Ab <sup>Maj7</sup> bVI <sup>Maj7</sup>	Bb <sup>7</sup> bVII <sup>7</sup>
Parallel Melodic Minor	Cm <sup>Maj7</sup> i <sup>Maj7</sup>	Dm <sup>7</sup> ii <sup>7</sup>	Eb <sup>Maj7#5</sup> bIII <sup>Maj7#5</sup>	F <sup>7</sup> IV <sup>7</sup>	G <sup>7</sup> V <sup>7</sup>	A <sup>Ø7</sup> vi <sup>7b5</sup>	B <sup>Ø7</sup> vii <sup>7b5</sup>
Parallel Harmonic Minor	Cm <sup>Maj7</sup> i <sup>Maj7</sup>	D <sup>Ø7</sup> ii <sup>7b5</sup>	Eb <sup>Maj7#5</sup> bIII <sup>Maj7#5</sup>	Fm <sup>7</sup> iv <sup>7</sup>	G <sup>7</sup> V <sup>7</sup>	Ab <sup>Maj7</sup> bVI <sup>Maj7</sup>	B <sup>ø7</sup> vii <sup>ø7</sup>

## 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 <sup>Maj7</sup> I <sup>Maj7</sup>	Dm <sup>7</sup> ii <sup>7</sup>	Em <sup>7</sup> iii <sup>7</sup>	F <sup>Maj7</sup> IV <sup>Maj7</sup>	G <sup>7</sup> V <sup>7</sup>	Am <sup>7</sup> vi <sup>7</sup>	B <sup>Ø7</sup> vii <sup>7b5</sup>
Sec. V <sup>7</sup>		A <sup>7</sup> V <sup>7</sup> /ii	B <sup>7</sup> V <sup>7</sup> /iii	C <sup>7</sup> V <sup>7</sup> /IV	D <sup>7</sup> V <sup>7</sup> /V	E <sup>7</sup> V <sup>7</sup> /vi	
Sec. vii <sup>ø7</sup>		C# <sup>ø7</sup> vii <sup>ø7</sup> /ii	D# <sup>ø7</sup> vii <sup>ø7</sup> /iii	E <sup>ø7</sup> vii <sup>ø7</sup> /IV	F# <sup>ø7</sup> vii <sup>ø7</sup> /V	G# <sup>ø7</sup> vii <sup>ø7</sup> /vi	
Parallel Natural Minor	Cm <sup>7</sup> i <sup>7</sup>	D <sup>Ø7</sup> ii <sup>7b5</sup>	Eb <sup>Maj7</sup> bIII <sup>Maj7</sup>	Fm <sup>7</sup> iv <sup>7</sup>	Gm <sup>7</sup> v <sup>7</sup>	Ab <sup>Maj7</sup> bVI <sup>Maj7</sup>	Bb <sup>7</sup> bVII <sup>7</sup>
Parallel Melodic Minor	Cm <sup>Maj7</sup> i <sup>Maj7</sup>	Dm <sup>7</sup> ii <sup>7</sup>	Eb <sup>Maj7#5</sup> bIII <sup>Maj7#5</sup>	F <sup>7</sup> IV <sup>7</sup>		A <sup>Ø7</sup> vi <sup>7b5</sup>	
Parallel Harmonic Minor							B <sup>ø7</sup> vii <sup>ø7</sup>

## 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
Eb	Cm	bIII / i
Ab	Fm	bVI / iv
Bb	Gm	bVII / v

Borrowed from Parallel Modes

Major Triad	Relative Minor	Roman Numerals	Borrowed from Parallel _____
Db	Bbm	bII / bvii	Phrygian
D	Bm	II / vii	Lydian
Gb	Ebm	bV / biii	Locrian

Secondary V chords and their Relative Minors

Major Triad	Relative Minor	Roman Numerals	V/x
E	C#m / Dm	III / bii	V/vi
A	F#m / Gm	VI / bii	V/ii
B	G#m / Abm	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.

A musical staff with seven chords shown as vertical stacks of three notes each. The chords are: Diminished (two minor thirds), Minor (one minor third, one major third), Major (one major third, one minor third), and Augmented (one major third, one major third).

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.

A musical staff with four inverted chords shown as vertical stacks of three notes each. The chords are: 1st inversion (diminished), 2nd inversion (minor), 1st inversion (major), and 2nd inversion (augmented).

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*

A musical staff in G clef. It shows a C major chord (C, E, G) followed by a C suspended fourth chord (C, F, G). The notes are positioned on the first, third, and fifth lines of the staff respectively.

### *Ex. 20b*

A musical staff in G clef. It shows a C major chord (C, E, G) followed by a C suspended second chord (C, E, G). The notes are positioned on the first, second, and fifth lines of the staff respectively.

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*

A musical staff in G clef. It shows a C major chord (C, E, G) followed by a C Lydian Delta chord (C, F#, G). The notes are positioned on the first, second, and fifth lines of the staff respectively. The label "Clyd Δ" is written above the staff.

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

### *Ex. 22*

A musical staff in G clef. It shows a C major chord (C, E, G) followed by a C Sus4b5 chord (C, F, Gb). The notes are positioned on the first, third, and fifth lines of the staff respectively. The label "Csus⁴b⁵ Δ" is written above the staff.

The Sus4b5 triad is slightly different in that the fourth (F) is raised and the fifth (Gb) is flattened 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**

A musical staff in G clef. The first chord, labeled **C<sup>sus4</sup>**, consists of notes on the 5th and 6th strings. The second chord, labeled **F<sup>sus2</sup>**, consists of notes on the 4th and 5th strings. The third chord, labeled **GQ** (Quartal), consists of notes on the 3rd and 4th strings.

**F<sup>sus2</sup>** is a 1<sup>st</sup> inversion of **C<sup>sus4</sup>**

**GQ** is a 2<sup>nd</sup> inversion of **C<sup>sus4</sup>**

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

**Ex. 24**      **GQ**    =1       4       b7

A musical staff in G clef. The chord **GQ** is shown in its 2nd inversion, consisting of notes on the 3rd and 4th strings, with a vertical line between them labeled "P4".

Here are some other symbols to know.

**Ex. 25**

A musical staff in G clef. Four chords are shown: **GQt+** (1 4 7), **Gt4Q** (1 #4 7), **Csus4b5** (1 4 b5), and **FphrygΔ** (1 b2 5).

## Chord Scales

### Major Scale Modes

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

### Melodic Minor Modes

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

## Harmonic Minor Modes

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

## Miscellaneous Scales

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

## Chord Families and Their Scales

### Major<sup>7</sup> Type

Maj <sup>(7)</sup> 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 Pentatonic	1	2	3	5	6	no 4 or 7		
Major Blues	1	2	b3	3	5	6	b3, no4 or 7	
Augmented	1	b3	3	5	#5	7	b3, #5	

### Minor<sup>7</sup> Type

Min <sup>(7)</sup> 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<sup>7b5</sup> Type

Min <sup>(7b5)</sup> 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

## Dom<sup>7</sup> Type

Dom <sup>7</sup> 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

A musical staff in G clef with seven notes. The notes are: I (C), ii (D), iii (E), IV (F), V (G), vi (A), and vii° (B). Below the staff, the degrees are labeled: Tonic, Supertonic, Mediant, Subdominant, Dominant, Submediant, and 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

A musical staff in G clef with seven notes. The notes are: i (C), ii° (D), III (E), iv (F), v (G), VI (A), and VII (B). Below the staff, the degrees are labeled: Tonic, Supertonic, Mediant, Subdominant, Dominant, Submediant, and 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 5<sup>th</sup> and 7<sup>th</sup> degrees of the scale. V<sup>7</sup>, vii<sup>7b5</sup>.

**Ex. 28**

Key of C      G7 = V<sup>7</sup> in C

A musical staff in G major (one sharp) shows the notes of the C major scale. The notes are: 1 (C), 2 (D), 3 (E), 4 (F), 5 (G), 6 (A), 7 (B). Above the staff, the label "Key of C" is written. Below the staff, the notes are numbered 1 through 7 under each corresponding note. To the right of the staff, the chord G7 is shown as "V7 = V<sup>7</sup> in C". A bracket underlines the 5th and 7th notes of the scale, which correspond to the notes in the G7 chord.

**Ex. 29**

Key of C      B-7b5 = vii<sup>7b5</sup> in C

A musical staff in G major (one sharp) shows the notes of the C major scale. The notes are: 1 (C), 2 (D), 3 (E), 4 (F), 5 (G), 6 (A), 7 (B). Above the staff, the label "Key of C" is written. Below the staff, the notes are numbered 1 through 7 under each corresponding note. To the right of the staff, the chord B-7b5 is shown as "vii<sup>7b5</sup> = vii<sup>7b5</sup> in C". A bracket underlines the 4th and 7th notes of the scale, which correspond to the notes in the B-7b5 chord.

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

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

**Ex. 30**

Key of C      F<sub>MA</sub>7 = IV<sup>MA7</sup> in C

A musical staff in G major (one sharp) shows the notes of the C major scale. The notes are: 1 (C), 2 (D), 3 (E), 4 (F), 5 (G), 6 (A), 7 (B). Above the staff, the label "Key of C" is written. Below the staff, the notes are numbered 1 through 7 under each corresponding note. To the right of the staff, the chord F<sub>MA</sub>7 is shown as "IV<sup>MA7</sup> in C". A bracket underlines the 4th note of the scale, which corresponds to the note in the F<sub>MA</sub>7 chord.

**Ex. 31**

Key of C D-7 = ii<sup>7</sup> in C

A musical staff in G major (one sharp) shows the notes of the C major scale. The notes are: 1 (C), 2 (D), 3 (E), 4 (F), 5 (G), 6 (A), 7 (B). Above the staff, the label "Key of C" is written. Below the staff, the notes are numbered 1 through 7 under each corresponding note. To the right of the staff, the chord D-7 is shown as "ii<sup>7</sup> in C". A bracket underlines the 2nd note of the scale, which corresponds to the note in the D-7 chord.

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

**Ex. 32**

Key of C

**C<sub>MA</sub>7 = I<sup>MA7</sup> 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**

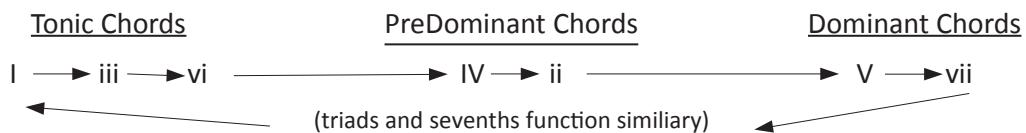
Key of C

**A-7 = vii-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**

Musical staff showing a progression of chords:

- D-7 (Pre Dom.)
- ii<sup>7</sup> (Dom.)
- G<sup>7</sup>
- V<sup>7</sup>
- C<sub>MA</sub><sup>7</sup> (Tonic)

**Ex. 37**

Musical staff showing a progression of chords:

- E-7 (Tonic)
- iii<sup>7</sup> (Tonic)
- A-7
- vi<sup>7</sup>
- D-7 (Pre Dom.)
- ii<sup>7</sup> (Dom.)
- G<sup>7</sup>
- V<sup>7</sup>
- C<sub>MA</sub><sup>7</sup> (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

(°) 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°
Cmajor =	C	D-	E-	F	G	A-	B°
Sec. Dom.'s		A <sup>7</sup>	B <sup>7</sup>	C <sup>7</sup>	D <sup>7</sup>	E <sup>7</sup>	
		V <sup>7</sup>	not a stable enough resolution chord to have a Sec. Dom.				
		ii	iii	IV	V	vi	

Basically, the Secondary Dom.<sup>7</sup> chord is the Dom.<sup>7</sup> chord in the key of the bottom Roman Numeral.

**Ex. 39**

Chords shown: C<sub>ma</sub>7, A<sup>7</sup>, D-7, G<sup>7</sup>

Labels below staff:

- I<sup>maj7</sup>
- V<sup>7</sup>
- ii      Bottom Roman Numeral
- ii
- V<sup>7</sup>

A<sup>7</sup> is the V<sup>7</sup> chord in the key of D minor. So in reality, D-7 functions dually as the ii<sup>7</sup> chord in D minor and as the ii<sup>7</sup> in major

Secondary Diminished Seventh Chords

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

**Ex. 40**

Chords shown: C<sub>ma</sub>7, C<sup>#o7</sup>, D-7, D<sup>#o7</sup>, E-7

Labels below staff:

- I<sup>maj7</sup>
- vii<sup>o7</sup>
- ii
- li
- vii<sup>o7</sup>
- iii
- iii

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

**Ex. 41**

	I	ii	iii	IV	V	vi	vii <sup>o</sup>
Cmajor =	C	D-	E-	F	G	A-	B <sup>o</sup>
Sec. Dim <sup>o7</sup>		C <sup>#o7</sup>	D <sup>#o7</sup>	E <sup>o7</sup>	F <sup>#o7</sup>	G <sup>#o7</sup>	
	<u>vii<sup>o7</sup></u>	<u>vii<sup>o7</sup></u>	<u>vii<sup>o7</sup></u>	<u>vii<sup>o7</sup></u>	<u>vii<sup>o7</sup></u>	<u>vii<sup>o7</sup></u>	not a stable enough resolution chord to have a Sec. Dom.
	ii	iii	VI	V	vi		

## 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**

A musical staff in G major (G clef) showing a sequence of chords. The progression starts at C7 and moves through F7, Bb7, Eb7, Ab7, Db7, Gb7, and B7, ending with an ellipsis (...). The roots of the chords form a descending fifth pattern: C, F, Bb, Eb, Ab, Db, Gb, B.

### **Back Cycling**

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

#### **Ex. 43**

A musical staff in G major (G clef) showing a harmonic progression. The progression starts at C7, followed by D-7<sup>b5</sup> (labeled ii), G7 alt. (labeled ii), C-7 (labeled ii), and F7. The progression moves from a minor key (D-7<sup>b5</sup>) to the key center (G7 alt.) a fifth above.

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

The musical score consists of ten staves of music, each with a treble clef and a 4/4 time signature. The staves are arranged in two columns of five. Circled Roman numerals indicate key centers: A<sub>b</sub>, C, E<sub>b</sub>, G, and B<sub>b</sub>. Capital letters above the staves represent major keys, while subscript letters below the staves represent minor keys. Chords are labeled with Roman numerals and 7ths (e.g., I<sup>7</sup>, II<sup>7</sup>, V<sup>7</sup>). Chord scale choices are indicated by labels below the staves.

- Staff 1:** Key center A<sub>b</sub>. Chords: F-7, B<sub>b</sub>-7, E<sub>b</sub>7, A<sub>b MA</sub>7. Scales: R.N. vi<sup>7</sup> (Faeolian), ii<sup>7</sup> (Bb dorian), V<sup>7</sup> (Eb mixolydian), I<sup>MA7</sup> (Ab ionian).
- Staff 2:** Key center C. Chords: D<sub>b MA</sub>7, D-7, G7, C<sub>MA</sub>7. Scales: IV<sup>MA7</sup> (Db lydian), ii<sup>7</sup> (D dorian), V<sup>7</sup> (G mixo.), I<sup>MA7</sup> (C ionian). End symbol: X.
- Staff 3:** Key center E<sub>b</sub>. Chords: C-7, F-7, B<sub>b</sub>7, E<sub>b MA</sub>7. Scales: vi<sup>7</sup> (Caeolian), ii<sup>7</sup> (F dorian), V<sup>7</sup> (Bb mixolydian), I<sup>MA7</sup> (Eb ionian).
- Staff 4:** Key center G. Chords: A<sub>b MA</sub>7, A-7, D7, G<sub>MA</sub>7, B-7, E7 alt. Chords: IV<sup>MA7</sup> (Ab lydian), ii<sup>7</sup> (A dorian), V<sup>7</sup> (D mixo.), I<sup>MA7</sup> (G ionian), III<sup>7</sup> (B phry.), V<sup>7</sup> (E alt. of your choice).
- Staff 5:** Key center A<sub>b</sub>. Chords: A-7, D7, G<sub>MA</sub>7. Scales: ii<sup>7</sup> (A dorian), V<sup>7</sup> (D mixolydian), I<sup>MA7</sup> (G ionian). End symbol: X.
- Staff 6:** Key center E. Chords: F#-7, B7, E<sub>MA</sub>7, C7. Scales: ii<sup>7</sup> (F# dorian), V<sup>7</sup> (B mixolydian), I<sup>MA7</sup> (E ionian), VI<sup>7</sup> (C alt. scale).
- Staff 7:** Key center F. Chords: F-7, B<sub>b</sub>-7, E<sub>b</sub>7, A<sub>b MA</sub>7. Scales: vi<sup>7</sup> (Faeolian), ii<sup>7</sup> (Bb dorian), V<sup>7</sup> (Eb mixolydian), I<sup>MA7</sup> (Ab ionian).
- Staff 8:** Key center B<sub>b</sub>. Chords: D<sub>b MA</sub>7, C#-7, F#7, Ab C-7, B07. Scales: IV<sup>MA7</sup> (Db lydian), ii<sup>7</sup> (C# dorian), V<sup>7</sup> (F# mixo.), III<sup>7</sup> (C phrygian), VII<sup>7b5</sup> (B tonic dim.).
- Staff 9:** Key center B<sub>b</sub>. Chords: B<sub>b</sub>-7, E<sub>b</sub>7, A<sub>b MA</sub>7, G-7<sup>b5</sup>, Calt. Scales: ii<sup>7</sup> (Bb dorian), V<sup>7</sup> (Eb mixolydian), I<sup>MA7</sup> (Ab ionian), II<sup>7b5</sup> (G loc. b6), V<sup>7 alt.</sup> (C phry. major).

**Ex. 44b**

The scales you will provide

ii<sup>7b5</sup>      V<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>

ii<sup>7</sup>      V<sup>7</sup>      IMA<sup>7</sup>      bII<sup>7</sup>      vi      Tritone sub.

IMA<sup>7</sup>      ii<sup>7b5</sup>      V<sup>7</sup>      i<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>

ii<sup>7</sup>      V<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>      ii<sup>7b5</sup>      V<sup>7</sup>

x      x

bII<sup>7</sup>      vi      IMA<sup>7</sup>      x

ii<sup>7b5</sup>      V<sup>7</sup>      ii<sup>7b5</sup>      V<sup>7</sup>

ii<sup>7(b5)</sup>      V<sup>7</sup>      IMA<sup>7</sup>      x

You may have noticed the  $Ab^7$  as being  $bII$ . The reason for this is because it ( $Ab^7$ ) is a tritone substitute (to be explained later, so don't panic) for  $D^7$  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.  $G^{-7}$  (dor.)       $= G^{-9} \longrightarrow G^{-11} \longrightarrow G^{-13}$
2.  $D^7$  (mix.)       $= D^9 \longrightarrow D^{11} \longrightarrow D^{13}$
3.  $Bb^{\text{maj}7}$  (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**

$$\begin{array}{ll} A^{\text{maj}7} \quad \text{sub.} & C\#^{-7} \text{ (mediant)} \\ & F\#^{-7} \text{ (submediant)} \end{array} \quad \begin{array}{ll} C\#^{-7} & = A^{\text{maj}9} \\ F\#^{-7} & = A^6 \end{array}$$

### Rule III: Minor Chords

Substitute Relative Major or Dominant Minor

#### *Ex. 50*

D- <sup>7</sup>	sub.	F <sup>maj7</sup> (relative major)	F <sup>maj7</sup>	= D- <sup>9</sup>
		A- <sup>7</sup> (dom. Minor)	A- <sup>7</sup>	= D- <sup>9/11</sup>

### Rule IV: Dom.<sup>7</sup> Chords (V<sup>7</sup>)

Substitute Dom. minor for Dom. major (must return to Dom. major). This is also called "twoing the five" because you are putting the ii<sup>7</sup> chord before the V<sup>7</sup>. 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***

The image shows four musical staves, each consisting of a treble clef, a key signature of one sharp (F#), and a common time signature. Each staff contains four measures separated by vertical bar lines.

- orig.** Staff 1: C<sub>MA</sub>7 | A-7 | D-7 | G7 | |
- sub** Staff 2: C<sub>MA</sub>7 | E<sup>b</sup>7 | A<sup>b</sup>7 | D<sup>b</sup>7 | |
- or** Staff 3: C<sub>MA</sub>7 | E<sup>b</sup><sub>MA</sub>7 | A<sup>b</sup><sub>MA</sub>7 | D<sup>b</sup><sub>MA</sub>7 | |
- or** Staff 4: C<sub>MA</sub>7 | E<sup>b</sup>-7 | A<sup>b</sup>-7 | D<sup>b</sup>7 | |

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

## **Rule VI: Dom<sup>7</sup> Chords (V<sup>7</sup>)**

Substitute maj<sup>7<sup>b5</sup></sup> or maj<sup>7<sup>#5</sup></sup> built on the subtonic (bvii) of the Dom. chord.

### ***Ex. 54***

The image shows three musical staves, each consisting of a treble clef, a key signature of one sharp (F#), and a common time signature. Each staff contains four measures separated by vertical bar lines.

- orig.** Staff 1: F7 | | | | |
- sub 1** Staff 2: E<sup>b</sup><sub>MA</sub>7<sup>b5</sup> | -F13 | | |
- sub 2** Staff 3: E<sup>b</sup><sub>MA</sub>7<sup>#5</sup> | -F13<sup>#5</sup> | | |

Both should be voiced in higher registers.

### Rule VII: Dom<sup>7</sup> Chords (V<sup>7</sup>)

Substitute min<sup>7b5</sup> chord built on the mediant of the Dom<sup>7</sup> chord.

#### *Ex. 55*

The image shows two staves of musical notation. The top staff is labeled "orig." and contains a treble clef, a key signature of one sharp (F#), and a vertical bar line. Above the staff, the letters "F7" are written. The bottom staff is labeled "sub" and contains a treble clef, a key signature of one sharp (A#), and a vertical bar line. Above the staff, the letters "A-7b5" are written, followed by an equals sign and the letters "F9".

(Chord should also be voiced in a higher register)

### Rule VIII: Dom<sup>7</sup> Chords (V<sup>7</sup>)

Substitute Dim<sup>7</sup> chord built on bII of the Dom<sup>7</sup> chord.

#### *Ex. 56*

The image shows two staves of musical notation. The top staff is labeled "orig." and contains a treble clef, a key signature of one sharp (G#), and a vertical bar line. Above the staff, the letters "G7" are written. The bottom staff is labeled "sub" and contains a treble clef, a key signature of one sharp (A#), and a vertical bar line. Above the staff, the letters "Ab°7" are written, followed by an equals sign and the letters "G7b9".

Also the other 3 symmetric dim<sup>7</sup> chords and their extensions

#### *Ex. 57*

G<sup>7b9</sup> = Ab<sup>o7</sup>, B<sup>o7</sup>, D<sup>o7</sup>, F<sup>o7</sup>

### Extensions of Dim7 Chords

#### *Ex. 58* Ab<sup>o7</sup> (Tonic Diminished scale)

The image shows a treble clef staff with six notes. Above the staff, the notes are labeled: "MA9", "(Cb)", "11", "(Eb)", "b13", and "MA7". Below the staff, the label "Ab°7 chord" is centered under the first four notes.

**Ex. 59**

**Ab<sup>o7</sup>**

1      b3      b5      bb7      MA7      MA9      11      b13

---

Extensions of Dim<sup>7</sup> chord.  
(happens to be a Dim chord itself)

**Rule IX:**

V<sup>7</sup> chords may replace minors (secondary dominants) to set up a stronger harmonic cadence (tonicization).

**Ex. 60**

orig.

I<sup>maj7</sup>      vi<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>

sub

I<sup>maj7</sup>      A7      D-7      G7

ii

**Rule X: Dom<sup>7</sup> (V<sup>7</sup>) chords**

Altered (#9, b9, #5, b5) Dom<sup>7</sup> 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.

A7      A7#5#9      D<sub>MA</sub>7

no

incorrect

A7#5#9      A7      D<sub>MA</sub>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 <sup>th</sup> higher (5 <sup>th</sup> lower): | A <sup>7 alt</sup> | D <sup>maj7</sup>     |
| 2. ½ step lower                                      | A <sup>7 alt</sup> | Ab <sup>maj7</sup>    |
| 3. a minor type with the same root                   | A <sup>7 alt</sup> | A- <sup>7</sup>       |
| 4. ½ step higher                                     | A <sup>7 alt</sup> | Bb <sup>maj7 In</sup> |

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 Dom<sup>7</sup> chord whose root is a 4<sup>th</sup> higher, you may insert a Dom<sup>7</sup> of the same root for half the duration.

### **Ex. 62**

The image shows two musical staves. The top staff is labeled "orig." and contains a treble clef, a key signature of one sharp, and two measures: C<sub>MA7</sub> and F<sub>MA7</sub>. The bottom staff is labeled "sub." and contains a treble clef, a key signature of one sharp, and three measures: C<sub>MA7</sub>, C<sup>7</sup>, and F<sub>MA7</sub>.

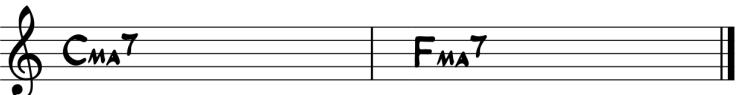
You may also insert the ii<sup>7</sup> chord of the V<sup>7</sup> sub

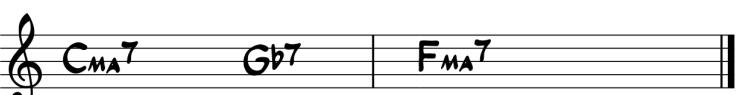
### **Ex. 63**

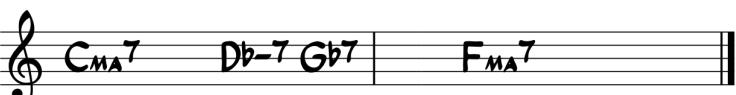
The image shows two musical staves. The top staff is labeled "orig." and contains a treble clef, a key signature of one sharp, and two measures: C<sub>MA7</sub> and F<sub>MA7</sub>. The bottom staff is labeled "sub." and contains a treble clef, a key signature of one sharp, and four measures: C<sub>MA7</sub>, G-<sup>7</sup>, C<sup>7</sup>, and F<sub>MA7</sub>.

B) You may also insert a Dom<sup>7</sup> chord a tritone away for the same duration.

**Ex. 64**

orig.      

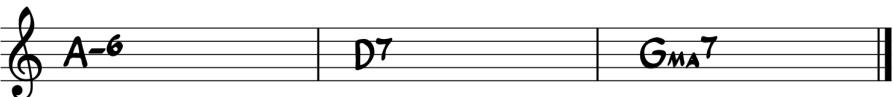
sub      

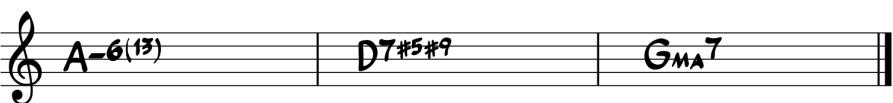
or      

**Rule XIII**

A min<sup>6</sup> chord cannot be substituted for a min<sup>7</sup> (ii-function) unless an altered Dom<sup>7</sup> follows, thus increasing the harmonic tension of the progression.

**Ex. 65**

wrong      

O.K.      

Or in combination with tritone substitution

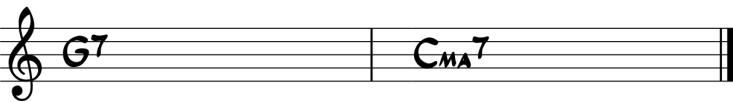
**Ex. 66**

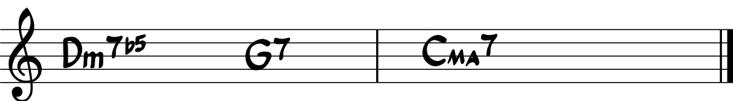


#### Rule XIV:

Min<sup>7b5</sup> chords may be inserted before Dom<sup>7</sup> (V<sup>7</sup>) chords in major or minor keys.

#### *Ex. 67a*

orig. 

sub 

or

#### *Ex. 67b*

orig. 

sub 

#### Rule XV:

Dom<sup>11</sup> (V<sup>7</sup>) chords can function as dom<sup>7</sup>'s or min<sup>7</sup>'s (dorian/aeolian)

#### *Ex. 68*

Key of E

Key of A

Key of b (Aeolian Function)

### **Rule XVI:**

A  $\text{BII}^{7b5}$  substitution for  $\text{V}^7\text{alt}$  works because they both share the same scale.

#### **Ex. 69**

G altered scale = Ab melodic minor

Db mixo. #11 scale = Ab melodic minor

### **Rule XVII:**

Secondary Dom<sup>7</sup> and Dim<sup>7</sup> chords may be inserted before their respective resolution chords.

**Ex. 70** orig.

sub.

or

### **Rule XVIII:**

It is common to insert two diatonic chords separated by a secondary dim<sup>7</sup> chord in places of little harmonic motion.

#### **Ex. 71**

orig.

sub.

I<sup>maj7</sup>

ii<sup>7</sup>

Vii<sup>07</sup>

iii<sup>7</sup>

iii

## **Rule XIX:**

Maj<sup>7#5</sup> and Maj<sup>7b5</sup> chords can be subbed for any other chords from the same melodic minor scale.

<b>Ex. 72</b>	Eb <sup>maj7#5</sup>	for	C- <sup>maj7</sup>	(3, 5, 7, 9) of C- <sup>maj7</sup>
	Eb <sup>maj7b5</sup>	for	F <sup>13</sup>	(b7, 9, 3, 13) of F <sup>13</sup>

## **Rule XX: Symmetrical Scales**

- A) Diminished chords repeat every min3<sup>rd</sup> (4 frets) interval. Therefore, any of the four in the cycle may be substituted for another.
- B) Augmented Chords repeat every maj3<sup>rd</sup> (5 frets) interval, so the same rule applies.

## **Rule XXI: Dom<sup>7</sup> Chords (V<sup>7</sup>)**

Dom<sup>7</sup> chords can be moved in min3<sup>rd</sup> cycles to intersect at cadence points.

### **Ex. 73**

The image displays five musical staves, each consisting of a treble clef, a key signature of one sharp (F#), and four measures. The first staff is labeled "orig." and contains the chords A7, A7, Dm7, and a final measure ending with a double bar line. The subsequent four staves are labeled "sub. 1", "sub. 2", "sub. 3", and "sub. 4" respectively, and each contains a different sequence of chords that all end with a Dm7 chord. The chords in the substitutions are: sub. 1: C7, Eb7, Gb7, A7; sub. 2: F#7, Eb7, C7, A7; sub. 3: C7, A7, F#7, Eb7; sub. 4: F#7, A7, C7, Eb7.

## **Rule XXII: Modal Chords**

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

### **Ex. 74**

$G^{\text{maj}7}$ (Ionian) orig.	$G^{\text{maj}7/6/9}$
$G^{\text{maj}7}$ (Lydian) sub.	$G^{\text{maj}7/\#11}$
$Bb^{-7}$ (Dorian) orig.	$Bb^{-6/9}$
$Bb^{-7}$ (Aeolian) sub.	$Bb^{-7/b6}$

## **Rule XXIII:**

The cycle of 5ths (descending) may be inserted for any length in a progression as long as the intersecting chord has either a V<sup>7</sup> or a bII<sup>7</sup> relationship to the resolution chord.

### **Ex. 75**

The image shows three musical staves, each consisting of five horizontal lines and four spaces. The first staff is labeled "orig." and contains chords D-7, G7, and Cma7. The second staff is labeled "sub. 1" and contains chords E7, A7, D7, G7, and Cma7. The third staff is labeled "sub. 2" and contains chords Bb7, Eb7, Ab7, Db7, and Cma7. The chords are written in a standard musical notation style with stems and note heads.

## Rule XXIV

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

### **Ex. 76**

G <sup>13/b9</sup>				
<u>MajΔ</u> Bass sub	(1) <u>G</u> Ab	<u>Bb</u> B	<u>Db</u> D	<u>E</u> F
	(2) <u>Db</u> G	<u>E</u> Bb	<u>G</u> Db	<u>Bb</u> E
	(3) <u>E</u> G	<u>G</u> Bb	<u>Bb</u> Db	<u>Db</u> Eb
	(4) <u>Bb</u> G	<u>Db</u> Bb	<u>E</u> Db	<u>G</u> E

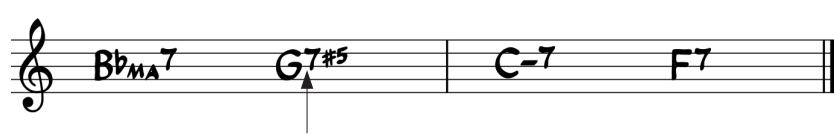
G- Ab				
<u>MinΔ</u> Bass sub	(1) <u>G-</u> Ab	<u>Bb-</u> B	<u>Db-</u> D	<u>E-</u> F
	(2) <u>Db-</u> G	<u>E-</u> Bb	<u>G-</u> Db	<u>Bb-</u> E
	(3) <u>E-</u> G	<u>G-</u> Bb	<u>Bb-</u> Db	<u>Db-</u> Eb
	(4) <u>Bb-</u> G	<u>Db-</u> Bb	<u>E-</u> Db	<u>G-</u> E

## Rule XXV:

- A) When in a min ii<sup>7b5</sup>    V<sup>7</sup>    i<sup>7</sup> progression, an altered Dom7 chord must be used.
- B) All secondary Dom<sup>7</sup> (V<sup>7</sup>) chords resolving to minor must have an altered V<sup>7</sup> chord

### **Ex. 77**

I<sup>maj7</sup>                      V<sup>7</sup>  
                                     ii                              ii<sup>7</sup>                              V<sup>7</sup>

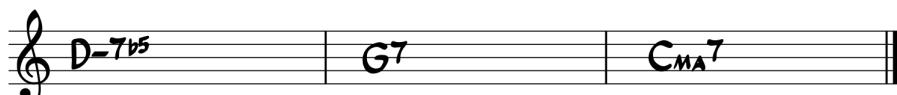


must be altered in some way  
because it's resolving to C-7

### Rule XXVI:

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

#### *Ex. 78*

orig.      

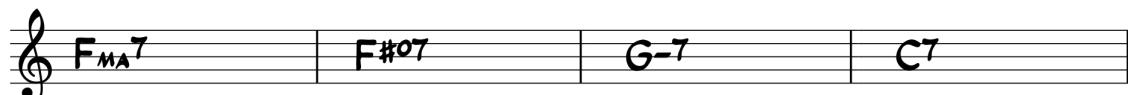
sub.      

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

### Rule XXVII

Dim<sup>7</sup> chords that resolve to min<sup>7</sup> chords one ½ step above can be replaced with a ii<sup>7b5</sup> V<sup>7alt</sup> progression from the key of the min<sup>7</sup> chord.

#### *Ex. 79*

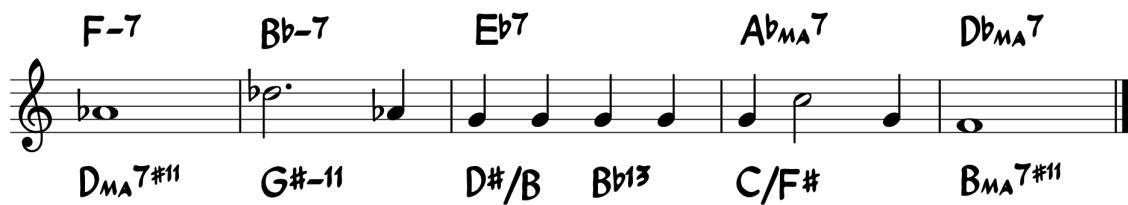
orig.      

sub.      

### Rule XXVIII:

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

#### *Ex. 80*

orig.      

            F-7      Bb-7      Eb7      AbMA7      DbMA7  
             DMA7#11      G#-11      D#/B      Bb13      C/F#      BMA7#11

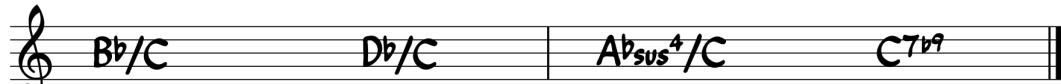
## **Rule XXIX**

Triads and Sevenths ( $V^7$ ) over Dom or Tonic bass notes are very common.

### ***Ex. 81***

$I^{maj7}$                      $\frac{V7}{ii}$                     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**

Musical notation for Ex. 82a:

G / F#      Triad  
Bass Note

G      G Triad

F#      F# Bass Note

### **Ex. 82b**

Musical notation for Ex. 82b:

A- / G#      Triad  
Bass Note

A-      A- Triad 1<sup>st</sup> inversion

G#      G# Bass Note

The seventh chord over a bass note looks like

this: **Ex. 83**

Musical notation for Ex. 83:

BbMA7b5 / A      A Bass Note

BbMA7b5

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**

$\frac{D_\Delta}{E\flat_\Delta}$

D  
E $\flat$

**Ex. 84b**

$\frac{F\sharp_\Delta}{E\cdot_\Delta}$

F $\sharp$   
E-

To indicate the presence of a triad, a  $\Delta$  (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**

$\frac{A\cdot_\Delta}{E\cdot_\Delta}$  or  $\frac{A\cdot 7}{E\cdot_\Delta}$

A- $\Delta$   
E- $\Delta$

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**

The image shows three staves of music in treble clef. Each staff consists of five horizontal lines. Above each staff, there is a label indicating a chord:  $A_{\Delta}/G(\Delta)$ ,  $B_{\Delta}/G(\Delta)$ , and  $D_{\flat}\Delta/G(\Delta)$ . The first two staves have a key signature of one sharp (F#), while the third has a key signature of one flat (B-flat). The chords are represented by the letters A, B, and D<sub>flat</sub> respectively, positioned above the staff. The bass note of each chord is indicated by a circled '8' below the staff.

## 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
<u>D<sub>b</sub></u> <u>C</u>	<u>D<sub>b</sub><sup>maj7</sup></u> <u>7</u> phrygian	b9, 11, b6	Phrygian Phrygian Major	<u>MajΔ</u> <u>Maj7</u>
<u>D<sub>b-</sub></u> <u>C</u>	<u>D<sub>b</sub><sup>maj7</sup></u> <u>7</u> altered dominant	b9, 3, #5	Phrygian Major Altered Dominant	<u>MinΔ</u> <u>Maj7</u>
<u>D<sub>b<sup>o</sup></sub></u> <u>C</u>	<u>D<sub>b</sub><sup>omaj7</sup></u> <u>7</u> dominant diminished	b9, 3, 5	Phrygian Major Dominant Diminished	<u>DimΔ</u> <u>Maj7</u>
<u>D<sub>b<sup>+</sup></sub></u> <u>C</u>	<u>D<sub>b</sub><sup>maj7#5</sup></u> <u>7</u> dorian b2	b9, 11, 6	Dorian b2 Locrian nat 6	<u>AugΔ</u> <u>Maj7</u>
<u>D<sub>b<sup>sus4</sup></sub></u> <u>C</u>	<u>D<sub>b</sub><sup>maj7sus4</sup></u> <u>7</u> locrian or altered dom.	b9, b5, b6	Locrian Altered Dominant	<u>sus4Δ</u> <u>Maj7</u>
<u>D<sub>b<sup>lyd</sup></sub></u> <u>C</u>	<u>D<sub>b</sub><sup>lydmaj7</sup></u> <u>7</u> phrygian	b9, 5, b6	Phrygian Phrygian Major	<u>Lyd.Δ</u> <u>Maj7</u>
<u>D<sub>b<sup>loc.</sup></sub></u> <u>C</u>	C Dom.Dim	b9, #11, 5		<u>Loc.Δ</u> <u>Maj7</u>
<u>D</u> <u>C</u>	<u>D<sup>7</sup></u> <u>b7</u>	9, #11, 13	Lydian (Augmented) Mixolydian #11 Dorian #9 Tonic Diminished	<u>MajΔ</u> <u>b7</u>
<u>D<sub>-</sub></u> <u>C</u>	<u>D<sup>7</sup></u> <u>b7</u>	9, 11, 13	Ionian Dorian Mixolydian Melodic Minor Ionian Augmented Tonic Diminished	<u>MinΔ</u> <u>b7</u>
<u>D<sup>o</sup></u> <u>C</u>	<u>D<sub>-</sub><sup>7b5</sup></u> <u>b7</u>	9, 11, b6	Aeolian Mixolydian b6 Locrian nat 2 Harmonic Minor Tonic Diminished	<u>DimΔ</u> <u>b7</u>
<u>D<sup>+</sup></u> <u>C</u>	C <sup>9/b5 no3rd</sup>	9, #11, b7	Mixolydian #11 Dorian #4 Whole Tone	<u>AugΔ</u> <u>b7</u>

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
<u>D<sup>sus4</sup></u> <u>C</u>	C <sup>6/9 no 3rd</sup>	9, 5, 13	Ionian Dorian Lydian Mixolydian Melodic Minor Mixolydian #11 Dorian #4 Pentatonic (Major)	<u>sus4Δ</u> <u>b7</u>
<u>D<sup>lyd</sup></u> <u>C</u>	C <sup>6/9/#11 no 3rd</sup>	9, #5, 13	Lydian Augmented Ionian Augmented	<u>Lyd.Δ</u> <u>b7</u>
<u>D<sup>loc.</sup></u> <u>C</u>	<u>Ab<sup>maj7/b5</sup></u> <u>3<sup>rd</sup></u>	9, 5, b6		<u>Majb5</u> <u>3<sup>rd</sup></u>
<u>Eb</u> <u>C</u>	C <sup>-7</sup>	b3, 5, b7	All minor scales without <sup>maj7</sup>	<u>MajΔ</u> <u>6</u>
<u>Eb-</u> <u>C</u>	C <sup>-7b5</sup>	b3, b5, b7	Locrian Locrian nat 2 Locrian nat 6	<u>MinΔ</u> <u>6</u>
<u>Eb<sup>o</sup></u> <u>C</u>	C <sup>o7</sup> Dim <sup>7</sup>	b3, b5, bb7	Tonic Diminished (Altered Dom. bb7)	Dim <sup>7</sup>
<u>Eb<sup>+</sup></u> <u>C</u>	C <sup>-maj7</sup> Min <sup>maj7</sup>	b3, 5, 7	Melodic Minor Harmonic Minor	Min <sup>maj7</sup>
<u>Eb<sup>sus4</sup></u> <u>C</u>	C <sup>-7b6</sup> aeolian	b3, b6, b7	Aeolian Altered Dominant	Min <sup>7/b6/(#5)</sup>
<u>Eb<sup>lyd</sup></u> <u>C</u>	C <sup>-13</sup> dorian	b3, 6, b7	Dorian Type Melodic Minor	Min <sup>13</sup>
<u>Eb<sup>loc.</sup></u> <u>C</u>	C <sup>o/b13</sup>	b3, #5, 13	Tonic Diminished	Dim <sup>b13</sup>
<u>E</u> <u>C</u>	C <sup>maj7/#5</sup> Aug <sup>maj7</sup>	3, #5, 7	Lydian Augmented	Maj <sup>7/#5</sup>
<u>E-</u> <u>C</u>	C <sup>maj7</sup> Maj <sup>7</sup>	3, 5, 7	Ionian Lydian Major Pentatonic Major Blues	Maj <sup>7</sup>
<u>E<sup>o</sup></u> <u>C</u>	C <sup>7</sup> Dom <sup>7</sup>	3, 5, b7	Mixolydian Mixolydian #11 Major Pentatonic Major Blues	Dom <sup>7</sup>
<u>E<sup>+</sup></u> <u>C</u>	C <sup>+</sup>	1, 3, #5	Whole Tone	AugΔ

Chord Name	Chord Type (Seventh or Mode)	Triad / Bass Interval Relationship	Scale(s)	Generic Chord Name or Interval above Top Triad
$\underline{E}^{\text{sus4}} \\ C$	$C^{\text{maj7/6}}$	3, 6, 7	Ionian Lydian Lydian Augmented	Maj <sup>13</sup>
$\underline{E}^{\text{lyd}} \\ C$	Twelve tone	3, b7, 7	Chromatic Scale	
$\underline{E}^{\text{loc.}} \\ C$	$C^{13 \text{ (no 5)}}$	3, 6, b7	Mixolydian Mixolydian #11 Dominant Diminished	Dom <sup>13</sup>
$\underline{F} \\ C$	$\underline{F} \\ 5^{\text{th}}$	3, 5, 7	Major Type	$\underline{\text{Maj}\Delta} \\ P5$
$\underline{F^-} \\ C$	$\underline{F^-} \\ 5^{\text{th}}$ Dom Tonic	b3, 5	Minor Type	$\underline{\text{Min}\Delta} \\ P5$
$\underline{F^o} \\ C$	$C^{\text{maj7/#5/sus4}}$	4, #5, 7	Aeolian Harmonic Minor	$\underline{\text{Dim}\Delta} \\ P5$
$\underline{F^+} \\ C$	$C^{\text{dor/b2}}$	4, 6, b9	Dorian b2 Phrygian Phrygian Major	$\underline{\text{Aug}\Delta} \\ P5$
$\underline{F^{\text{sus4}}} \\ C$	CQ	4, b7	Dorian Mixolydian	Quartal
$\underline{F^{\text{lyd}}} \\ C$	CQ+	4, 7	Ionian	Q. Aug
$\underline{F^{\text{loc.}}} \\ C$	$C^{\text{loc}}$	4, b5	Locrian	
$\underline{F^\#} \\ C$	$C^{7/b9/b5}$	b5, b7, b9	Dominant Diminished Altered Dominant	Dom <sup>b9/b5</sup>
$\underline{F^\#-} \\ C$	$C^{13/b9/b5}$	b9, 13, b5	Dominant Diminished	Dom <sup>13/b9/b5</sup>
$\underline{F^{\#0}} \\ C$	$C^{\text{o}}$	1, b3, b5	Tonic Diminished	Dim $\Delta$
$\underline{F^{\#+}} \\ C$	$C^{9/b5}$	b5, b7, 9	Whole Tone	Dom <sup>9b5</sup>
$\underline{F^{\text{sus4}}} \\ C$	Twelve tone	b5, 7, b9	Chromatic Scale	
$\underline{F^{\#lyd}} \\ C$	$C^{7/b9/b5}$	b5, 1, b9	Dominant Diminished Altered Dominant	Dom <sup>7/b9/b5</sup>
$\underline{F^{\#loc.}} \\ C$	$C^{\text{maj7/#11}}$	b5, 7, 1	Lydian Lydian Augmented	Maj <sup>7/#11</sup>

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

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

### **Ex. 87**

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

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**

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

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

These also all happen to be  $\text{Maj}^{7\#5}$  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:

1. as a  $\text{Db}^{\text{maj}7}$  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  $\frac{\text{Db}}{C}$  it is a type of a C chord, not a  $\text{Db}^{\text{maj}7}$  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**

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

## 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 three bars with vertical tick marks. Above the first bar is "ii<sup>7</sup>", above the second is "V<sup>7</sup>", and above the third is "I<sup>maj7</sup>". The bottom staff, labeled "Countdown", also has three bars with vertical tick marks. Above the first bar is "D-7", above the second is "G7", and above the third is "C<sub>MA</sub>7". Below the staves, the Roman numerals for the chords are listed: ii<sup>7</sup>, bIII<sup>7</sup>, bVI<sup>maj7</sup>, VII<sup>7</sup>, III<sup>maj7</sup>, V<sup>7</sup>, and I<sup>maj7</sup>. A horizontal arrow points from the "Depart" position (under the first bar of "Countdown") to the "Return" position (under the third bar of "Countdown").

This Progression may be inserted in any tune with a four bar ii-V<sup>7</sup>-I<sup>maj7</sup> 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.

**F7**

**B♭7**

**F7**

**D7alt**

**G-7**

**C7**

**F7**

**D7alt**

**G-7**

**C7**

### Ex. 92b

sub.

**I<sup>maj7</sup>**

**ii<sup>7b5</sup>**

**V<sup>7alt</sup>**

**ii<sup>7</sup>**

**V<sup>7</sup>**

**ii<sup>7</sup>**

**V<sup>7</sup>**

**I<sup>7</sup>**

**ii<sup>7</sup>**

**V<sup>7</sup>**

## 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*

The musical score for 'F Blues Basic' is a three-staff piece in 4/4 time. Staff 1 starts with a F7 chord, followed by three rests. Staff 2 starts with a Bb7 chord, followed by a rest, then an F7 chord, and another rest. Staff 3 starts with a G-7 chord, followed by a C-7 chord, then an F7 chord, a D7 chord, a G-7 chord, and finally a C7 chord.

### Substitution Characteristics

#### *F Blues ①*

The musical score for 'F Blues ①' is a three-staff piece in 4/4 time. Staff 1 starts with a F7 chord, followed by a Bb7 chord, a B⁹⁷ chord, a C-7 chord, and a F7 chord. Staff 2 starts with a Bb7 chord, followed by a Bb7 chord, a B⁹⁷ chord, an F7/C chord, and a D⁷alt chord. Staff 3 starts with a G-7 chord, followed by a C-7 chord, an F7 chord, a D⁷alt chord, a G-7 chord, and finally a C7 chord.

#### 1. Basic Bebop Blues

- B⁹⁷ in bar 2 is  $\frac{\text{vii}^07}{\text{ii}}$  going to the ii<sup>7</sup> chord (c-⁷) in next measure. Rule XVII
- B⁹⁷ in bar 5 is actually an F⁹⁷ resolving to  $\frac{\text{F}^7}{\text{C}}$ . This is a common delayed resolution technique and is used many times in ii – V<sup>7</sup> – I<sup>maj7</sup> for the first 2 beats (or bars) of the I<sup>maj7</sup> chord as demonstrated in this example.

**Ex. 93**

ii<sup>7</sup>                    V<sup>7</sup>                    i⁹maj⁷                    I⁹maj⁷

**F Blues (2)**

Staff 1: F⁷ | B⁷ B⁹⁷ | C-⁷ F⁷ | F#-⁷ B⁷

Staff 2: B⁹⁷ | B⁹-⁷ E⁹⁷ | F⁹/A | D⁹alt

Staff 3: G-⁷ C⁷ | D⁹-⁷ G⁹⁷ | F⁷ A⁹⁷ | D⁹⁷ G⁹⁷

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 Eb⁹ in bar 6 is actually an Eb⁹ to F⁹ resolution with the supertonic chord (Bb-⁷) in front of the dominant. This brings up a new rule.

**Rule XXX: Dom⁹ chords**

Dom⁹ chords that resolve to Dom⁹ or Maj⁹ chord a whole step above.

**Ex. 94a**

F mixolydian = Bb maj

Eb mix#11 = Bb melodic min

A alt. dom = Bb melodic min

F ionian = }  
D aeolian = } F maj

D phrygian = Bb maj

*Ex. 94b*

The image shows five horizontal musical staves, each with a treble clef and four lines. Each staff contains two chords separated by a vertical bar line.

- Top staff:  $A^7_{alt}$  |  $Bb_{M\Delta}7$
- Second staff:  $Eb^{7(b5)}$  |  $Bb_{M\Delta}7$
- Third staff:  $A^7_{alt}$  |  $F_{M\Delta}7$  or  $F7$
- Fourth staff:  $Eb7$  |  $A^-7$
- Bottom staff:  $A^7_{alt}$  |  $A^-7$

The main reason that these progressions work is because of the strong resolution tendencies of the Db, Bb and Eb ( $b7^{\text{th}}$ ,  $5^{\text{th}}$  and root) of the  $Eb^7$

*Ex. 95a*

A single horizontal musical staff with a treble clef and four lines. It shows three chords:

- $Eb^7$  (root position)
- $F^{\text{maj}7}$  (root position)
- $(F7)$  (root position)

Below the staff, the labels  $bVII^7$ ,  $I^{\text{maj}7}$ , and  $(I^7)$  are written under their respective chords.

*Ex. 95b*

A single horizontal musical staff with a treble clef and four lines. It shows two chords:

- $Eb^7$  (root position)
- $Bb^{\text{maj}7}$  (root position)

Below the staff, the labels  $IV^7$  and  $I^{\text{maj}7}$  are written under their respective chords.

*Ex. 95c*

A single horizontal musical staff with a treble clef and four lines. It shows two chords:

- $Eb^7$  (root position)
- $A^-7$  (root position)

Below the staff, the label "or the 9<sup>th</sup> of  $Eb^7$  to 5<sup>th</sup> of  $A^-7$ " is written, with a curved brace underneath the staff connecting the 9<sup>th</sup> of  $Eb^7$  (the top note of the first chord) to the 5<sup>th</sup> of  $A^-7$  (the bottom note of the second chord).

**F Blues ③**

3. The third Blues begins on the  $\text{BII}^7$  chord employing a cycle of 5<sup>ths</sup> substitution (Rule XXIII) and is intersecting with the  $\text{Bb}^7$  chord in bar 5.

-  $\text{E}^{7\text{alt}}$  is used in bar 6 as a tritone substitution for  $\text{Bb}^{7(b5)}$

- the turnaround  $\text{A}^{7\text{alt}} \text{D}^{7\text{alt}} \text{G}^{7\text{alt}} \text{C}^{7\text{alt}}$  is a  $\text{III}^7 \text{VI}^7 \text{II}^7 \text{V}^7$  Dom<sup>7</sup> cycle substitution for the usual  $\text{I}^7 \text{VI}^7 \text{ii}^7 \text{V}^7$  progression.

**Rule XXXI**

Dom<sup>7</sup> chords can replace either major or minors.

**Ex. 96**

### Rule XXXI cont.

#### *Ex. 97*

The diagram consists of three horizontal lines representing musical staves. 
 - The top staff shows chords C<sub>ma</sub>7, A-7, D-7, and G7. Below these are Roman numerals I<sup>maj7</sup>, vi<sup>7</sup>, ii<sup>7</sup>, and V<sup>7</sup>. An arrow labeled "becomes" points from the second staff to the third staff.
 - The middle staff shows chords E-7, A7, D-7, and G7. Below these are Roman numerals iii<sup>7</sup>, VI<sup>7</sup>, ii<sup>7</sup>, and V<sup>7</sup>. Another arrow labeled "becomes" points to the bottom staff.
 - The bottom staff shows chords E<sup>7alt</sup>, A<sup>7alt</sup>, D<sup>7alt</sup>, and G<sup>7alt</sup>. Below these are Roman numerals III<sup>7</sup>, VI<sup>7</sup>, II<sup>7</sup>, and V<sup>7</sup>.

#### *F Blues (4)*

The diagram consists of four horizontal lines representing musical staves. 
 - The first staff (top) starts with F<sub>ma</sub>7 and continues with E-7<sup>b5</sup>, A<sup>7alt</sup>, D-7, G7, C-7, and F7.
 - The second staff starts with B<sup>b7</sup> and continues with B<sup>b7</sup>, E<sup>b7</sup>, A-7, D7, A<sup>b7</sup>, and D<sup>b7</sup>.
 - The third staff starts with G-7 and continues with C7, F7, D<sup>b7</sup>, A<sup>b7</sup>, and E<sup>b7</sup>.

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*

The diagram consists of two horizontal lines representing musical staves. 
 - The first staff starts with F7 and continues with D<sup>b7</sup>, A<sup>b7</sup>, and E<sup>b7</sup>.
 - The second staff starts with I<sup>7</sup> and continues with bVI<sup>7</sup>, bIII<sup>7</sup>, and bVII<sup>7</sup>.

Any or all of the chords may be made maj<sup>7</sup> if desired.

### F Blues ⑤

The musical score consists of three staves of chords in F major (F major scale). The first staff shows a progression: F7, Eb7, D-7<sup>b5</sup>, G7<sub>alt</sub>, C-7, Eb7, Ab<sub>ma</sub>7, B7. The second staff continues with Bb7, Eb7, A-7, D7, Bb-7, Eb7<sub>alt</sub>. The third staff concludes with Ab-7, Db7, F/C, Db/C, Ab<sub>sus</sub>4/C, C7<sub>alt</sub>.

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

#### Ex. 99

A four-bar blues progression in F major: F7, Eb7, D-7<sup>b5</sup>, G7<sub>alt</sub>, followed by a repeat sign.

At first it looks deceiving but at a closer glance it makes more sense. The Eb<sup>7</sup> chord in bar one acts as a bII<sup>7</sup> tritone substitute to D-7<sup>b5</sup> (which is actually a substitute for Bb<sup>7(9)</sup> in bar [Rule VII]).

The D-7<sup>b5</sup> moves to G7<sub>alt</sub> and then to C-7, a substitute for F<sup>7</sup> (Rule IV). The next substitute is based on John Coltrane's "Countdown Substitutions" discussed earlier.

#### Ex. 100

A blues progression in F major: C-7, Eb7, Ab<sub>ma</sub>7, B7, Bb7. Below the staff, vertical lines indicate harmonic motion: m3 between C-7 and Eb7; Resolve between Eb7 and Ab<sub>ma</sub>7; m3 between Ab<sub>ma</sub>7 and B7; T.T. Sub. Resolve between B7 and Bb7.

#### Ex. 101

A blues turnaround in F major: F/C, Db/C, Ab<sub>sus</sub>4/C, C7<sub>alt</sub>. This is a dominant pedal point that works on a modal modulation principle.

## *F Blues* (6)

The image shows three horizontal musical staves, each consisting of five lines and four spaces. The first staff starts with a treble clef, a key signature of one sharp (F#), and a common time signature (indicated by a '4'). It contains four measures separated by vertical bar lines. The first measure is labeled 'F<sub>sus</sub><sup>4</sup>'. The second measure is labeled 'A<sup>add6</sup>/F'. The third measure is labeled 'E/F'. The fourth measure is labeled 'G<sub>b</sub>/F'. The second staff starts with a treble clef and a key signature of one flat (B<sub>b</sub>). It contains four measures. The first measure is labeled 'A<sub>b</sub><sub>sus</sub><sup>4</sup>/F'. The second measure is labeled 'F<sub>sus</sub><sup>4</sup>'. The third measure is labeled 'F<sub>#MA</sub><sup>7#5</sup>'. The third staff starts with a treble clef and a key signature of one flat (B<sub>b</sub>). It contains four measures. The first measure is labeled 'G-7<sub>b6</sub>'. The second measure is labeled 'B<sub>b</sub>/B'. The third measure is labeled 'F/C' and 'D<sub>b</sub>/C'. The fourth measure is labeled 'A<sub>b</sub>/C' and 'B<sub>b</sub>/C'.

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

### *Ex. 102*

A single horizontal musical staff consisting of five lines and four spaces. It contains four measures separated by vertical bar lines. The first measure is labeled 'F/C'. The second measure is labeled 'D<sub>b</sub>/C'. The third measure is labeled 'A<sub>b</sub>/C'. The fourth measure is labeled 'B<sub>b</sub>/C'. A double bar line with repeat dots is positioned after the fourth measure.

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

Bb<sub>MA</sub>7 G<sup>7alt</sup> | C-7 F7 | D-7 G<sup>7alt</sup> | C-7 F7 |

F-7 Bb7 | Eb<sub>MA</sub>7 E<sup>07</sup> | Bb/F G<sup>7alt</sup> | C-7 F7 |

Bb<sub>MA</sub>7 G<sup>7alt</sup> | C-7 F7 | D-7 G<sup>7alt</sup> | C-7 F7 |

F-7 Bb7 | Eb<sub>MA</sub>7 E<sup>07</sup> | Bb/F C-7 F7 | Bb<sub>MA</sub>7 |

B

(A-7) (D7) (D-7) (G7)

D7 ∕ G7 ∕

(G-7) (C7) (C-7) (F7)

C7 ∕ F7 ∕

A

Bb<sub>MA</sub>7 G<sup>7alt</sup> | C-7 F7 | D-7 G<sup>7alt</sup> | C-7 F7 |

F-7 Bb7 | Eb<sub>MA</sub>7 E<sup>07</sup> | Bb/F C-7 F7 | Bb<sub>MA</sub>7 C-7 F7 |

As you probably have noticed, the I<sup>maj7</sup> VI<sup>7</sup> ii<sup>7</sup> V<sup>7</sup> and iii VI<sup>7</sup> ii<sup>7</sup> V<sup>7</sup> 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				
1	B <sub>b</sub> MA7	G7	C-7	F7	B <sub>b</sub> MA7 (D-7)
2	D-7	G7	C-7	C#07	B <sub>b</sub> MA7 (D-7)
3	B <sub>b</sub> MA7	D <sub>b</sub> 7	G <sub>b</sub> 7	B7	B <sub>b</sub> MA7 (D-7)
4	B <sub>b</sub> MA7	G <sub>b</sub> 7	D <sub>b</sub> 7	E <sub>b</sub> 7	B <sub>b</sub> MA7 (D-7)
5	B <sub>b</sub> MA7	G <sub>b</sub> 7	D <sub>b</sub> 7	A <sub>b</sub> 7	B <sub>b</sub> MA7 (D-7)
6	D7(alt)	G7(alt)	C7(alt)	F7(alt)	B <sub>b</sub> MA7 (D-7)
7	B <sub>b</sub> MA7	D <sub>b</sub> 7	C7	B7	B <sub>b</sub> MA7 (D-7)
8	D-7#5	B <sub>M</sub> A7#5	FQ/G	F <sub>M</sub> A7#5	B <sub>b</sub> MA7 (D-7)
9	B <sub>M</sub> A7	D <sub>b</sub> /G	E <sub>b</sub> MA7	A <sub>M</sub> A7#5	B <sub>b</sub> MA7 (D-7)
10	B <sub>b</sub> MA7	B <sub>b</sub> /A <sub>b</sub>	E <sub>b</sub> /G	G <sub>b</sub> 07	B <sub>b</sub> /F
11	B <sub>b</sub> /A	A <sub>b</sub> 07b13	FQ/G	D/F	B <sub>b</sub> /F
12	B <sub>b</sub> /F	B/F	B <sub>b</sub> /F	A/F	B <sub>b</sub> /F
13	B <sub>b</sub> /F	G <sub>b</sub> /F	D <sub>b</sub> sus <sup>4</sup> /F	F7alt	B <sub>b</sub> /F
14	B <sub>b</sub> /F	D <sub>b</sub> /F	G <sub>b</sub> /F	B/F	B <sub>b</sub> /F
15	B <sub>b</sub> /F	G <sub>b</sub> /F	D <sub>b</sub> /F	E <sub>b</sub> /F	B <sub>b</sub> /F
16	B <sub>b</sub>	G/B <sub>b</sub>	G-/B <sub>b</sub>	F/B <sub>b</sub>	B <sub>b</sub> /F
17	B <sub>b</sub>	B/B <sub>b</sub>	G <sub>b</sub> /B <sub>b</sub>	A <sub>b</sub> /B <sub>b</sub>	B <sub>b</sub> /F
18	CQ/D	AQ/B	F#Q/G#	E <sub>b</sub> Q/F	B <sub>b</sub> /F
19	CQ/D	F#/G	E <sub>b</sub> sus <sup>4</sup> /C	D <sub>b</sub> sus <sup>2</sup> /F	B <sub>b</sub> /F
20	B <sub>b</sub> /F	G/F	A/F	E/F	B <sub>b</sub> /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**

m3      V      →      II      →      I(V)

$\text{Db} \rightarrow \text{Gb} = \text{V} \quad |$

$\text{Gb} \rightarrow \text{B} = \text{V} \quad |$

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**

↓                    ↓                    ↓                    ↓  
Bb                C<sup>#</sup>/G                A/C                B/F  
|                    VI<sup>7</sup>                    II<sup>7</sup>                    V<sup>7</sup>

### **Ex. 106b**

↓                    ↓                    ↓                    ↓  
Bb                Db<sup>1st inver.</sup>                Gb<sup>maj7</sup>                B/F  
|                    bIV                    bVI                    V<sup>7</sup>

## The Bridge of Rhythm Changes

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

### Ex. 107

A musical staff in G clef, 4/4 time. It shows a four-measure cycle of chords: D7, G7, C7, and F7. The first measure contains D7. The second measure contains G7. The third measure contains C7. The fourth measure contains F7. Measures 5 through 8 are indicated by a double bar line with repeat dots at the beginning of each measure.

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

### The ii<sup>7</sup> V<sup>7</sup> approach

#### Ex. 108a

A musical staff in G clef, 4/4 time. It shows a progression: A-7, D7, D-7, G7, G-7, C7, C-7, F7. The first measure contains A-7. The second measure contains D7. The third measure contains D-7. The fourth measure contains G7. The fifth measure contains G-7. The sixth measure contains C7. The seventh measure contains C-7. The eighth measure contains F7. Measures 5 through 8 are indicated by a double bar line with repeat dots at the beginning of each measure.

also

#### Ex. 108b

A musical staff in G clef, 4/4 time. It shows a more complex progression: A-7, A-7, D7, G7, D-7, G7, G-7, C7, C7, F7, C-7, F7. The first two measures contain A-7. The third measure contains D7. The fourth measure contains G7. The fifth measure contains D-7. The sixth measure contains G7. The seventh measure contains G-7. The eighth measure contains C7. The ninth measure contains C7. The tenth measure contains F7. The eleventh measure contains C-7. The twelfth measure contains F7. Measures 9 through 12 are indicated by a double bar line with repeat dots at the beginning of each measure.

You may use any combination of ii<sup>7</sup> V<sup>7</sup> as long as the V<sup>7</sup> chord is returned to (Rule IV)

Next is an example which uses altered Dom<sup>7</sup> chords.

**Ex. 109**

Musical staff showing chords: **D<sup>7</sup>alt**, **x**, **G<sup>7</sup>**, **D-7**, **G<sup>7</sup>alt**, **C<sup>7(b5)</sup>**, **G-7**, **C<sup>7</sup>alt**, **F<sup>7(b5)</sup>**, **F<sup>7</sup>alt(<sup>#5/#9</sup>)**.

**Using Tritone Substitutions**

**Ex. 110**

Musical staff showing chords: **A-7**, **D<sup>7</sup>**, **Ab-7**, **Db<sup>7</sup>**, **G-7**, **C<sup>7</sup>**, **F#-7**, **B<sup>7</sup>**.

**Using the Cycle**

**Ex. 111**

starts in same place

Musical staff showing a sequence of chords: **D<sup>7</sup>**, **G<sup>7</sup>**, **C<sup>7</sup>**, **F<sup>7</sup>**, **Bb<sup>7</sup>**, **Eb<sup>7</sup>**, **Ab<sup>7</sup>**, **Db<sup>7</sup>**.

tritone away from C

finishes in correct spot

Musical staff showing a sequence of chords: **Gb<sup>7</sup>**, **B<sup>7</sup>**, **E<sup>7</sup>**, **A<sup>7</sup>**, **D<sup>7</sup>**, **G<sup>7</sup>**, **C<sup>7</sup>**, **F<sup>7</sup>**.

Any of these chords will also work.

**Ex. 112**

Chords	Mixolydian	Mixolydian #11	Altered Dominant
<u>D<sup>7</sup></u>	<u>D<sup>7b5</sup></u>	<u>D<sup>7/#5/b5/#9/b9</sup></u>	
F#- <sup>7b5</sup>	A- <sup>maj7</sup>	Eb- <sup>maj7</sup>	
A- <sup>7</sup>	B- <sup>13b9</sup>	F- <sup>13b9</sup>	
C <sup>maj7</sup>	C <sup>maj7#5</sup>	Gb <sup>maj7#5</sup>	
	E <sup>7b6</sup>	Ab <sup>7b5</sup>	
	F#- <sup>9b5</sup>	Bb <sup>7b6</sup>	
	G# <sup>7alt</sup>	C <sup>9b5</sup>	

**Ex. 113**

<u>G<sup>7</sup></u>	<u>G<sup>7b5</sup></u>	<u>G<sup>7/#5/b5/#9/b9</sup></u>
B- <sup>7b5</sup>	D- <sup>maj7</sup>	Ab- <sup>maj7</sup>
D- <sup>7</sup>	E- <sup>13b9</sup>	Bb- <sup>13b9</sup>
F <sup>maj7</sup>	F <sup>maj7#5</sup>	Cb <sup>maj7#5</sup>
A <sup>7b6</sup>		Db <sup>7b5</sup>
B- <sup>9b5</sup>		Eb <sup>7b6</sup>
C# <sup>7alt</sup>		F- <sup>9b5</sup>

It's your job to figure out the substitute changes from the modal scales of both C<sup>7</sup> and F<sup>7</sup>.

**Using Triads Over Bass Notes**

**Ex. 114**

Musical notation for Ex. 114 consists of two staves of four measures each. The top staff uses a treble clef and the bottom staff uses a bass clef. The measures are separated by vertical bar lines.

Measure 1: A♭/D | B♭sus⁴/D | E/G | A<sup>add9</sup>/G

Measure 2: F♯/C | A♭sus⁴/C | Cmaj⁷/F | F♯sus⁴/B

## Reharmonization of Standard Forms

### Reharmonization No.1

sub      F-7<sup>b6</sup>      B<sup>b</sup>-7<sup>b6</sup>      C/D<sup>b</sup>      G/E<sup>b</sup>      A<sup>b</sup><sub>MA</sub>7<sup>#5</sup>

original      (F-7)      (B<sup>b</sup>-7)      (E<sup>b</sup>7)      (A<sup>b</sup><sub>MA</sub>7)

D<sup>b</sup>/C      G7<sup>sus4</sup>      G/A<sup>b</sup>      A<sup>sus4</sup>/A<sup>b</sup>      G<sup>sus4</sup>/E

(D<sup>b</sup><sub>MA</sub>7)      (D-7)      (G7)      (C<sub>MA</sub>7)      (C<sub>MA</sub>7)

G-7<sup>b6</sup>      F-7<sup>b5</sup>      A<sup>b</sup><sub>MA</sub>7<sup>b5</sup>/E<sup>b</sup>      A<sup>b</sup>0/E<sup>b</sup>      G/C<sup>#</sup>

(C-7)      (F-7)      (B<sup>b</sup>7)      (E<sup>b</sup><sub>MA</sub>7)

C-7<sup>b6</sup>      A-11      F#<sub>MA</sub>13      G<sub>MA</sub>7      B<sup>b</sup>-7      E<sup>b</sup>7

(A<sup>b</sup><sub>MA</sub>7)      (A-7)      (D7<sup>alt</sup>)      (G<sub>MA</sub>7)      (B-7)      (E7)

C/D      B/D      G<sub>MA</sub>7<sup>b5</sup>      G/C<sup>#</sup>

(A-7)      (D7)      (G<sub>MA</sub>7)      (G<sub>MA</sub>7)

F#-7<sup>b6</sup>      F/B      B/A<sup>#</sup>      C7<sup>alt</sup>

(F#-7)      (B7)      (E<sub>MA</sub>7)      (A<sup>b</sup>7<sup>#5</sup>)

F-13      B<sup>b</sup>-7<sup>b6</sup>      G/E<sup>b</sup>      A<sup>b</sup>/G

(F-7)      (B<sup>b</sup>-7)      (E<sup>b</sup>7)      (A<sup>b</sup><sub>MA</sub>7)

D<sup>b</sup>/C      B/C<sup>#</sup>      G-7<sup>b6</sup>      G/A<sup>b</sup>

(D<sup>b</sup><sub>MA</sub>7)      (C#-7)      (F#7)      (C-7)      (B07)

B<sup>b</sup>-11      D<sup>b</sup>/E<sup>b</sup>      G/E<sup>b</sup>      G<sup>b</sup>/A<sup>b</sup>      G-7<sup>b5</sup>      G<sup>b</sup>7<sup>b5</sup>

(B<sup>b</sup>-7)      (E<sup>b</sup>7)      (A<sup>b</sup><sub>MA</sub>7)      (G-7<sup>b5</sup>)      (C7<sup>alt</sup>)

## Reharmonization No.2

sub       $B_{MA}^{bb}7^{#5}$        $A7_{alt}$        $E_{MA}^b9$        $F_{sus}^4/A$

original       $(E-7^{bb})$        $(A7_{alt})$        $(C-7)$        $(F7)$

$F-7$      $F\#7$      $B_{MA}7$      $D7G_{MA}7$      $Bb7$      $E_{MA}7$      $A^{bb}7^{bb}$

$(F-7)$        $(Bb7)$        $(E_{MA}7)$        $(Ab7)$

$E^b/D$        $G-6$        $C7^{bb}$        $F_{MA}13$        $Bb-7$        $E^b7$

$(B_{MA}7)$        $(E-7^{bb} A7_{alt})$        $(D-7)$        $(Bb-7 E^b7)$

$F^{add9}/A$      $D7^{#9}$      $G-7$      $G-7/C$      $E_{MA}7^{bb}$      $A^{bb}13^{bb}$

$(F_{MA}7 D7_{alt})$        $(G-7 C7)$        $(A-7^{bb})$        $(D7_{alt})$

$D^{bb}7^{bb}$        $B_{MA}7^{#5}$        $E_{MA}9$        $G-7^{bb}$

$(G7_{alt})$        $\ddot{\cdot}$        $(C-7)$        $\ddot{\cdot}$

$F_{MA}^{#bb}7^{#5}$        $F7_{sus}^4$

$(Ab7^{bb})$        $\ddot{\cdot}$        $(B_{MA}7)$        $\ddot{\cdot}$

$E-9/11$        $C_{MA}^{#bb}7^{bb}$        $D-11^{bb}$        $Ab-MA7$

$(E-7^{bb})$        $(A7_{alt})$        $(D-7^{bb})$        $(G7_{alt})$

$F_{MA}^{#bb}7^{#11}$        $F/F\#$        $Bb/F$        $B/F$        $A/F$        $EQ/F\#$

$(C-7^{bb})$        $(F7^{bb})$        $(B_{MA}7)$

## 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°	C <sup>+</sup>	C <sup>sus4</sup>	C <sup>lyd</sup>	C <sup>loc</sup>	C <sup>maj7</sup>	C- <sup>7</sup>	C <sup>7</sup>	C- <sup>maj7</sup>
C <sup>7(sus4)</sup>	C- <sup>7b5</sup>	C <sup>o7</sup>	C <sup>+7</sup>	C <sup>omaj7</sup>	C <sup>+maj7</sup>	C- <sup>7#5</sup>					
<u>C</u> Db	<u>C</u> D	<u>C</u> Eb	<u>C</u> E	<u>C</u> F	<u>C</u> F#	<u>C</u> G	<u>C</u> Ab	<u>C</u> A	<u>C</u> Bb	<u>C</u> B	
<u>C-</u> Db	<u>C-</u> D	<u>C-</u> Eb	<u>C-</u> E	<u>C-</u> F	<u>C-</u> F#	<u>C-</u> G	<u>C-</u> Ab	<u>C-</u> A	<u>C-</u> Bb	<u>C-</u> B	
<u>C°</u> Db	<u>C°</u> D	<u>C°</u> Eb	<u>C°</u> E	<u>C°</u> F	<u>C°</u> F#	<u>C°</u> G	<u>C°</u> Ab	<u>C°</u> A	<u>C°</u> Bb	<u>C°</u> B	
<u>C<sup>+</sup></u> Db	<u>C<sup>+</sup></u> D	<u>C<sup>+</sup></u> Eb	<u>C<sup>+</sup></u> E	<u>C<sup>+</sup></u> F	<u>C<sup>+</sup></u> F#	<u>C<sup>+</sup></u> G	<u>C<sup>+</sup></u> Ab	<u>C<sup>+</sup></u> A	<u>C<sup>+</sup></u> Bb	<u>C<sup>+</sup></u> B	
<u>C<sup>sus4</sup></u> Db	<u>C<sup>sus4</sup></u> D	<u>C<sup>sus4</sup></u> Eb	<u>C<sup>sus4</sup></u> E	<u>C<sup>sus4</sup></u> F	<u>C<sup>sus4</sup></u> F#	<u>C<sup>sus4</sup></u> G	<u>C<sup>sus4</sup></u> Ab	<u>C<sup>sus4</sup></u> A	<u>C<sup>sus4</sup></u> Bb	<u>C<sup>sus4</sup></u> B	
<u>C<sup>lyd</sup></u> Db	<u>C<sup>lyd</sup></u> D	<u>C<sup>lyd</sup></u> Eb	<u>C<sup>lyd</sup></u> E	<u>C<sup>lyd</sup></u> F	<u>C<sup>lyd</sup></u> F#	<u>C<sup>lyd</sup></u> G	<u>C<sup>lyd</sup></u> Ab	<u>C<sup>lyd</sup></u> A	<u>C<sup>lyd</sup></u> Bb	<u>C<sup>lyd</sup></u> B	
<u>C<sup>loc</sup></u> Db	<u>C<sup>loc</sup></u> D	<u>C<sup>loc</sup></u> Eb	<u>C<sup>loc</sup></u> E	<u>C<sup>loc</sup></u> F	<u>C<sup>loc</sup></u> F#	<u>C<sup>loc</sup></u> G	<u>C<sup>loc</sup></u> Ab	<u>C<sup>loc</sup></u> A	<u>C<sup>loc</sup></u> Bb	<u>C<sup>loc</sup></u> B	

<b>Db</b>	<u>D<b>b</b><sup>maj7</sup></u>	<u>C</u> Db	<u>F</u> Db	<u>Ab</u> Db	<u>C-</u> Db	<u>F-</u> Db	<u>C°</u> Db	<u>C<sup>+</sup></u> Db	<u>C<sup>sus4</sup></u> Db	<u>C<sup>lyd</sup></u> Db	<u>C<sup>loc</sup></u> Db
	<u>F<sup>sus4</sup></u> Db	<u>G<sup>sus4</sup></u> Db	<u>F<sup>lyd</sup></u> Db	<u>F<sup>#loc</sup></u> Db	<u>G<sup>loc</sup></u> Db	<u>A°</u> Db	<u>F#°</u> Db				

<b>D</b>	D <sup>7</sup>	D- <sup>7</sup>	D- <sup>7b5</sup>	D <sup>+7</sup>	C D	F D	Ab D	C- D	F- D	A- D	C <sup>o</sup> D
	C+ D	A <sup>o</sup> D	F# <sup>o</sup> D	C <sup>sus4</sup> D	F <sup>sus4</sup> D	G <sup>sus4</sup> D	C <sup>lyd</sup> D	F <sup>lyd</sup> D	F# <sup>lyd</sup> D	F# <sup>loc</sup> D	G <sup>loc</sup> D

<b>Eb</b>	Eb <sup>MA13</sup>	Eb- <sup>6</sup>	Eb <sup>13</sup>	C Eb	F Eb	Ab Eb	Eb <sup>o7</sup>	C- Eb	F- Eb	A- Eb	C <sup>o</sup> Eb
	C+ Eb	A <sup>o</sup> Eb	F# <sup>o</sup> Eb	C <sup>sus4</sup> Eb	F <sup>sus4</sup> Eb	G <sup>sus4</sup> Eb	C <sup>lyd</sup> Eb	F <sup>lyd</sup> Eb	F# <sup>lyd</sup> Eb	C <sup>loc</sup> Eb	F# <sup>loc</sup> Eb
	G <sup>loc</sup> Eb										

<b>E</b>	E- <sup>7b6</sup>	E <sup>7#5</sup>	C E	F E	Ab E	C- E	F- E	A- E	C <sup>o</sup> E	C+ E	A <sup>o</sup> E
	F# <sup>o</sup> E	C <sup>sus4</sup> E	F <sup>sus4</sup> E	G <sup>sus4</sup> E	C <sup>lyd</sup> E	F <sup>lyd</sup> E	F# <sup>lyd</sup> E	C <sup>loc</sup> E	F# <sup>loc</sup> E	G <sup>loc</sup> E	

<b>F</b>	F <sup>maj7</sup>	F- <sup>7</sup>	F <sup>7</sup>	C F	Ab F	C- F	A- F	C <sup>o</sup> F	C+ F	A <sup>o</sup> F	F# <sup>o</sup> F
	C <sup>sus4</sup> F	F <sup>Sus4</sup>	G <sup>sus4</sup> F	C <sup>lyd</sup> F	F <sup>lyd</sup>	F# <sup>lyd</sup> F	C <sup>loc</sup> F	F# <sup>loc</sup> F	G <sup>loc</sup> F		

<b>F#</b>	F# <sup>maj7#11</sup>	F#- <sup>7b5</sup>	F# <sup>o7</sup>	F# <sup>7b5</sup>	C F#	Ab F#	F F#	C- F#	A- F#	F- F#	A <sup>o</sup> F#
	C <sup>sus4</sup> F#	F <sup>sus4</sup> F#	G <sup>sus4</sup> F#	C <sup>lyd</sup> F#	F <sup>lyd</sup> F#	F# <sup>lyd</sup> F#	C <sup>loc</sup> F#	G <sup>loc</sup> F#			

<b>G</b>	G <sup>maj7sus4</sup>	G- <sup>11</sup>	G- <sup>11b5</sup>	G <sup>7sus4</sup>	C G	Ab G	F G	C- G	A- G	F- G	C <sup>o</sup> G
	A <sup>o</sup> G	F# <sup>o</sup> G	C+ G	C <sup>sus4</sup> G	F <sup>sus4</sup> G	G <sup>sus4</sup>	C <sup>lyd</sup> G	F <sup>lyd</sup> G	F# <sup>lyd</sup> G	C <sup>loc</sup> G	F# <sup>loc</sup> G

<b>Ab</b>	Ab <sup>maj7</sup>	Ab <sup>7</sup>	Ab <sup>+7</sup>	C Ab	F Ab	C- Ab	A- Ab	C <sup>o</sup> Ab	A <sup>o</sup> Ab	F# <sup>o</sup> Ab	C+ Ab
	C <sup>sus4</sup> Ab	F <sup>sus4</sup> Ab	G <sup>sus4</sup> Ab	C <sup>lyd</sup> Ab	F <sup>lyd</sup> Ab	F# <sup>lyd</sup> Ab	C <sup>loc</sup> Ab	F# <sup>loc</sup> Ab	G <sup>loc</sup> Ab		

<b>A</b>	A <sup>-7</sup>	A <sup>7#9</sup>	A <sup>o7</sup>	A <sup>-7b5</sup>	C A	Ab A	F A	C- A	C+ A	C <sup>sus4</sup> A	F <sup>sus4</sup> A
	G <sup>sus4</sup> A	C <sup>lyd</sup> A	F <sup>lyd</sup> A	F# <sup>lyd</sup> A	C <sup>loc</sup> A	F# <sup>loc</sup> A	G <sup>loc</sup> A				

<b>Bb</b>	<b>Bb<sup>MA9</sup></b>	<b>Bb<sup>-9</sup></b>	<b>Bb<sup>9</sup></b>	<b>Bb<sup>-9b5</sup></b>	<b>Bb<sup>o7</sup></b>	<b>C Bb</b>	<b>F Bb</b>	<b>Ab Bb</b>	<b>C- Bb</b>	<b>A- Bb</b>	<b>F- Bb</b>
	<b>C° Bb</b>	<b>A° Bb</b>	<b>F#° Bb</b>	<b>C+ Bb</b>	<b>C<sup>sus4</sup> Bb</b>	<b>F<sup>sus4</sup> Bb</b>	<b>G<sup>sus4</sup> Bb</b>	<b>C<sup>lyd</sup> Bb</b>	<b>F<sup>lyd</sup> Bb</b>	<b>F#<sup>lyd</sup> Bb</b>	<b>C<sup>loc</sup> Bb</b>
	<b>F#<sup>loc</sup> Bb</b>	<b>G<sup>loc</sup> Bb</b>									

<b>B</b>	<b>B<sup>7b9</sup></b>	<b>C B</b>	<b>B-<sup>7/b5/b9</sup></b>	<b>F B</b>	<b>Ab B</b>	<b>A- B</b>	<b>C- B</b>	<b>F- B</b>	<b>C° B</b>	<b>A° B</b>	<b>F#° B</b>
	<b>C+ B</b>	<b>C<sup>sus4</sup> B</b>	<b>F<sup>sus4</sup> B</b>	<b>G<sup>sus4</sup> B</b>	<b>C<sup>lyd</sup> B</b>	<b>F<sup>lyd</sup> B</b>	<b>F#<sup>lyd</sup> B</b>	<b>C<sup>loc</sup> B</b>	<b>F#<sup>loc</sup> B</b>	<b>G<sup>loc</sup> B</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.

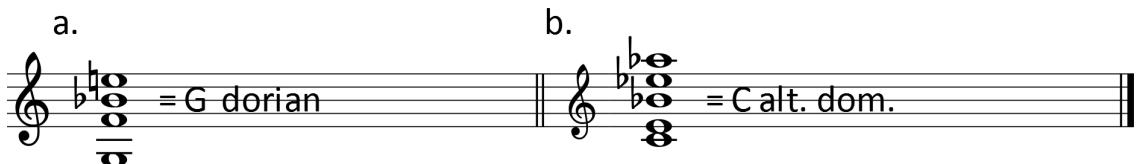
## Modal Harmony and Theory

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.

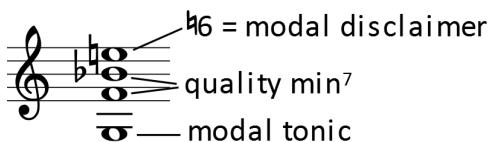
### *Ex. 116*

a.    b.



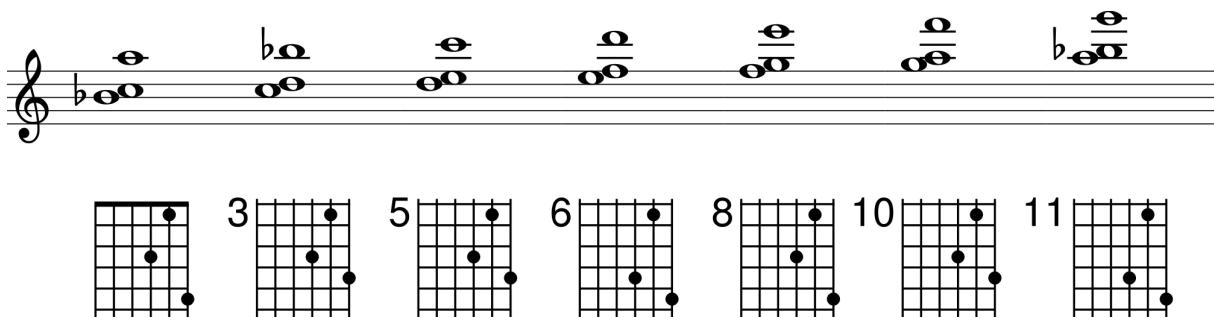
2. The construction of a modal voicing is dependent on the presence of two factors:
  - A clear definition of the chord's quality (maj, min, etc.) including the seventh if desired.
  - Emphasis of one or more distinguishing chord tones.

### *Ex. 117*



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

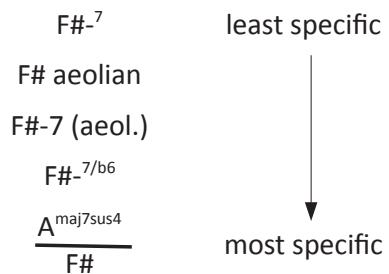
### *Ex. 118*



Each note of the voicing moves up the scale diatonically.

- 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**

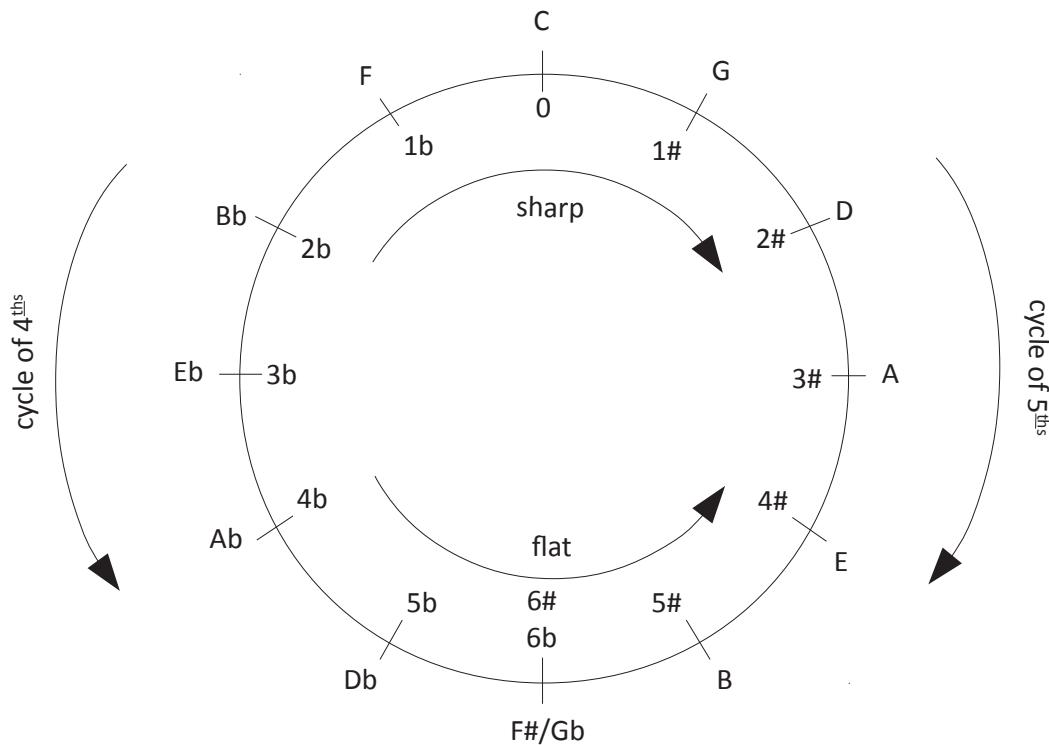


## Sharp and Flat Direction Modal Modulation

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 Dom<sup>7</sup>, secondary Dim<sup>7</sup> 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<sup>b</sup>/A = A Phrygian

Gsus<sup>4</sup>/E = E Aeolian

A musical staff diagram illustrating upward modulation. The top staff shows a treble clef, a key signature of one flat (B-flat), and a common time signature (8). It has two notes: a B-flat on the first line and a G on the third line, labeled '(Fmaj)' and '(Gmaj)' respectively. An arrow labeled 'upward' points from the B-flat to the G. The bottom staff shows a bass clef, a key signature of one flat (B-flat), and a common time signature (8). It has three notes: a B-flat on the fourth line, a C on the fifth line, and a G on the second line. A bracket under the staff covers the interval between the B-flat and the G.

F → C → G  
①                  ②

2 keys in a sharp direction

Ex. 121b

G<sup>Q</sup>/A = A Aeolian

D<sup>Lyd</sup>/D = D Lydian

A musical staff diagram illustrating upward modulation. The top staff shows a treble clef, a key signature of one flat (B-flat), and a common time signature (8). It has two notes: a G on the third line and an A on the fifth line, labeled '(Cmaj)' and '(Amaj)' respectively. An arrow labeled 'upward' points from the G to the A. The bottom staff shows a bass clef, a key signature of one flat (B-flat), and a common time signature (8). It has four notes: a G on the fourth line, a D on the fifth line, a G on the second line, and an A on the first line. A bracket under the staff covers the interval between the G and the A.

C → G → D → A  
①                  ②                  ③

3 keys in a sharp direction

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**



## Downward Modulations

**Ex. 123a**

**E**Q**/F**#**** = F**#** Aeolian      **Clyd**add9**** = C Lydian

A musical staff diagram illustrating a downward modulation. The top staff shows a treble clef, two open circles (notes), and the label '(Amaj)'. The bottom staff shows a bass clef, one open circle, one sharp symbol (#), and one closed circle (rest). An arrow labeled 'downward' points from the top staff to the bottom staff. A bracket below the staff indicates the range of the modulation.



2 keys in a flat direction

**Ex. 123b**

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

A musical staff diagram illustrating a downward modulation. The top staff shows a treble clef, two sharp symbols (#), and the label '(Gmaj)'. The bottom staff shows a bass clef, one open circle, one sharp symbol (#), and one flat symbol (b). An arrow labeled 'downward' points from the top staff to the bottom staff. A bracket below the staff indicates the range of the modulation.



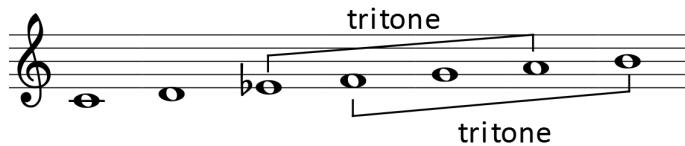
3 keys in a flat direction

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 $\flat$**  = Ab lyd. aug.      **C-MA $\sharp$**  = C mel. min.

A musical staff in G clef. It shows two chords: F mel. min. (F-A-C) and C mel. min. (C-E-G). An upward arrow indicates the direction of modulation.

(1)

F mel. min. —————→ C mel. min.

1 key in a sharp direction

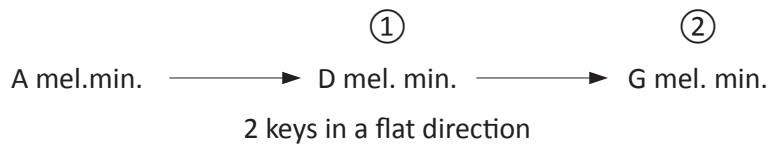
**Flat Direction (Melodic Minor)**

**Ex. 126**

**B dor. b2**

**D/B $\flat$**  = Bb lyd. aug.

A musical staff in G clef. It shows two chords: A mel. min. (A-C#-E) and G mel. min. (G-B-D). A downward arrow indicates the direction of modulation.



Harmonic minor modal resolution is similarly ambiguous.

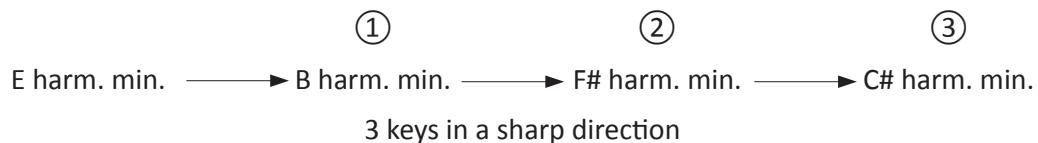
### Sharp Direction (Harmonic Minor)

*Ex. 127*

B phry. maj.                                   A lyd. #9

(E harm. min.)                                   (C# harm. min.)

upward



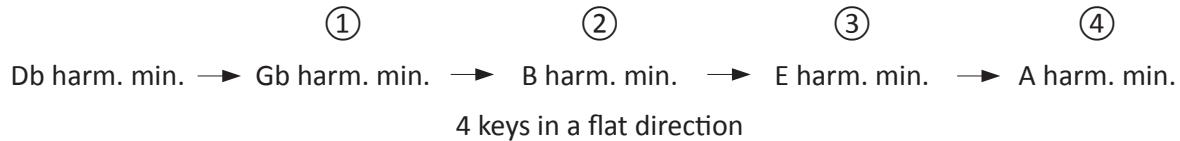
### Flat Direction (Harmonic Minor)

*Ex. 128*

A lyd. #9   A harm. min.

(D<sub>b</sub> harm. min.)

downward



## 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>B phry. maj.</b> 	(b.) <b>D alt. dom.</b> 	(c.) <b>G aeol.</b> 	<b>A lyd. #9</b> 		
<b>D loc.</b> 					
(d.) <b>C# phry. maj.</b> 	(e.) <b>A ion. aug.</b> 	(f.) <b>G# loc.</b> 	<b>F# mel. min.</b> 	<b>E mix.</b> 	

## 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**

The top row shows the following chords with their names above them:

- B-7<sup>b5</sup>
- B<sup>b</sup>-6
- G<sup>Q/A</sup>
- A<sup>b13</sup>
- G-7
- G<sup>b<sub>MA</sub></sup>7/<sup>6</sup>
- F<sub>MA</sub>7

The bottom row shows the corresponding guitar chord diagrams for each chord, numbered 6 through 1 from left to right. Each diagram shows a six-string guitar neck with dots indicating where to press the strings. An 'X' indicates that the string is muted or not played.

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<sup>7</sup> to I<sup>maj7</sup> resolutions.

### **Ex. 131**

V <sup>7</sup>	I <sup>maj7</sup>
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*

Musical staff in 4/4 time. The first measure shows a G7<sup>b9</sup> chord with notes b6, 5, 4, 3. The second measure shows a transition labeled "(Phry. maj.)" with notes 5, 4, 3, b9, (5). The third measure shows a C<sub>MA</sub>7 chord with notes 3, 6.

*Ex. 132b*

Musical staff in 4/4 time. The first measure shows a G7<sub>alt</sub> chord with notes 3, #5, R, b9. The second measure shows a transition with notes b9, (6), #11, 5, 9. The third measure shows a C<sub>MA</sub>7 chord with notes #11, 5, 9.

Harmonic resolution

*Ex. 133*

(a.) G7<sup>#5b9</sup> C<sub>9</sub><sup>6</sup>  
A7<sup>b9</sup> C<sub>9</sub><sup>6</sup>

(b.) G9<sup>#5</sup> C<sub>MA</sub>7<sup>#11#5</sup>  
A9<sup>#5</sup> C<sub>MA</sub>7<sup>#11#5</sup>

Resolution by skip is also effective when approached correctly.

*Ex. 134*

Musical score for Example 134. The score consists of three measures in common time (4/4). The first measure is labeled D-7 and contains notes with heads at 11, 9, 3, and 11. The second measure is labeled G7#5 and contains notes with heads at 3, #5, and (9). The third measure is labeled CMA7 and contains notes with heads at 7, 9, and 5. The notes are connected by horizontal lines, illustrating harmonic skips between chords.

Harmonic resolution by skip

*Ex. 135*

Musical score for Example 135. The score consists of two measures in common time (4/4). The first measure is labeled G7alt and shows a bass line with notes on the 5th and 1st strings. The second measure is labeled CMA7 and shows a bass line with notes on the 5th and 1st strings. The bass lines skip between the two chords, illustrating harmonic resolution by skip.

## Mirror Modal Equivalents

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

C Ionian

M2      M2      m2      M2      M2      M2      m2

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.

M2      b2      M2      b2      m2      M2      M2      M2      b2      m2

C Phrygian

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.

C Dorian

M2      m2      M2      M2      M2      m2      M2

C Dorian

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

C Double Harmonic Major

m2      A2      m2      M2      m2      A2      m2

C Double Harmonic Major

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

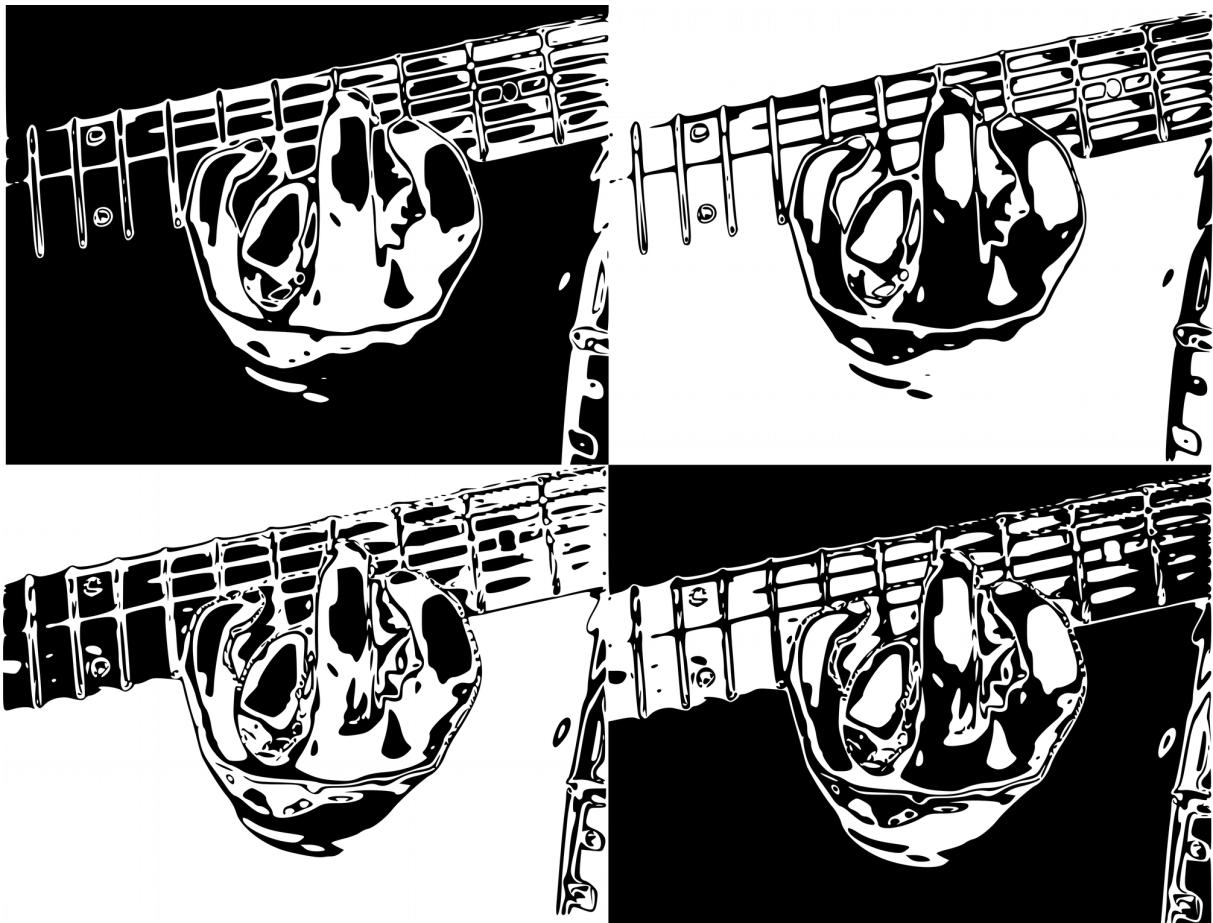
### **Harmonic Minor and Harmonic Major: Mirror Modal Equivalents**

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

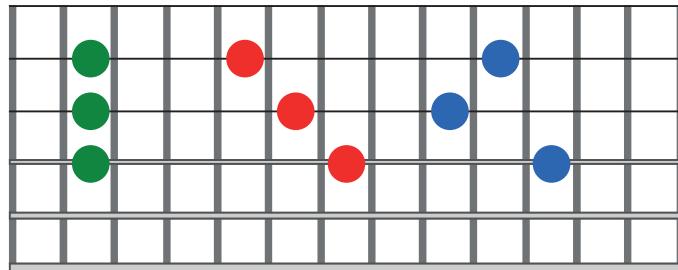
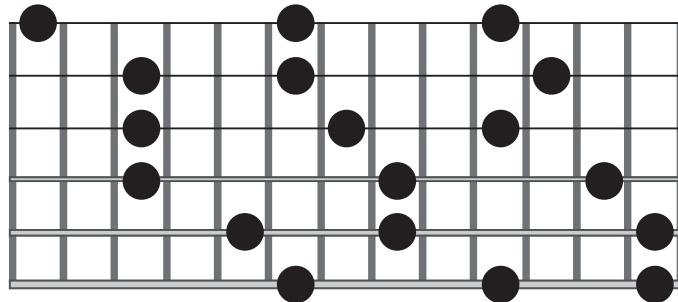
## CHORD FORMS



## 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.



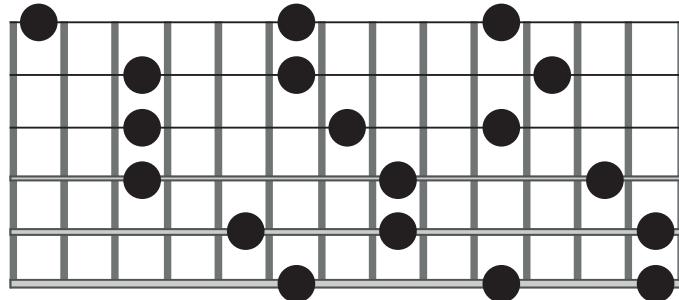
● : Root position

● : 1. Inversion

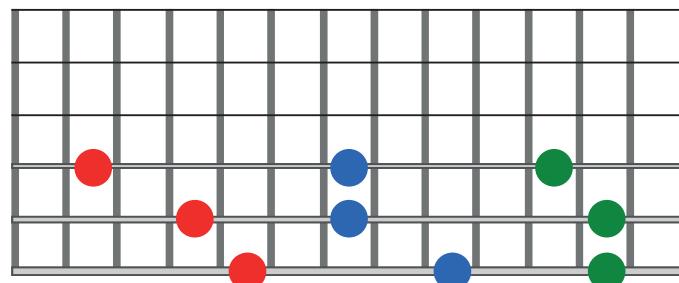
● : 2. Inversion

## Major Triads

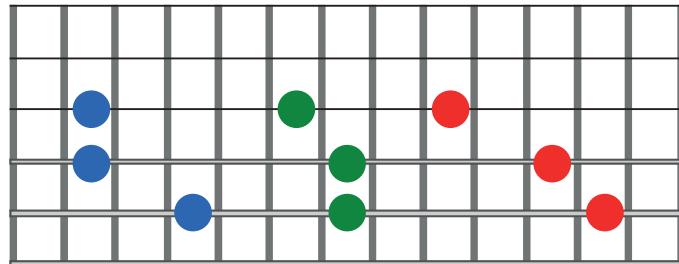
Major Triads



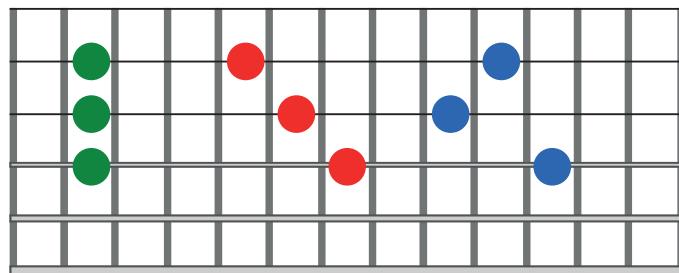
stringset E-A-D



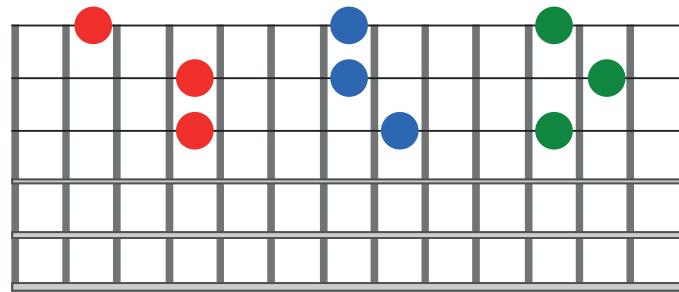
stringset A-D-G



stringset D-G-B

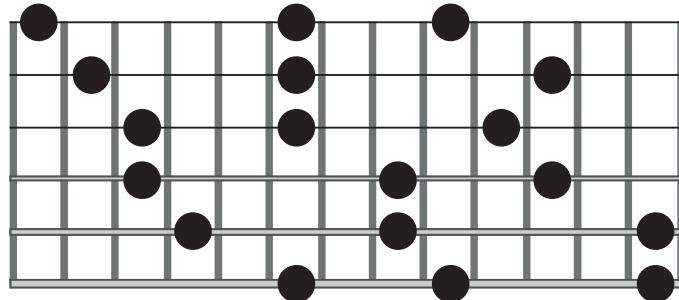


stringset G-B-E

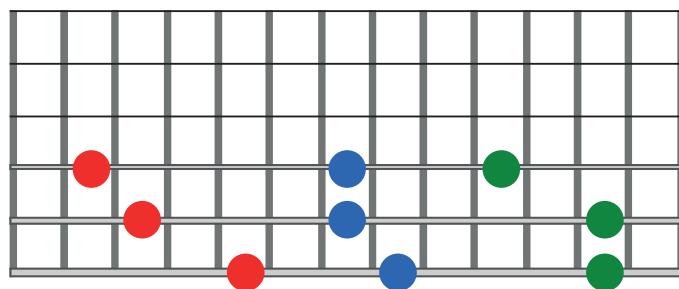


## Minor Triads

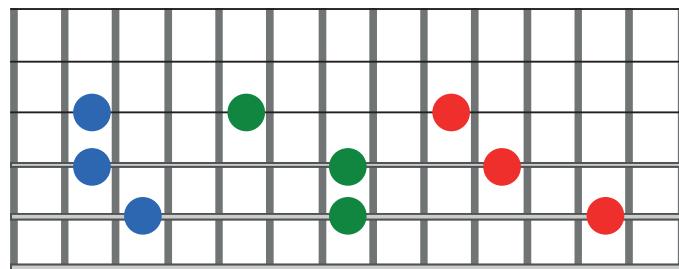
Minor Triads



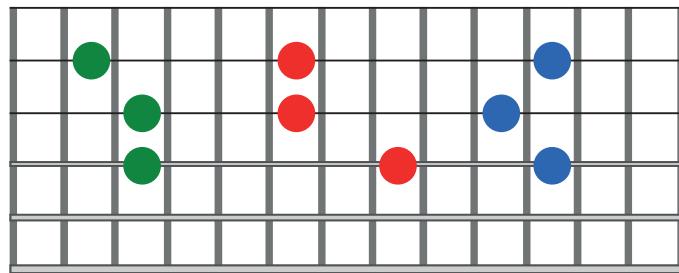
stringset E-A-D



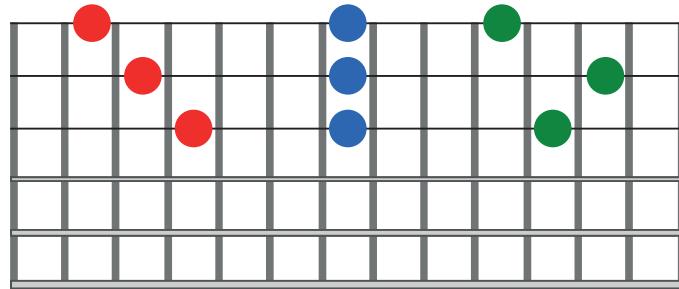
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stringset D-G-B

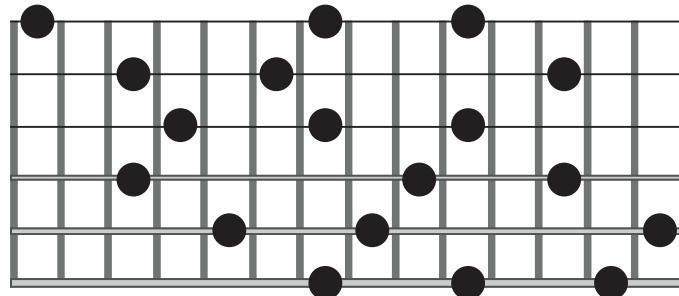


stringset G-B-E

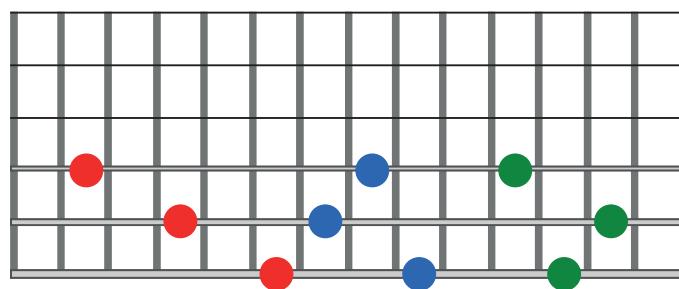


## Diminished Triads

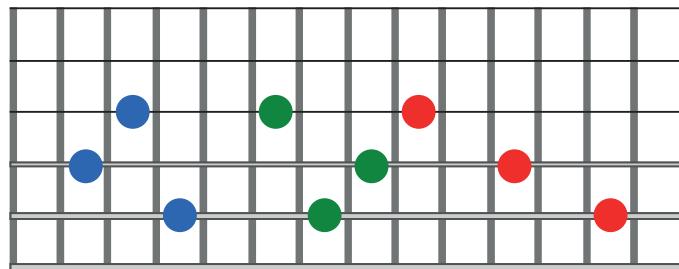
Diminished Triads



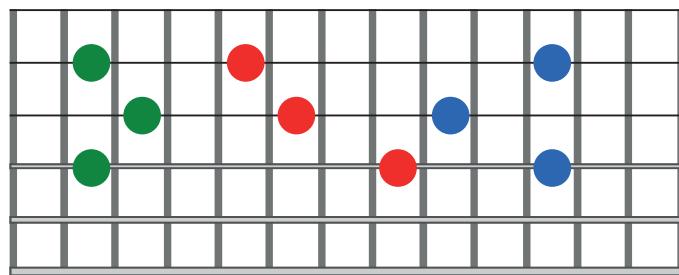
stringset E-A-D



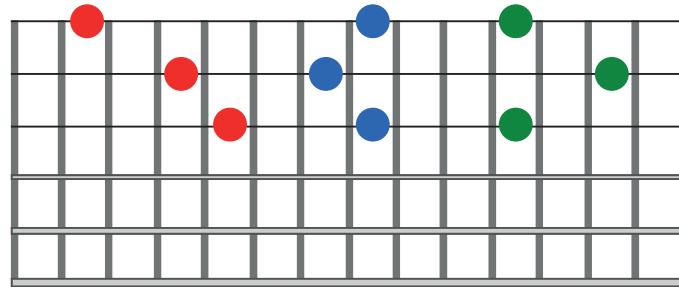
stringset A-D-G



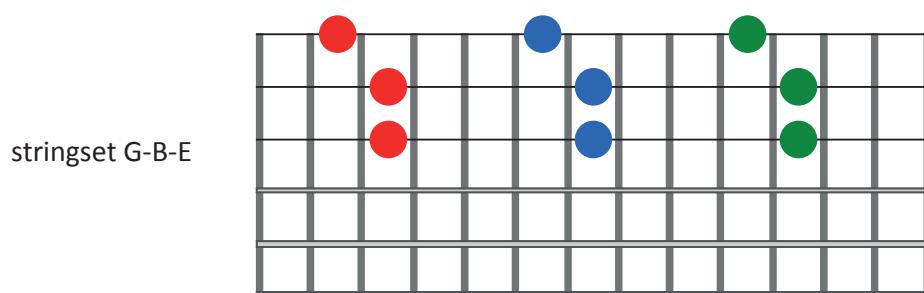
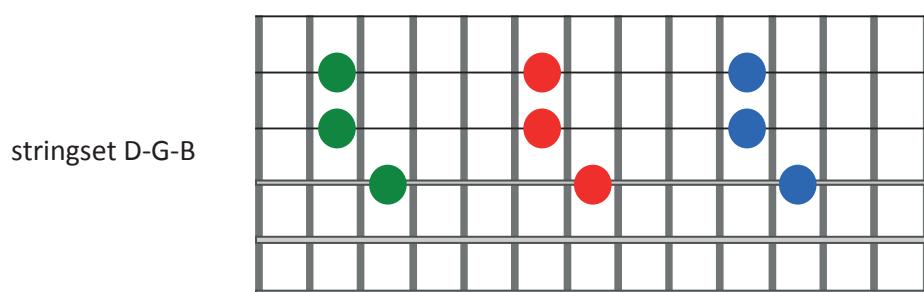
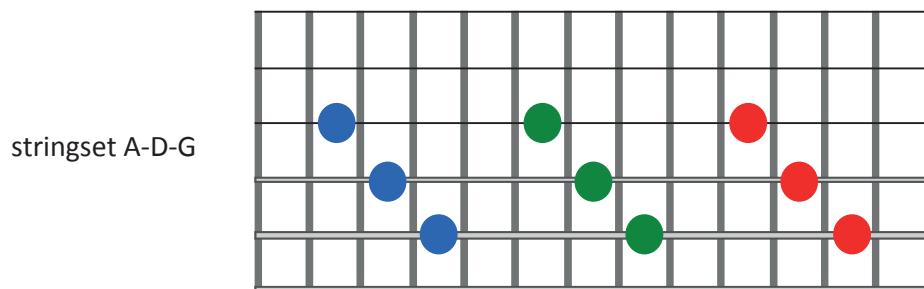
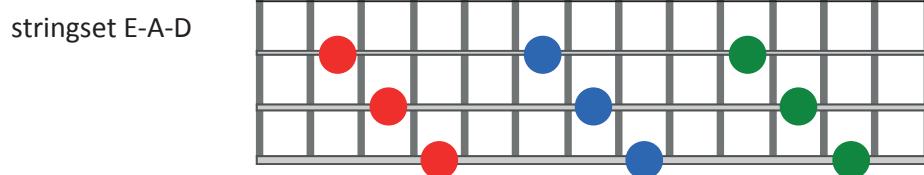
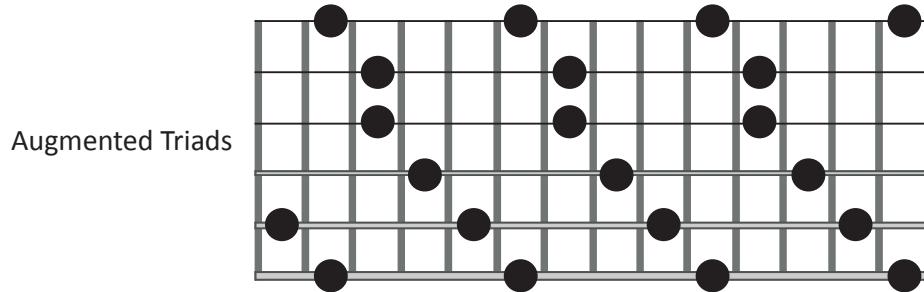
stringset D-G-B



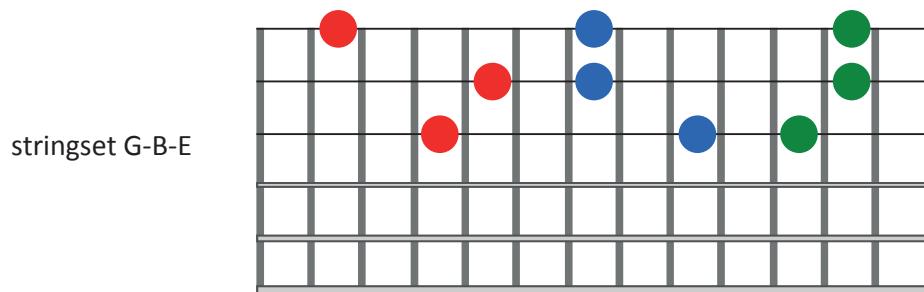
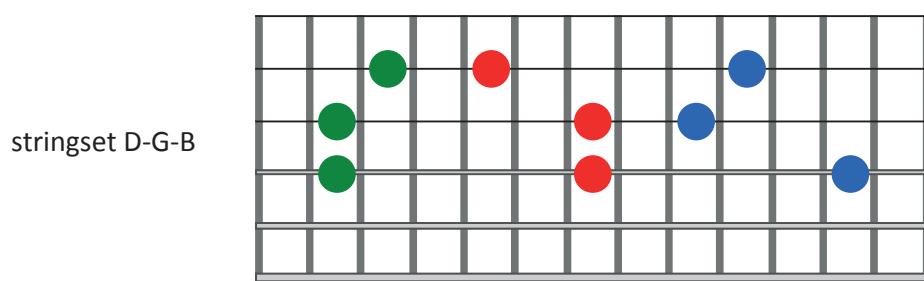
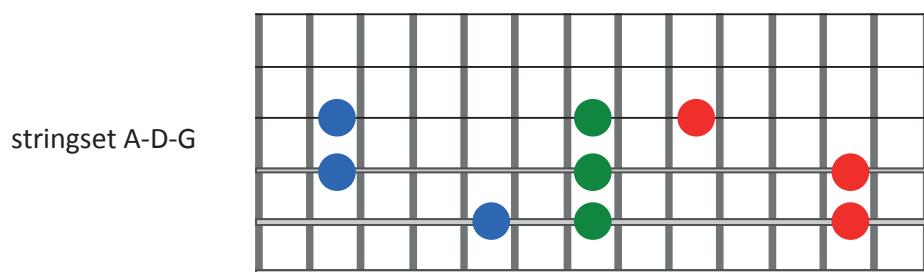
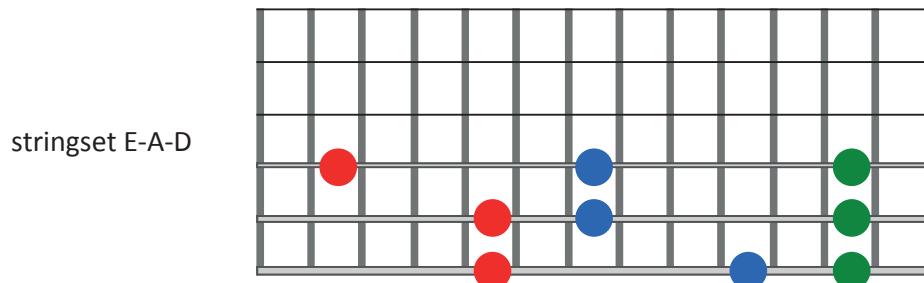
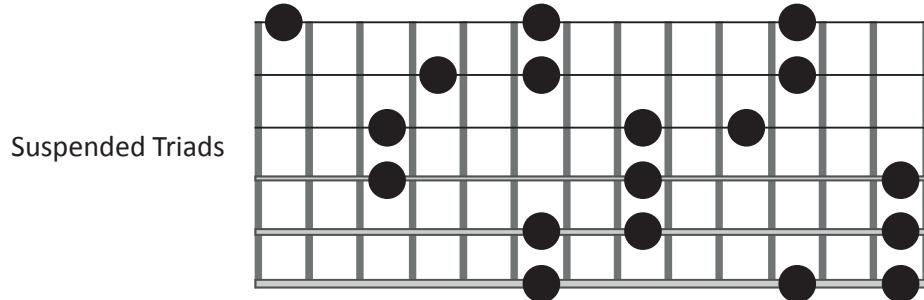
stringset G-B-E



## Augmented Triads

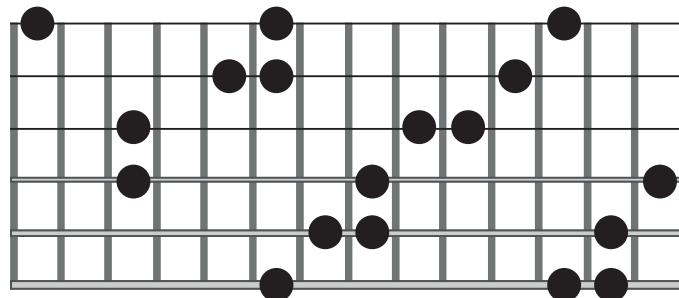


## Suspended Triads

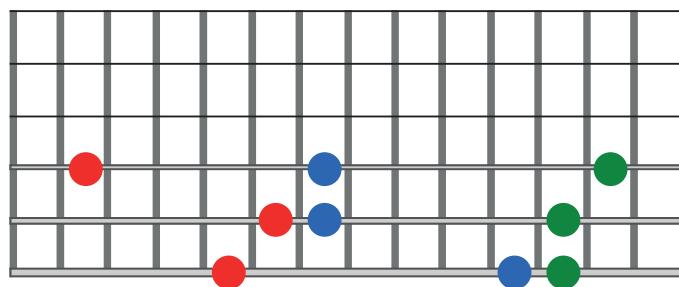


## Lydian Triads

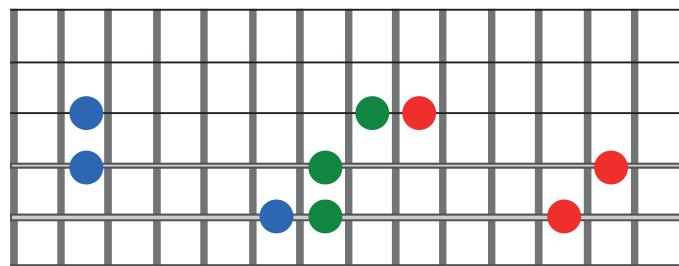
Lydian Triads



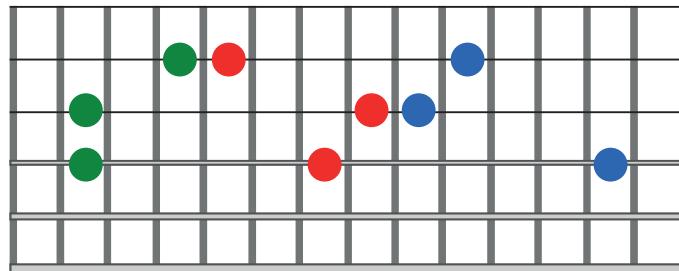
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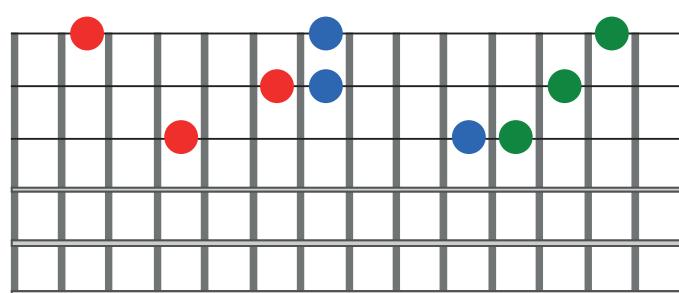
stringset A-D-G



stringset D-G-B

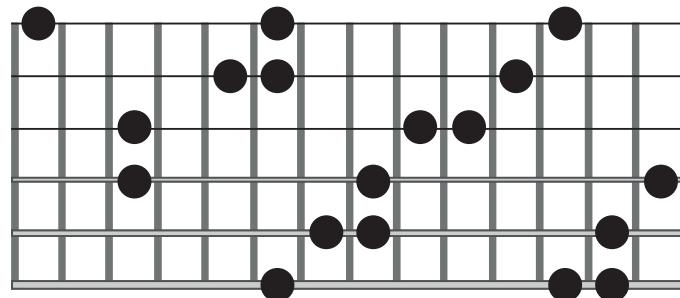


stringset G-B-E

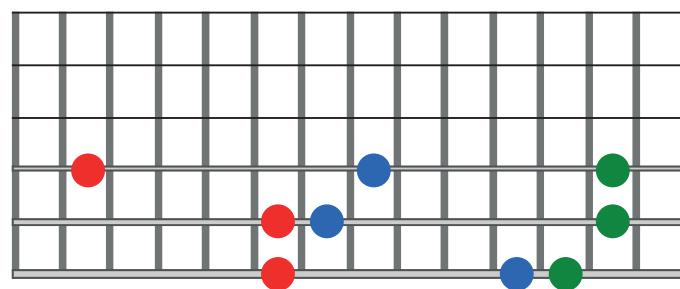


## Locrian Triads

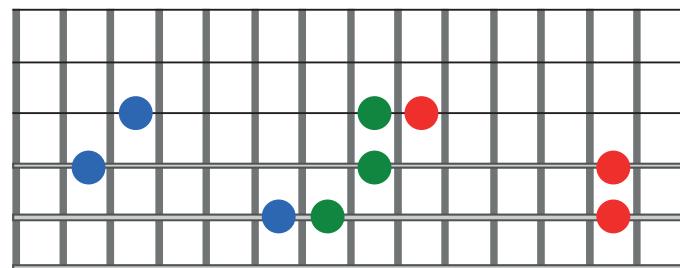
Locrian Triads



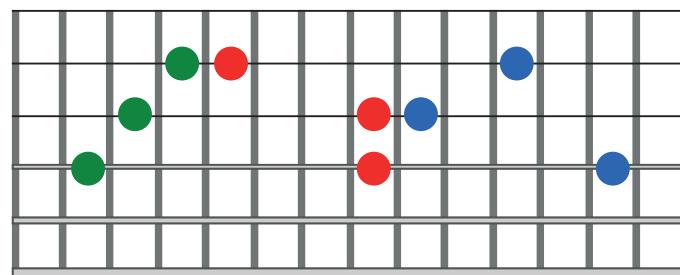
stringset E-A-D



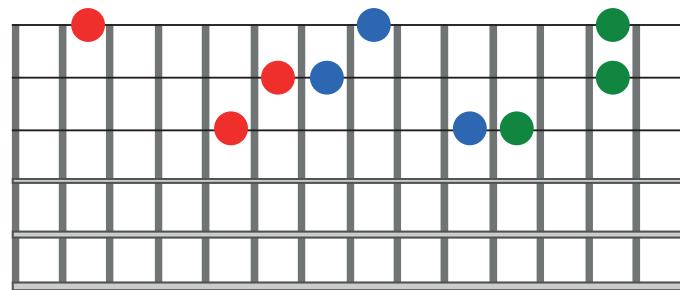
stringset A-D-G



stringset D-G-B



stringset G-B-E

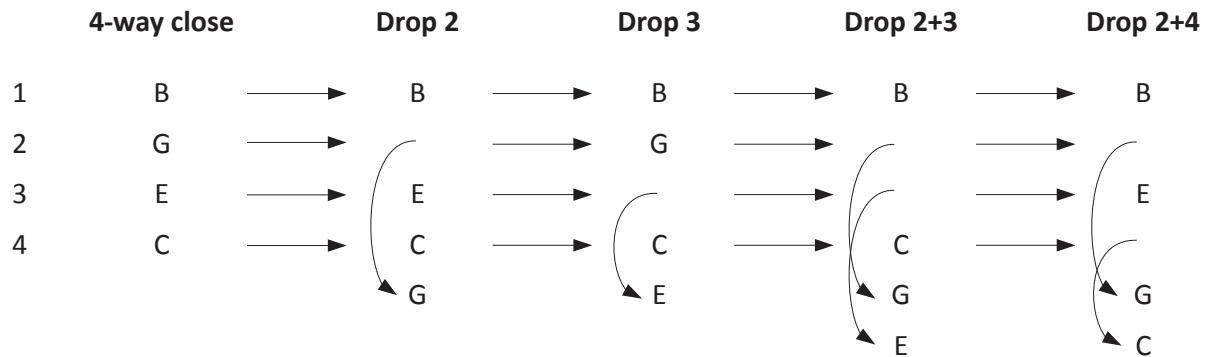


## Drop Voicings

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.

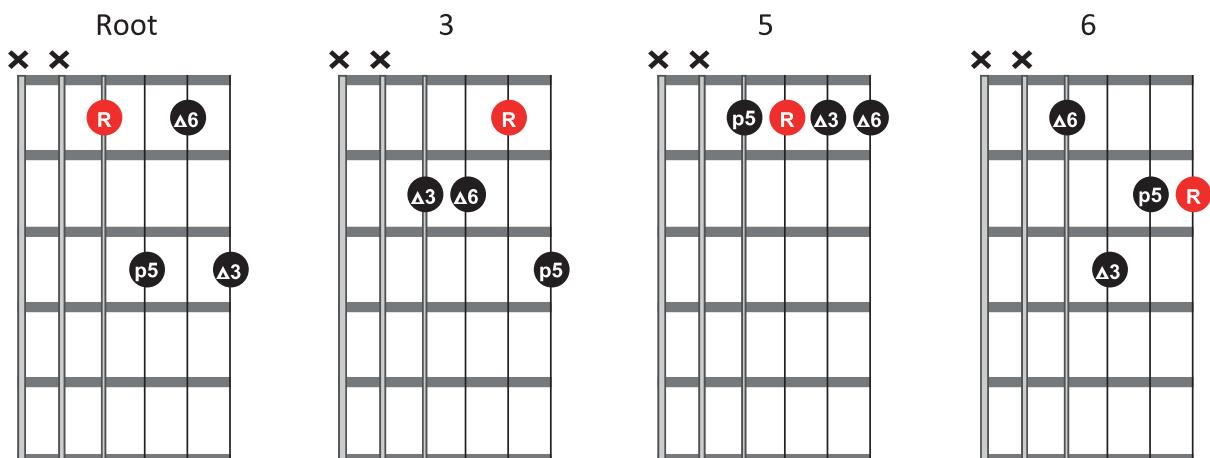
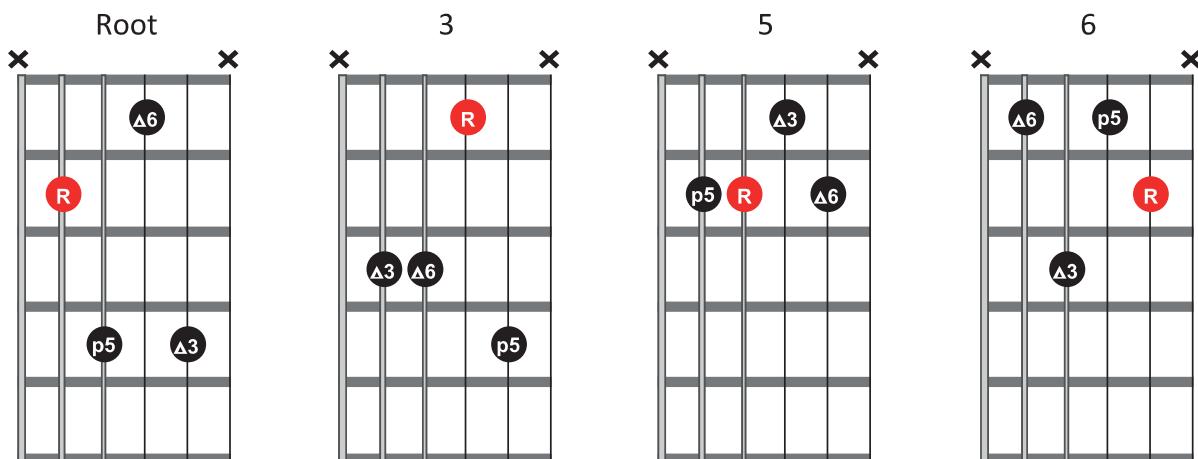
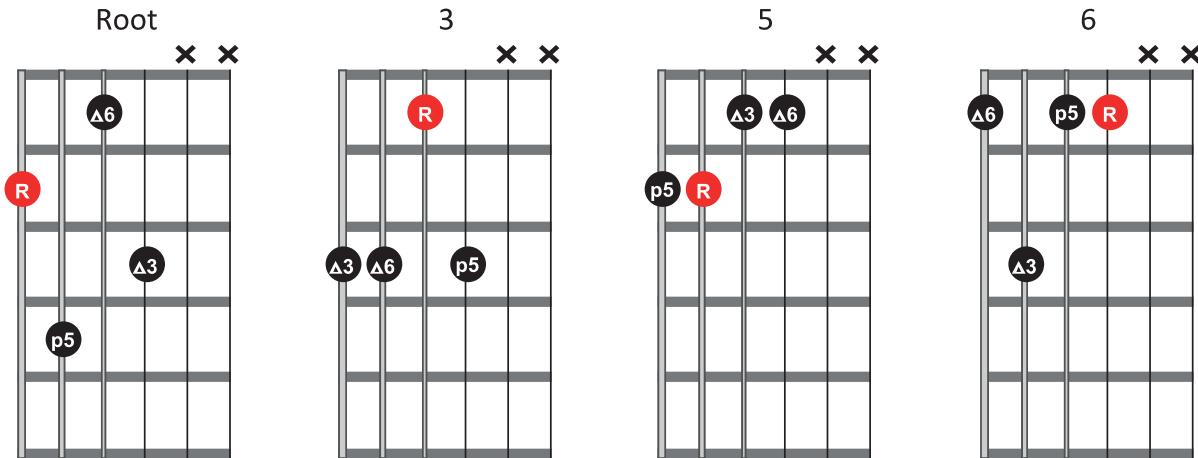
### Voicings of Cmaj<sup>7</sup>

#### *Ex. 136*

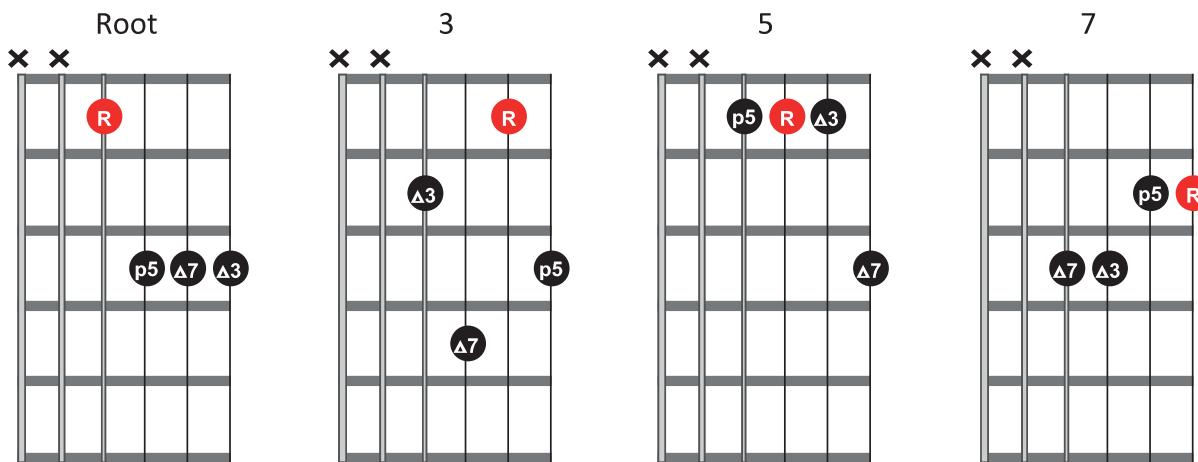
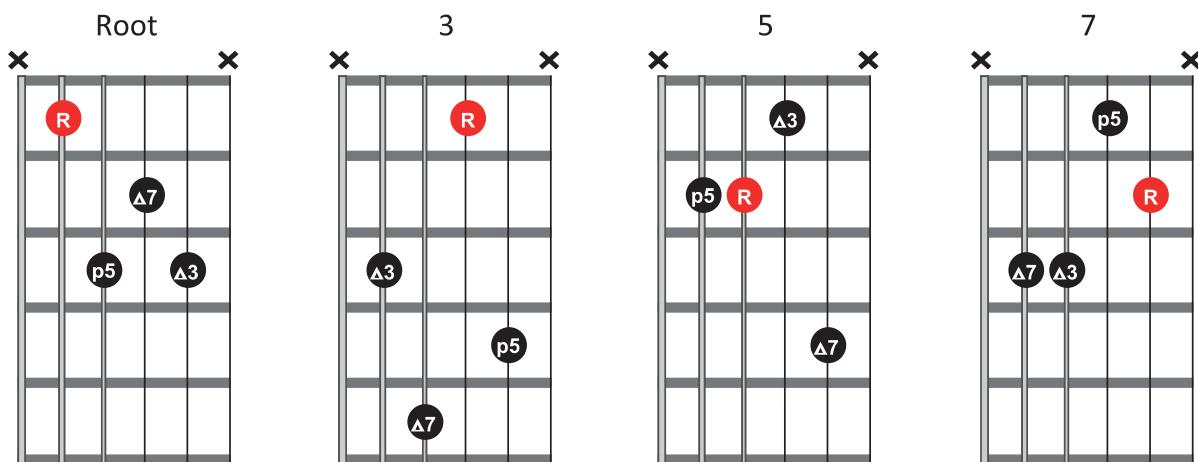
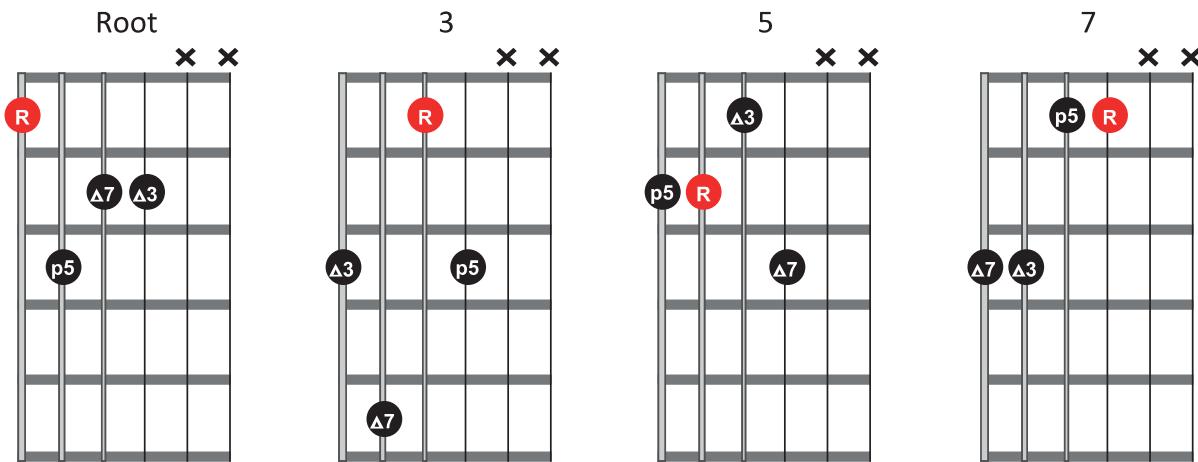


## Drop 2

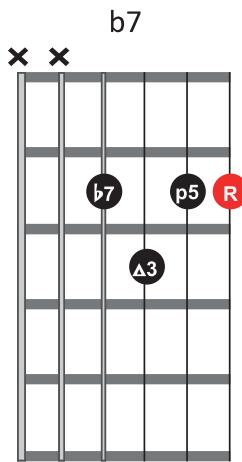
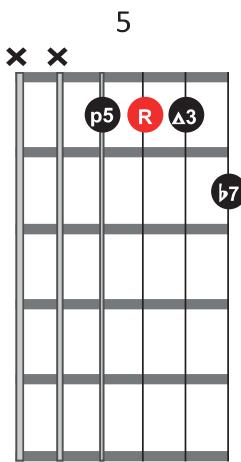
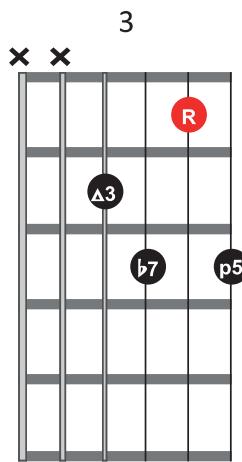
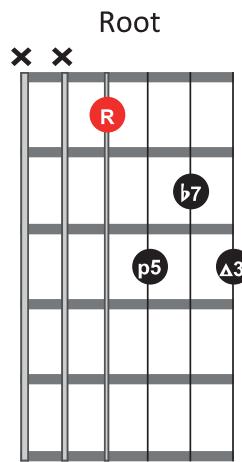
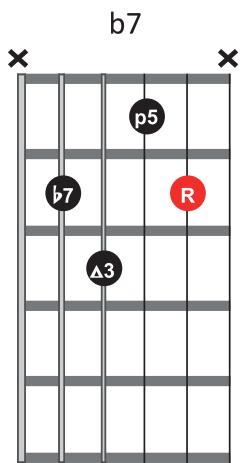
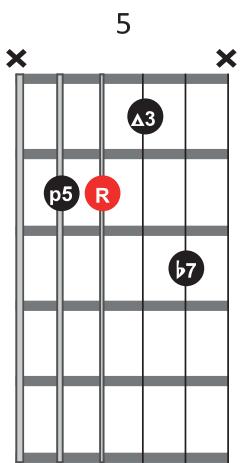
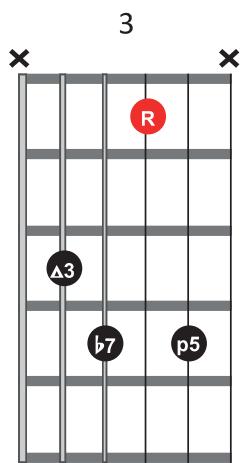
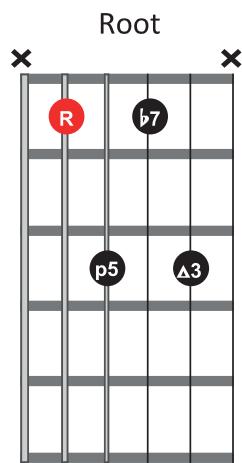
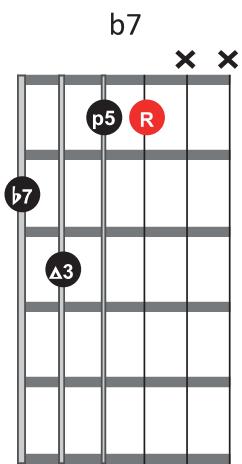
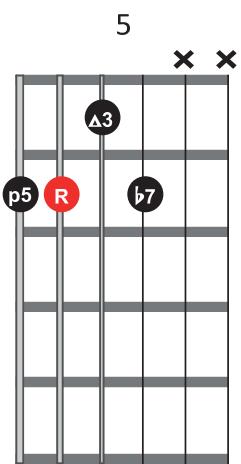
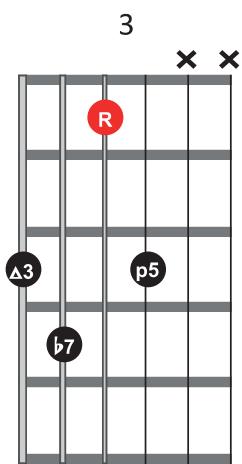
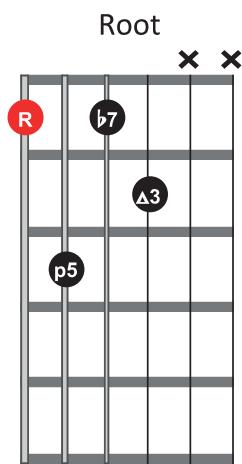
*Maj<sup>6</sup>*



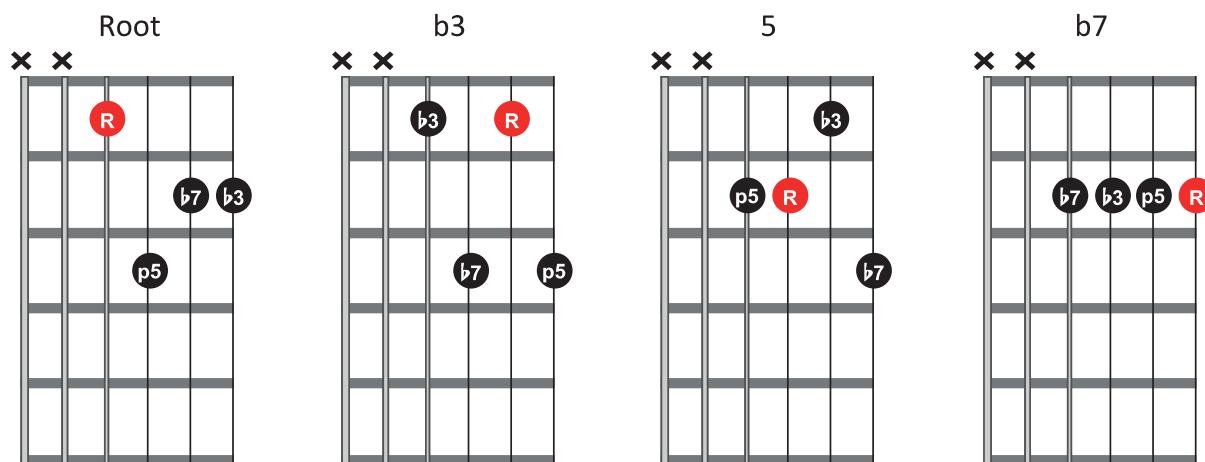
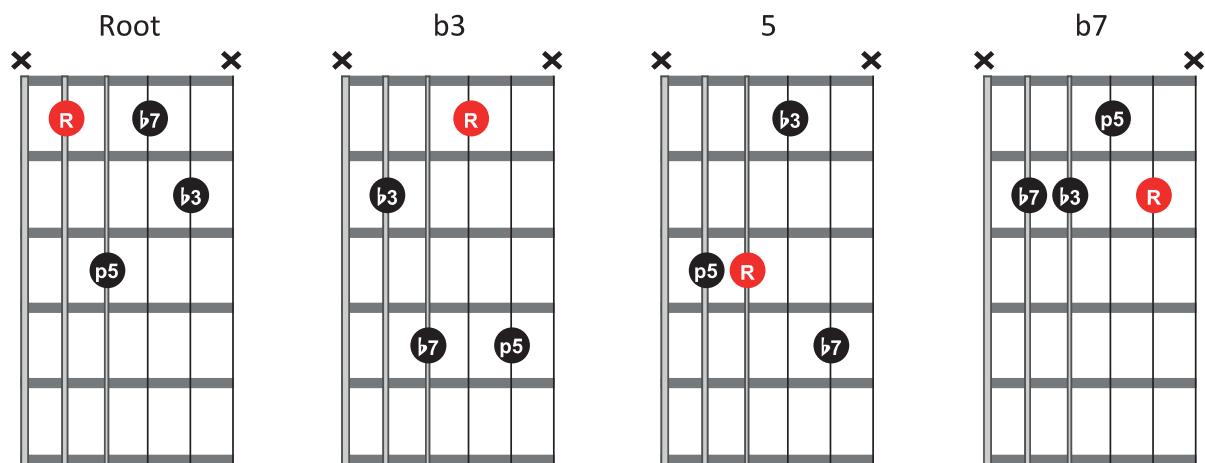
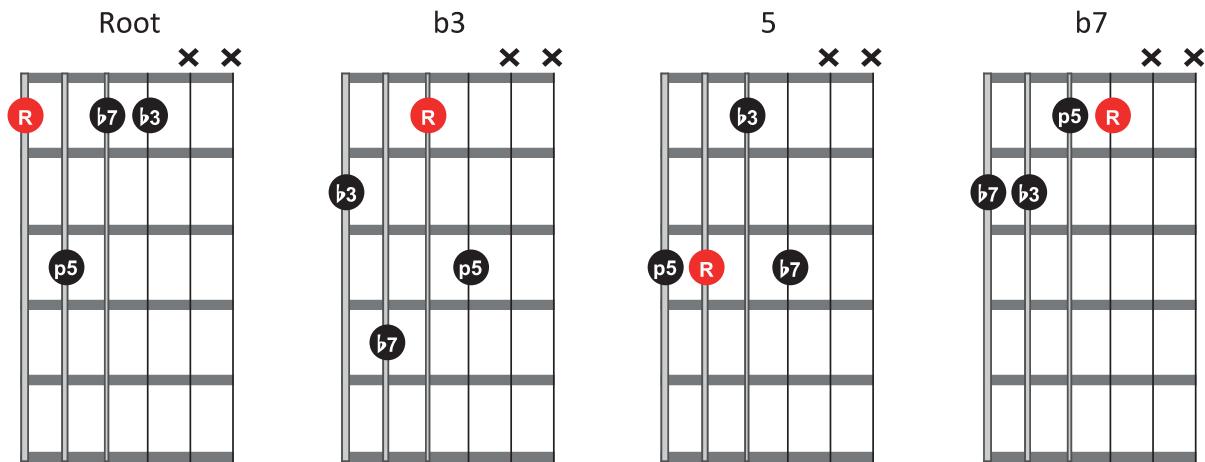
## *Maj<sup>7</sup>*



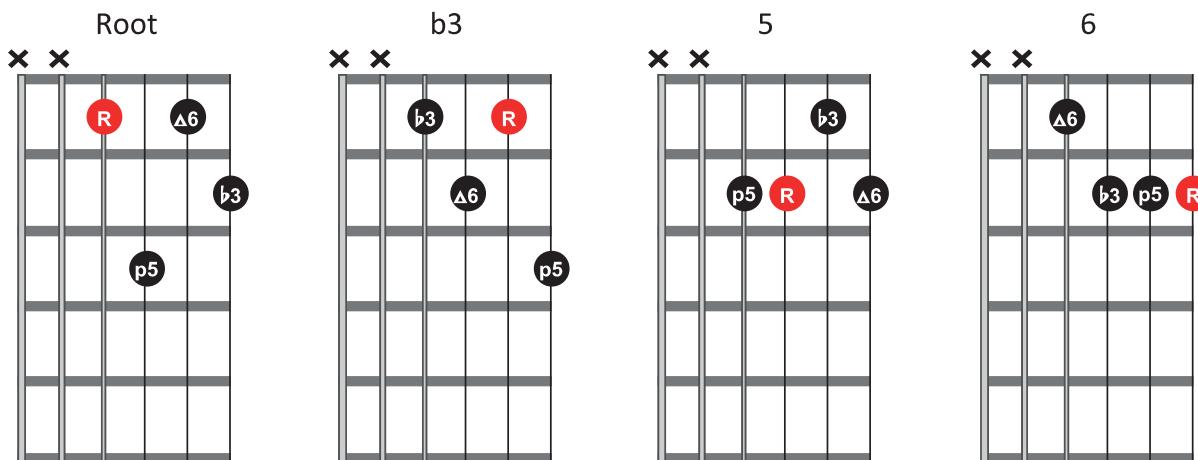
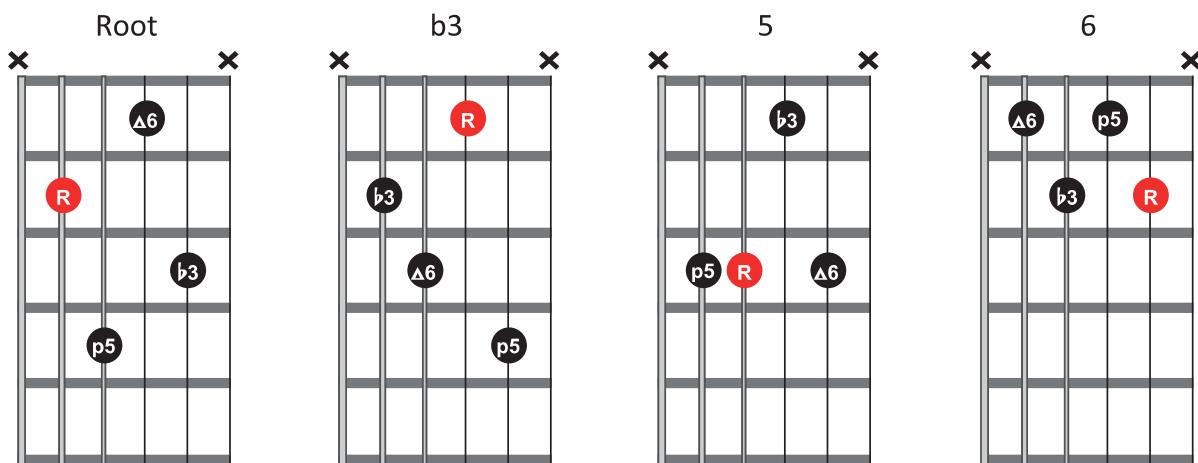
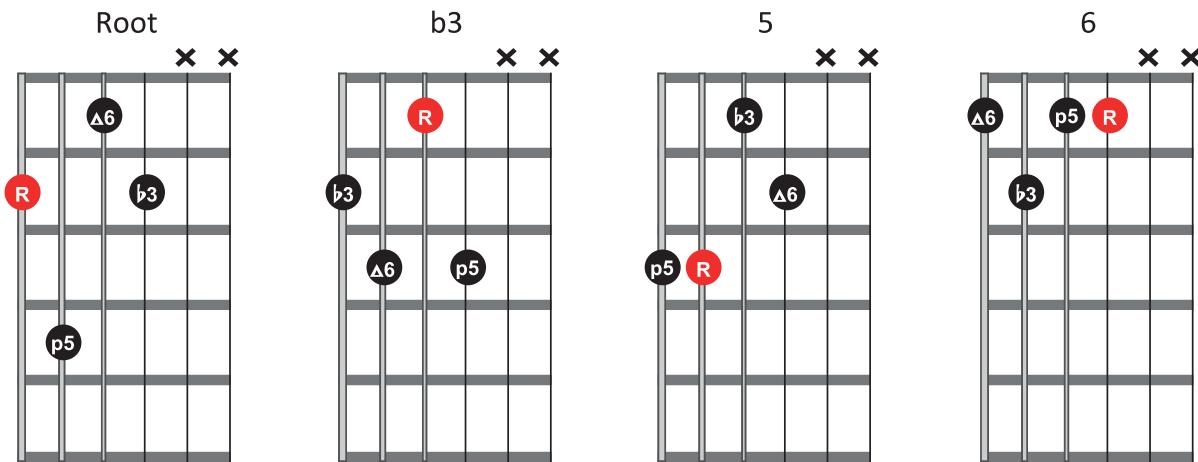
Dom<sup>7</sup>



*Min<sup>7</sup>*



**Min<sup>6</sup>**



*Min<sup>maj7</sup>*

Root      b3      5      7

The first diagram shows the Root chord with notes R (red), b3 (black), p5 (black), and Δ7 (black). The second diagram shows the b3 chord with notes b3 (black), R (red), p5 (black), and Δ7 (black). The third diagram shows the 5 chord with notes p5 (black), R (red), b3 (black), and Δ7 (black). The fourth diagram shows the 7 chord with notes p5 (black), b3 (black), R (red), and Δ7 (black).

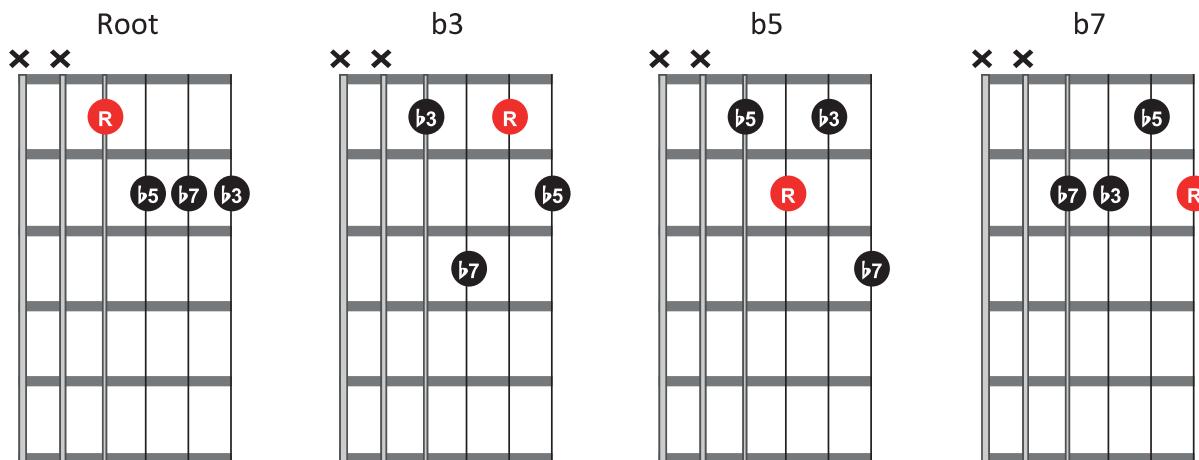
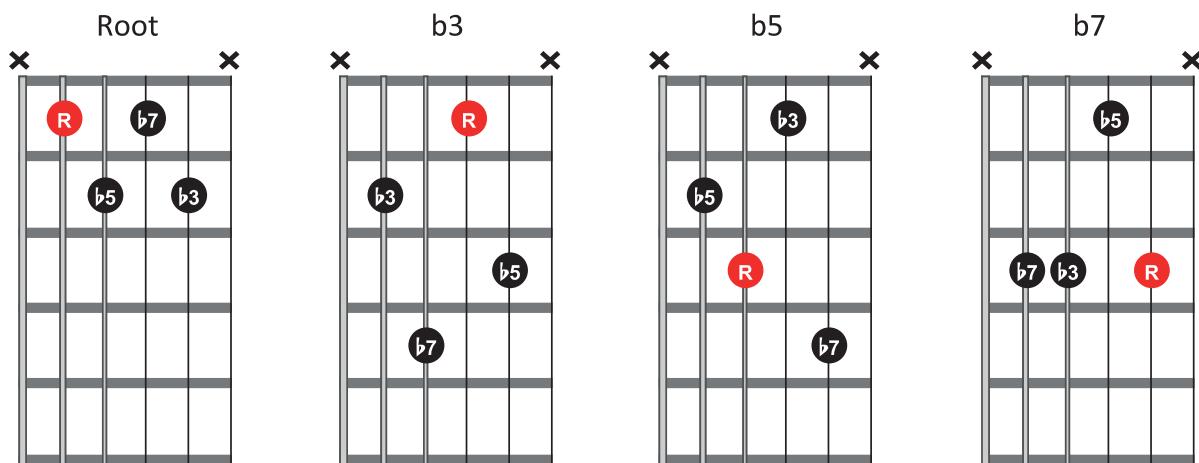
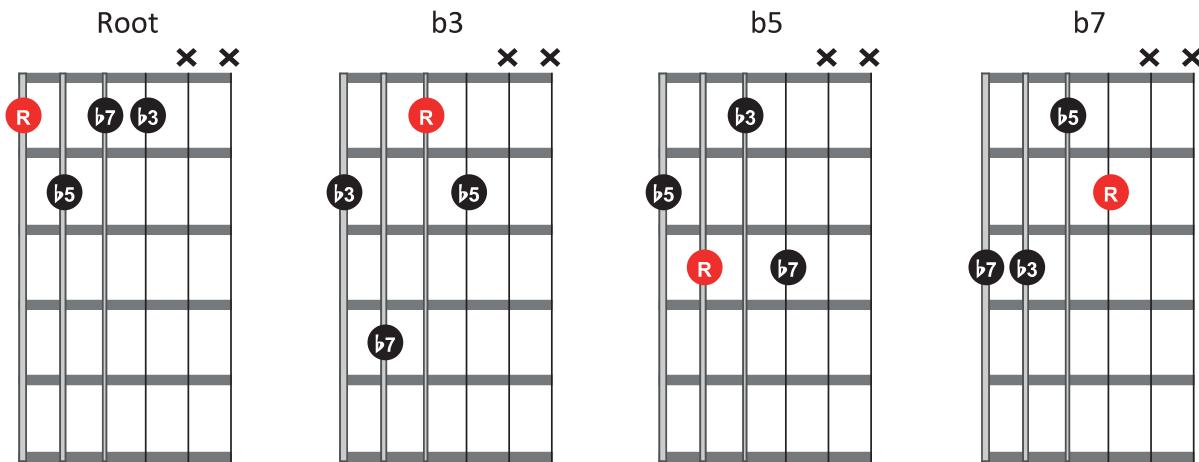
Root      b3      5      7

The first diagram shows the Root chord with notes R (red), Δ7 (black), b3 (black), and p5 (black). The second diagram shows the b3 chord with notes b3 (black), R (red), p5 (black), and Δ7 (black). The third diagram shows the 5 chord with notes p5 (black), R (red), b3 (black), and Δ7 (black). The fourth diagram shows the 7 chord with notes p5 (black), b3 (black), Δ7 (black), and R (red).

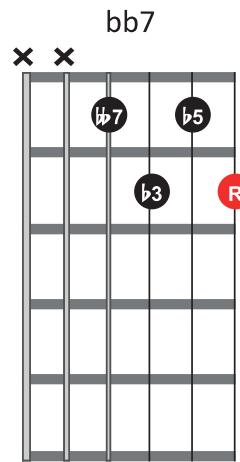
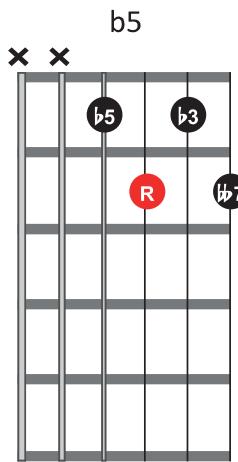
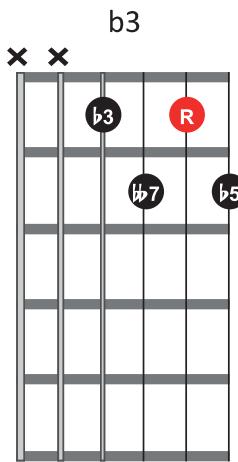
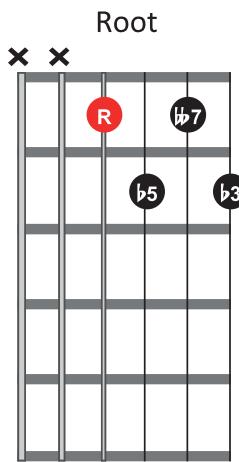
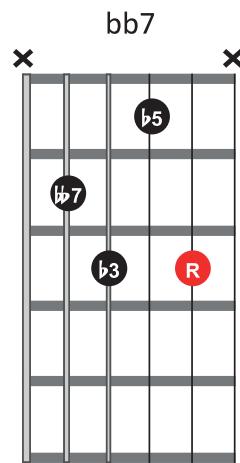
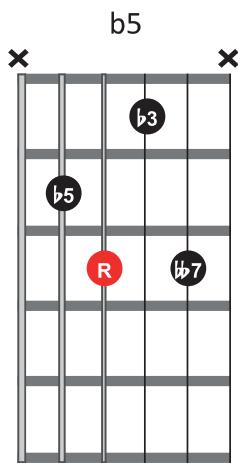
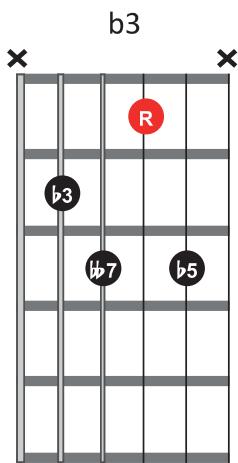
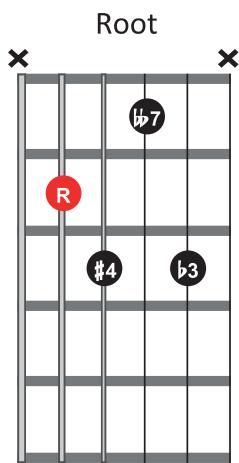
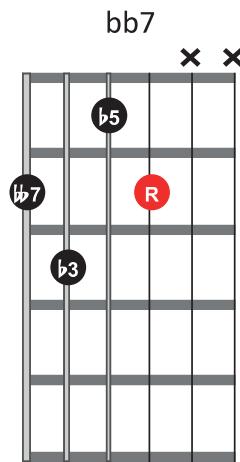
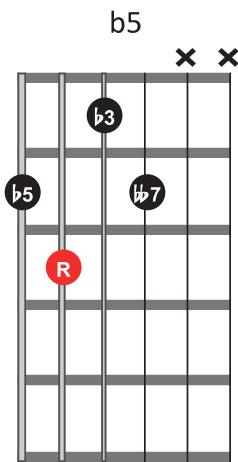
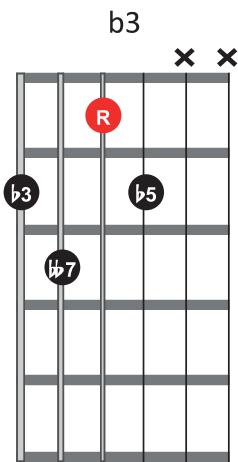
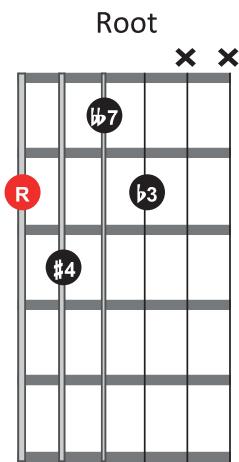
Root      b3      5      7

The first diagram shows the Root chord with notes R (red), b3 (black), p5 (black), and Δ7 (black). The second diagram shows the b3 chord with notes b3 (black), R (red), p5 (black), and Δ7 (black). The third diagram shows the 5 chord with notes p5 (black), R (red), b3 (black), and Δ7 (black). The fourth diagram shows the 7 chord with notes b3 (black), p5 (black), Δ7 (black), and R (red).

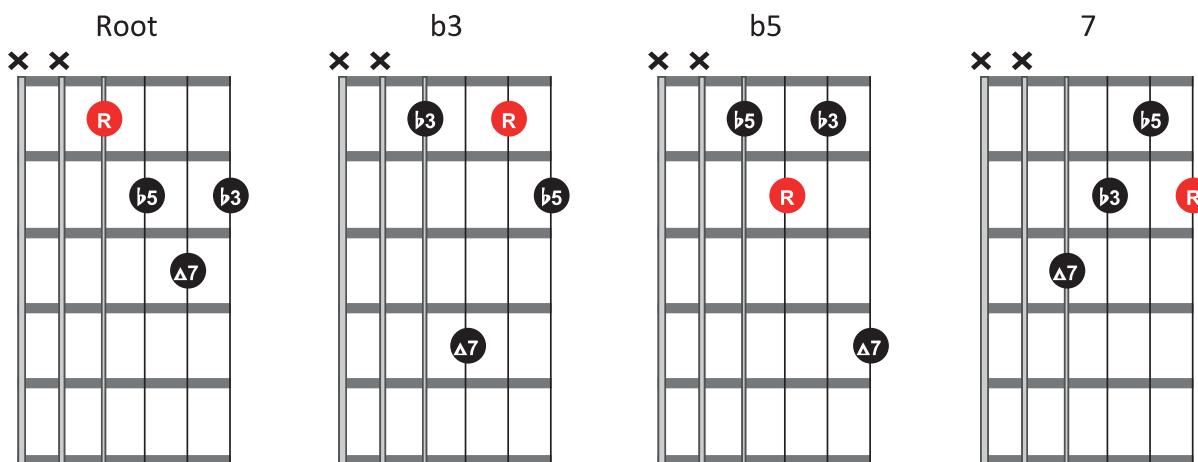
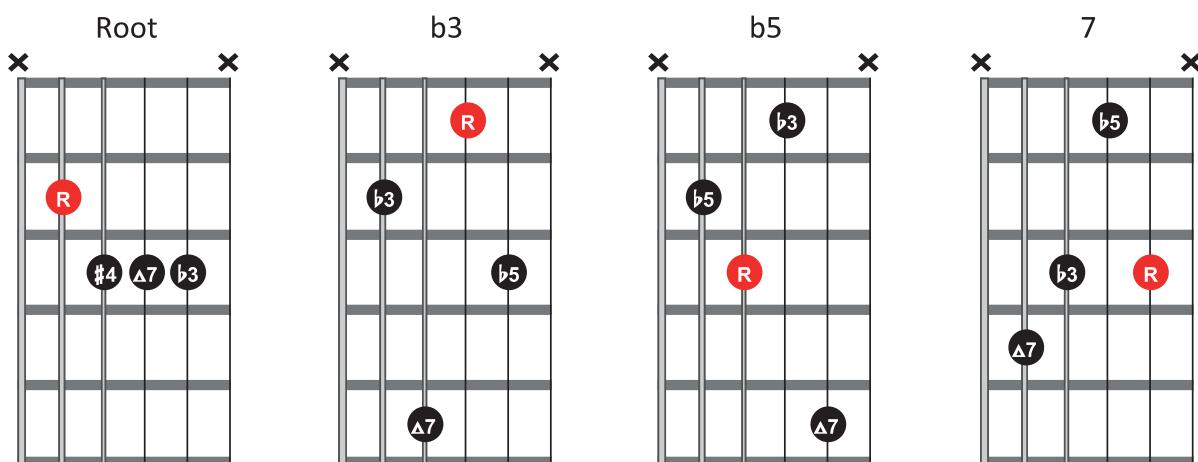
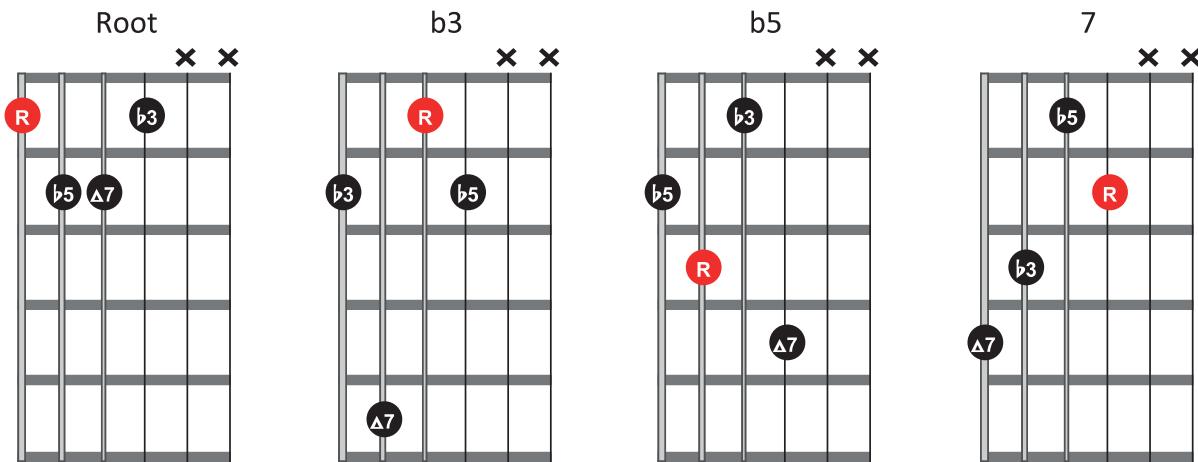
*Min<sup>7b5</sup>*



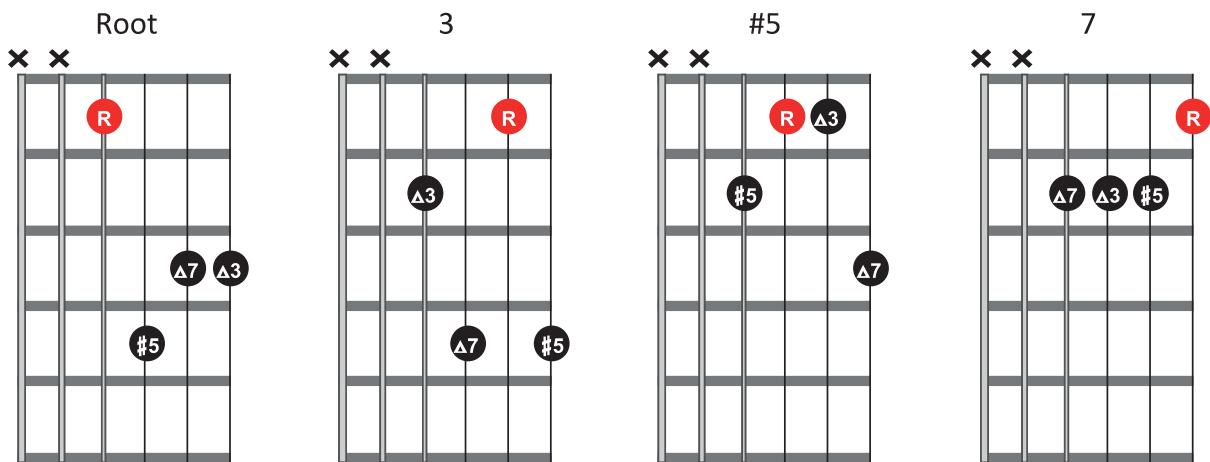
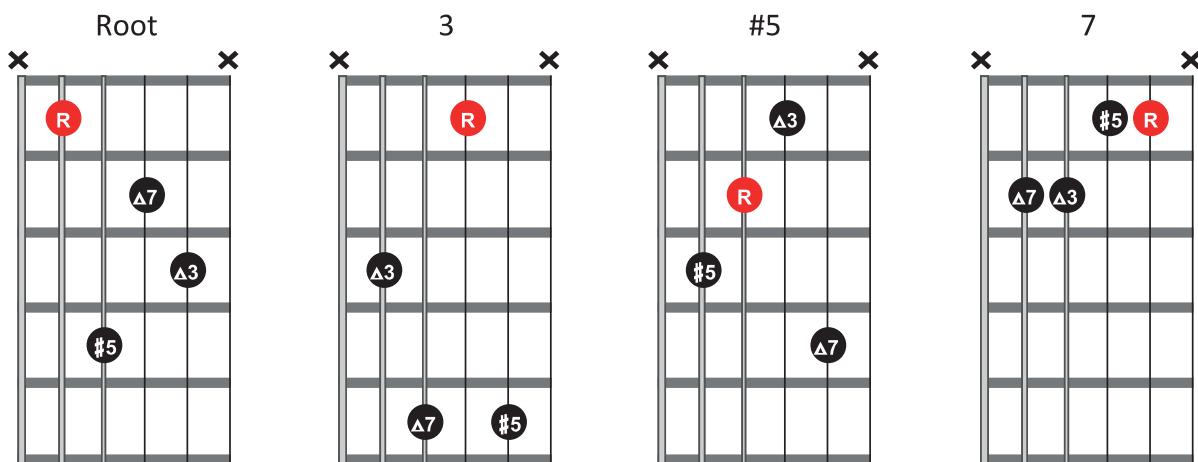
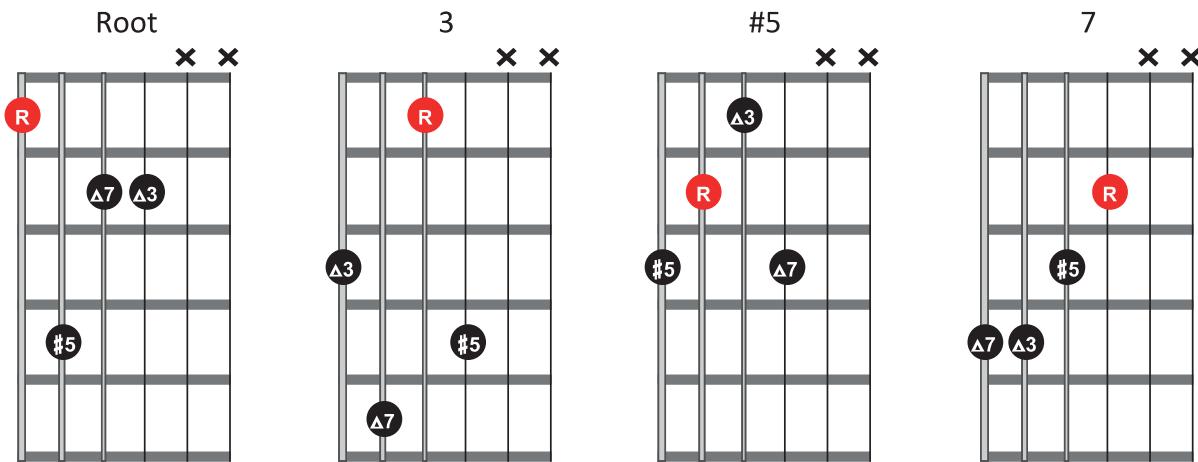
*Dim<sup>7</sup>*



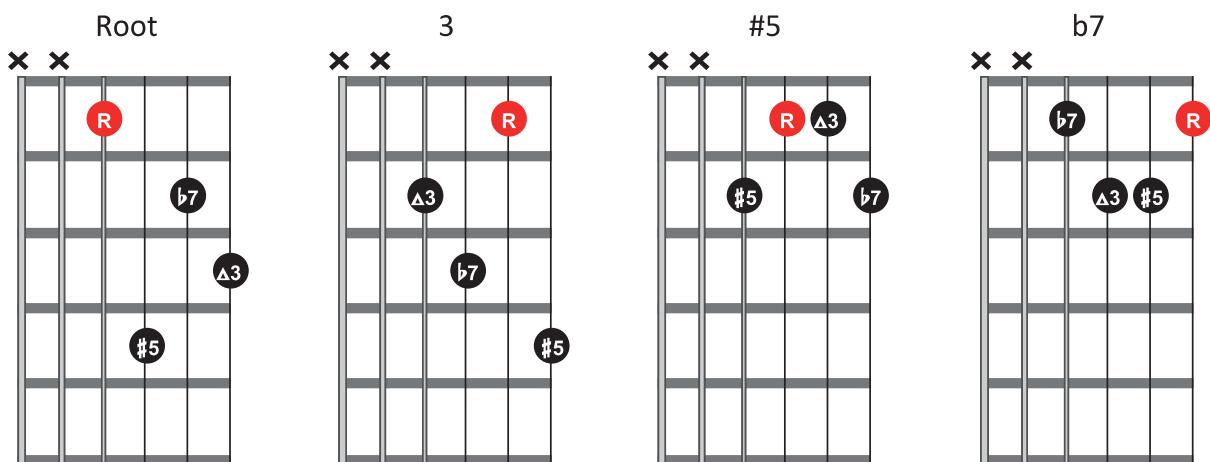
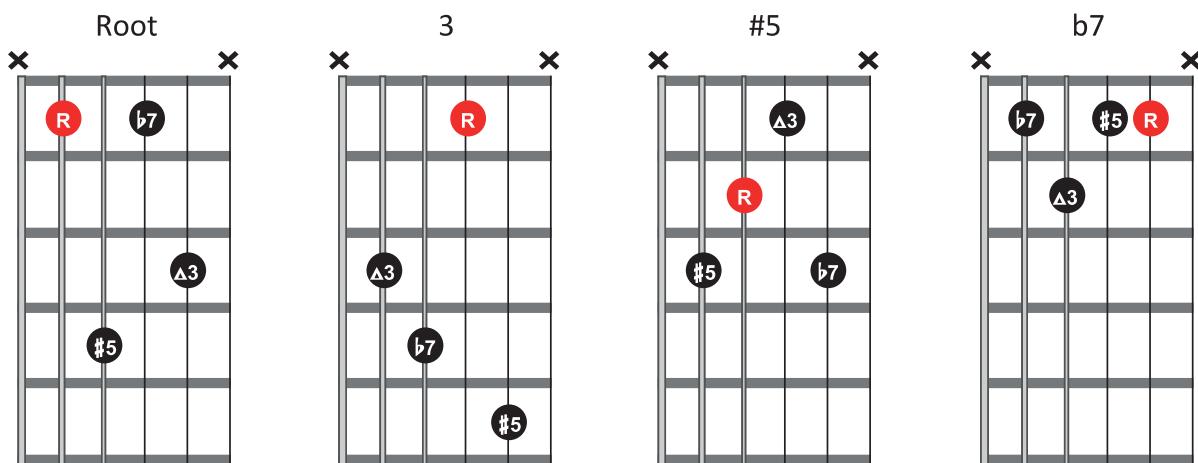
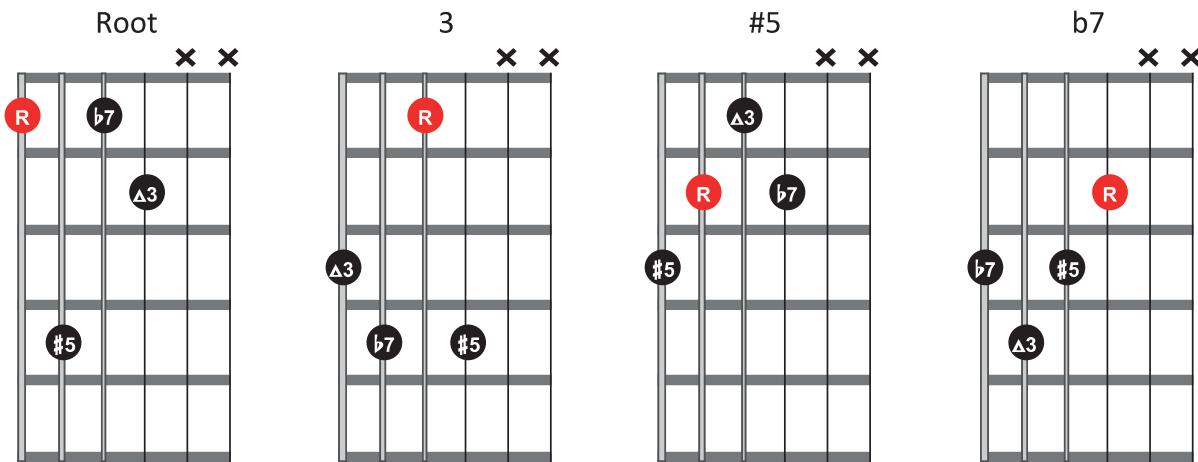
*Dim<sup>maj7</sup>*



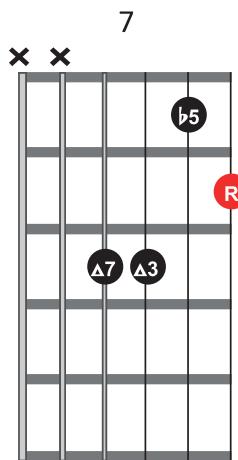
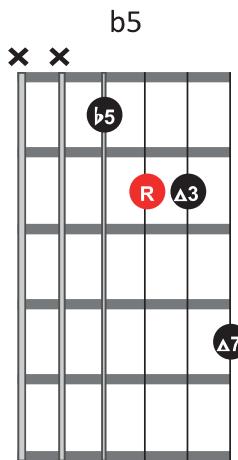
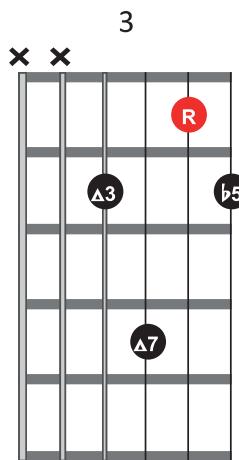
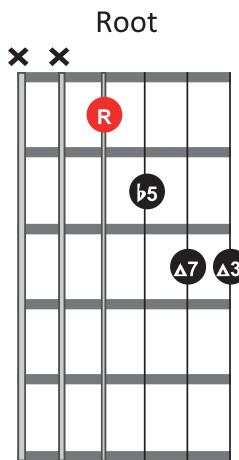
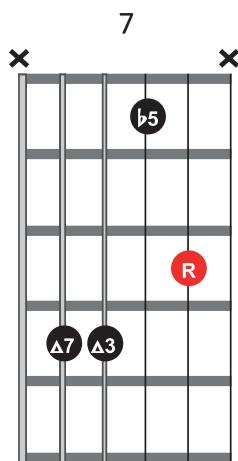
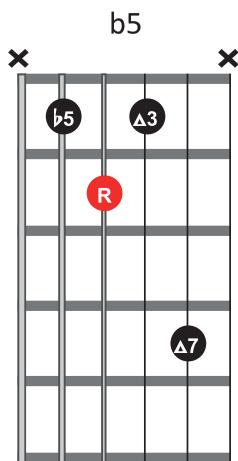
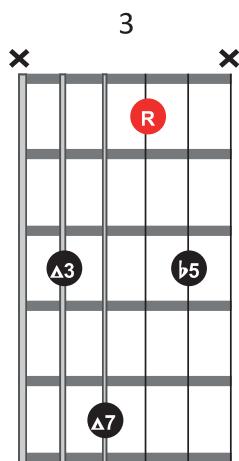
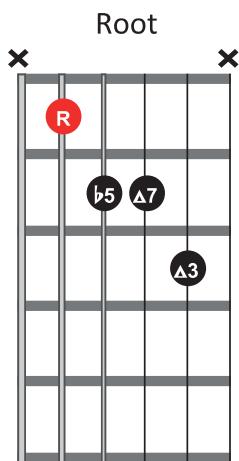
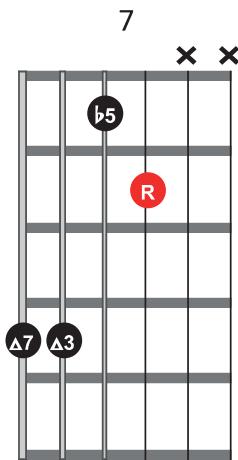
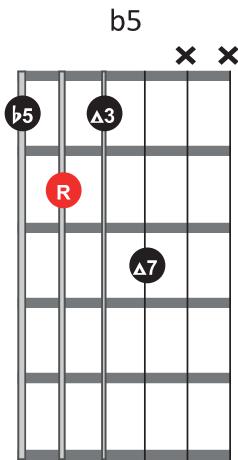
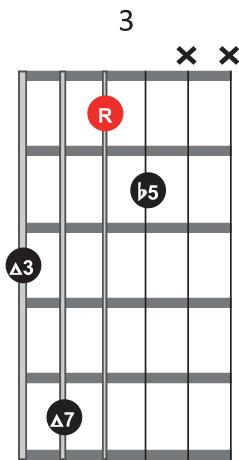
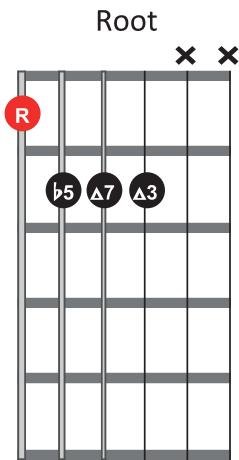
*Aug<sup>maj7</sup>*



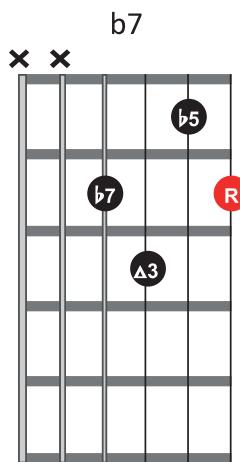
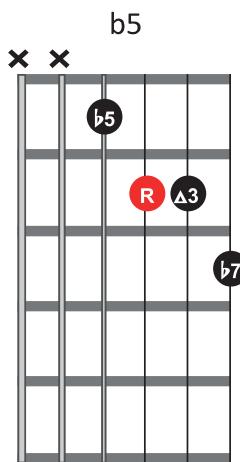
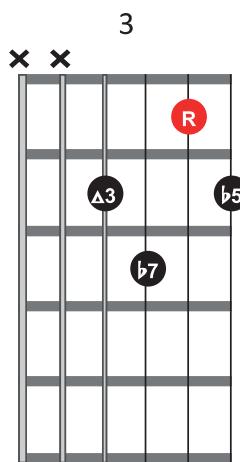
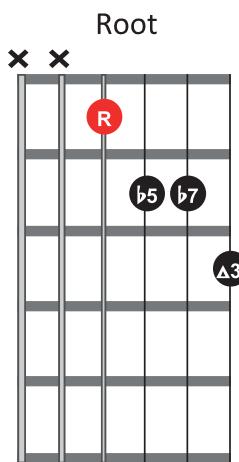
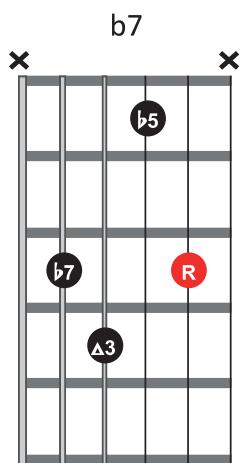
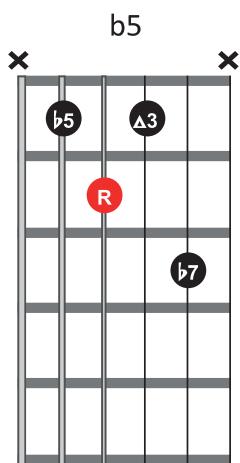
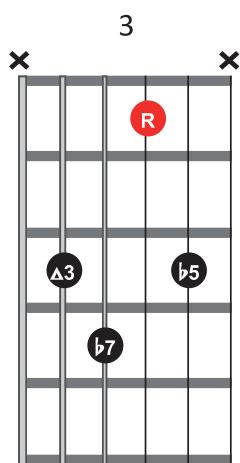
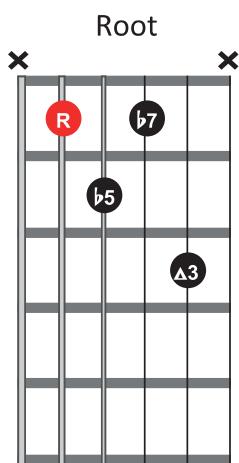
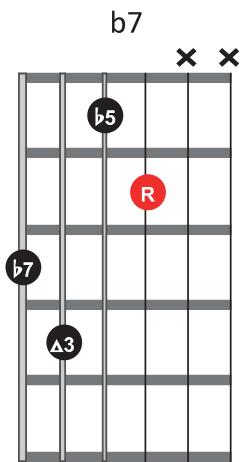
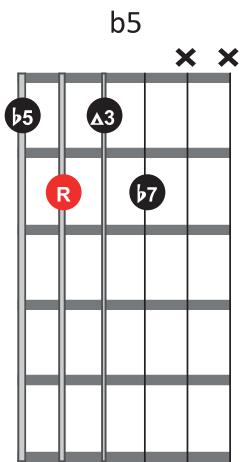
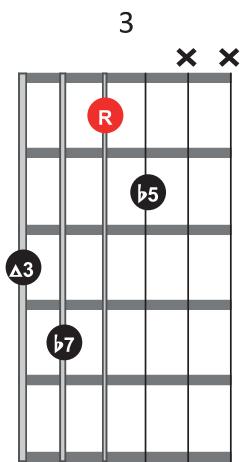
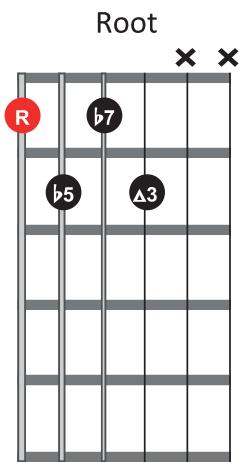
## *Aug<sup>7</sup>*



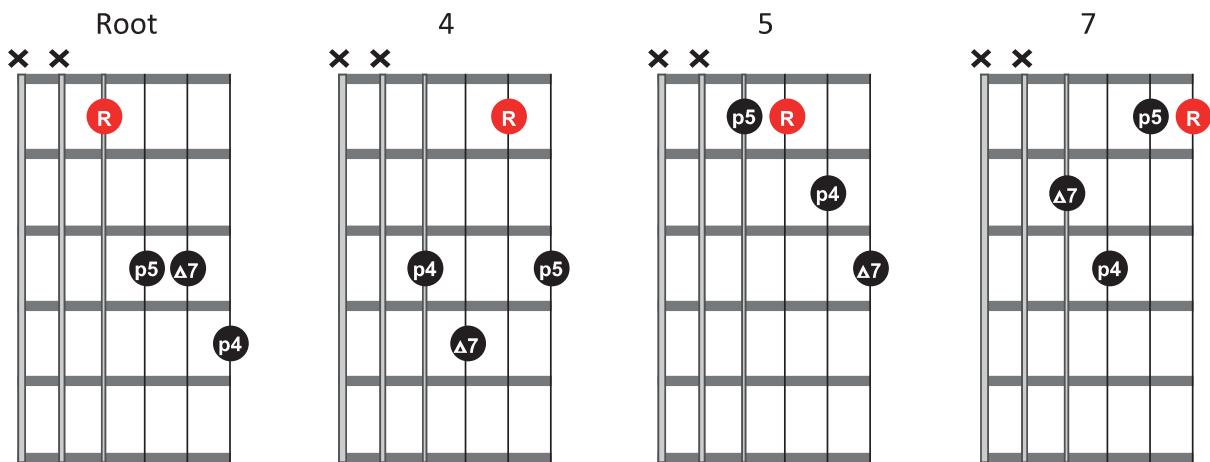
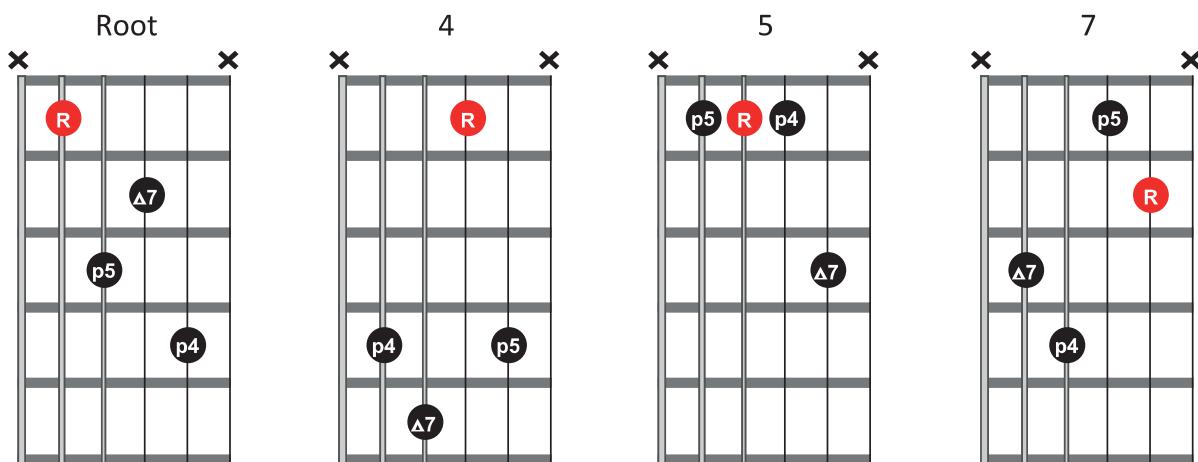
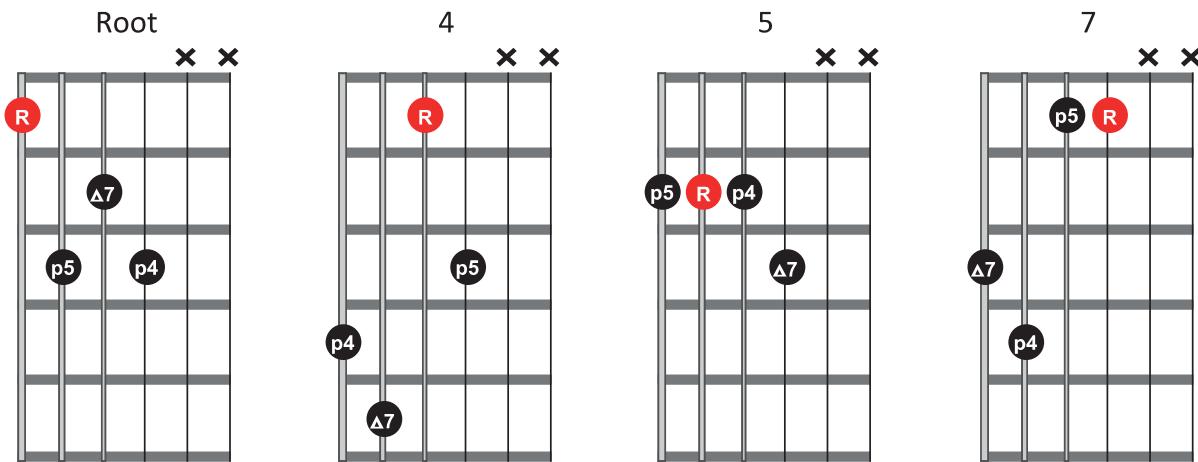
## **Maj<sup>7b5</sup>**



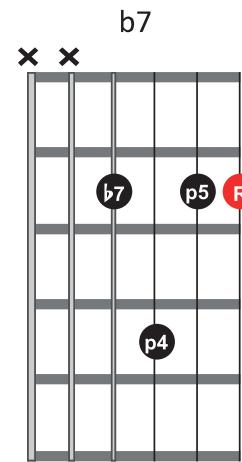
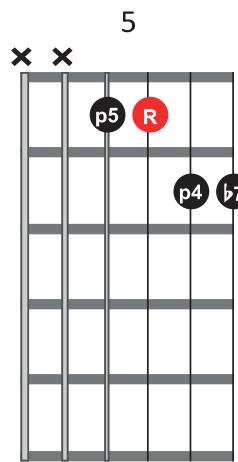
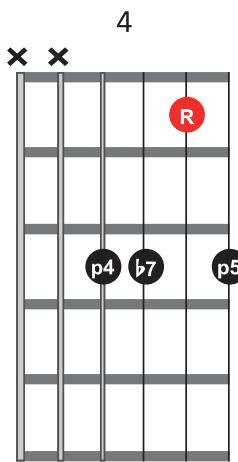
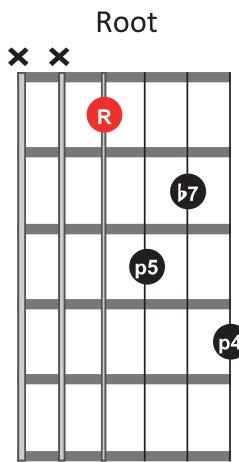
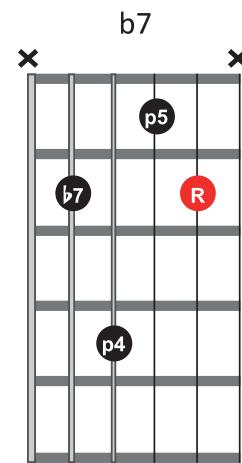
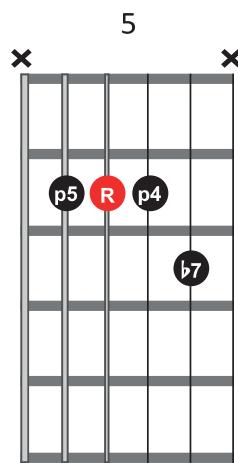
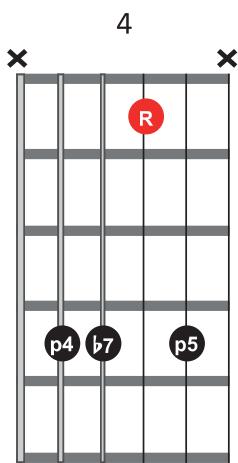
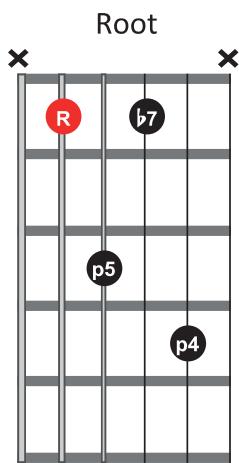
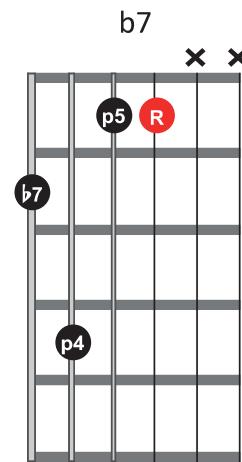
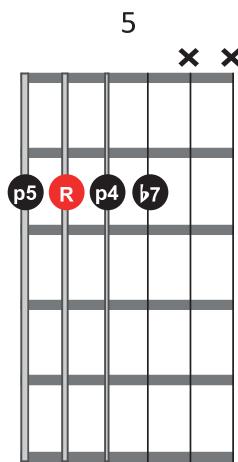
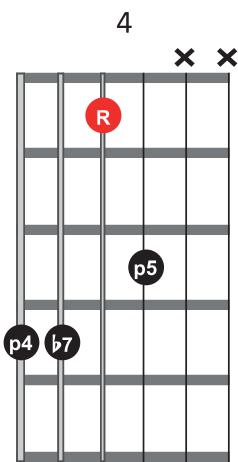
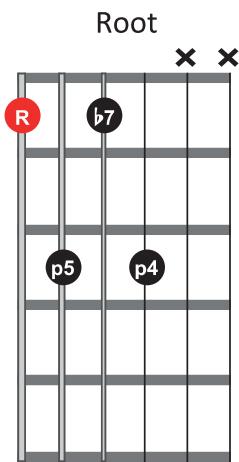
*Dom*<sup>7b5</sup>



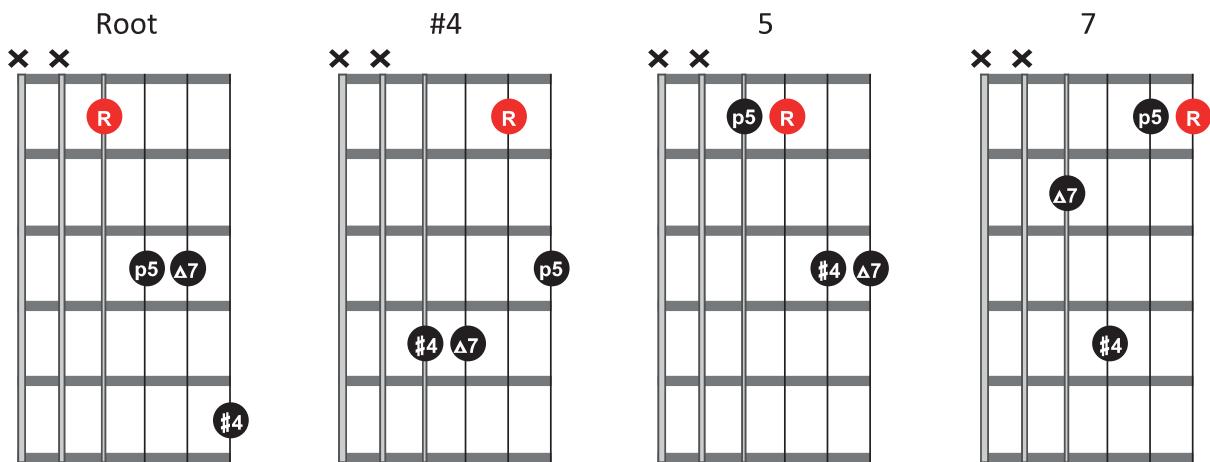
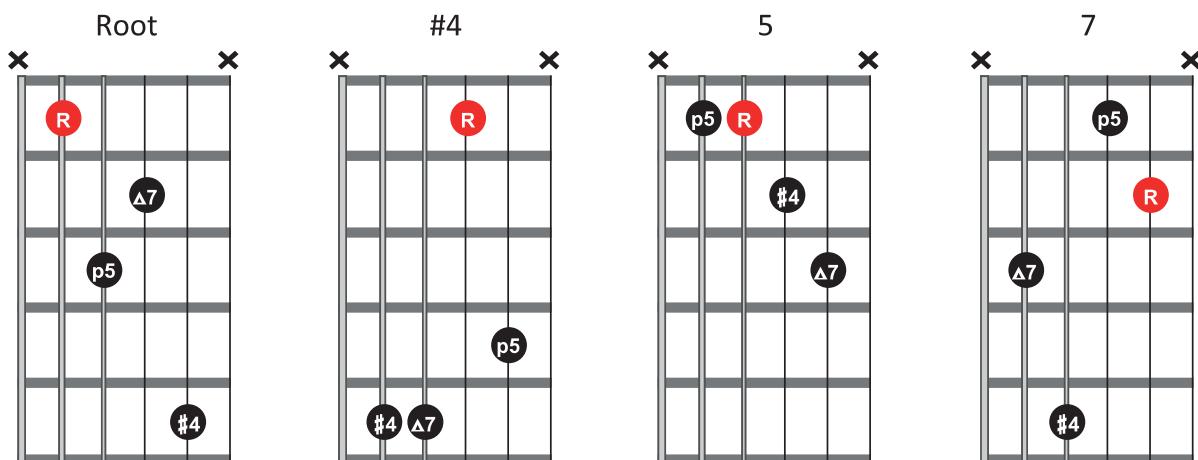
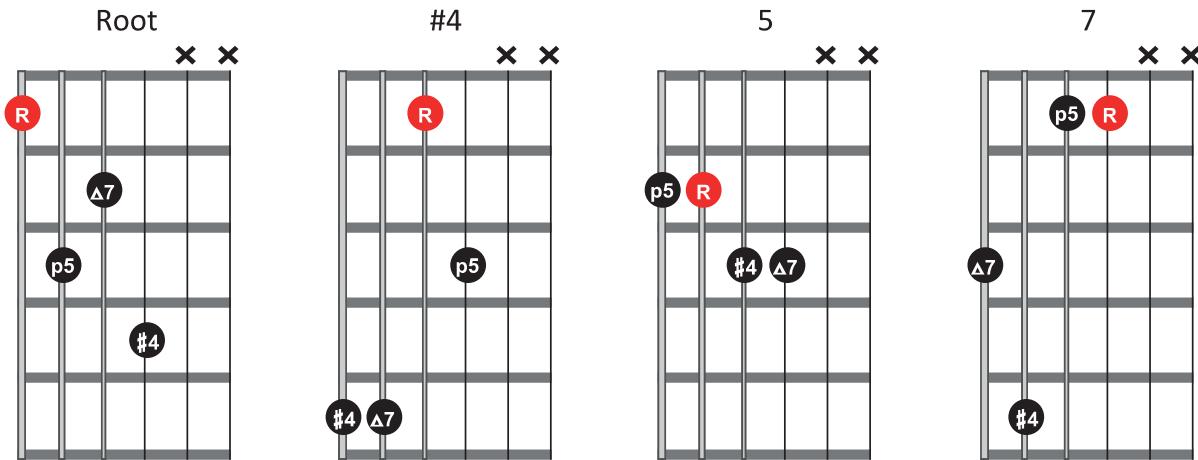
*Maj<sup>7sus4</sup>*



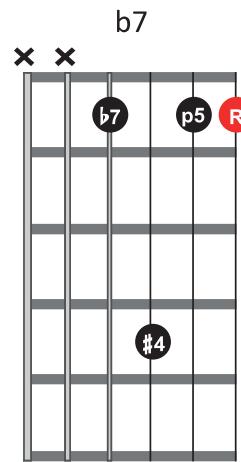
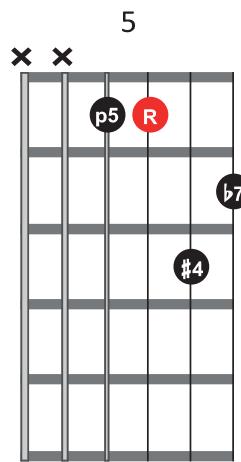
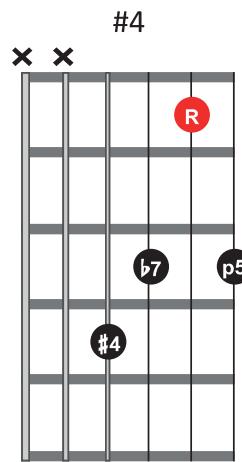
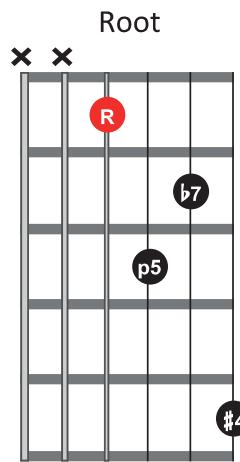
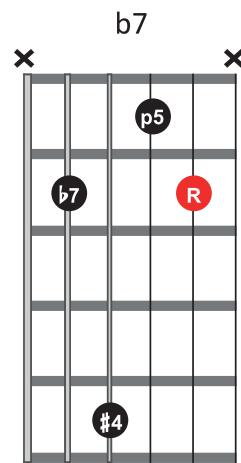
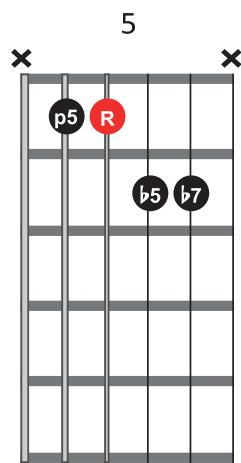
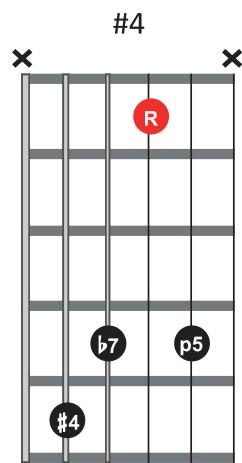
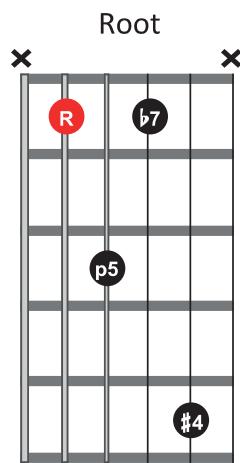
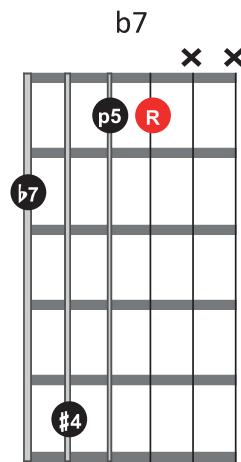
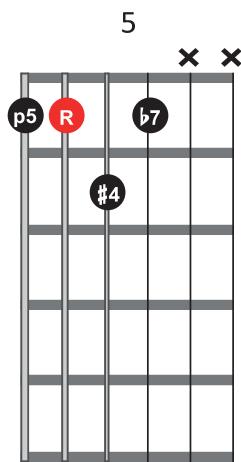
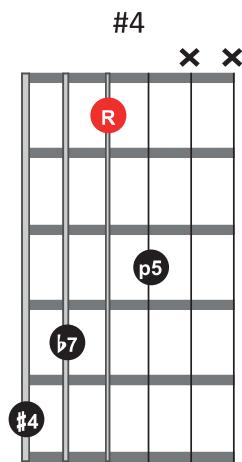
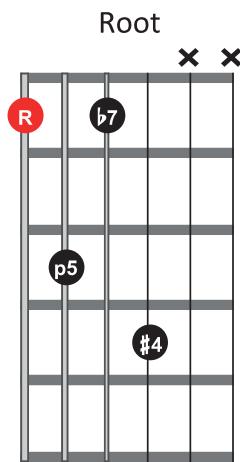
*Dom<sup>7sus4</sup>*



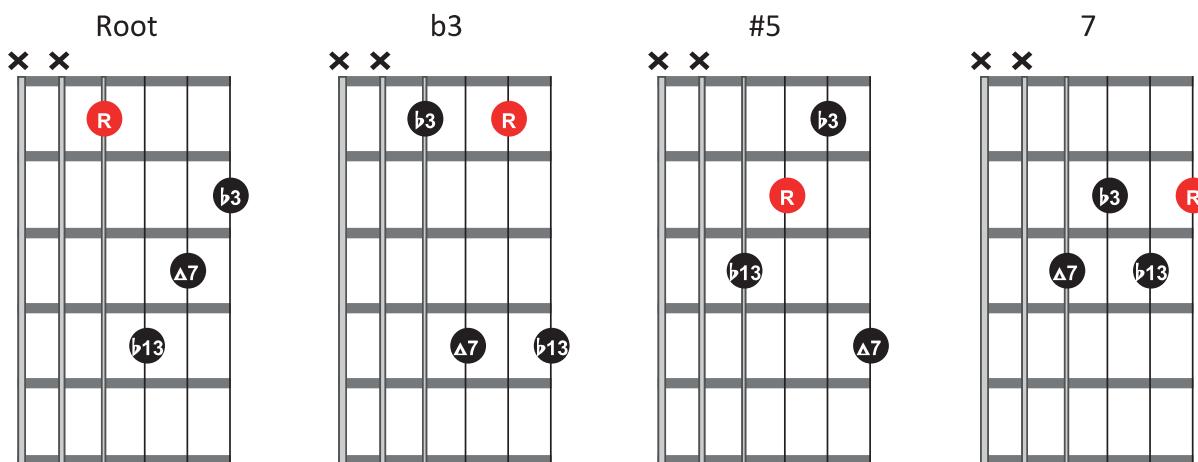
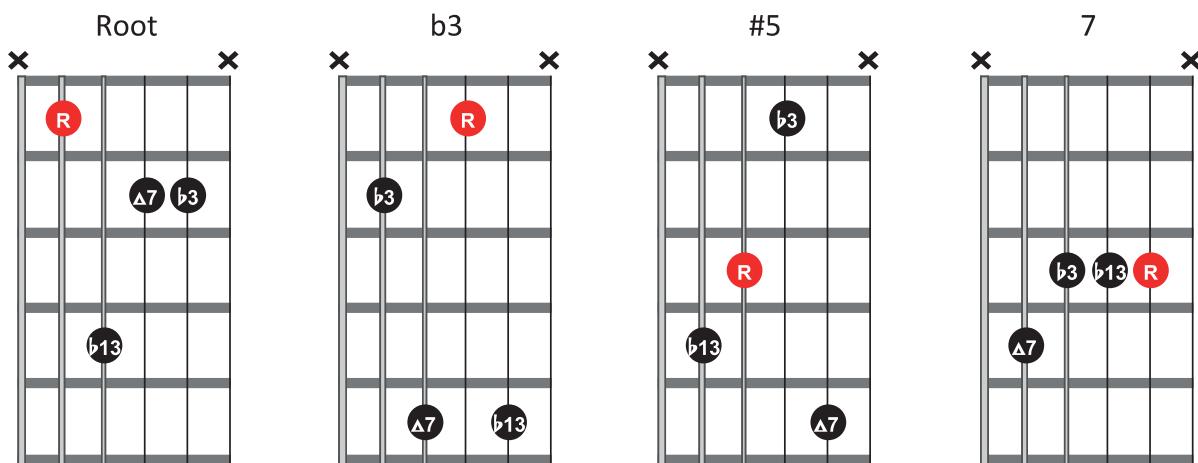
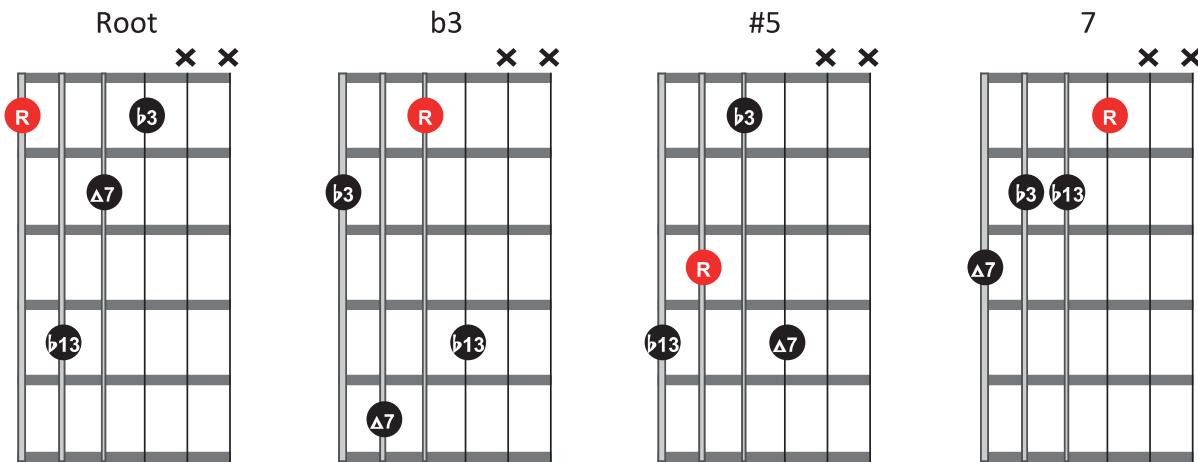
*Lydian*<sup>maj7</sup>



*Lydian*<sup>Dom7</sup>

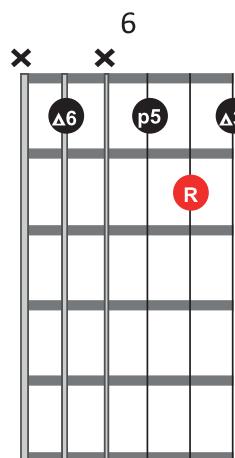
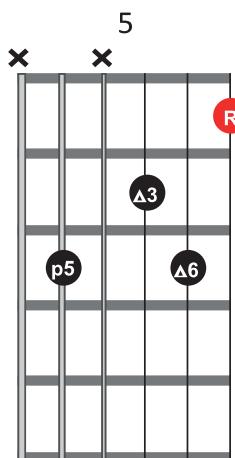
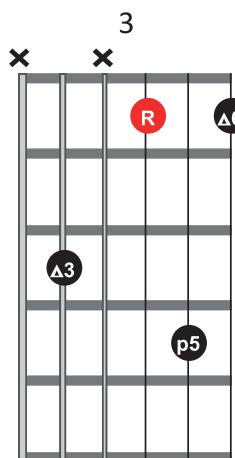
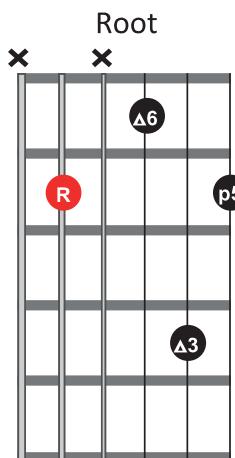
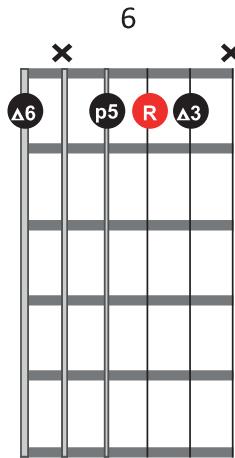
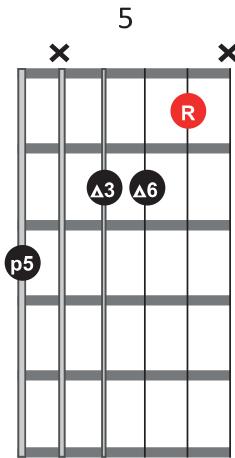
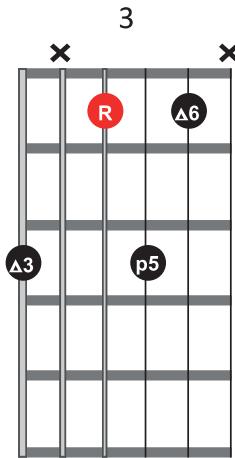
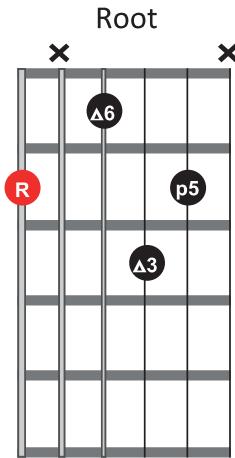


*Dim<sup>maj7b13</sup>*

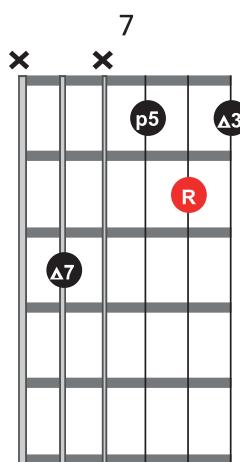
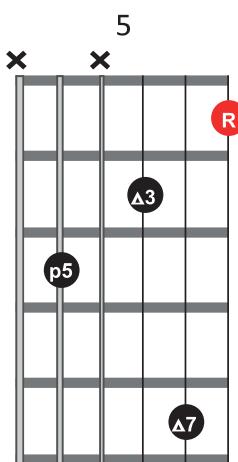
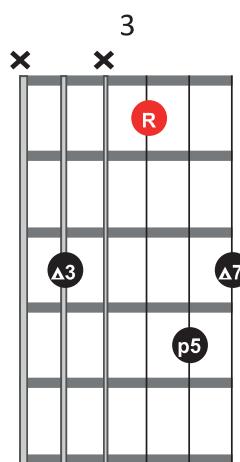
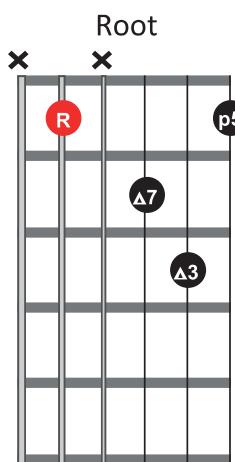
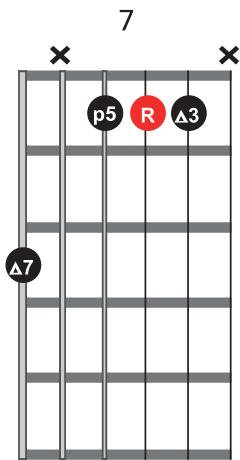
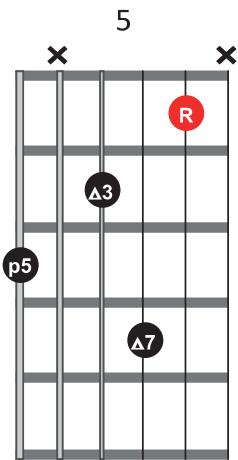
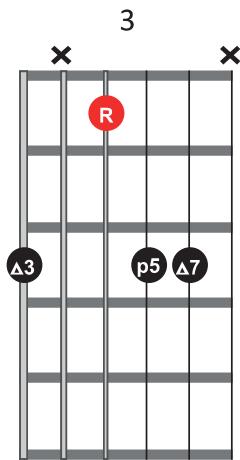
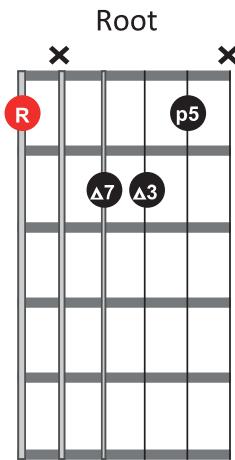


## Drop 3

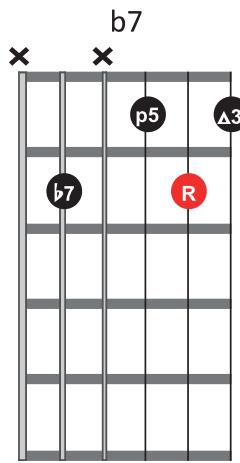
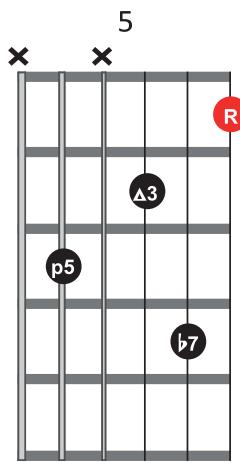
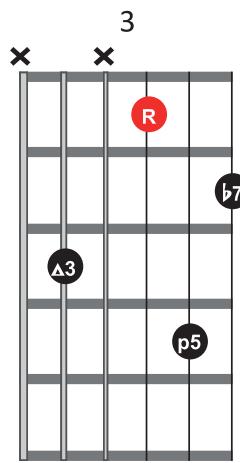
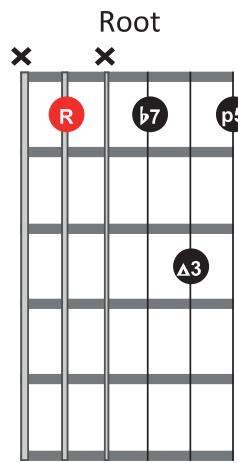
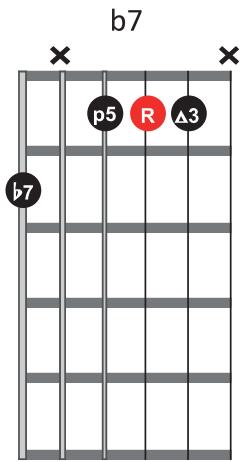
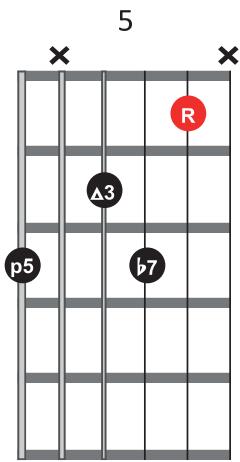
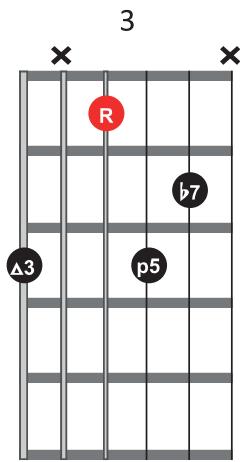
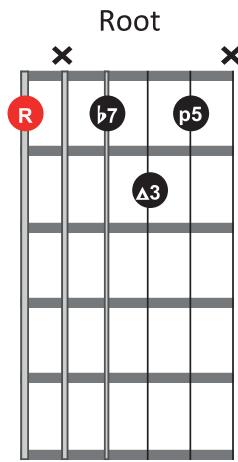
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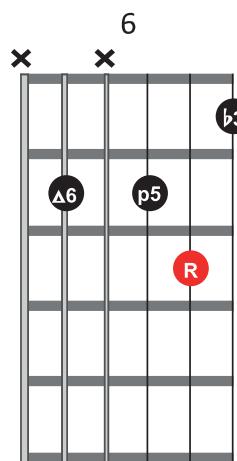
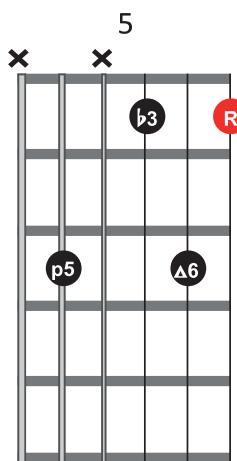
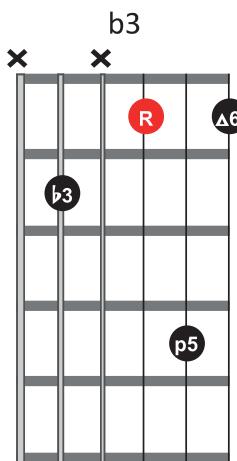
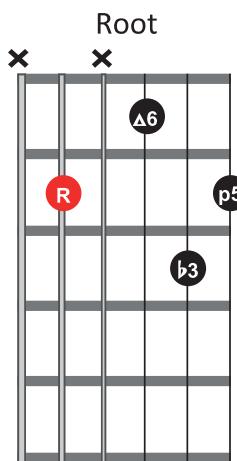
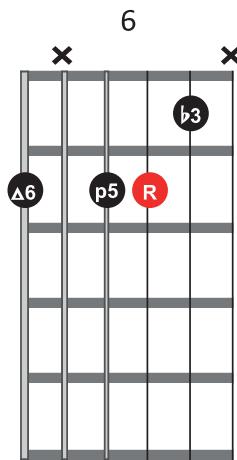
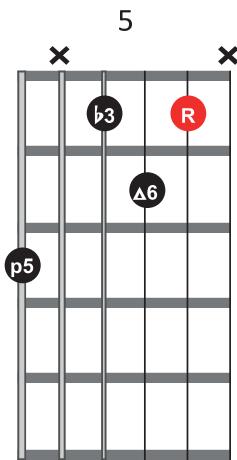
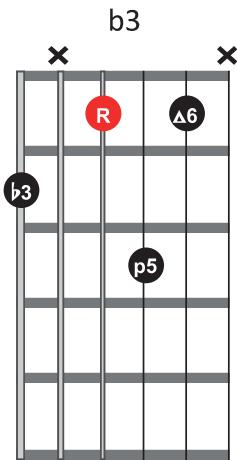
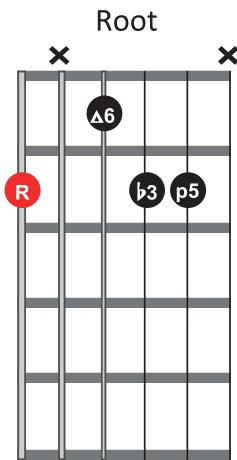
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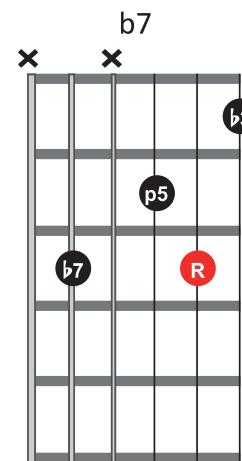
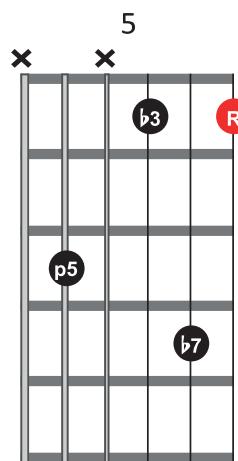
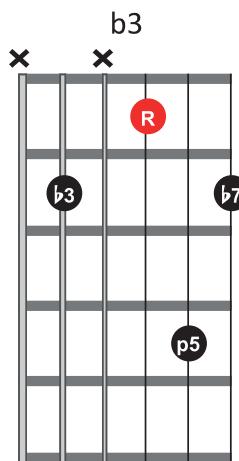
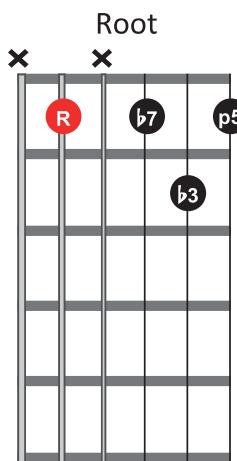
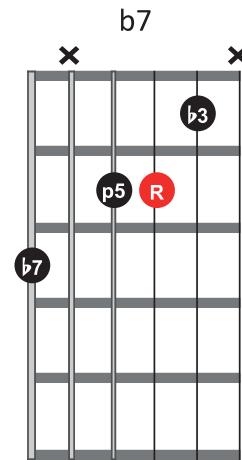
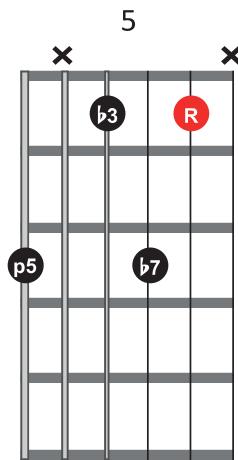
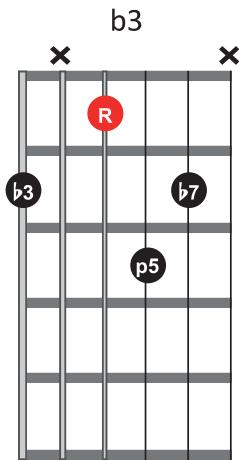
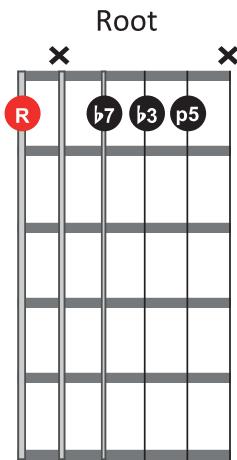
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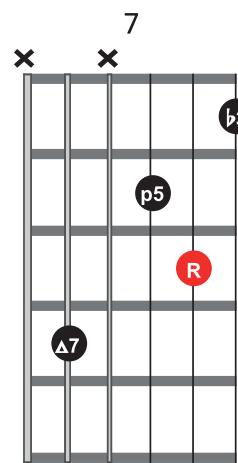
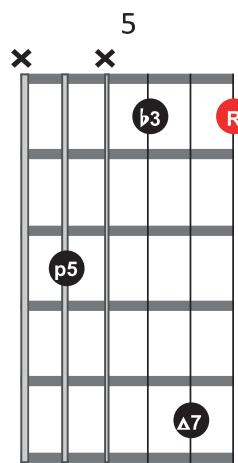
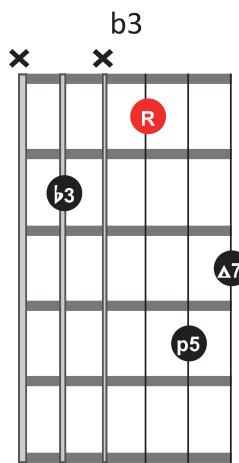
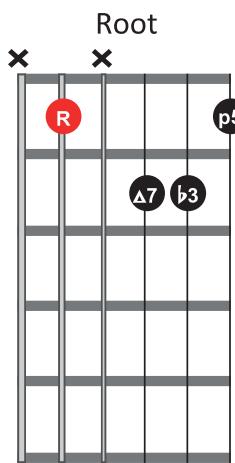
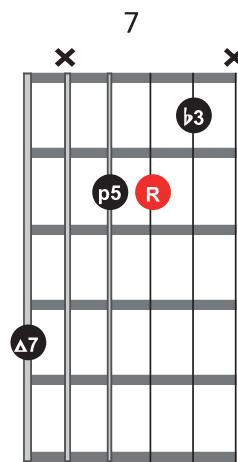
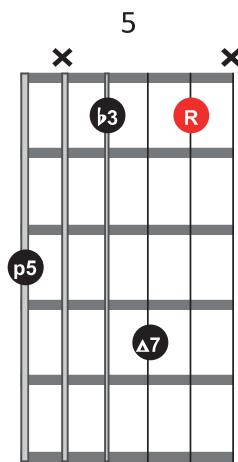
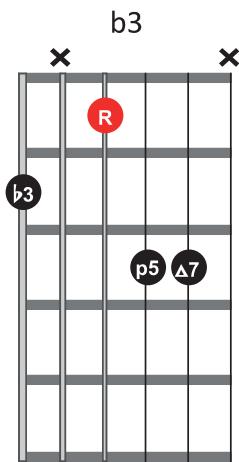
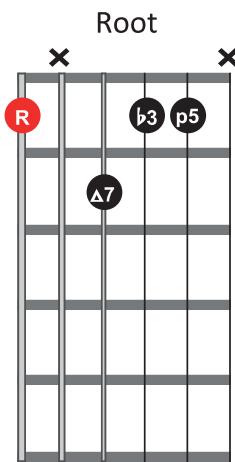
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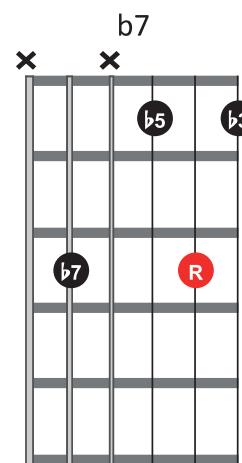
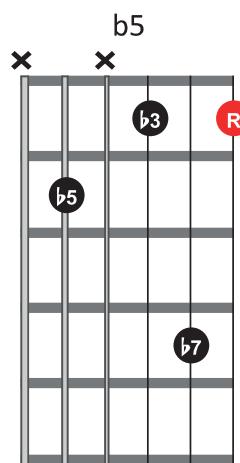
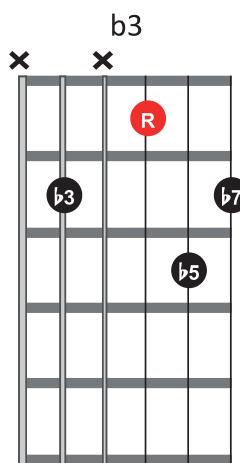
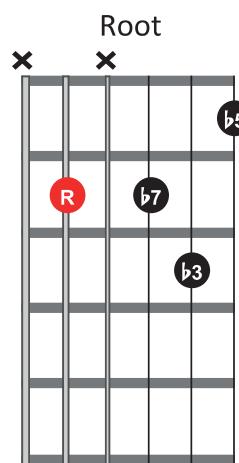
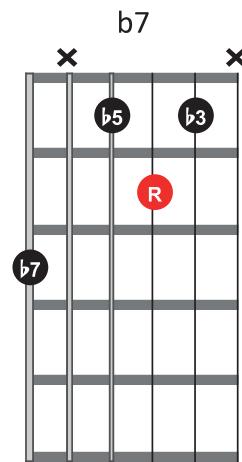
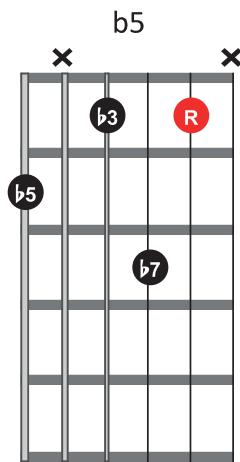
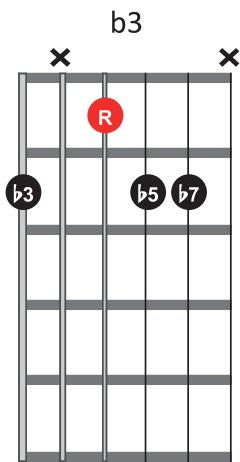
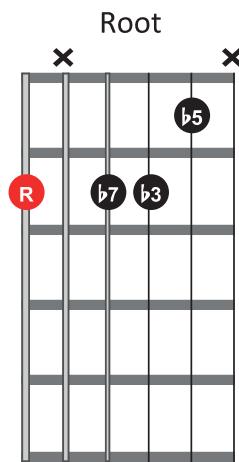
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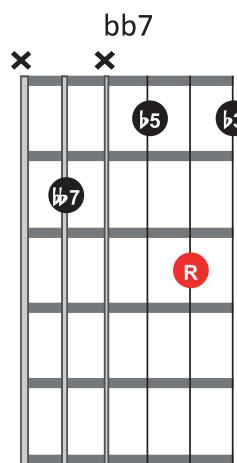
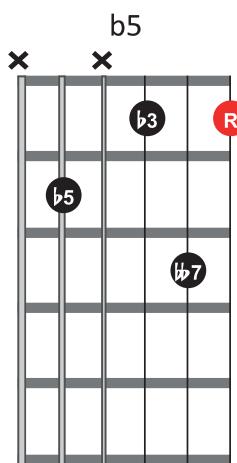
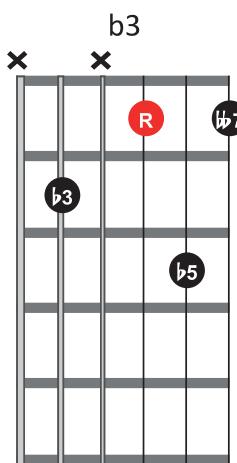
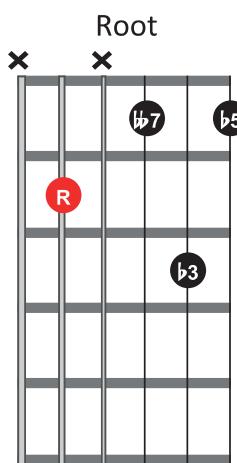
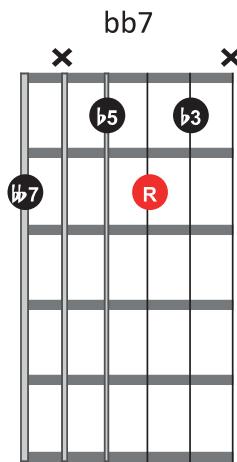
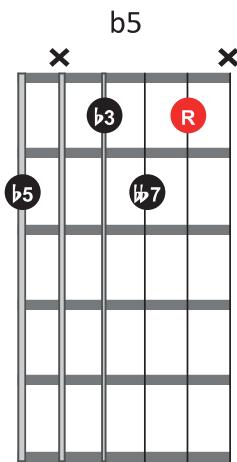
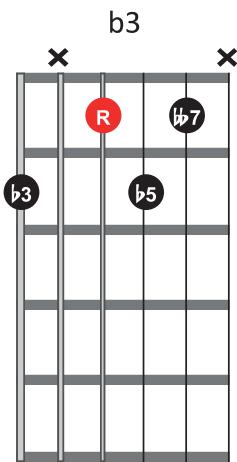
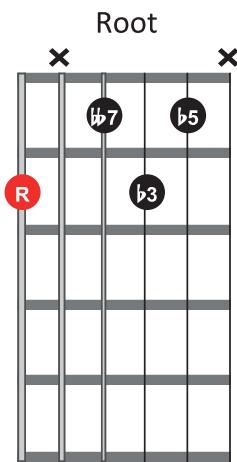
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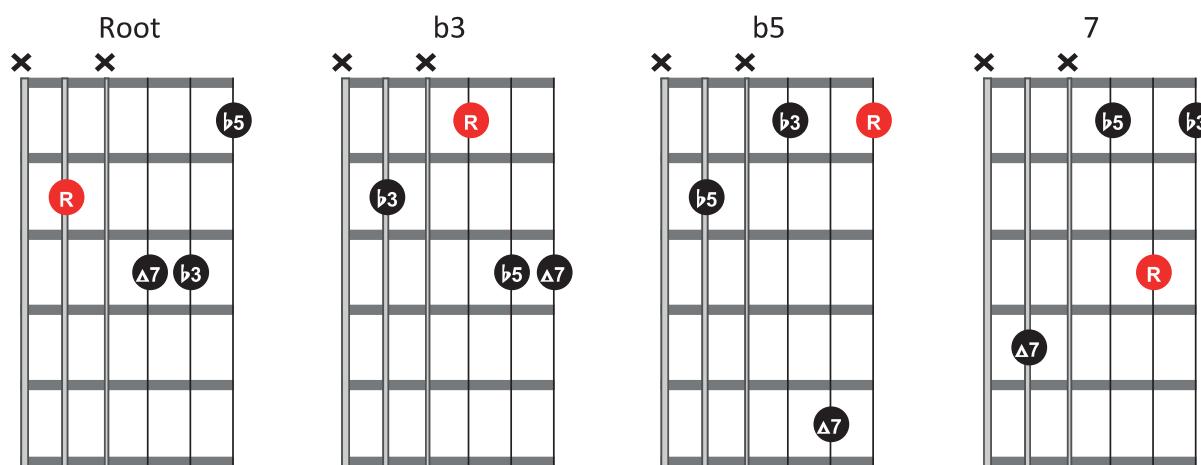
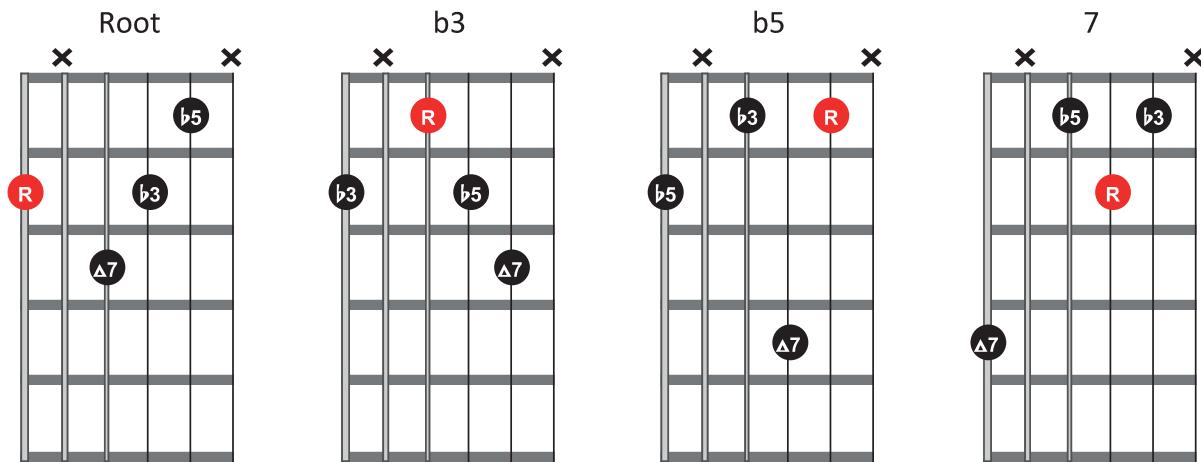
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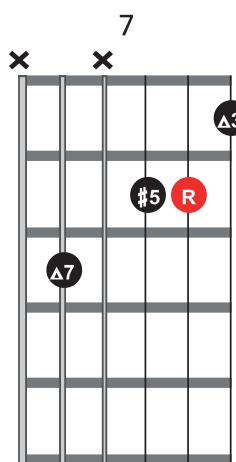
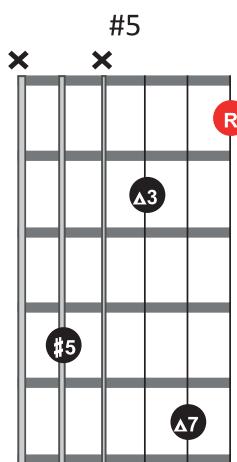
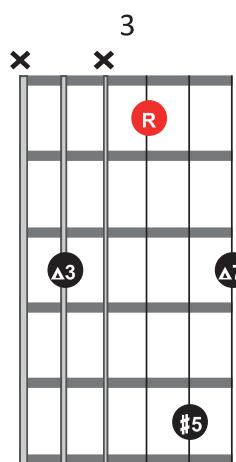
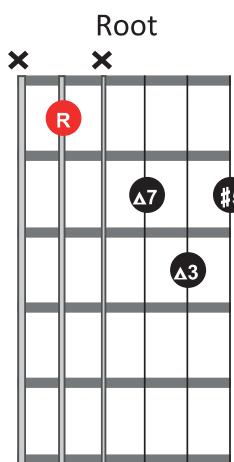
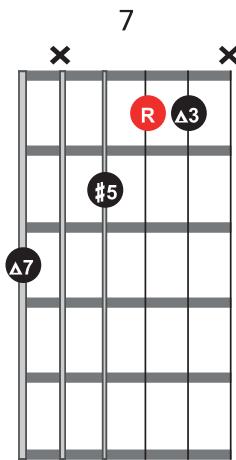
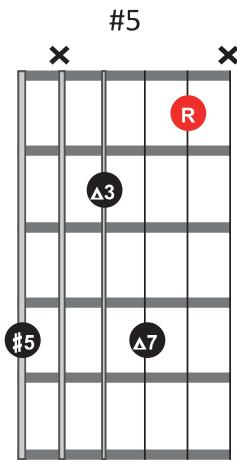
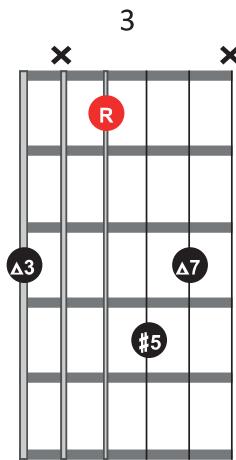
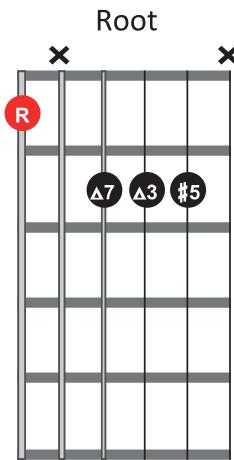
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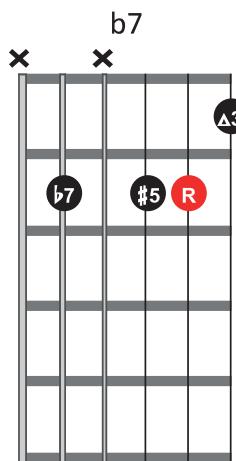
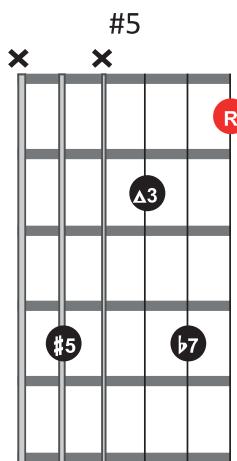
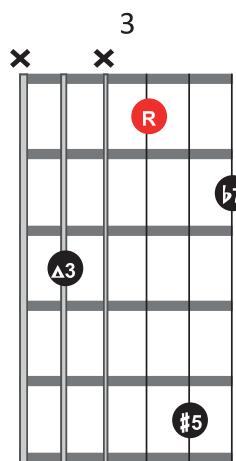
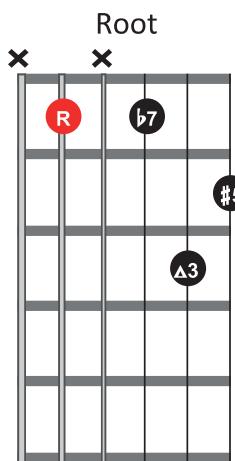
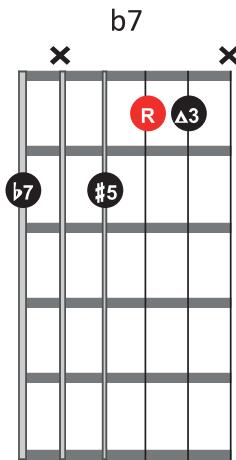
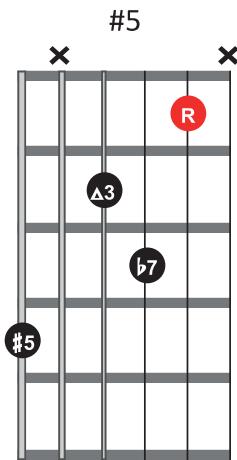
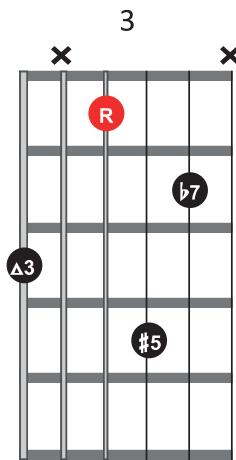
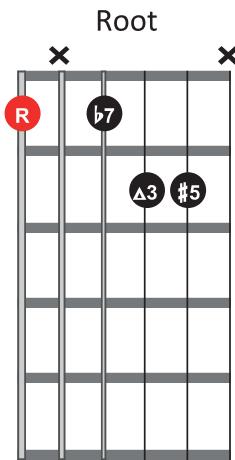
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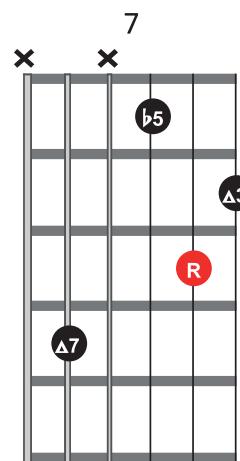
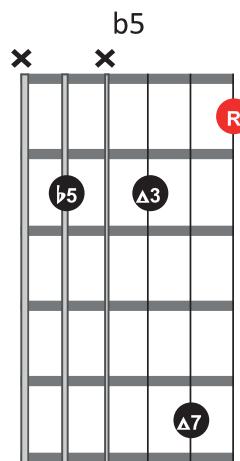
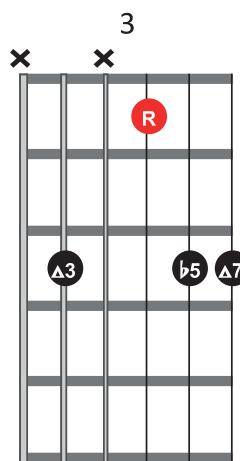
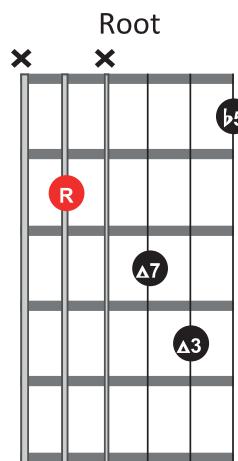
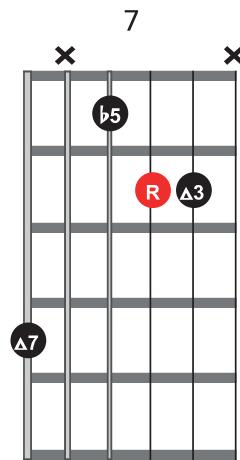
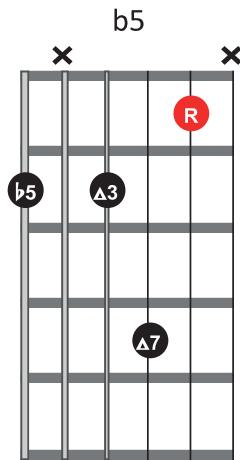
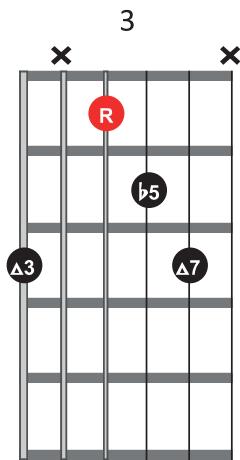
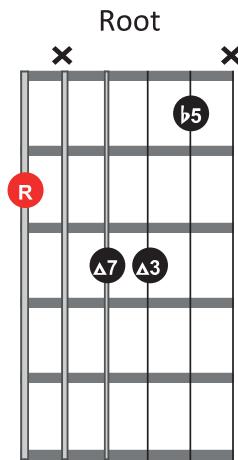
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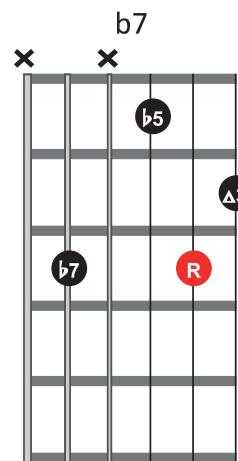
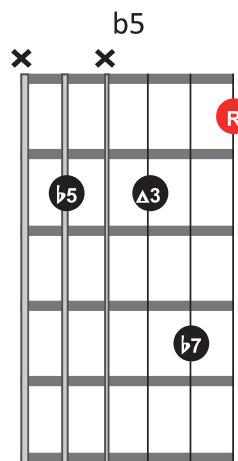
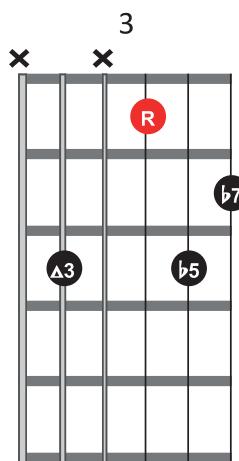
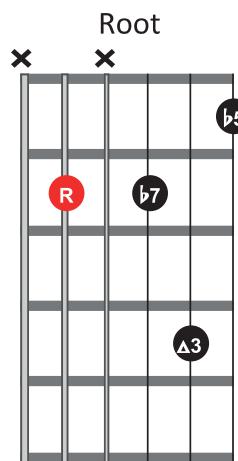
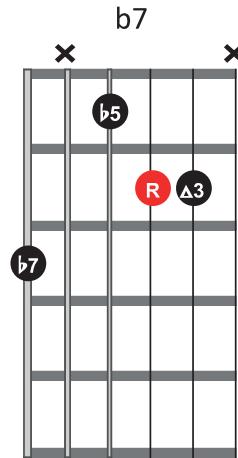
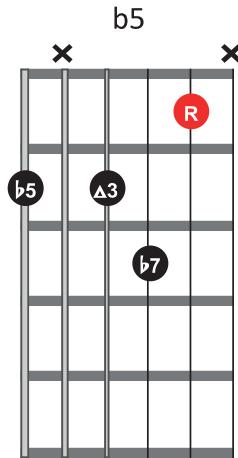
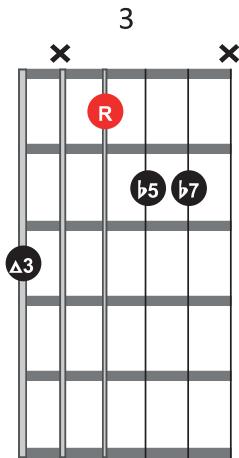
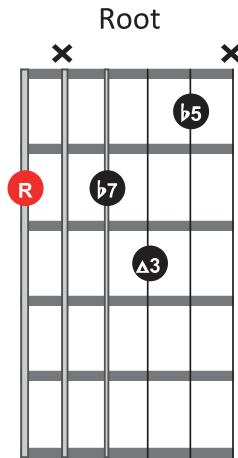
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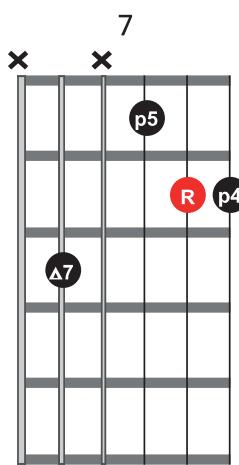
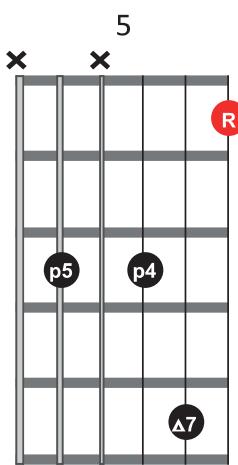
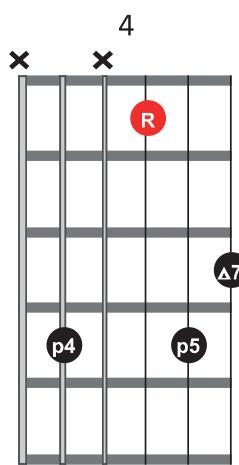
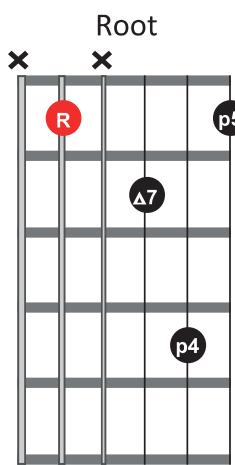
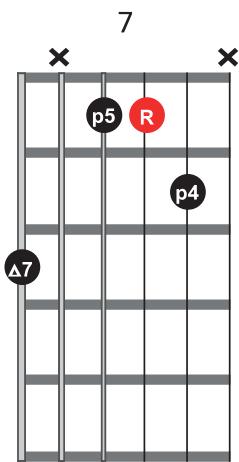
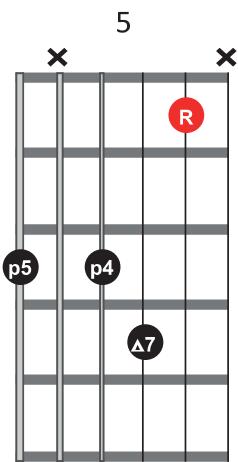
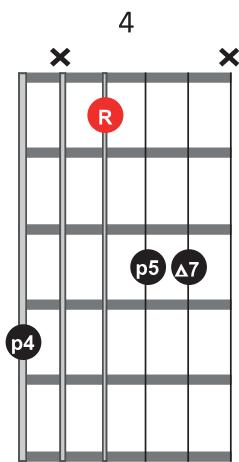
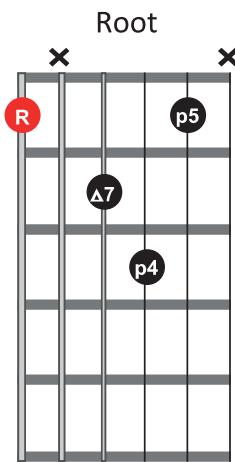
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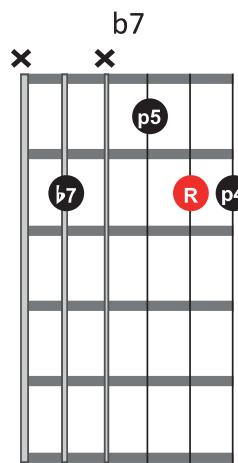
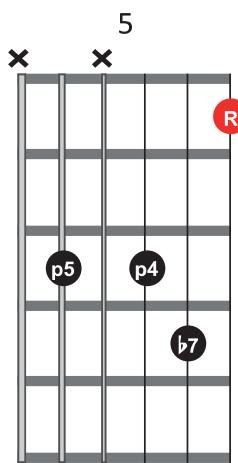
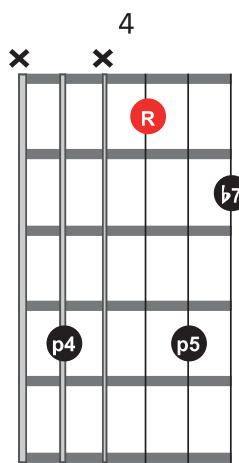
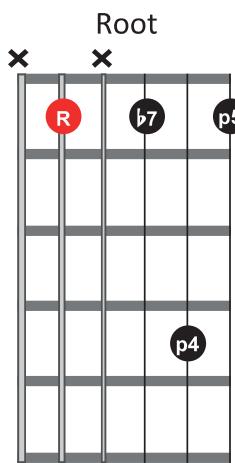
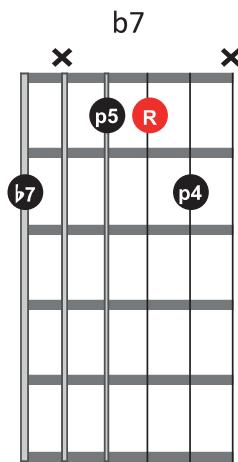
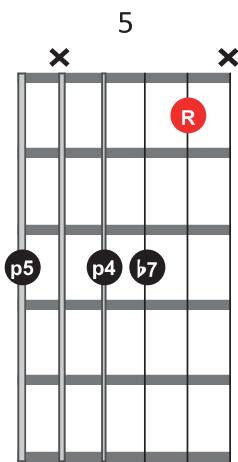
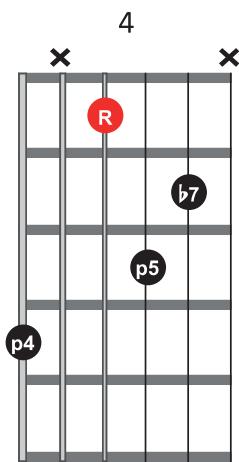
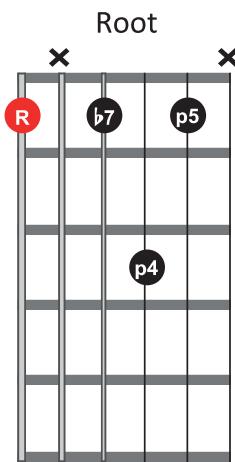
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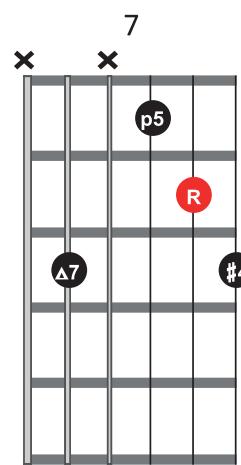
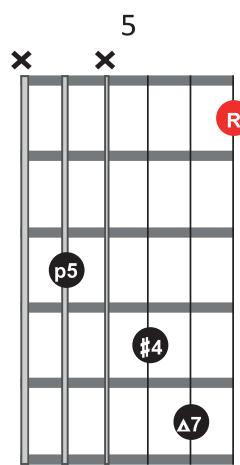
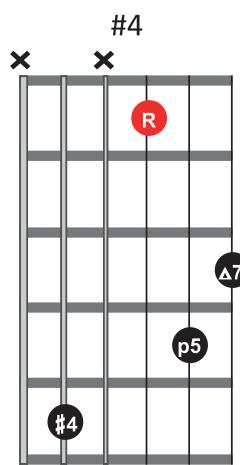
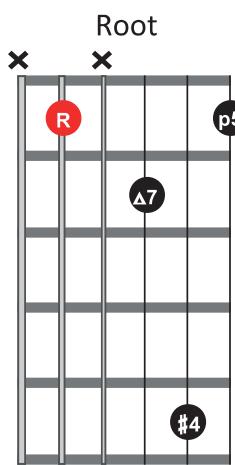
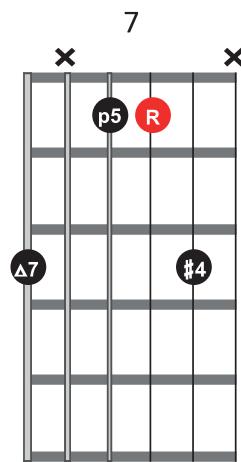
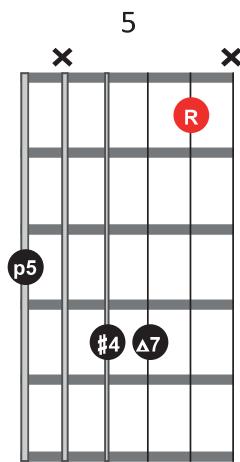
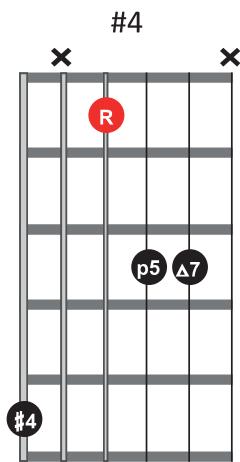
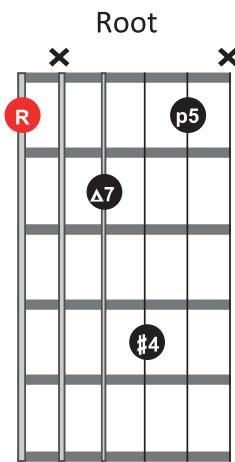
*Maj<sup>7sus4</sup>*



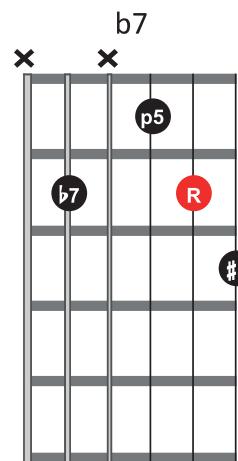
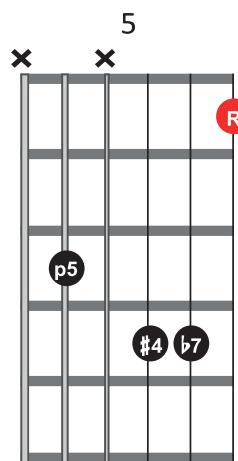
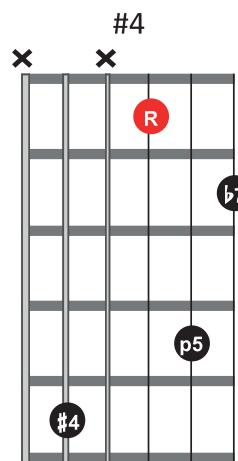
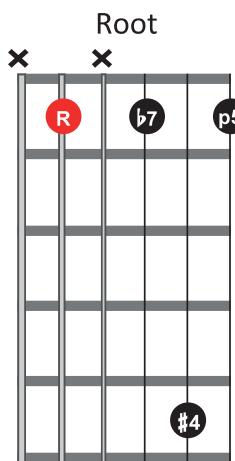
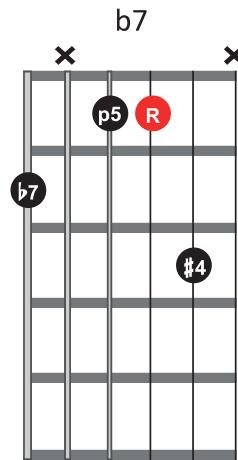
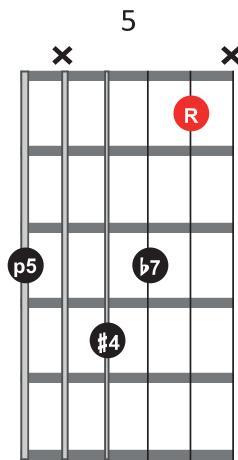
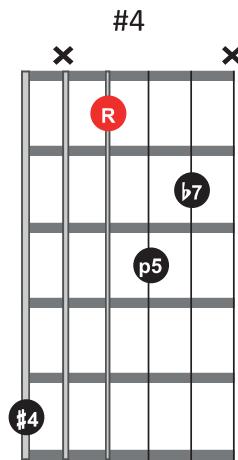
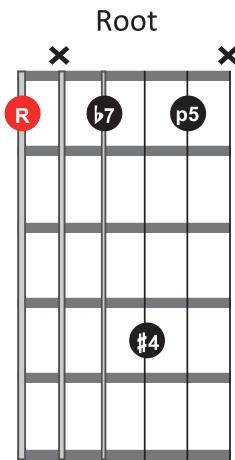
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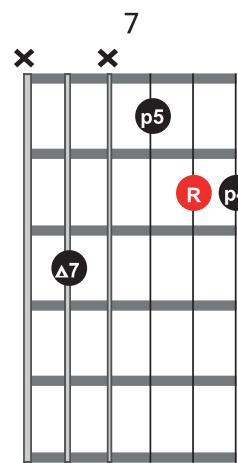
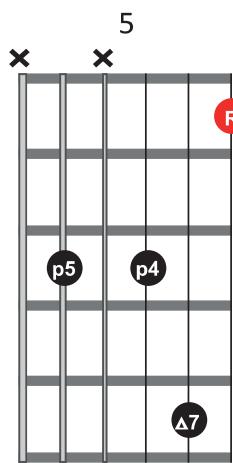
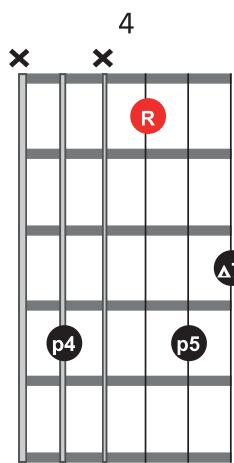
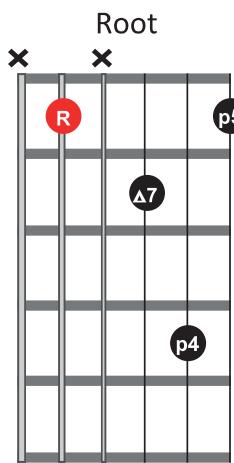
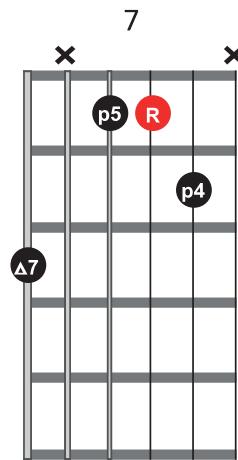
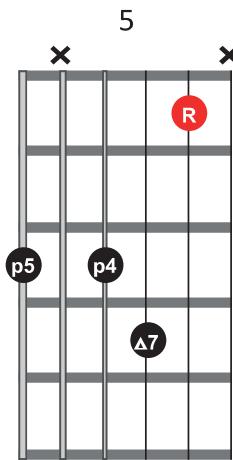
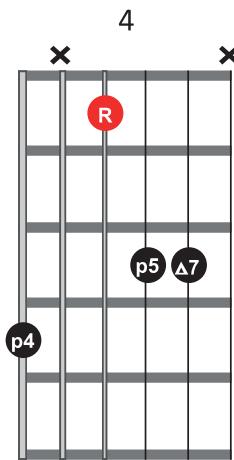
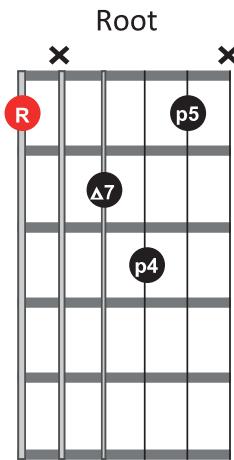
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*Lydian*<sup>Dom7</sup>

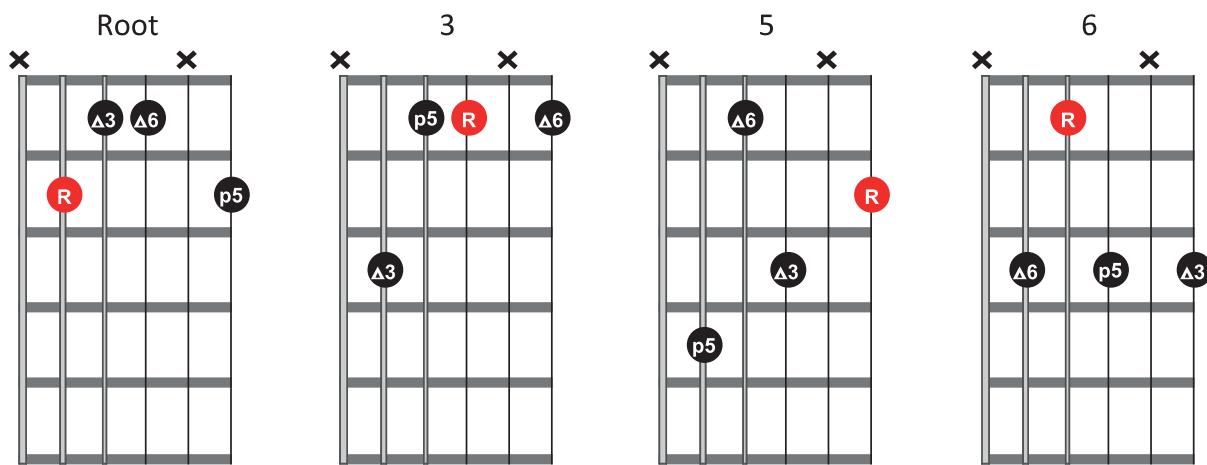
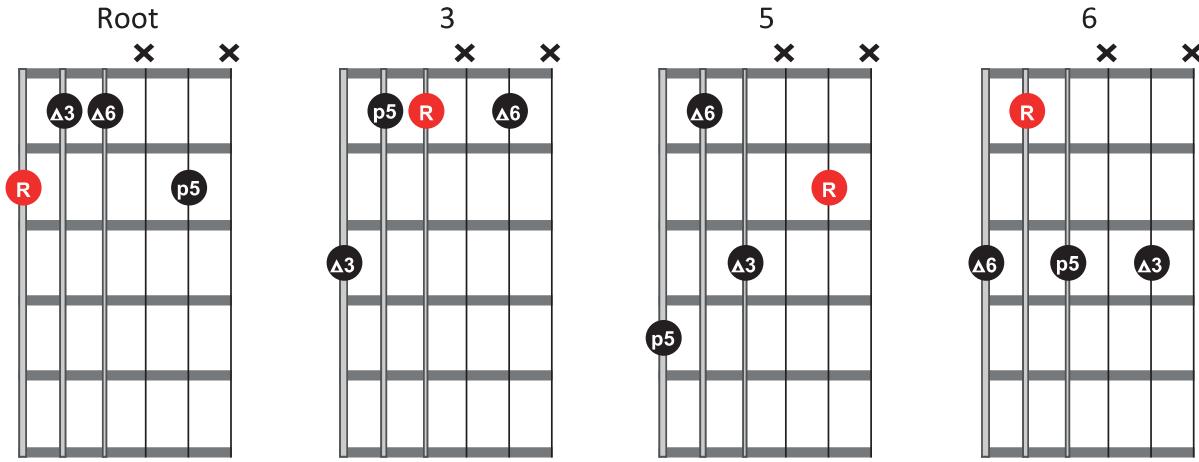


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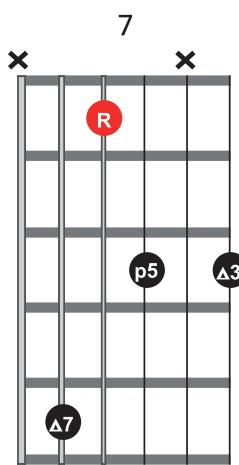
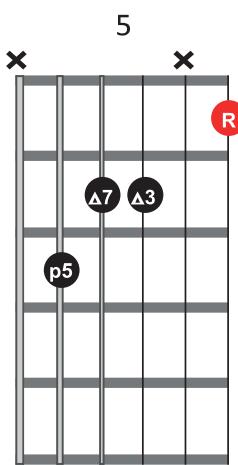
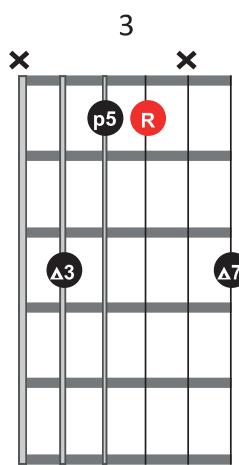
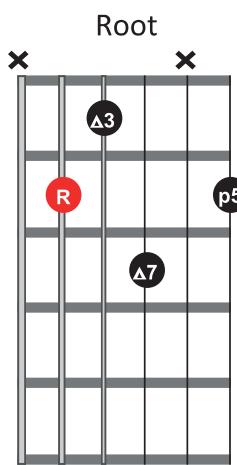
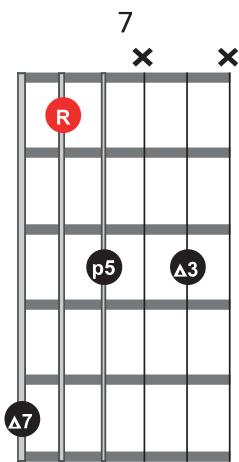
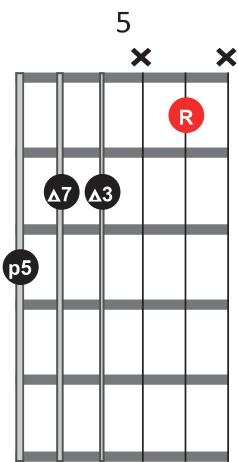
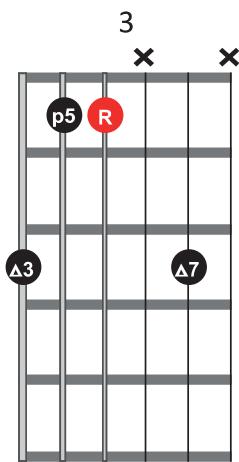
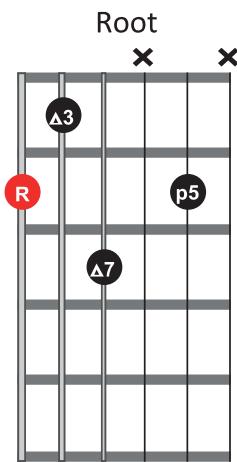


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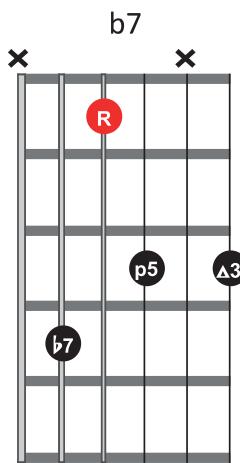
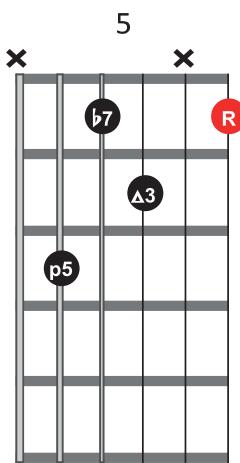
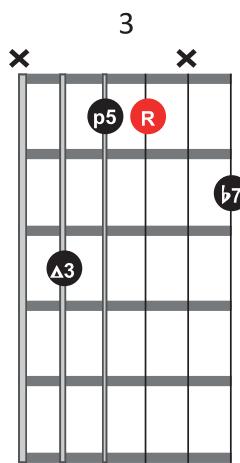
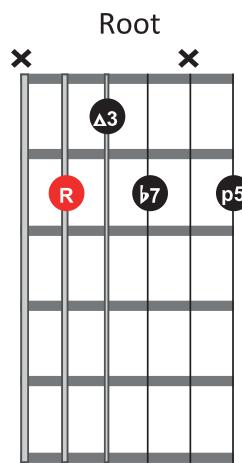
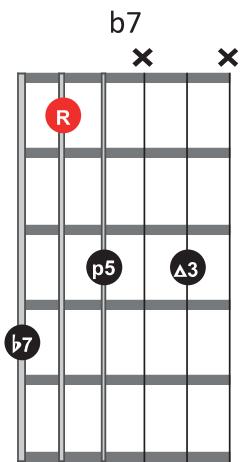
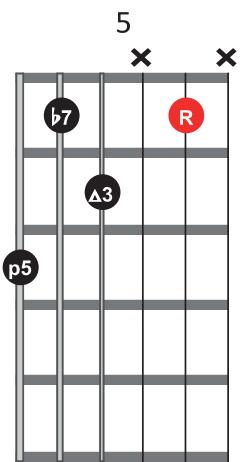
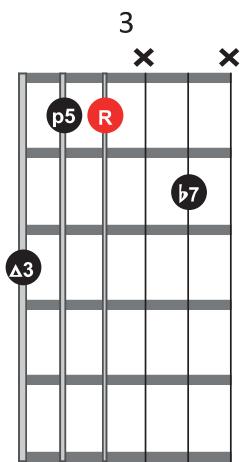
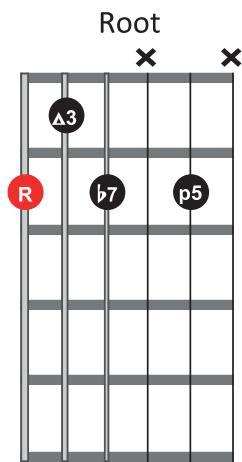
*Maj<sup>6</sup>*



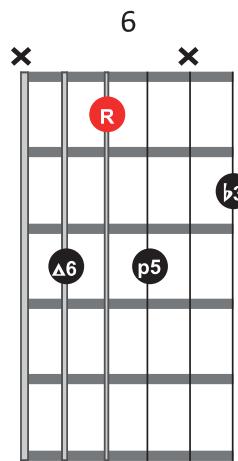
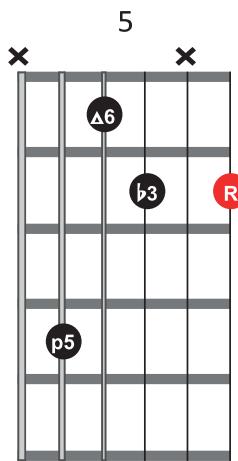
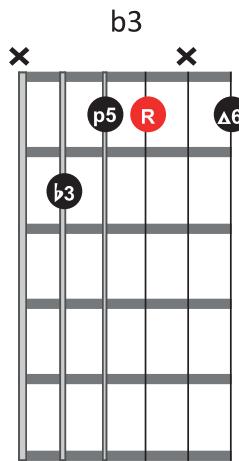
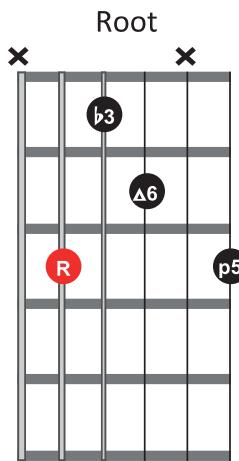
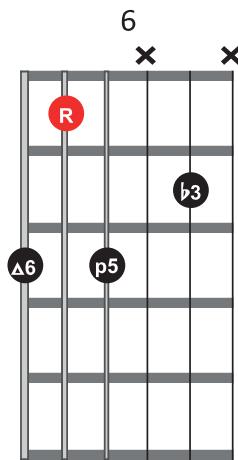
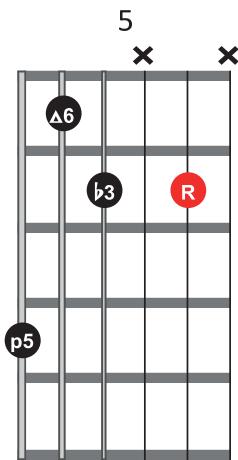
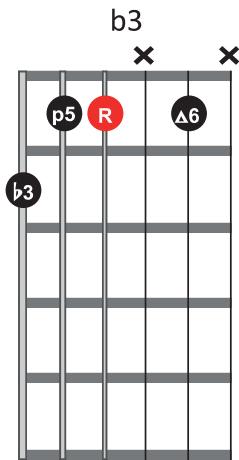
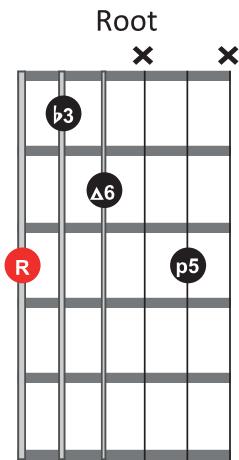
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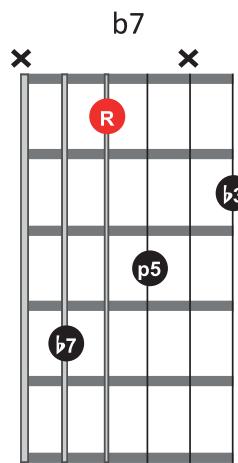
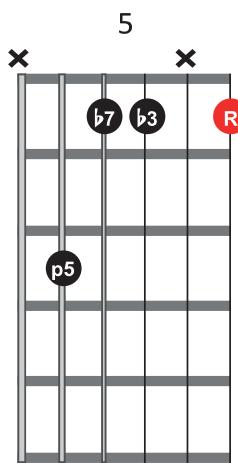
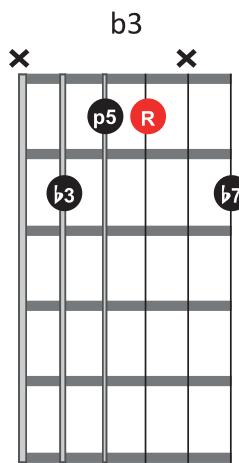
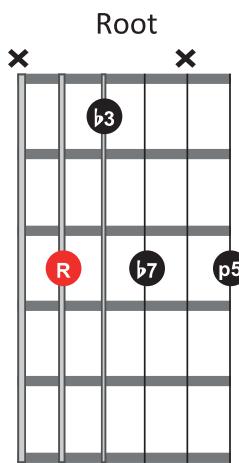
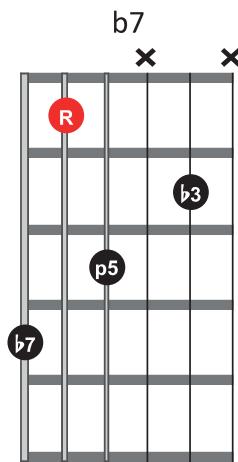
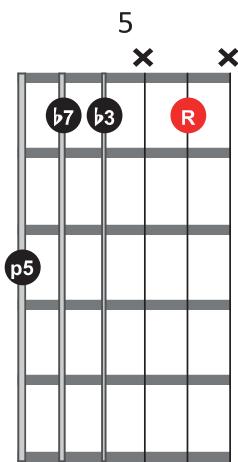
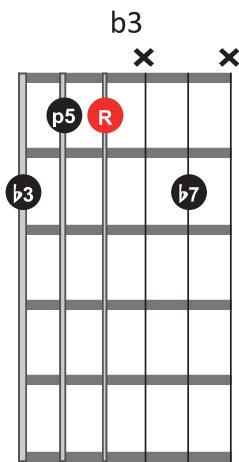
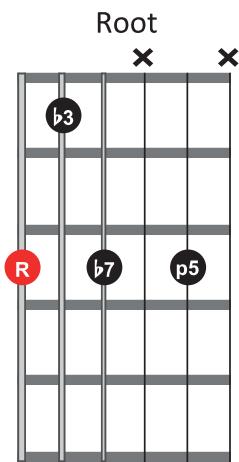
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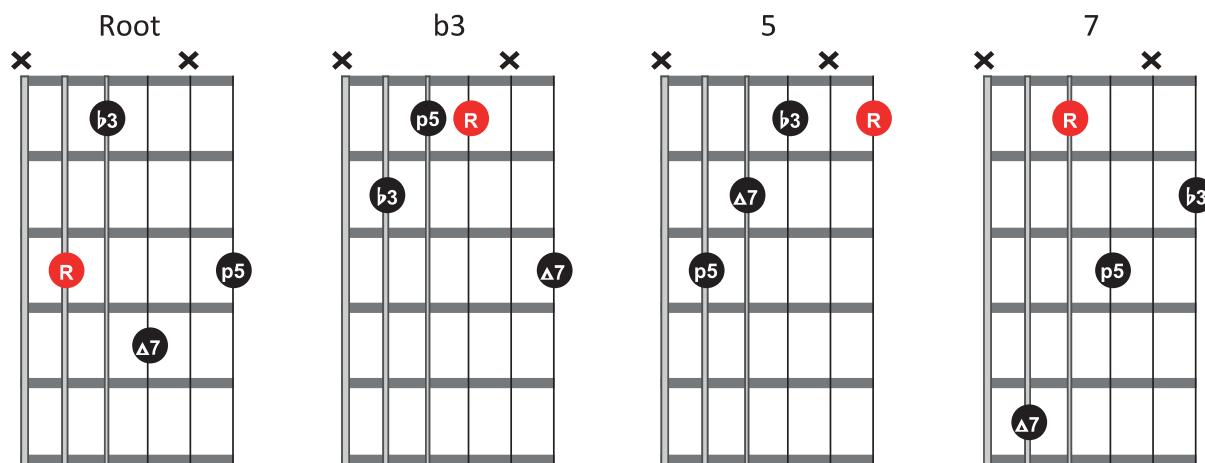
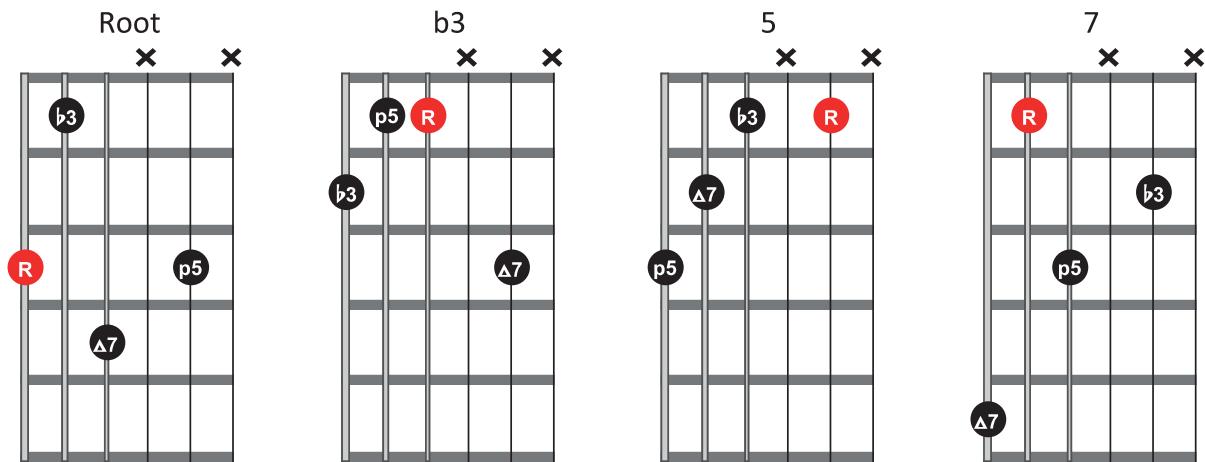
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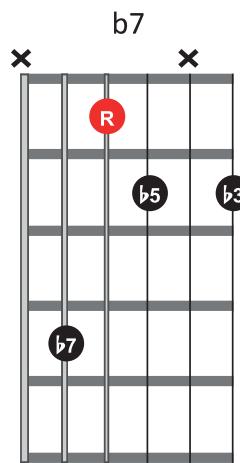
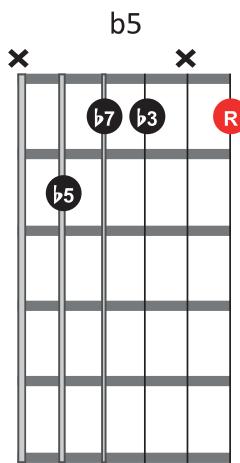
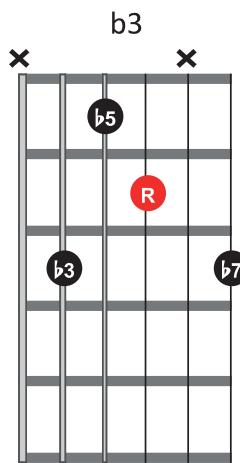
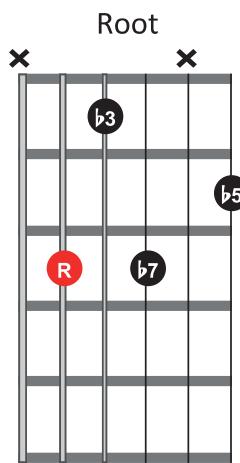
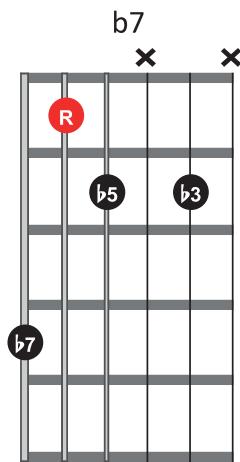
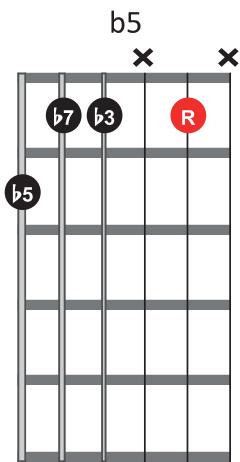
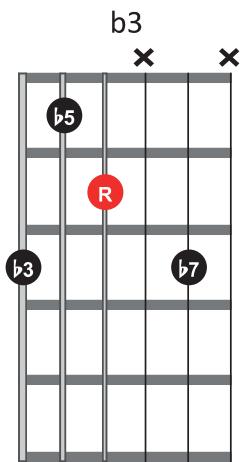
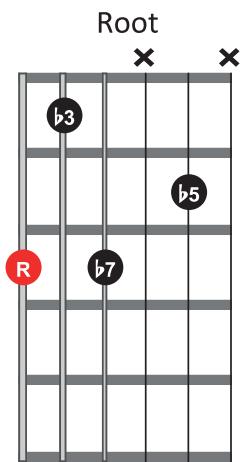
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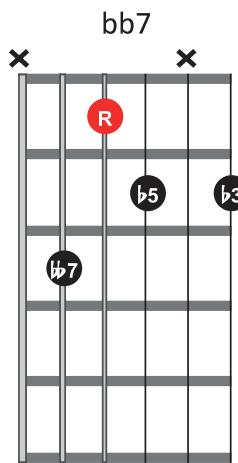
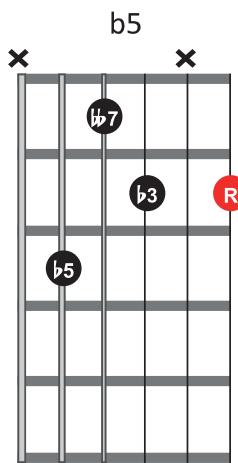
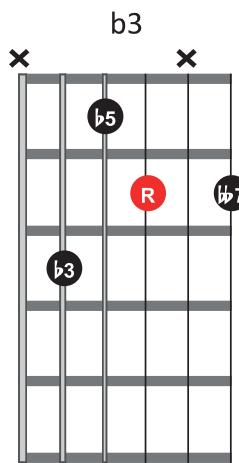
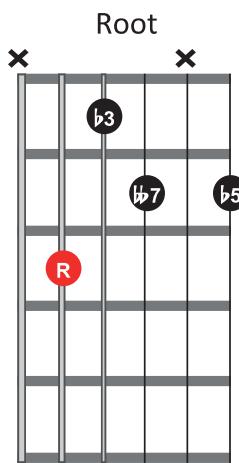
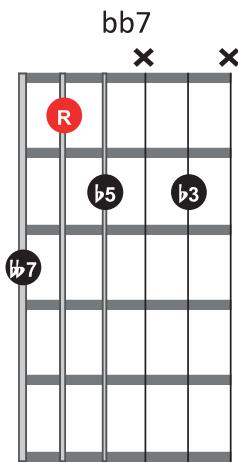
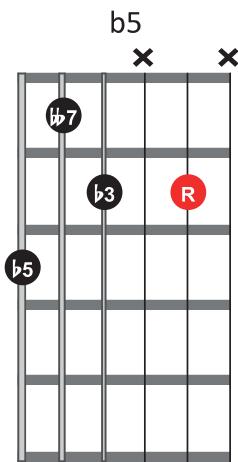
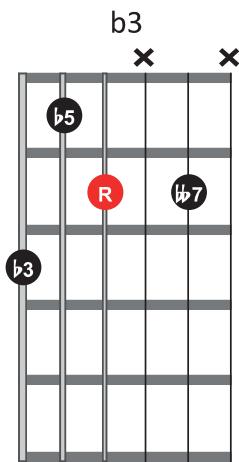
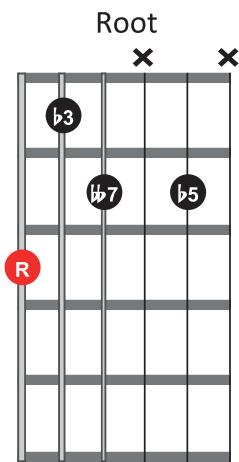
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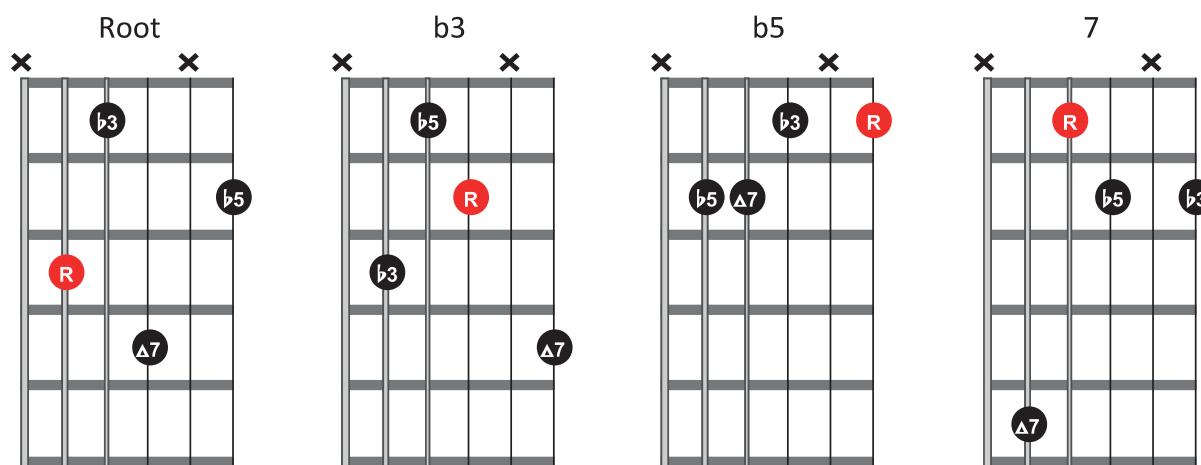
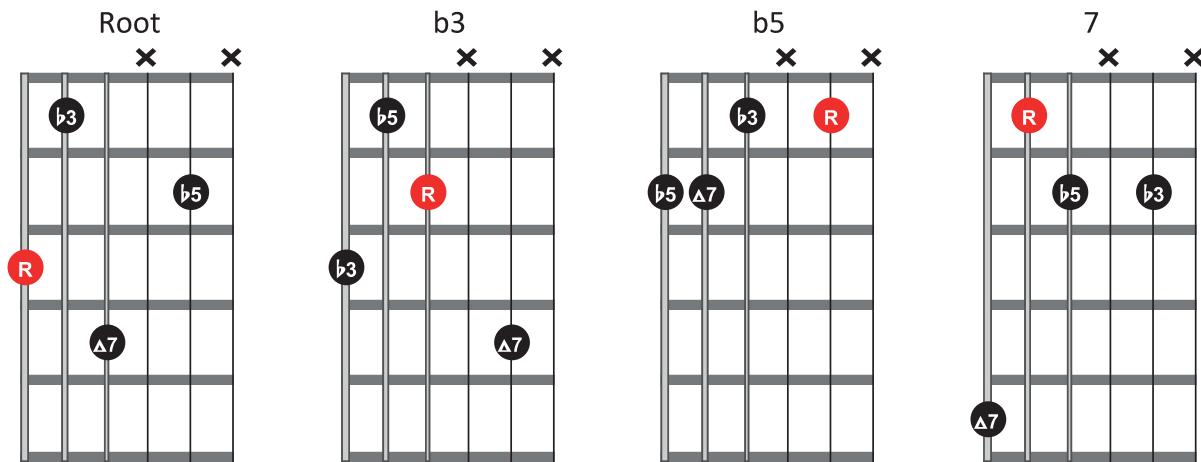
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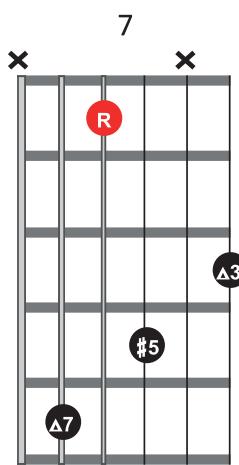
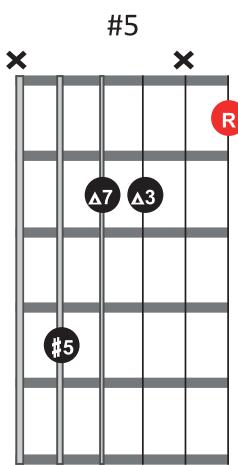
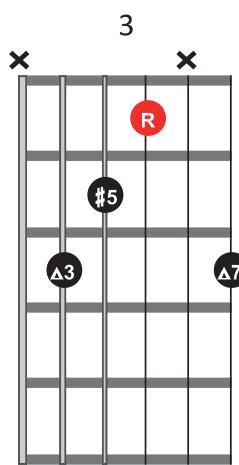
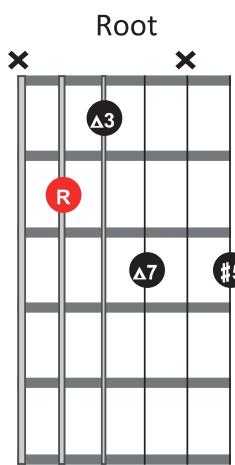
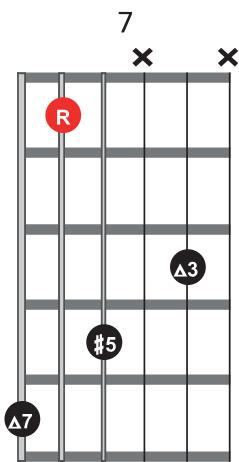
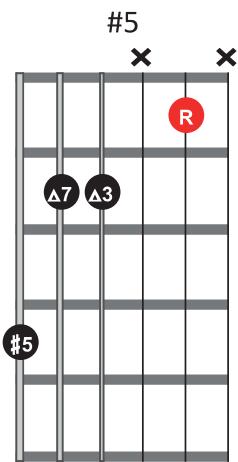
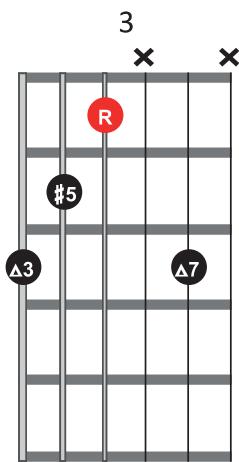
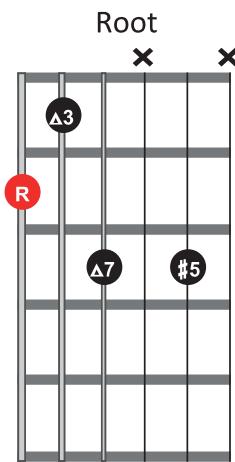
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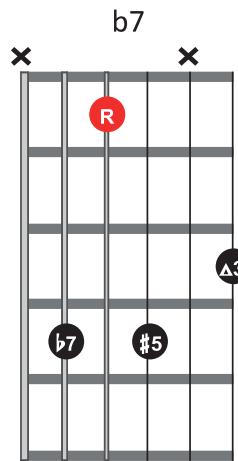
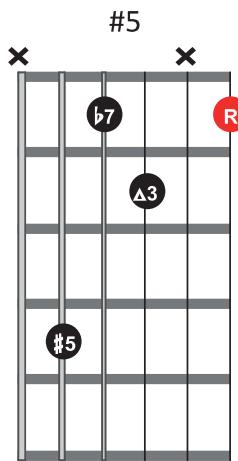
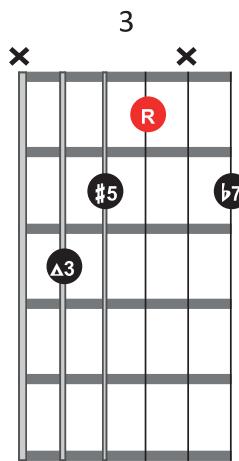
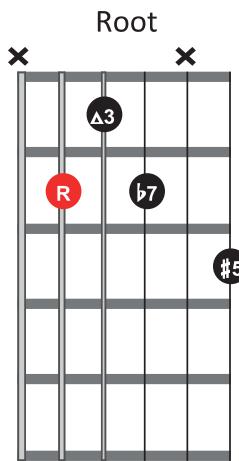
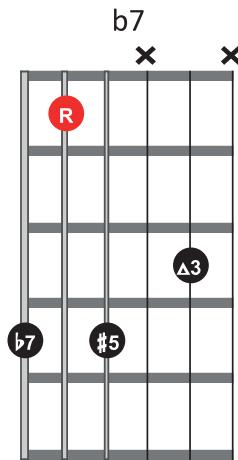
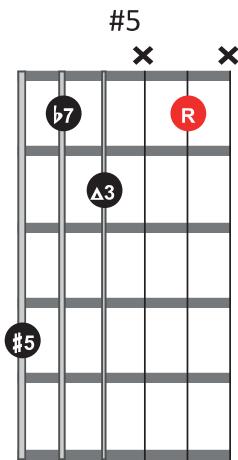
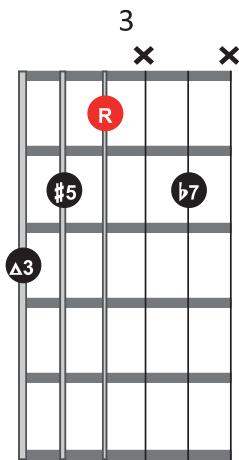
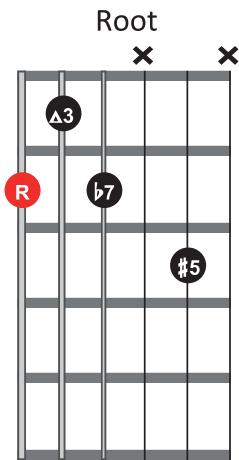
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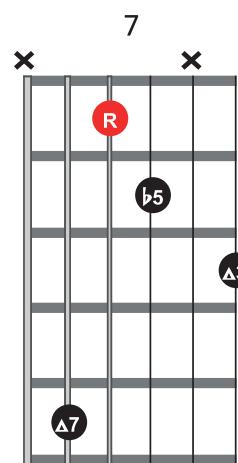
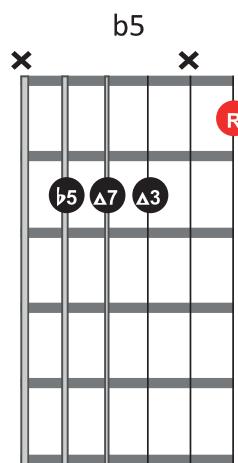
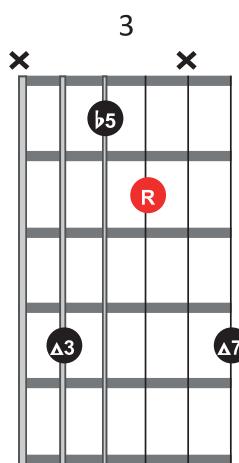
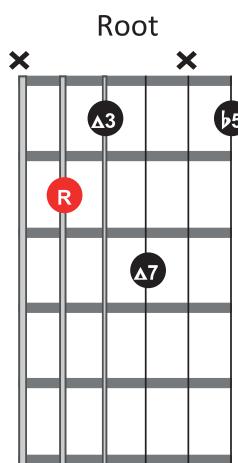
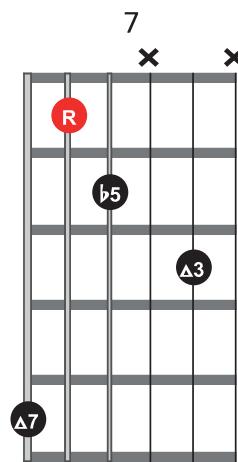
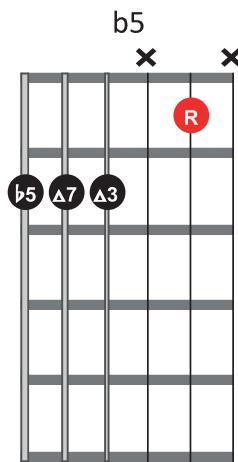
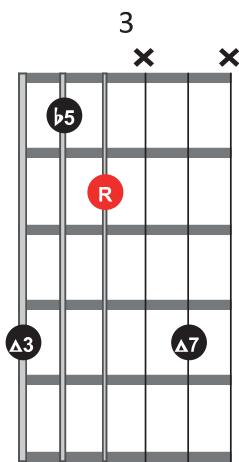
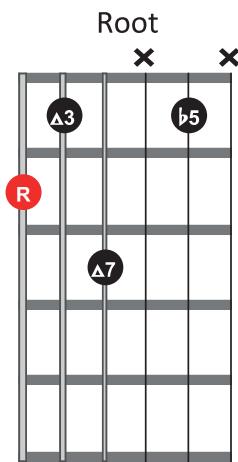
*Aug<sup>maj7</sup>*



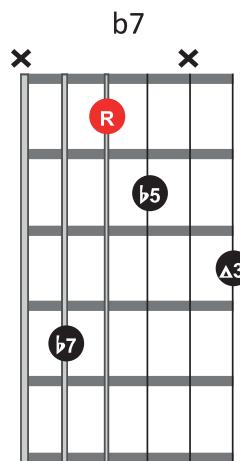
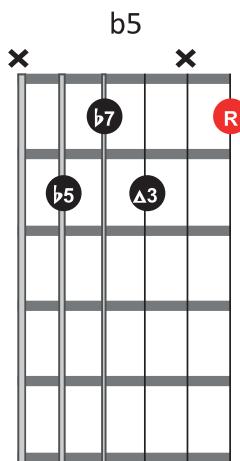
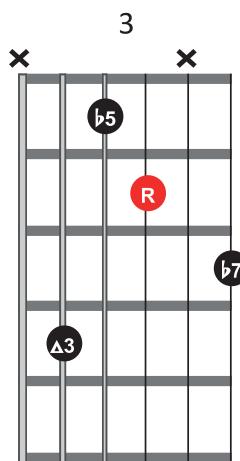
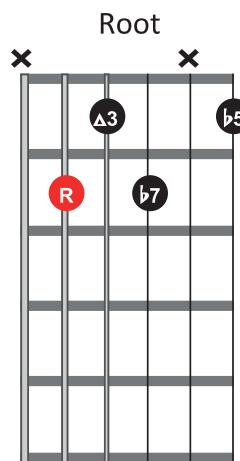
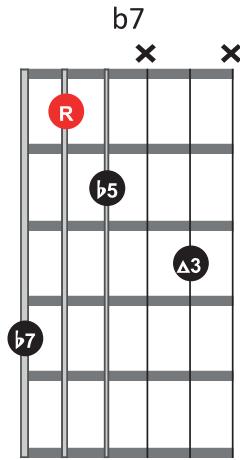
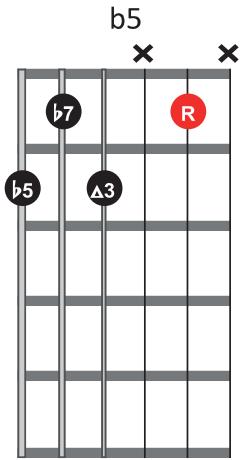
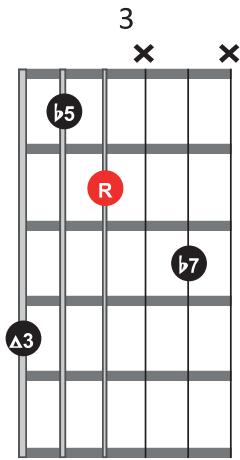
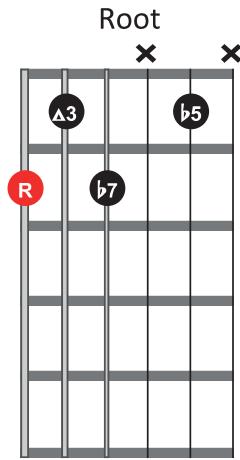
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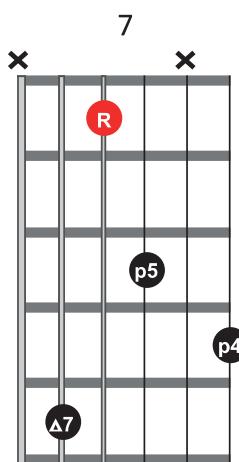
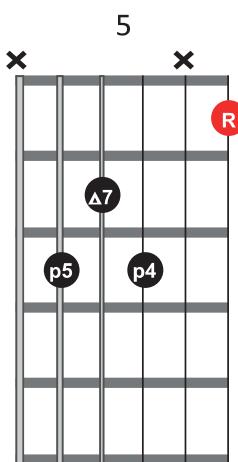
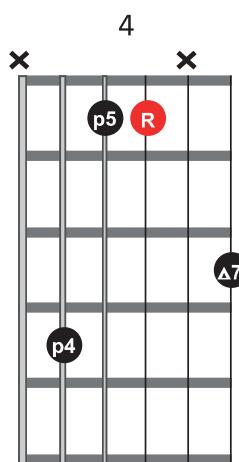
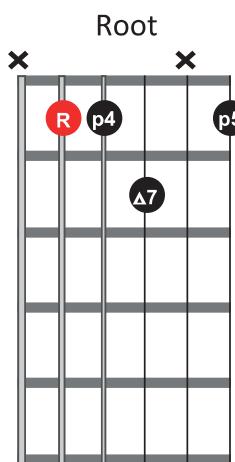
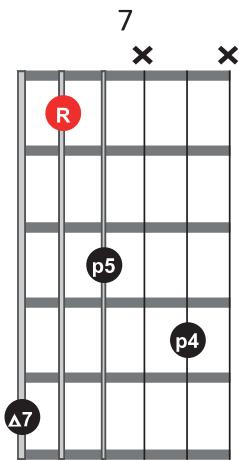
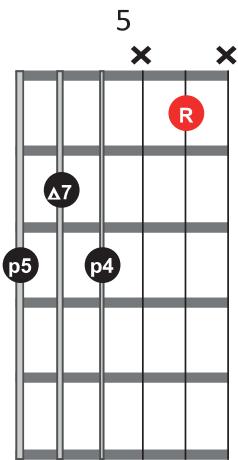
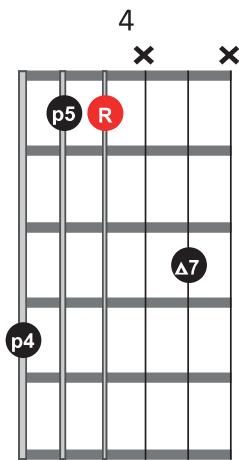
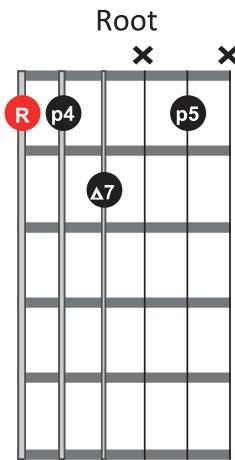
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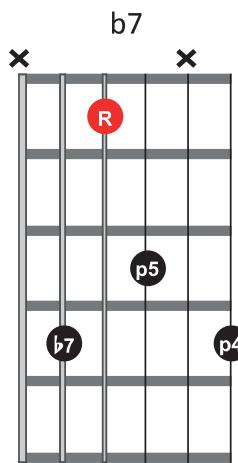
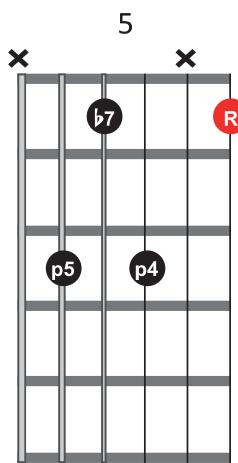
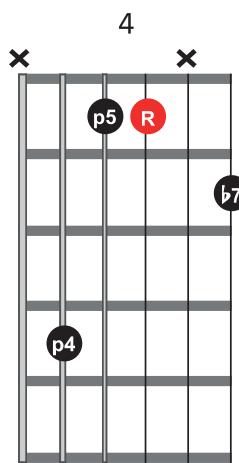
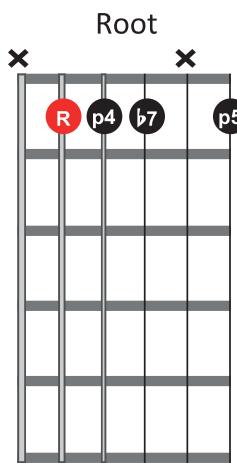
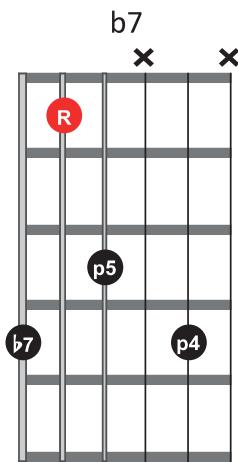
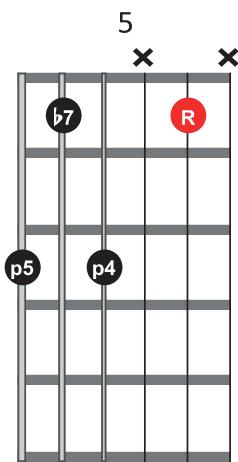
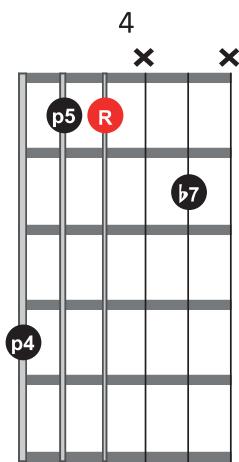
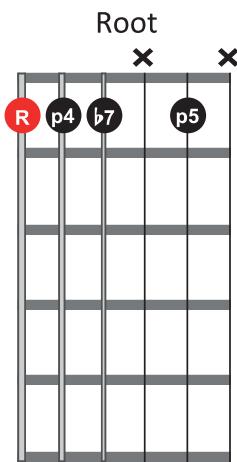
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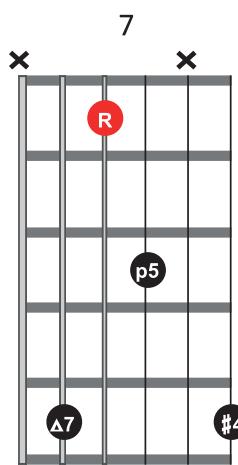
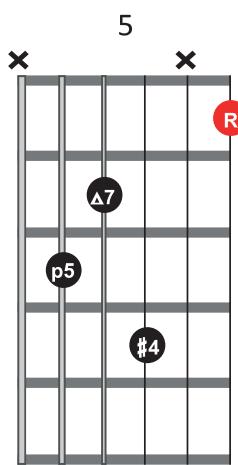
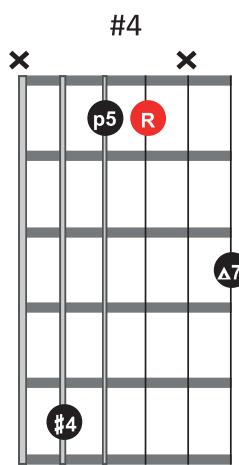
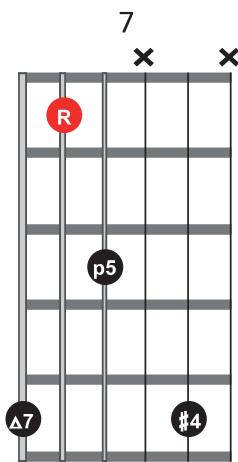
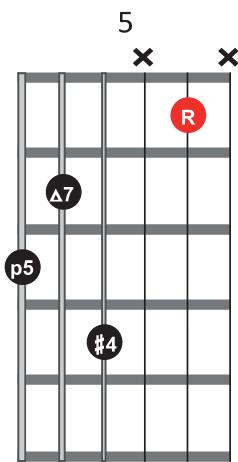
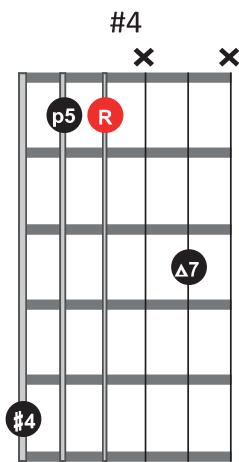
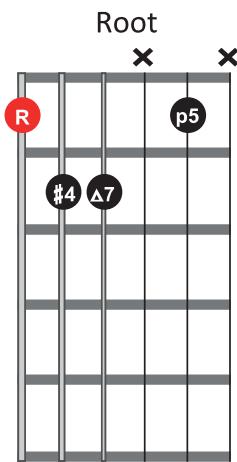
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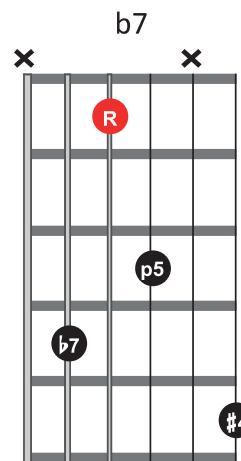
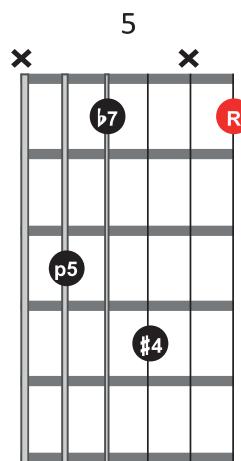
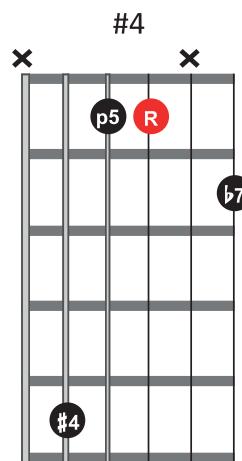
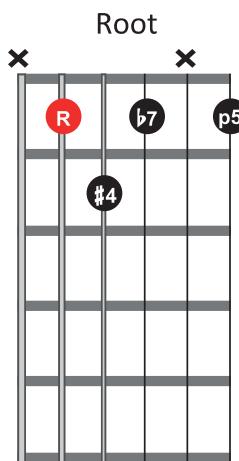
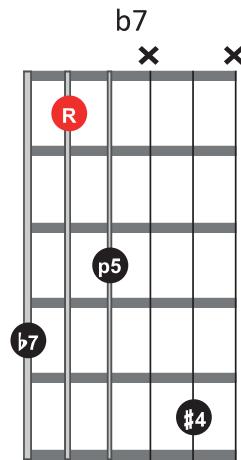
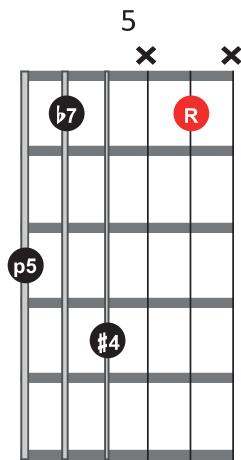
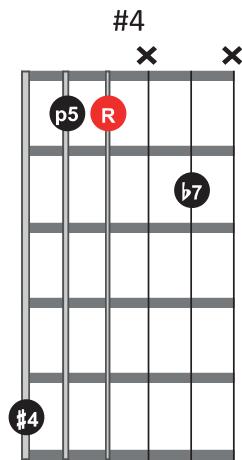
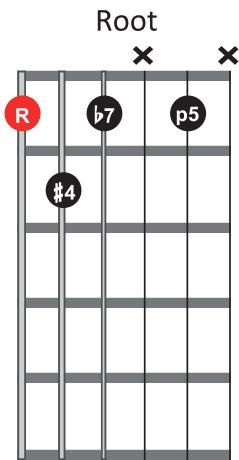
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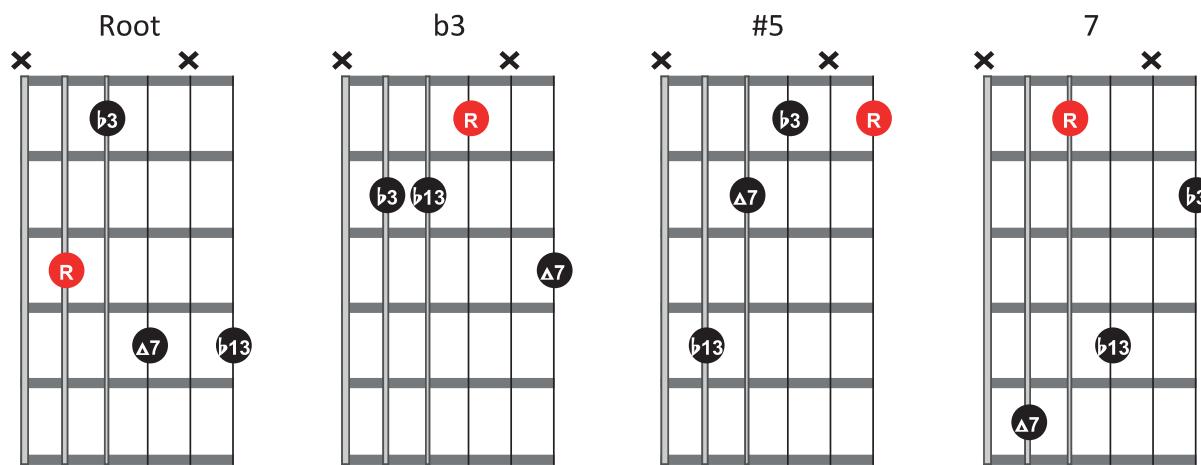
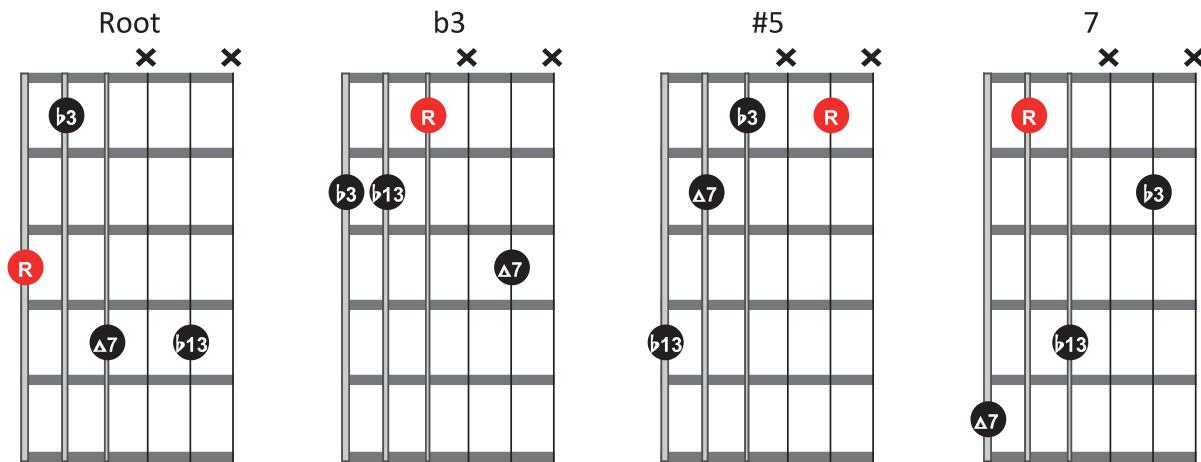
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*Lydian*<sup>Dom7</sup>

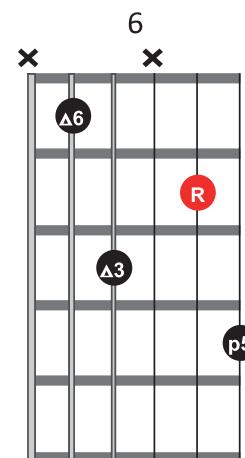
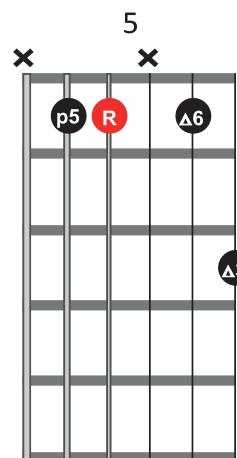
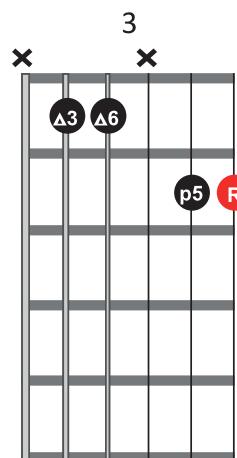
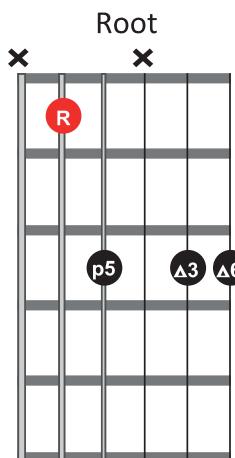
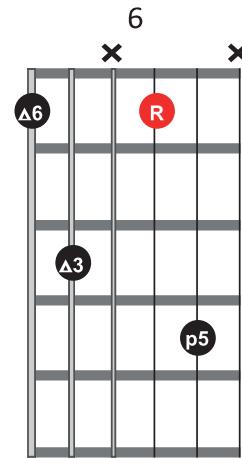
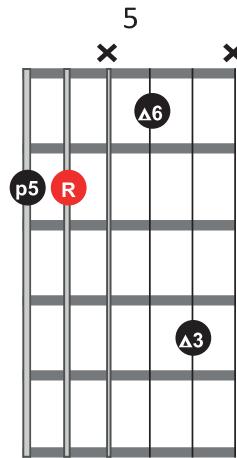
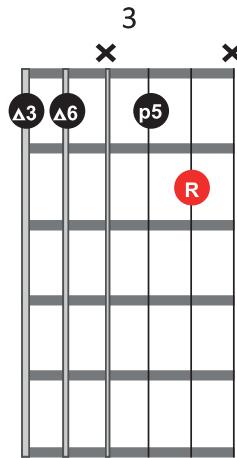
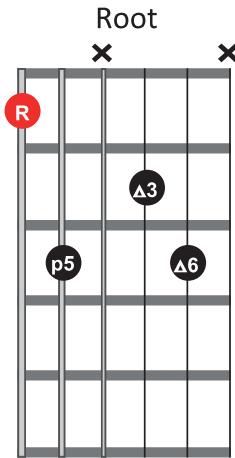


*Dim<sup>maj7b13</sup>*

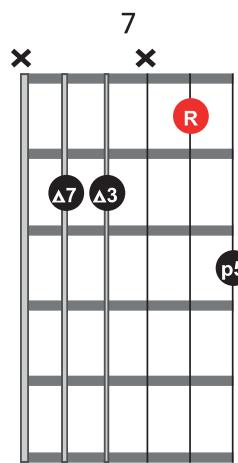
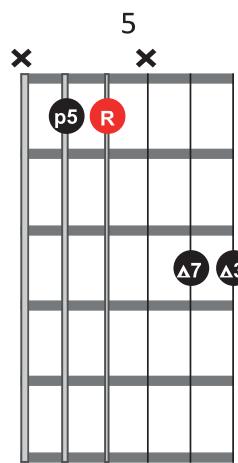
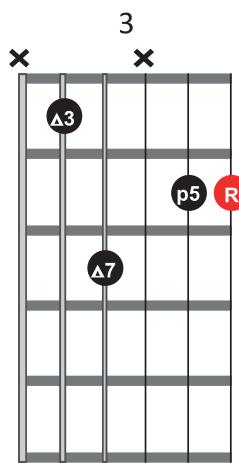
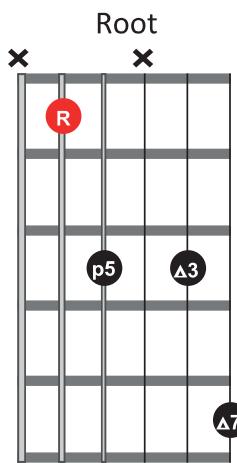
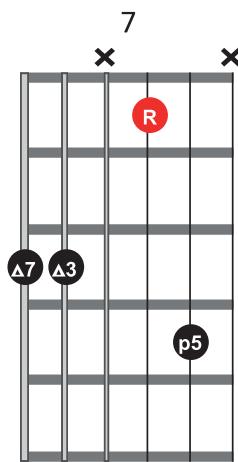
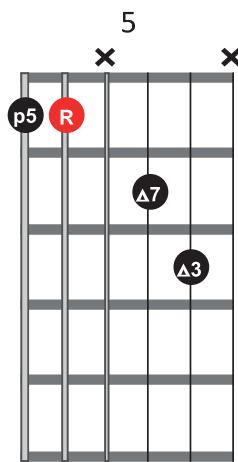
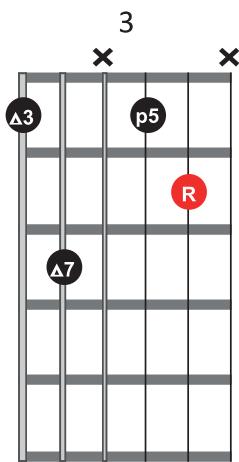
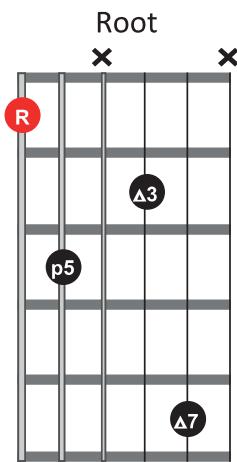


## Drop 2 + 4

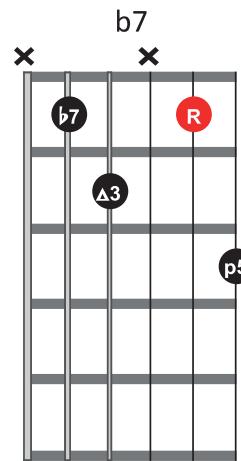
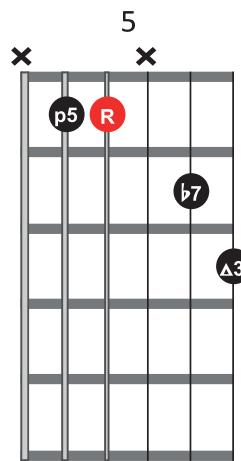
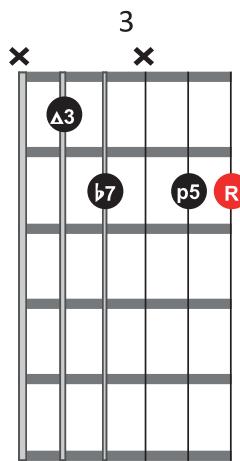
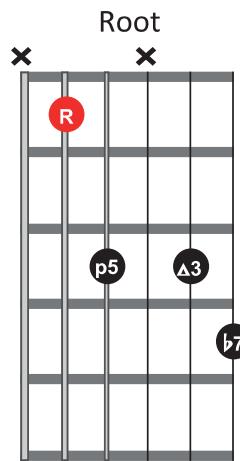
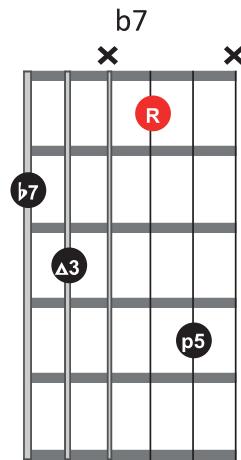
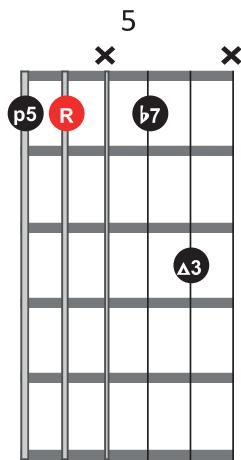
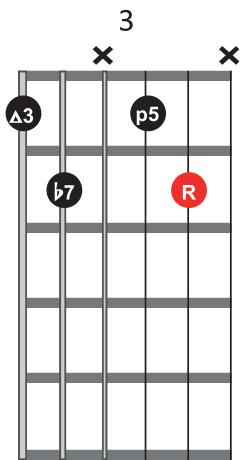
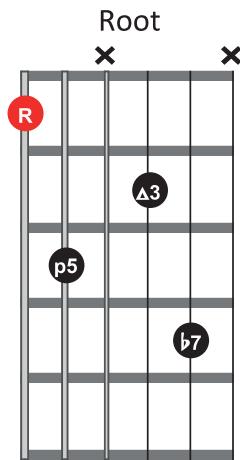
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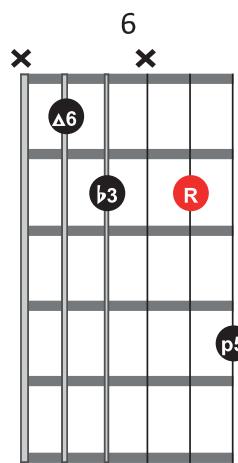
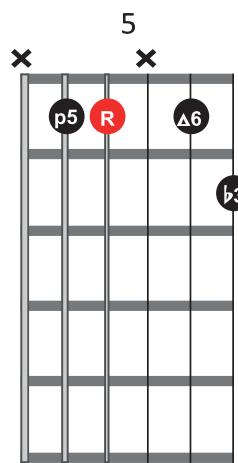
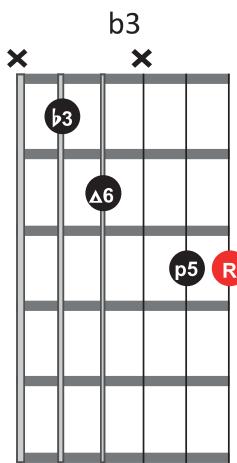
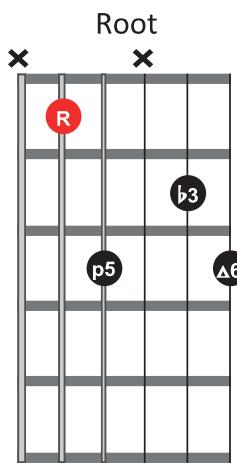
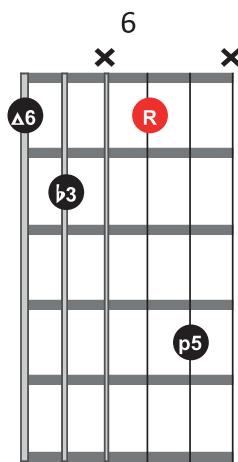
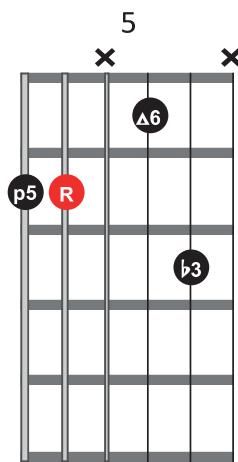
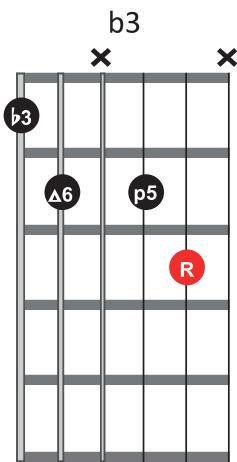
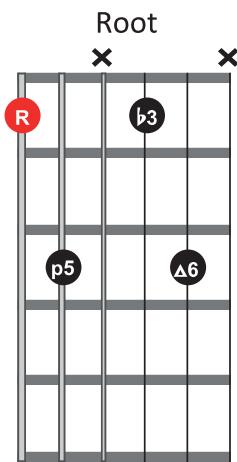
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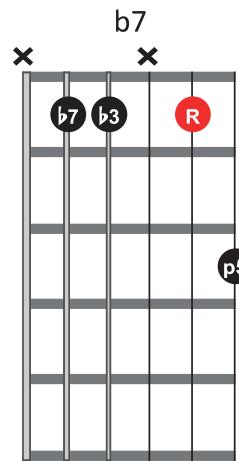
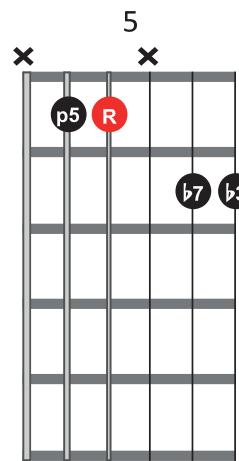
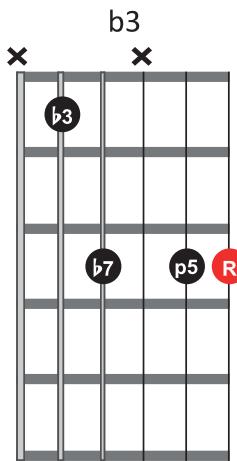
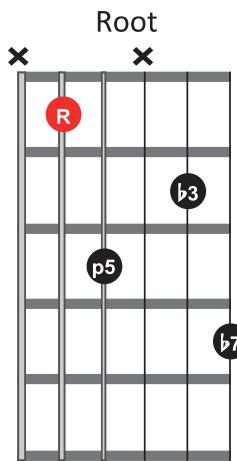
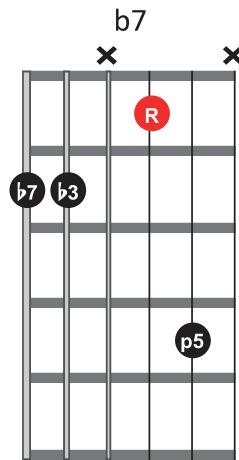
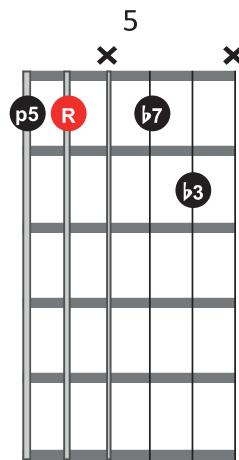
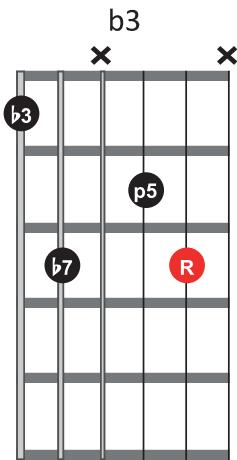
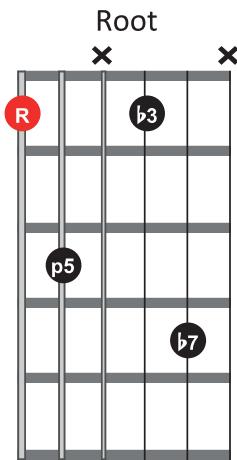
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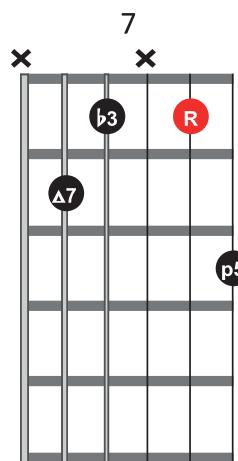
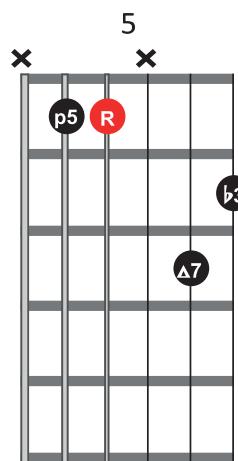
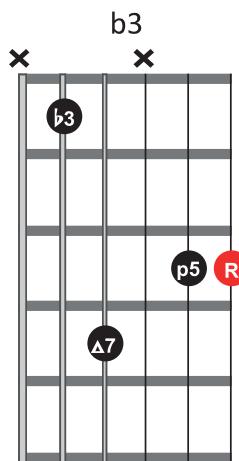
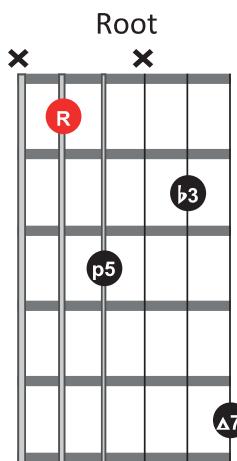
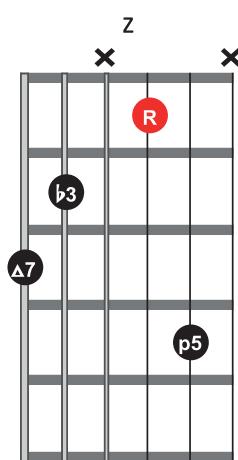
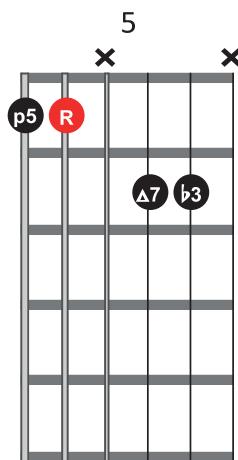
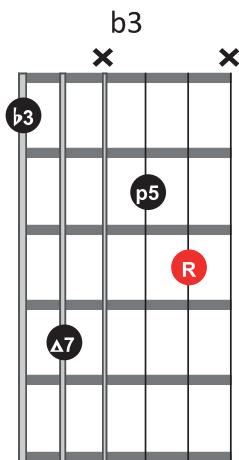
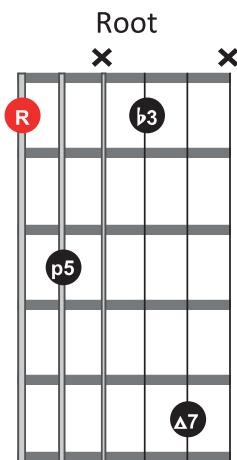
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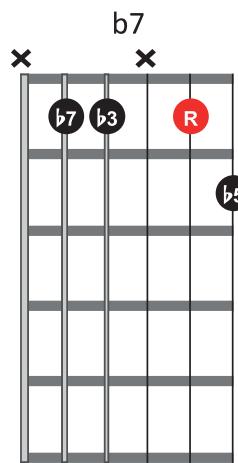
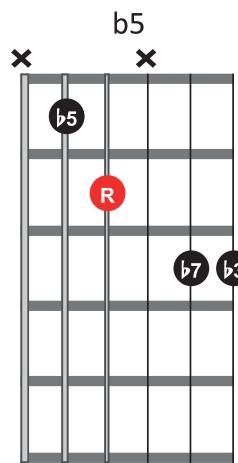
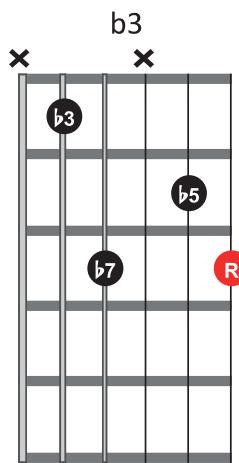
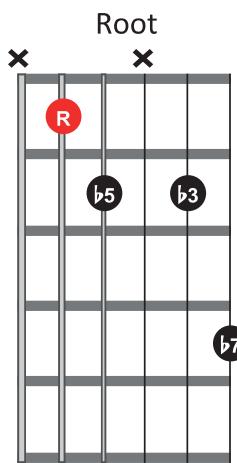
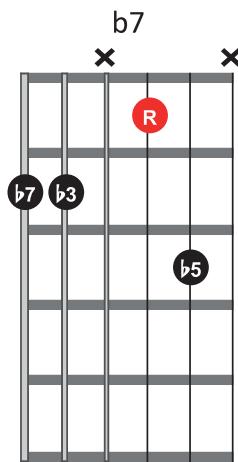
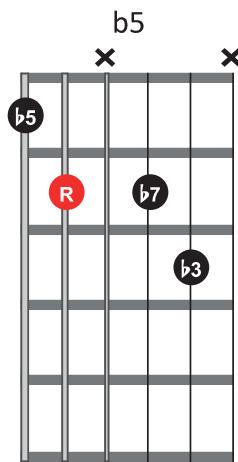
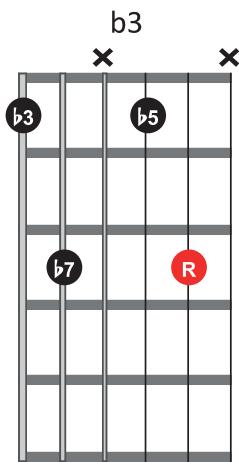
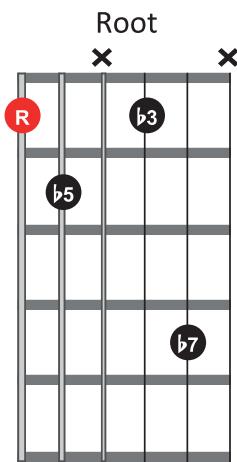
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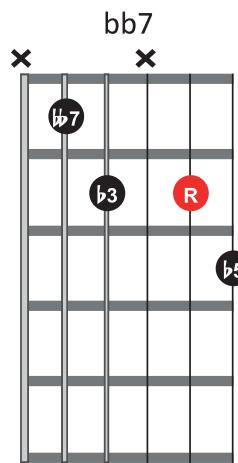
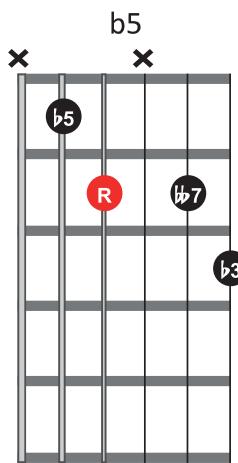
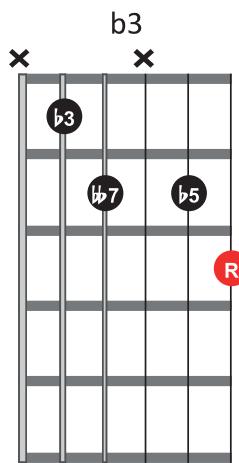
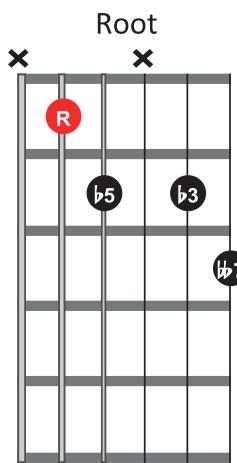
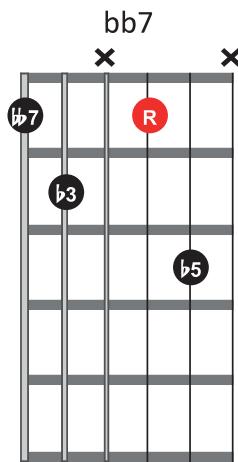
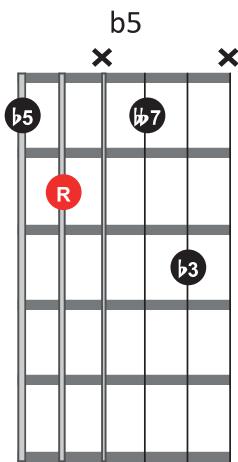
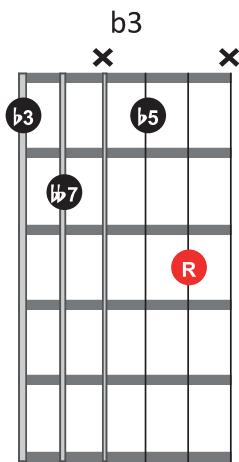
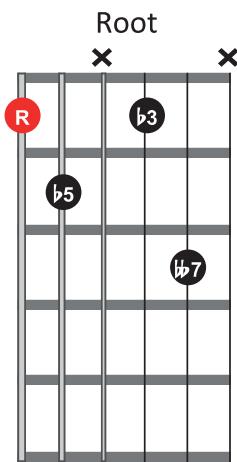
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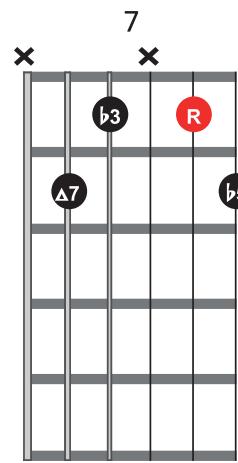
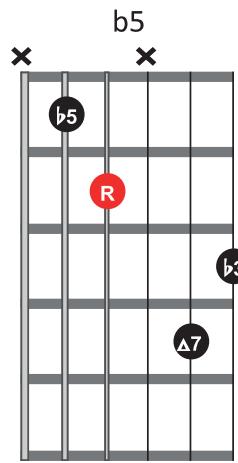
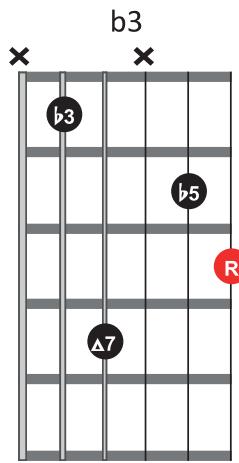
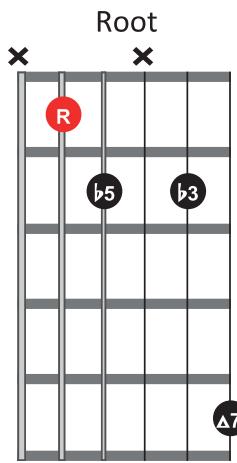
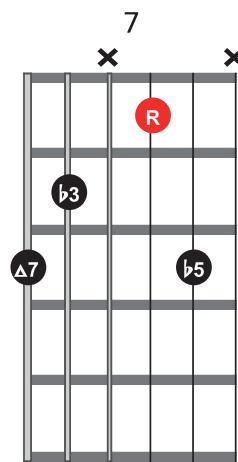
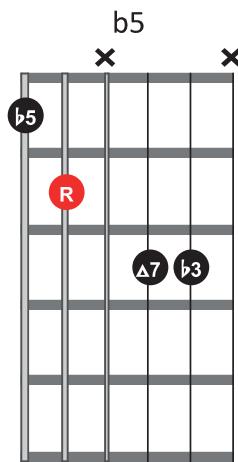
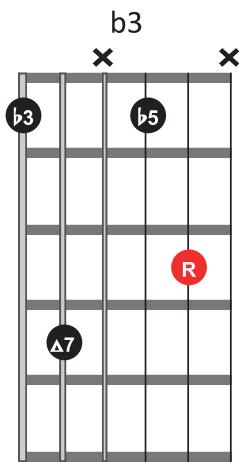
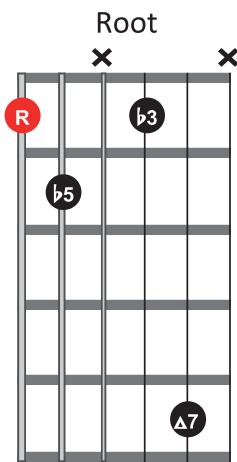
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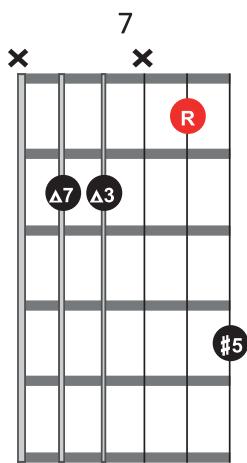
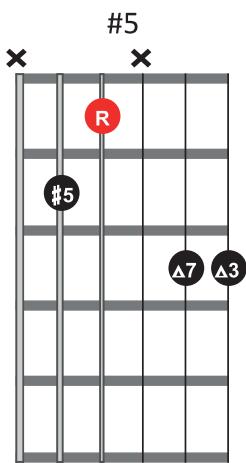
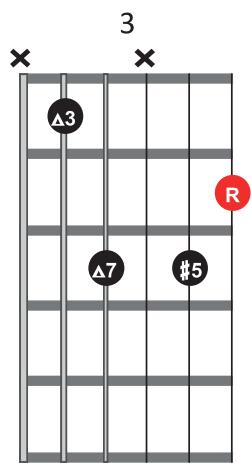
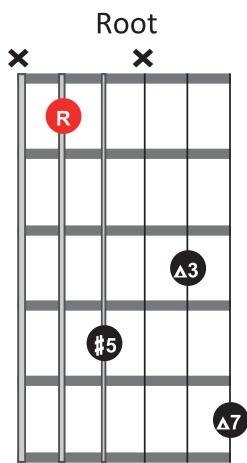
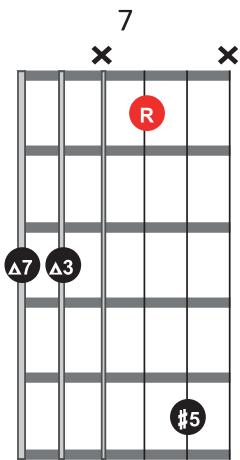
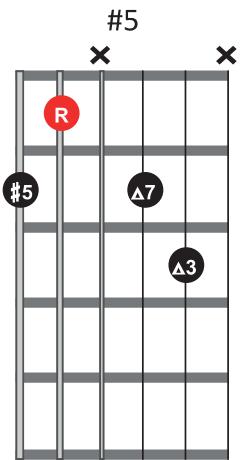
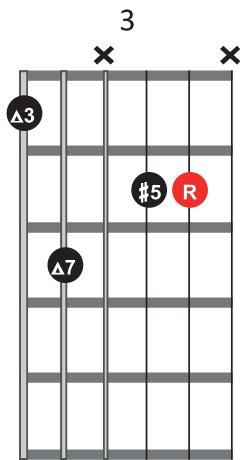
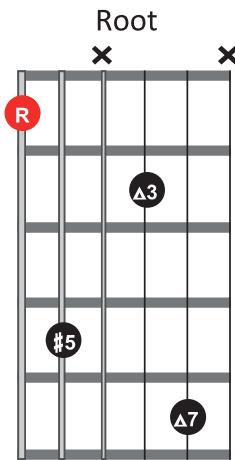
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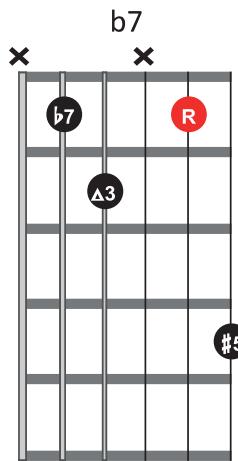
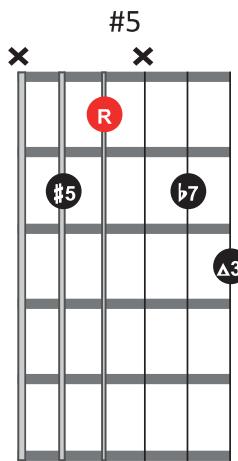
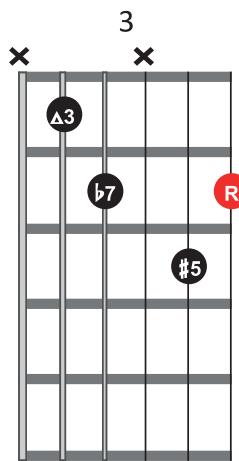
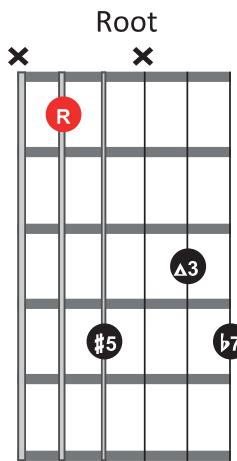
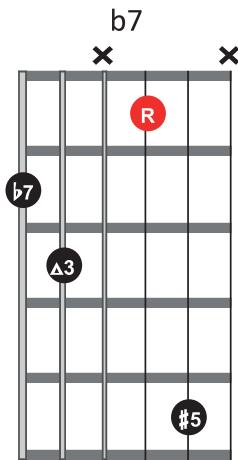
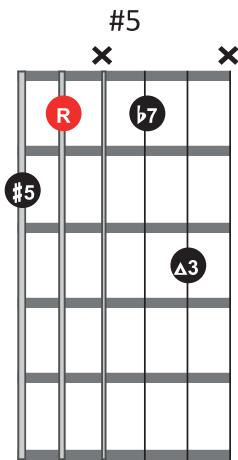
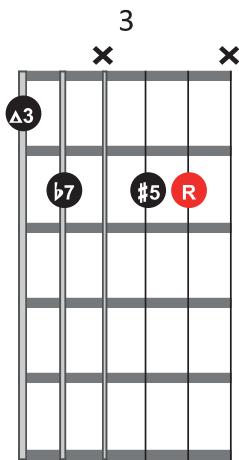
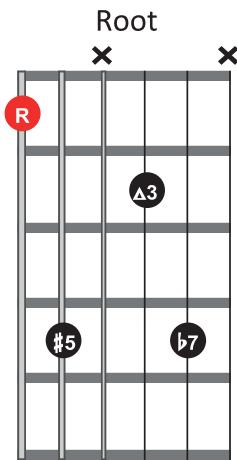
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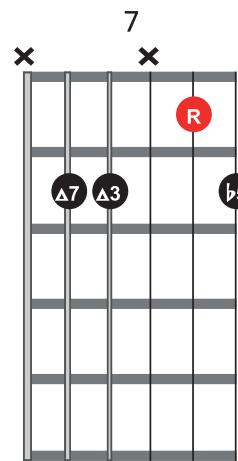
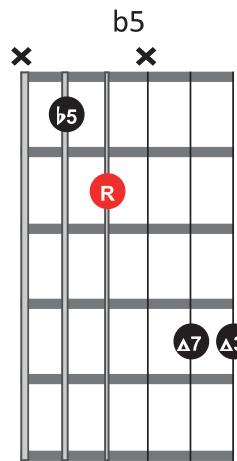
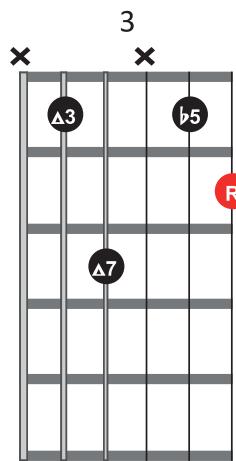
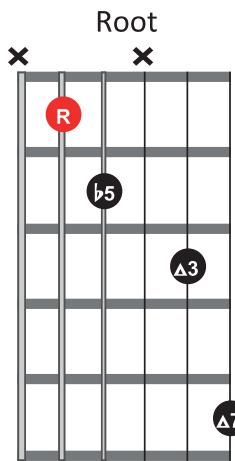
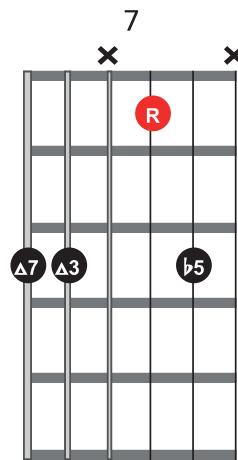
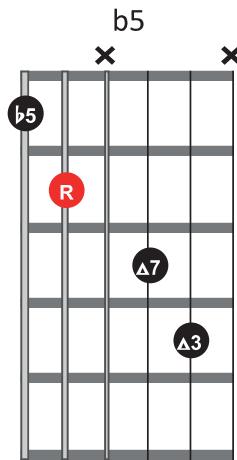
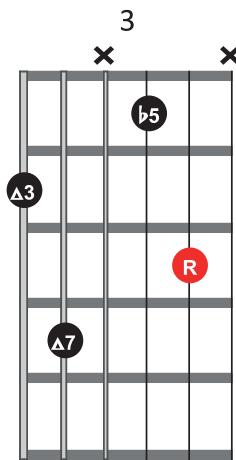
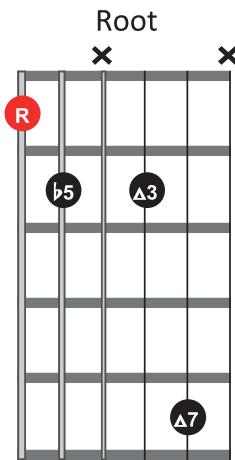
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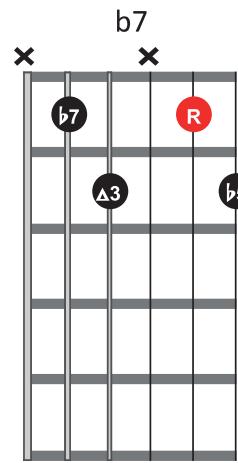
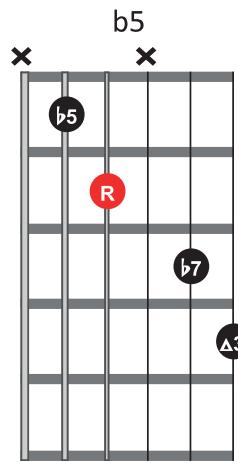
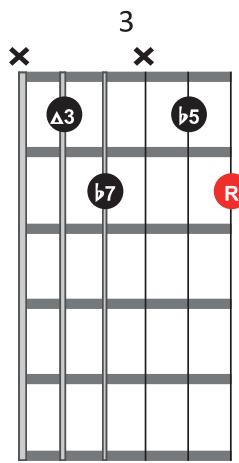
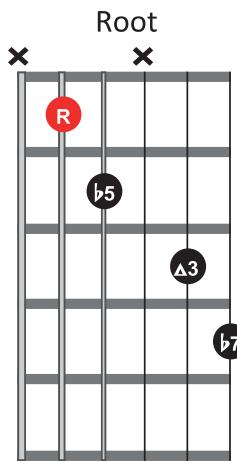
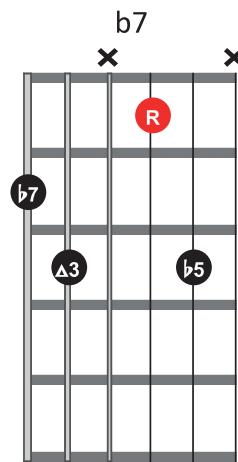
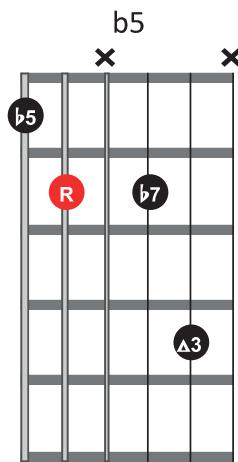
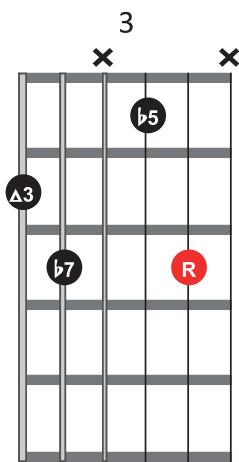
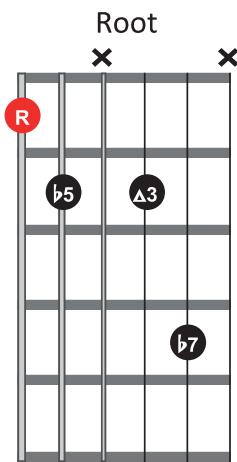
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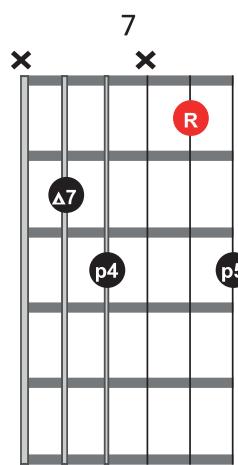
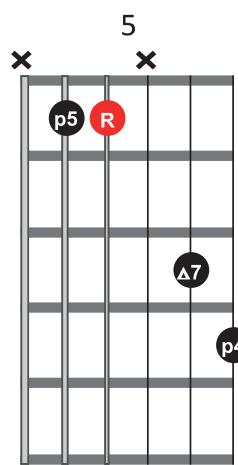
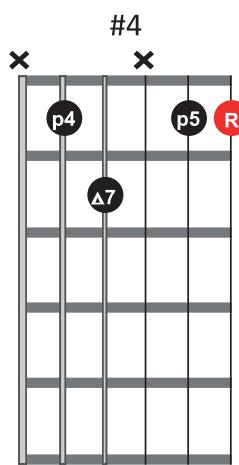
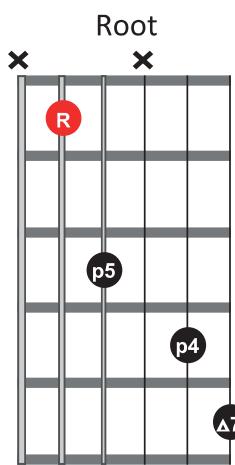
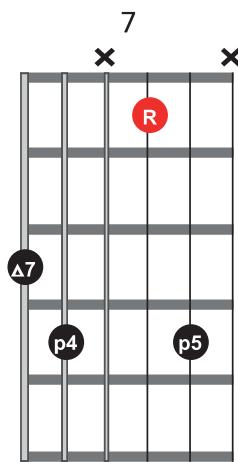
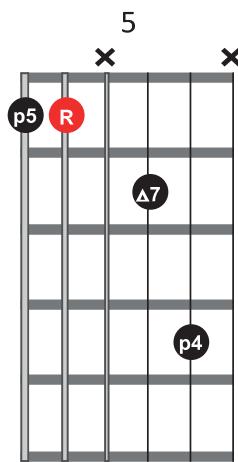
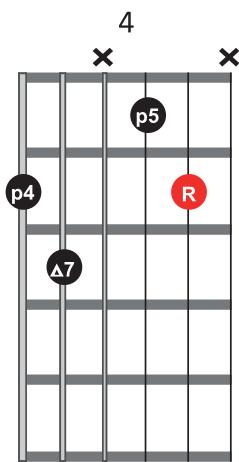
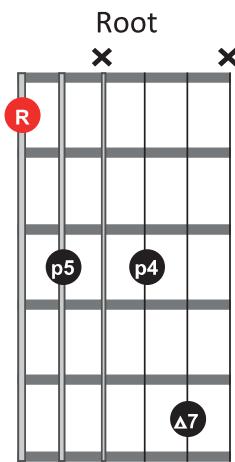
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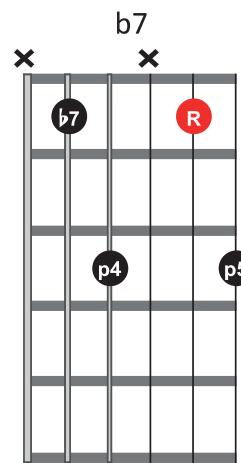
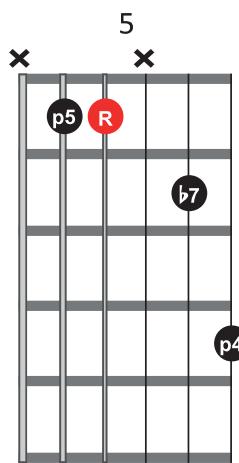
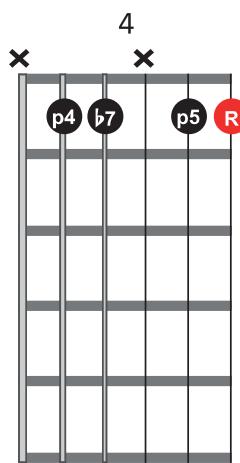
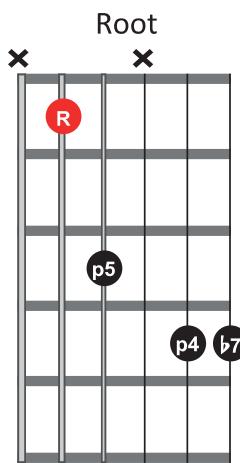
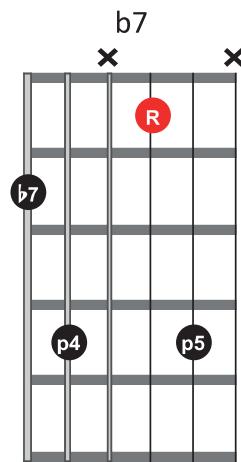
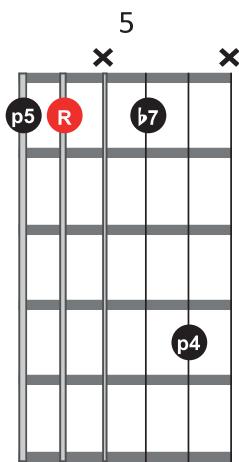
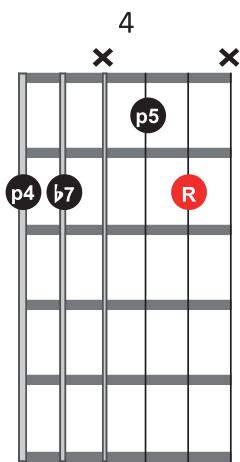
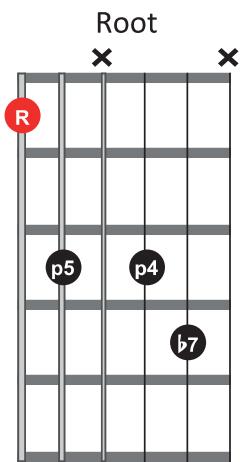
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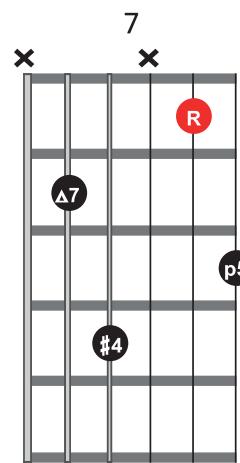
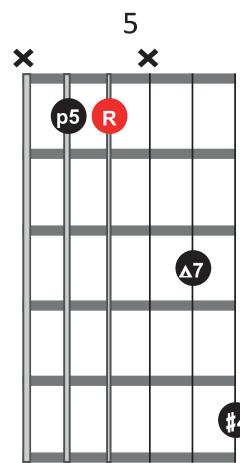
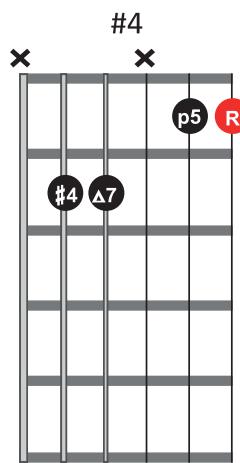
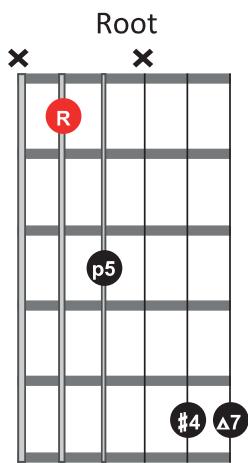
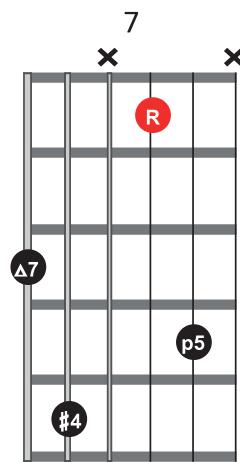
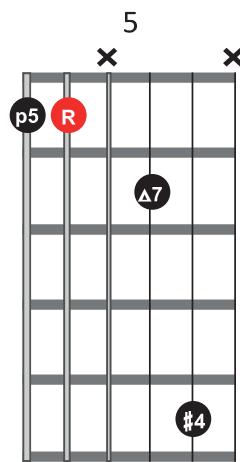
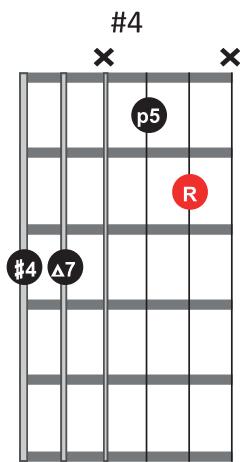
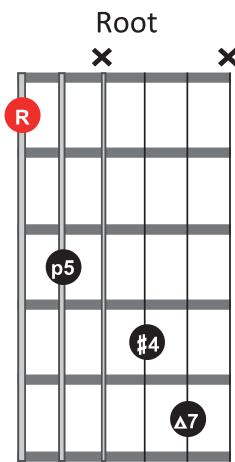
## Maj<sup>7sus4</sup>



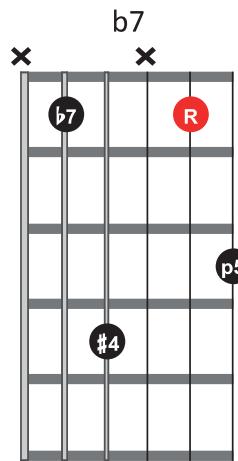
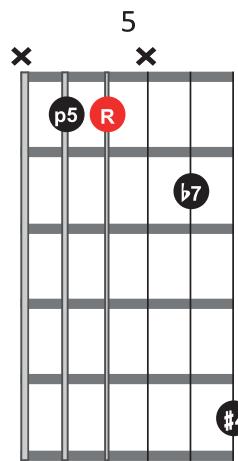
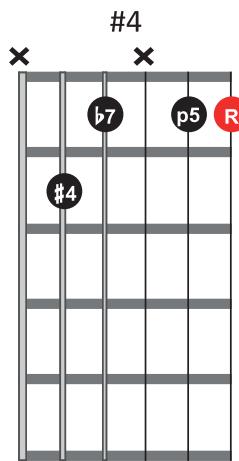
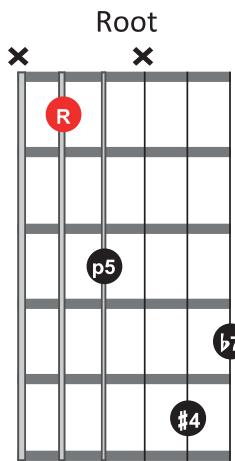
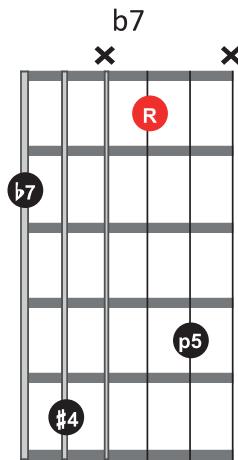
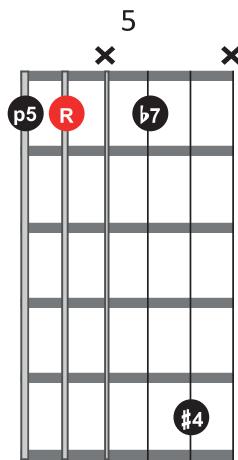
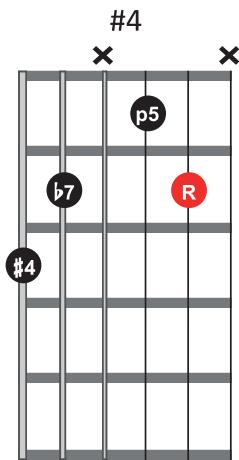
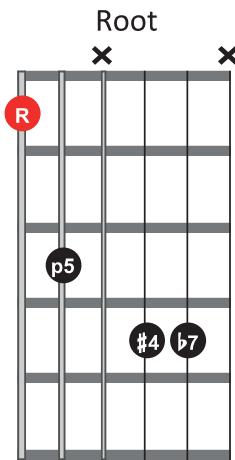
## *Dom*<sup>7sus4</sup>



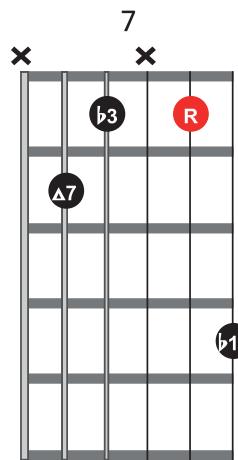
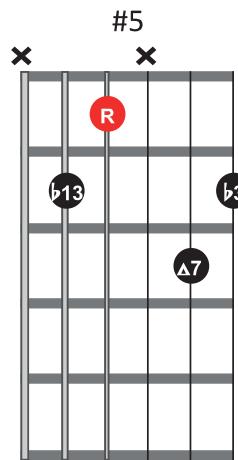
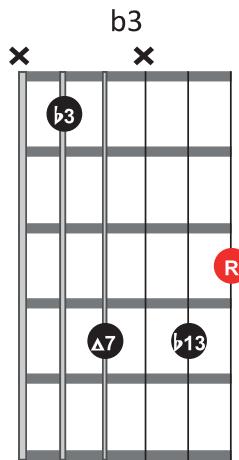
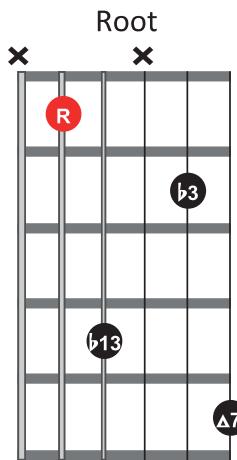
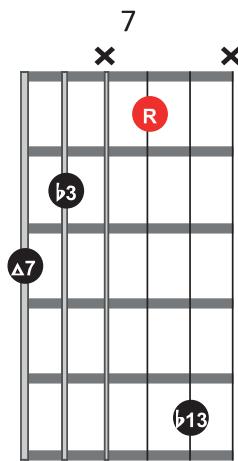
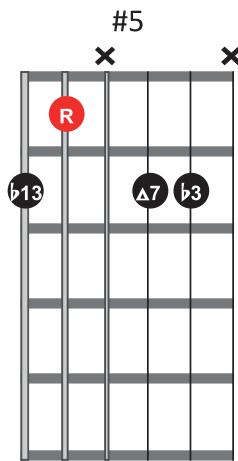
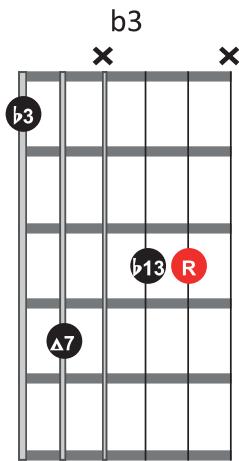
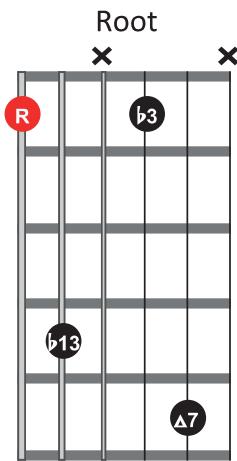
*Lydian*<sup>maj7</sup>



*Lydian*<sup>Dom7</sup>



*Dim*<sup>maj7b13</sup>

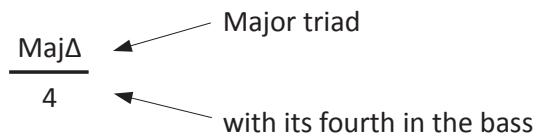


## Triads over Bass Notes

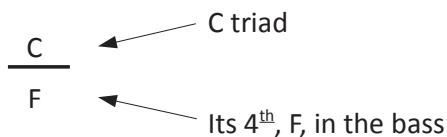
The subsequent chart contains six different forms of major, minor and suspended four triads over bass notes. I have included the bass note-to-triad relationship in addition to the common chord label.

### **Ex. 137**

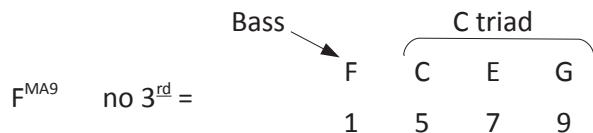
**a)**



**b)**



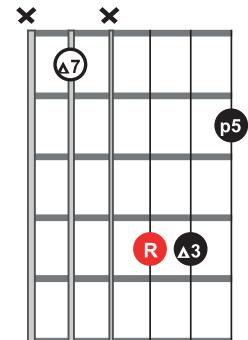
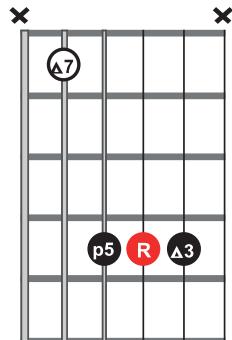
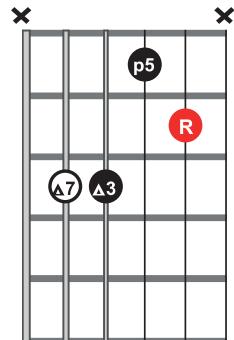
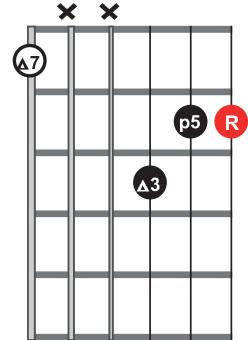
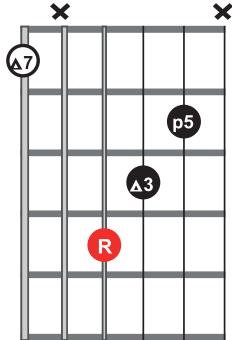
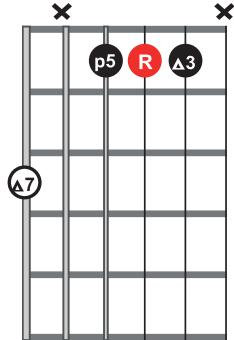
**c)** or



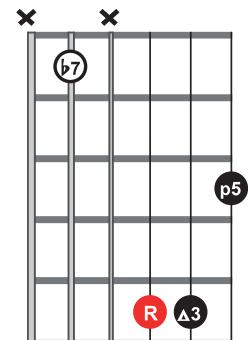
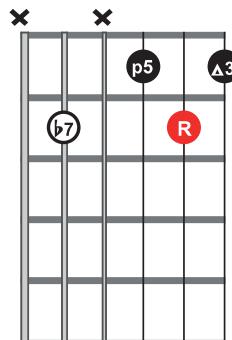
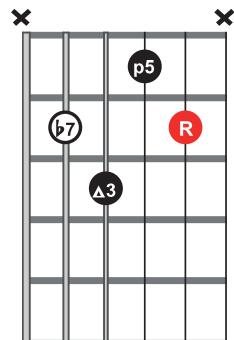
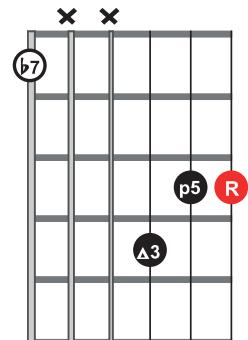
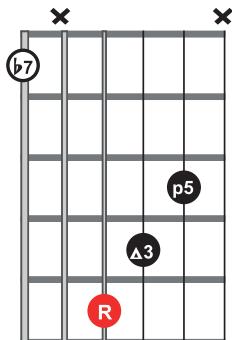
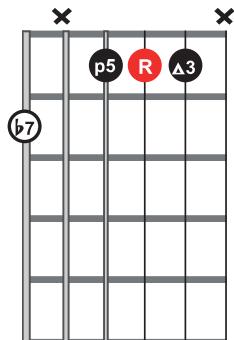
## Major Triads

### Bass Notes

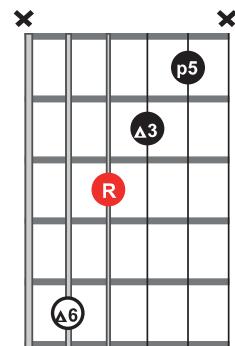
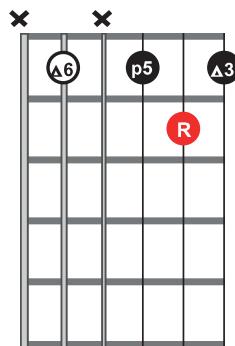
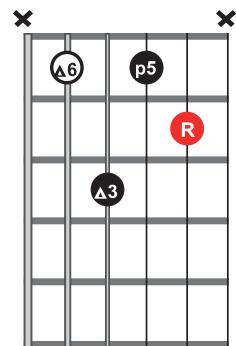
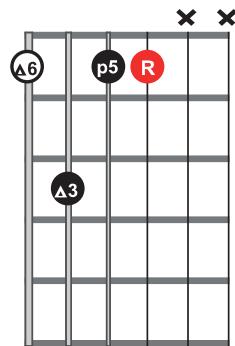
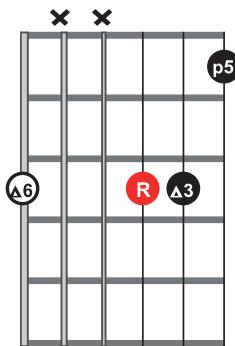
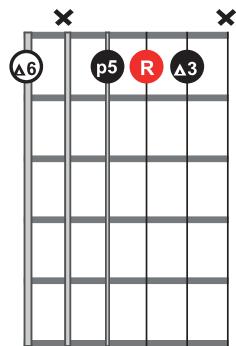
$\frac{\text{Maj}\Delta}{7}$  = Phrygian



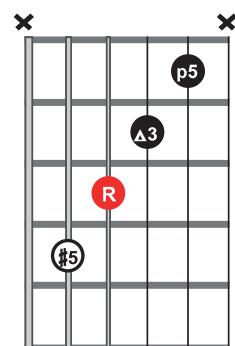
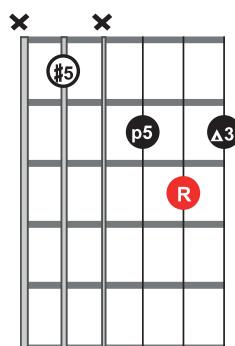
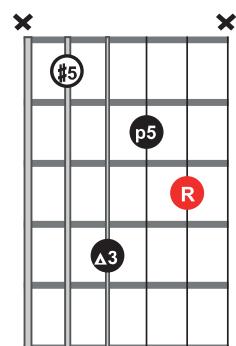
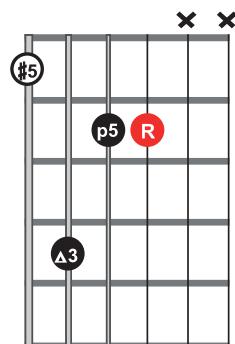
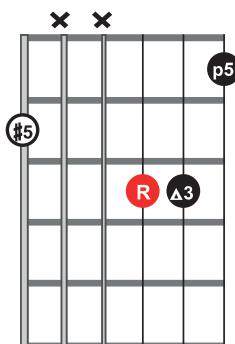
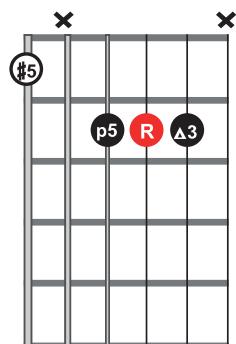
$\frac{\text{Maj}\Delta}{b7} = \text{Dom } 2^4$



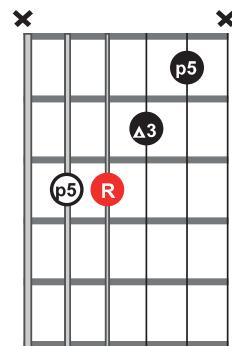
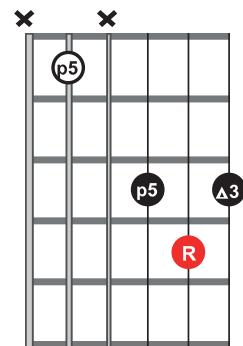
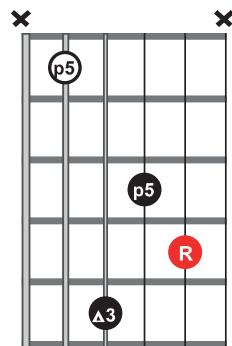
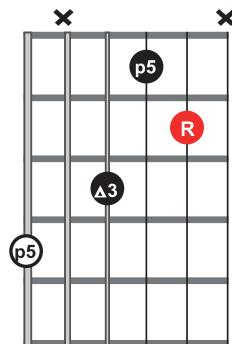
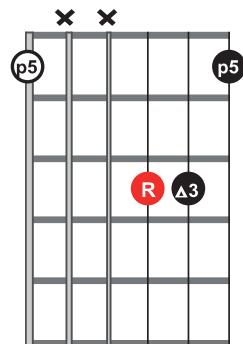
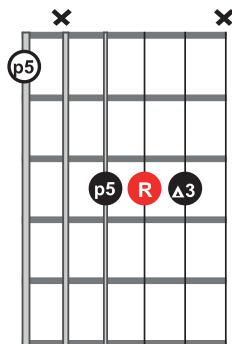
$$\frac{\text{Maj}\Delta}{6} = \text{Min}^7$$



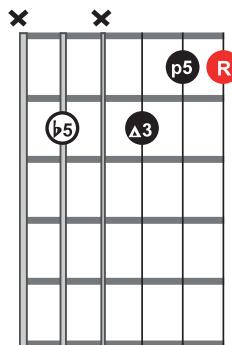
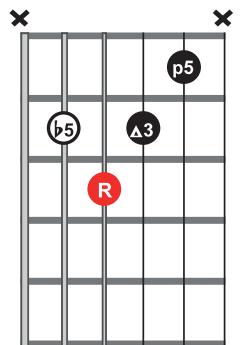
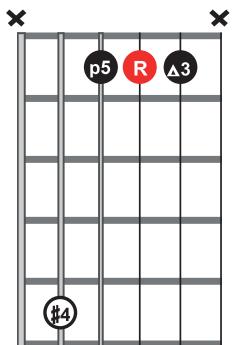
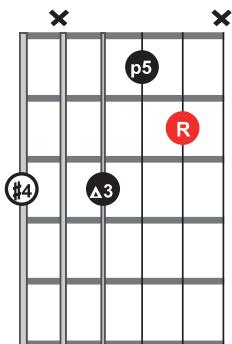
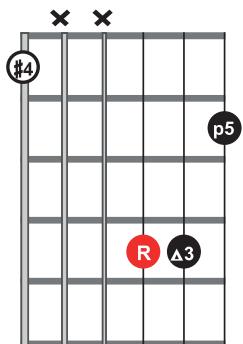
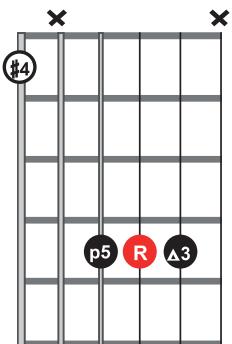
$$\frac{\text{Maj}\Delta}{\#5} = \text{Maj}^{7\#5}$$



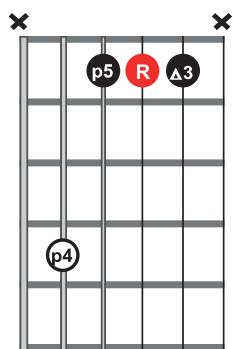
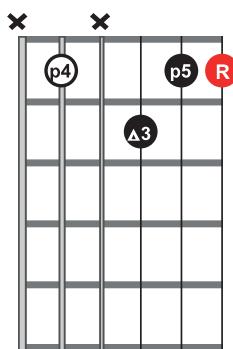
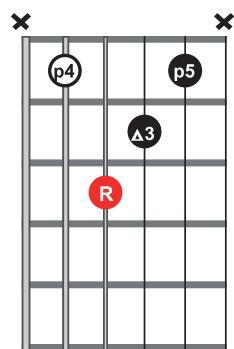
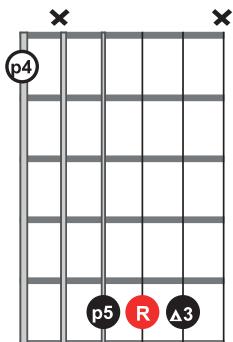
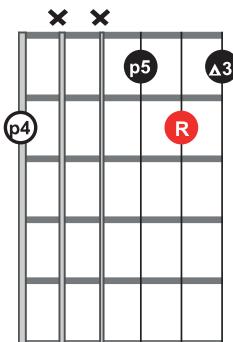
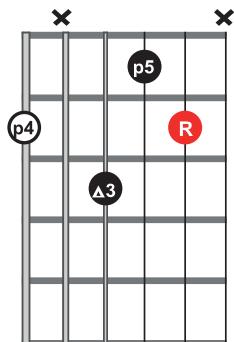
$$\frac{\text{Maj}\Delta}{5} = \text{Maj } \begin{smallmatrix} 6 \\ 5 \end{smallmatrix}$$



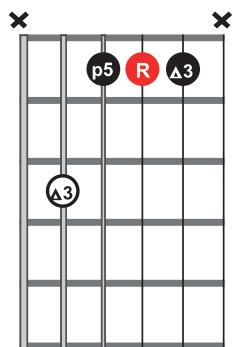
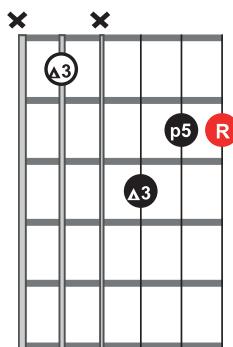
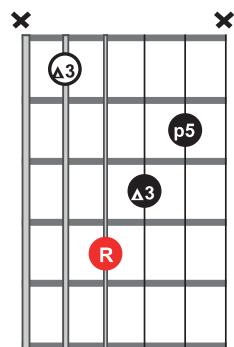
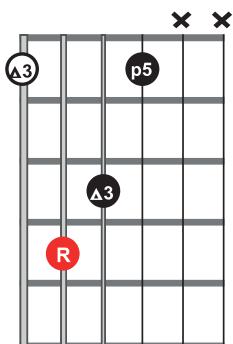
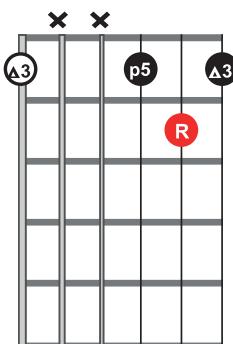
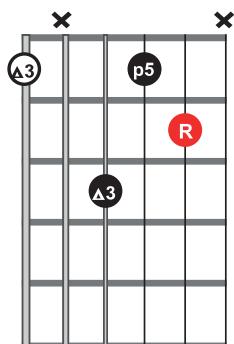
$$\frac{\text{Maj}\Delta}{\#4} = \text{Dom } \begin{smallmatrix} 7 \\ b9 \\ b5 \end{smallmatrix}$$



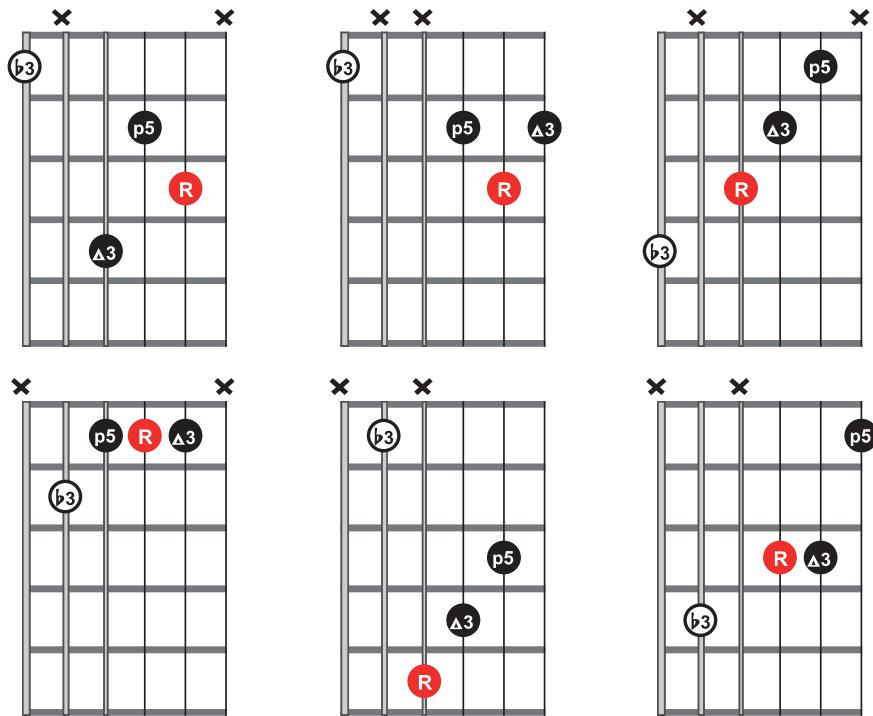
$$\frac{\text{Maj}\Delta}{4} = \text{Maj}^9 \text{ no } 3\text{rd}$$



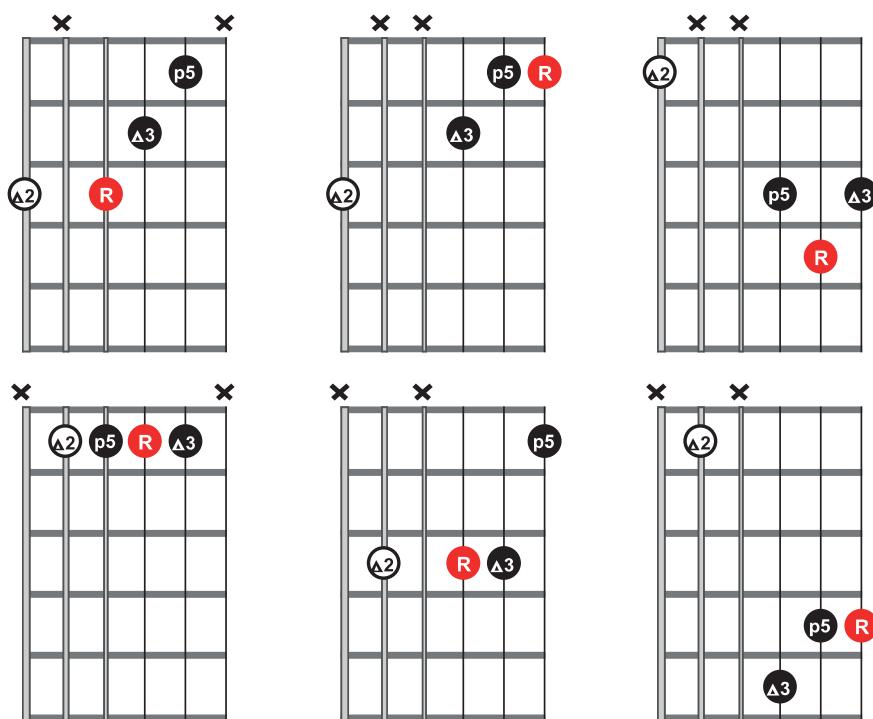
$$\frac{\text{Maj}\Delta}{3} = \text{Maj } 6$$



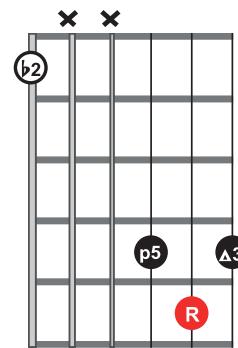
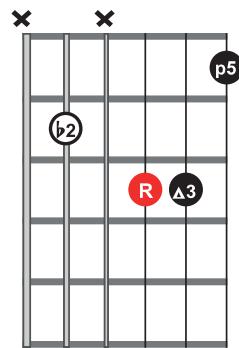
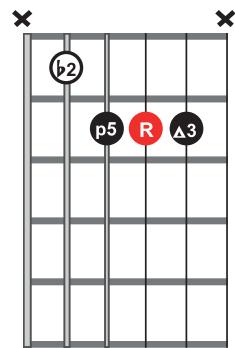
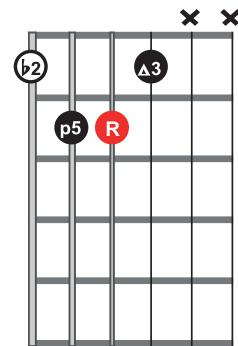
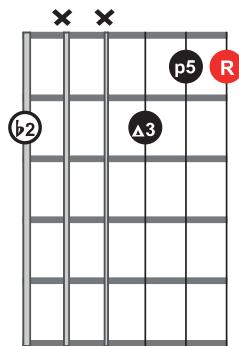
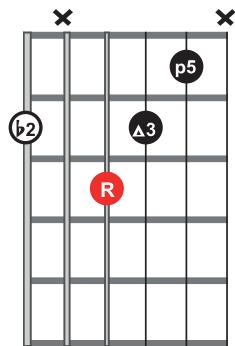
$\frac{\text{Maj}\Delta}{\text{b3}} = \text{Dom}^{13\text{b9 no7th}}$



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



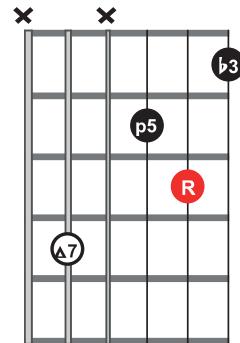
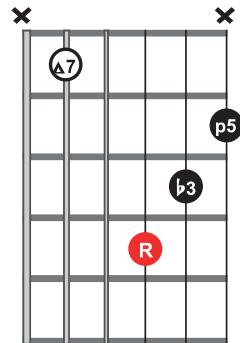
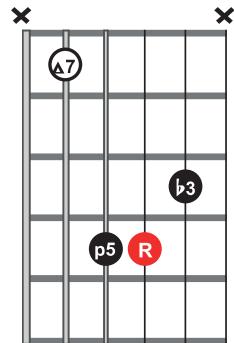
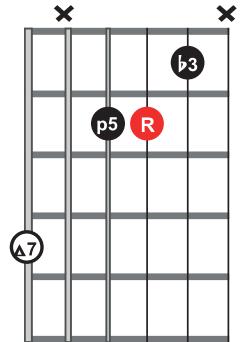
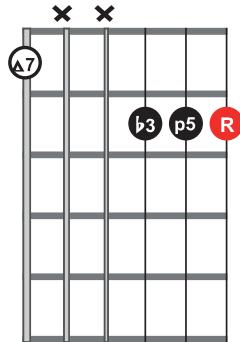
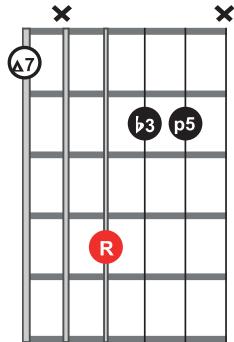
$$\frac{\text{Maj}\Delta}{\text{b9}} = \text{Dim}^{\text{maj7}}$$



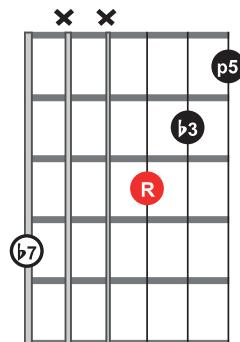
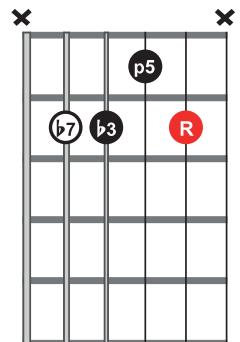
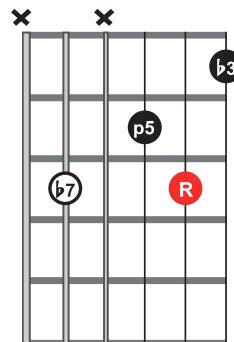
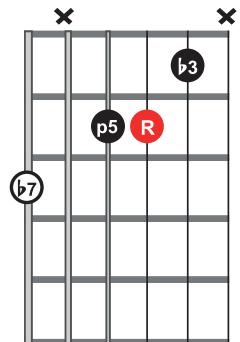
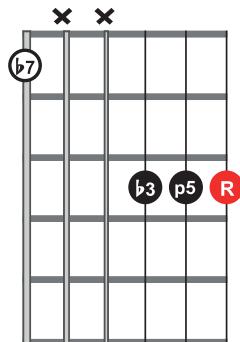
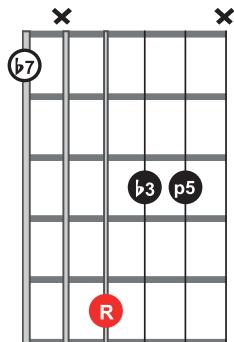
## Minor Triads

### Bass Notes

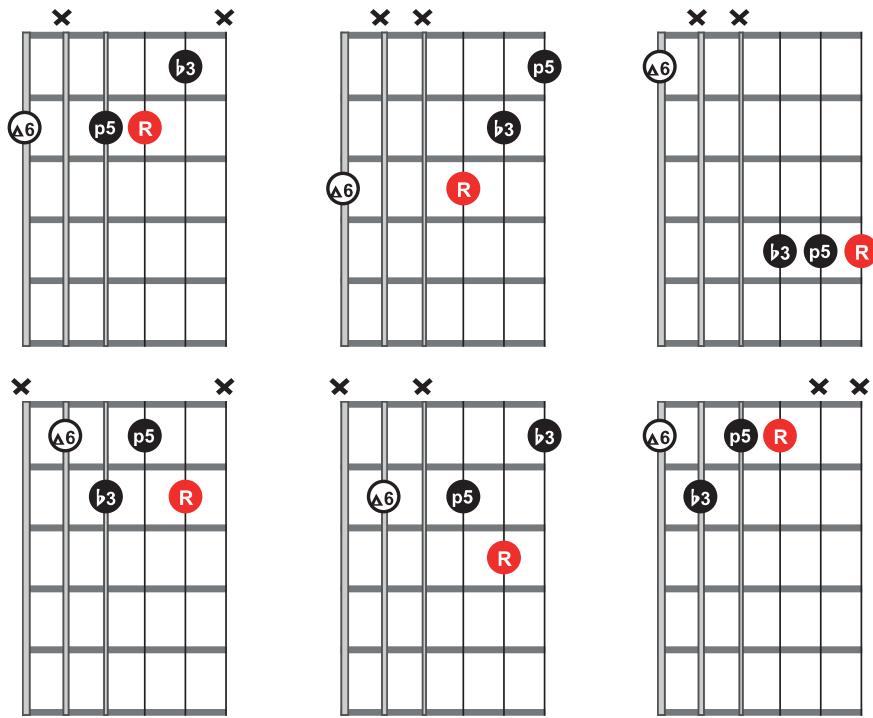
$$\frac{\text{Min}\Delta}{7} = \text{Dom}^{7/\#5/b9\text{ no7}}$$



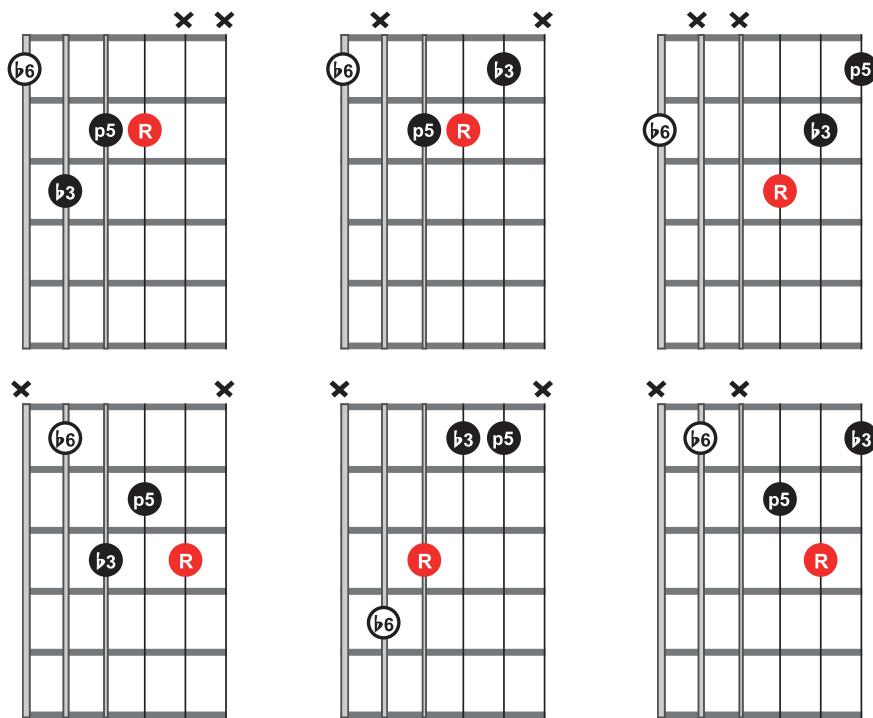
$$\frac{\text{Min}\Delta}{b7} = \frac{\text{Maj}^6}{5^{\text{th}}}$$



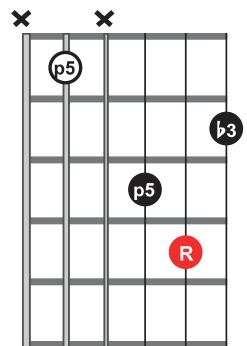
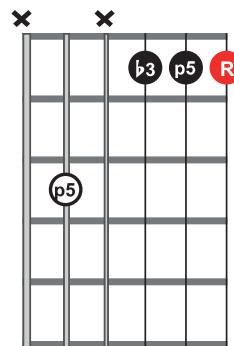
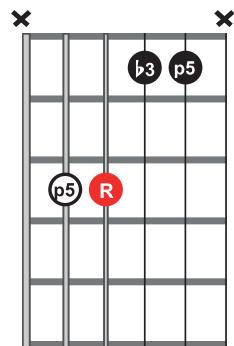
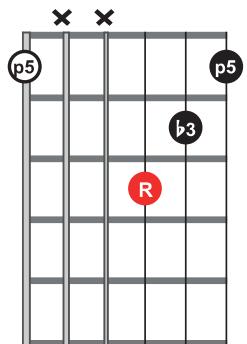
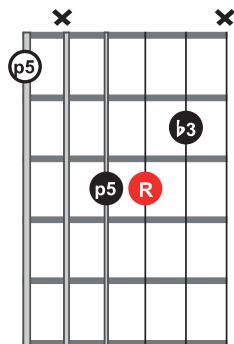
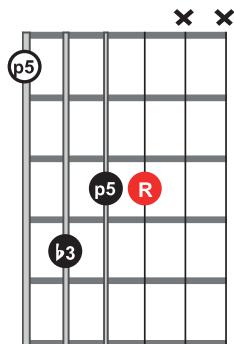
$$\frac{\text{Min}\Delta}{6} = \text{Min}^{7\text{b}5}$$



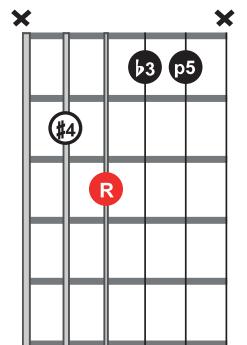
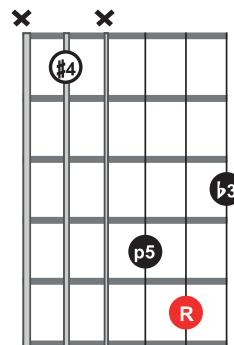
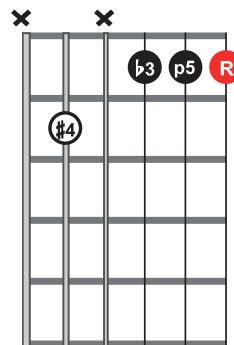
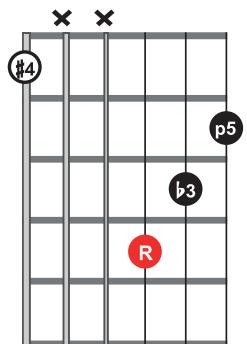
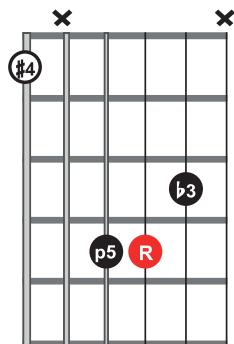
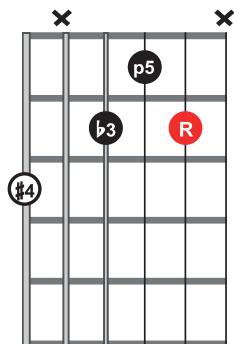
$$\frac{\text{Min}\Delta}{\text{b}6} = \text{Maj}^7$$



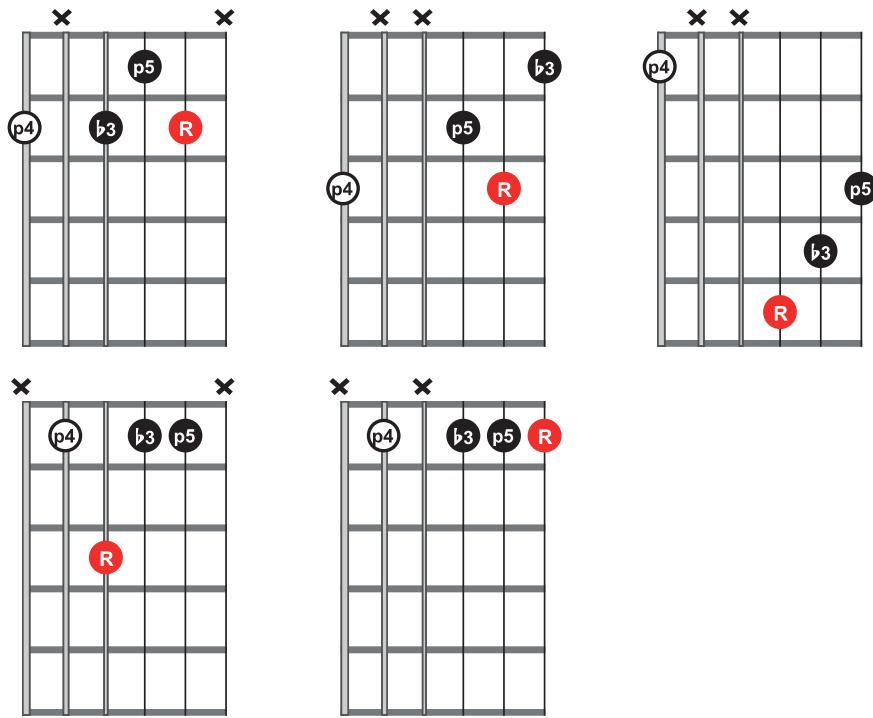
$$\frac{\text{Min}\Delta}{5} = \text{Min } \frac{6}{5}$$



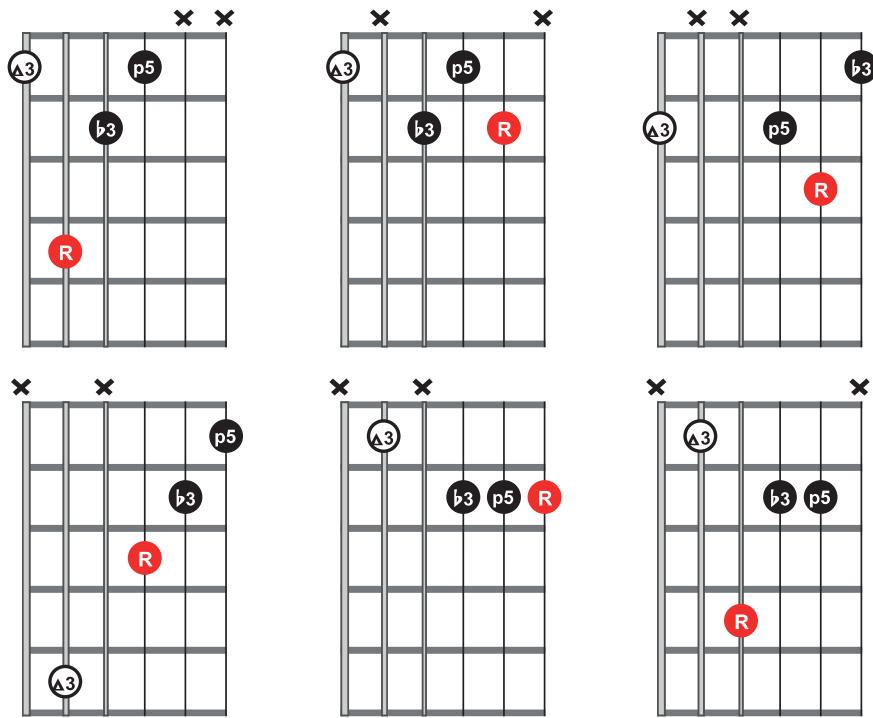
$$\frac{\text{Min}\Delta}{\#4} = \text{Dom}^{13/b9/b5 \text{ no 3rd}}$$



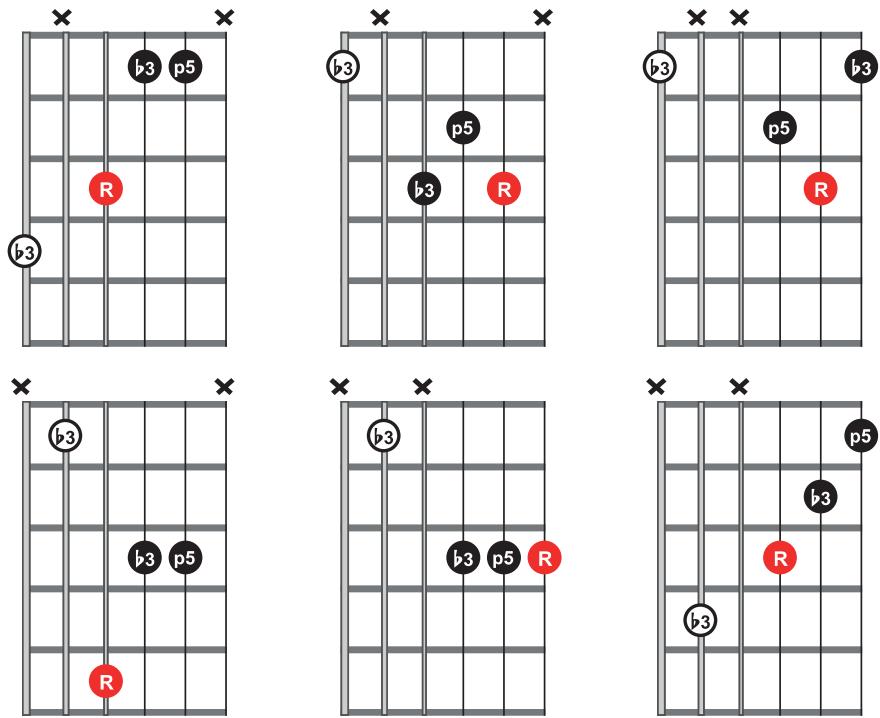
$$\frac{\text{Min}\Delta}{4} = \text{Dom}^9 \text{ no } 3\text{rd}$$



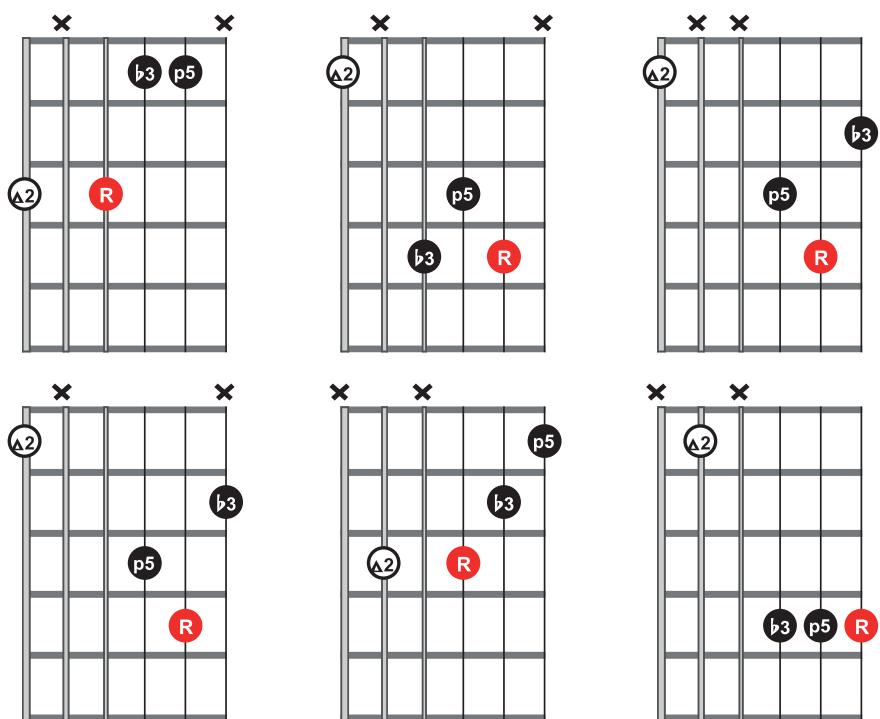
$$\frac{\text{Min}\Delta}{3} = \text{Dim}^{\text{maj7b13}}$$



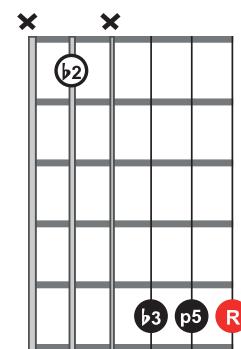
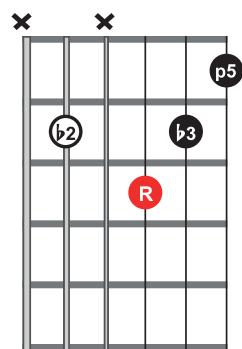
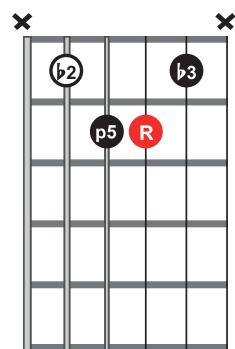
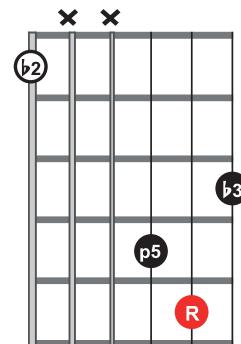
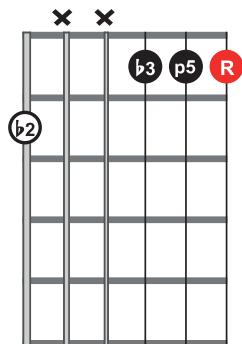
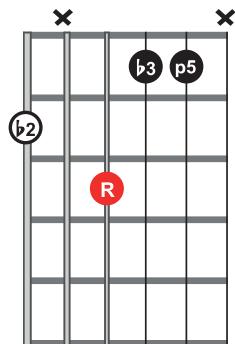
$$\frac{\text{Min}\Delta}{\text{b3}} = \text{Min 6}$$



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



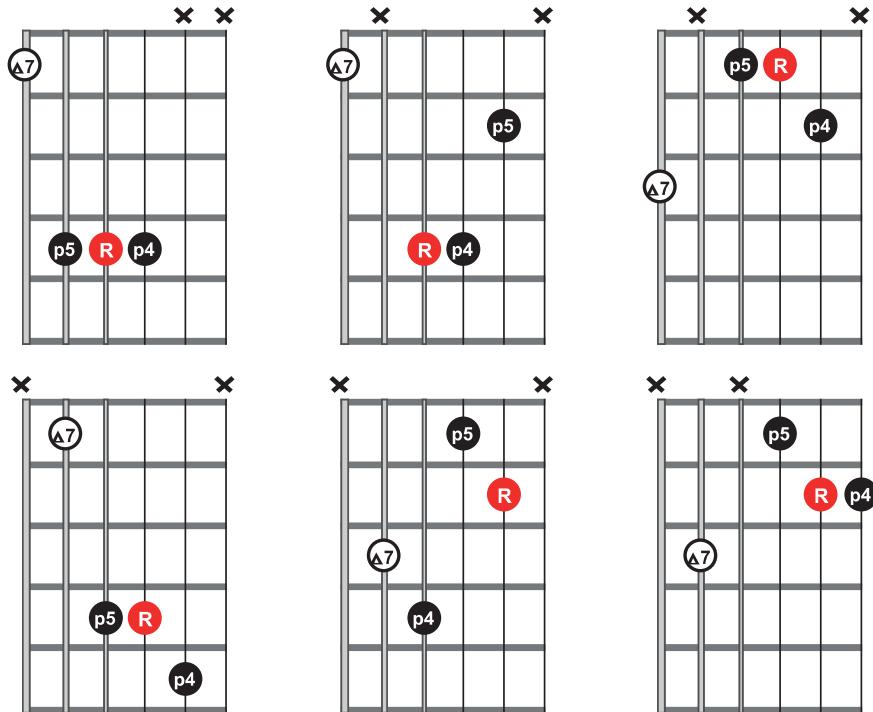
$$\frac{\text{Min}\Delta}{\text{b9}} = \text{Dim}^{\text{maj7}}$$



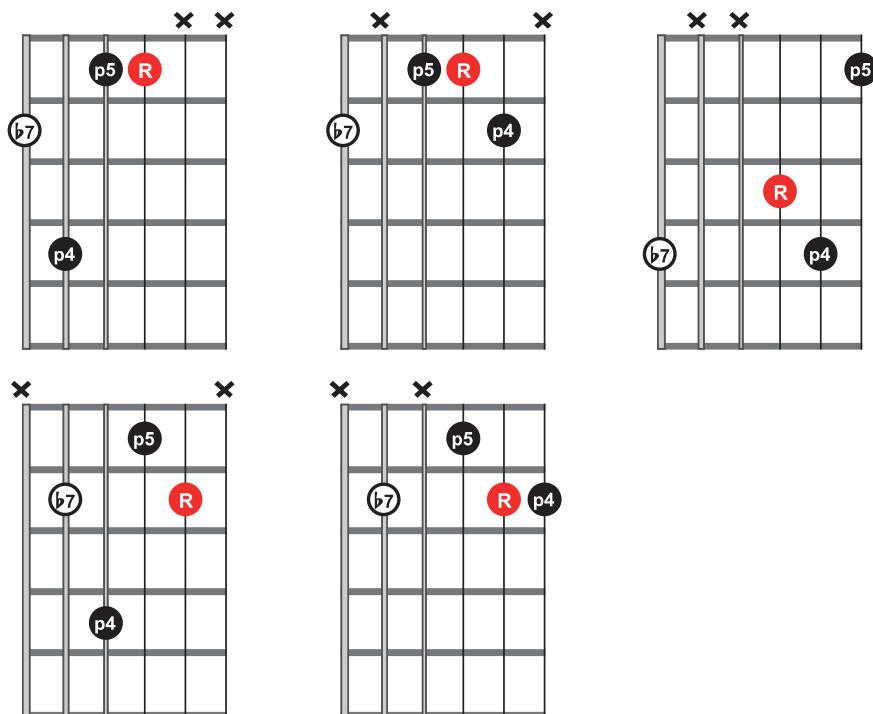
## Sus4 Triads

### Bass Notes

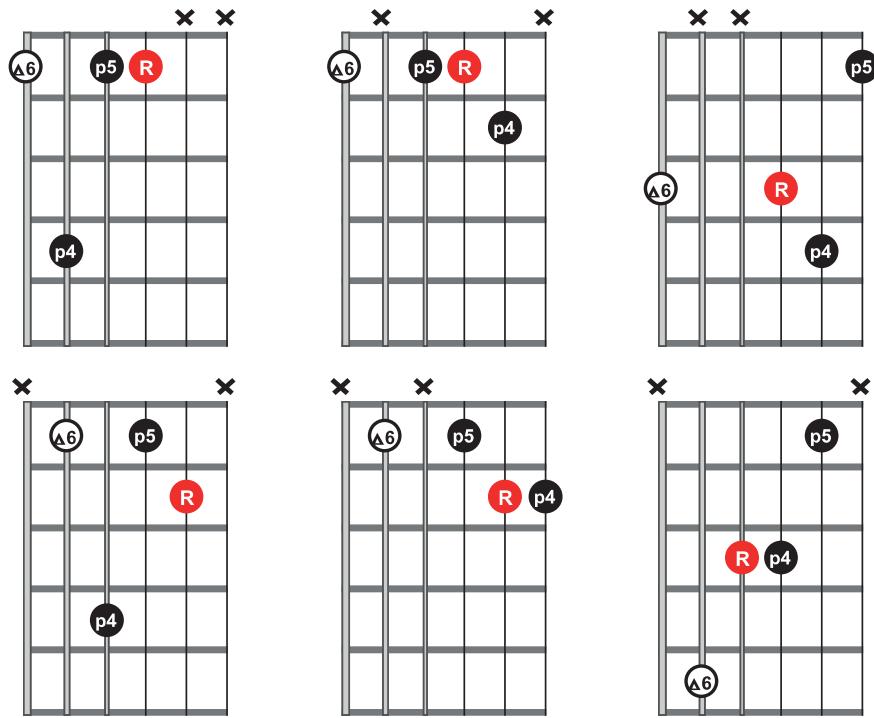
$\frac{\text{Sus4}\Delta}{7} = \text{Dom}^{7/b9/b5/\#5}$



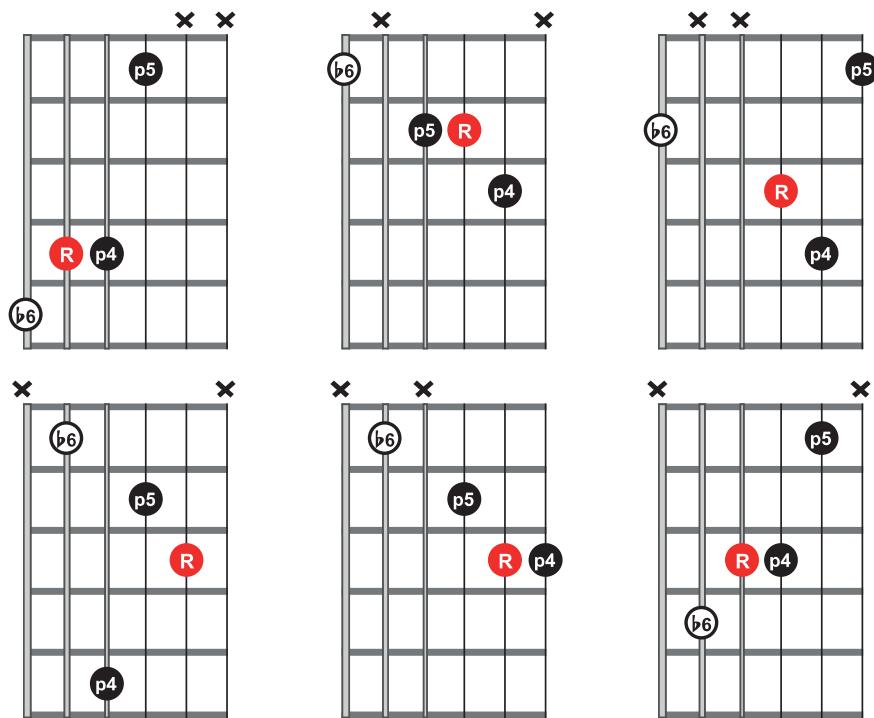
$\frac{\text{Sus4}\Delta}{b7} = \text{Maj}^{69}$



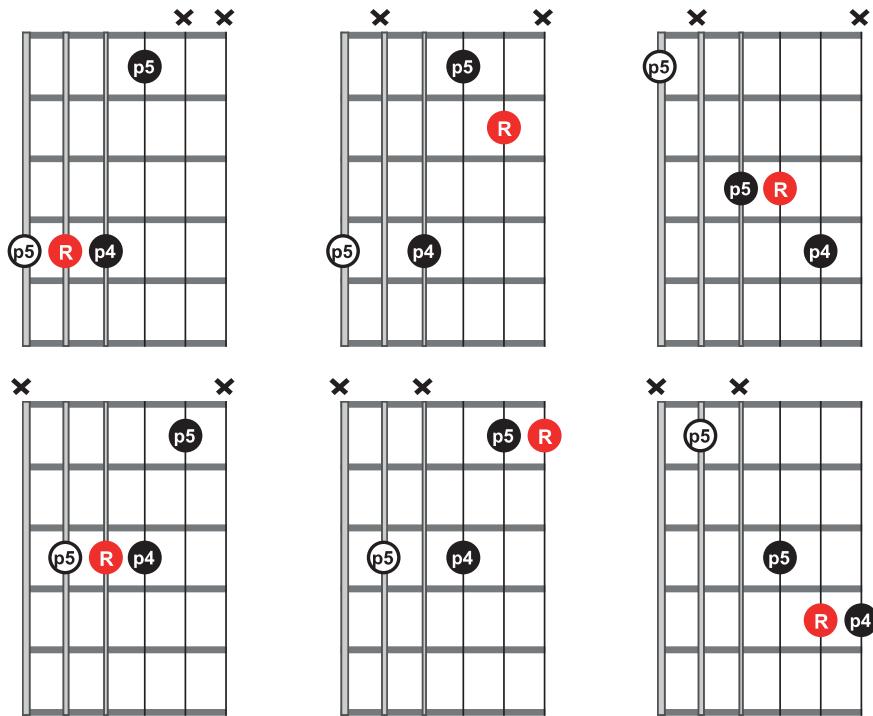
$$\frac{\text{Sus4}\Delta}{6} = \text{Min}^{7\text{b}6}$$



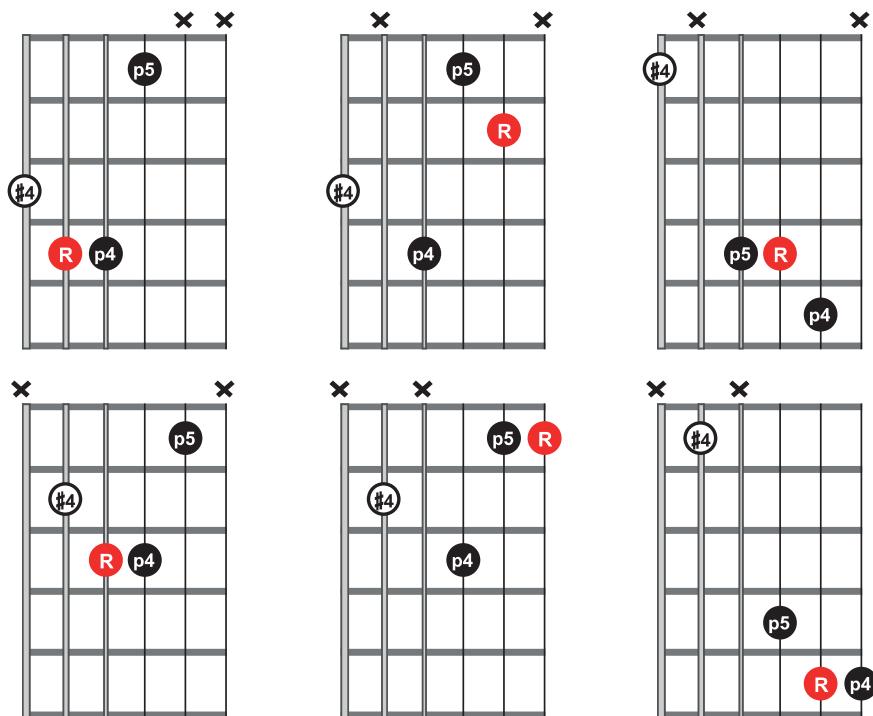
$$\frac{\text{Sus4}\Delta}{\text{b}6} = \text{Maj}^{13}$$



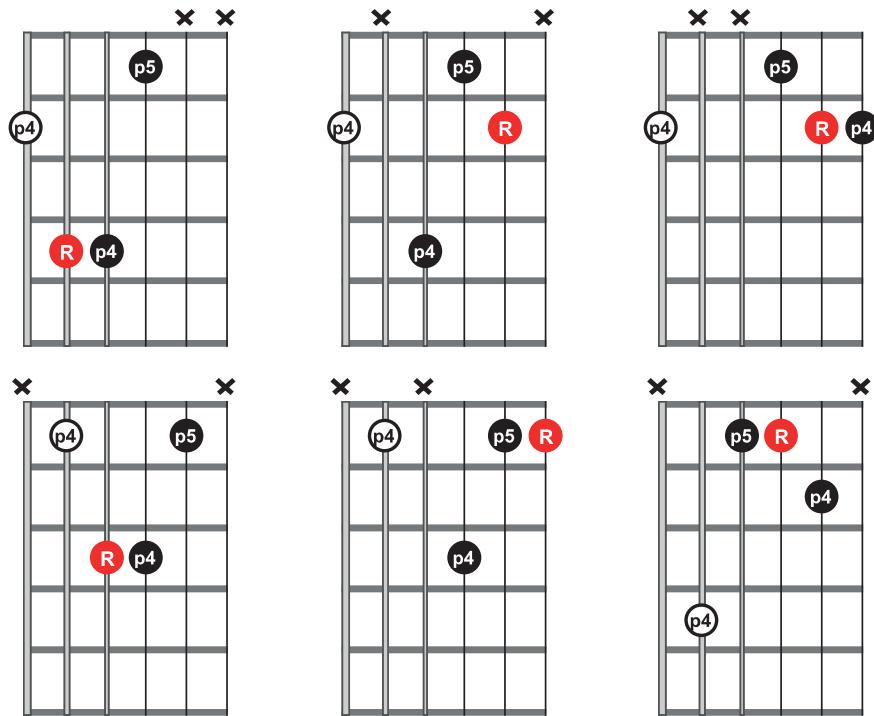
$$\frac{\text{Sus4}\Delta}{5} = \text{Dom}^7_{\text{sus4}}$$



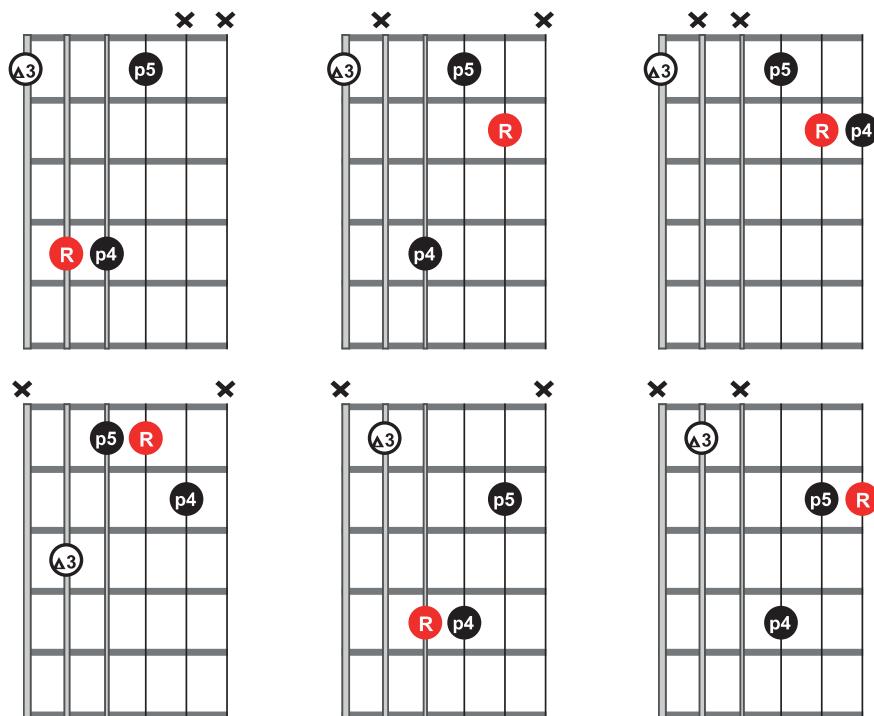
$$\frac{\text{Sus4}\Delta}{\#4} = \text{Twelve Tone}$$



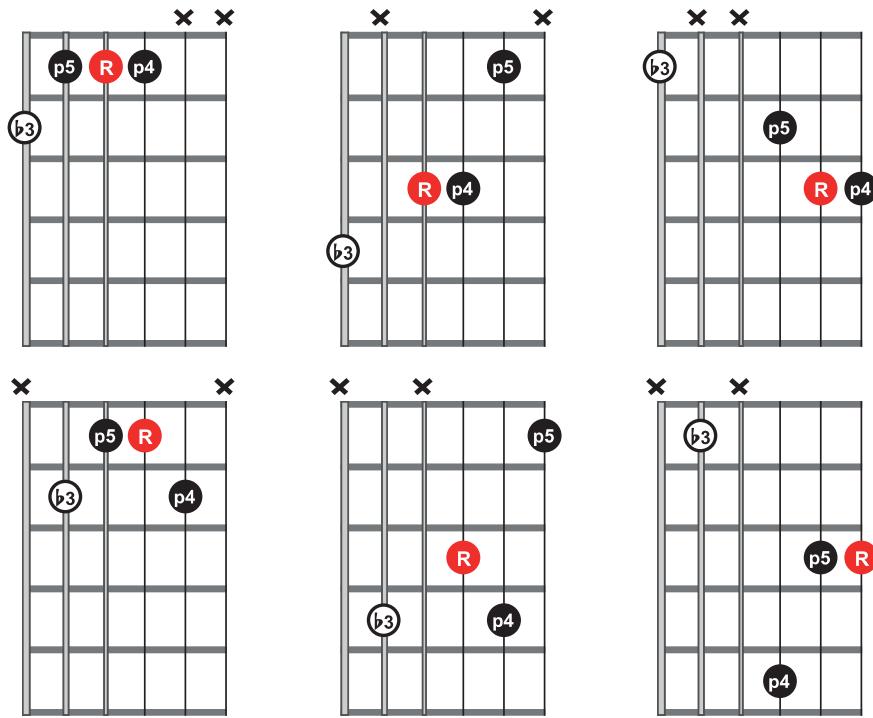
$$\frac{\text{Sus4}\Delta}{4} = \text{Sus2}$$



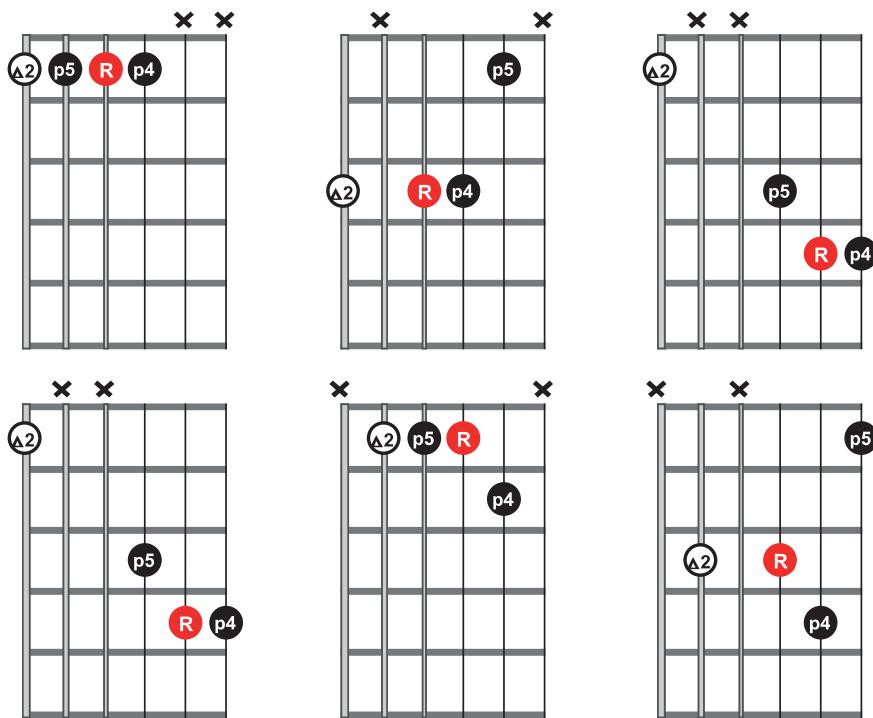
$$\frac{\text{Sus4}\Delta}{3} = \begin{matrix} \text{Dom}^{7/\text{b9/b5/#9}} \\ \text{Min}^{7/\text{b9b6}} \end{matrix}$$



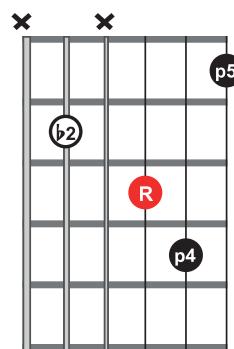
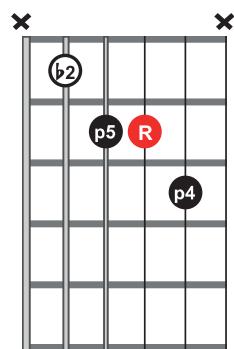
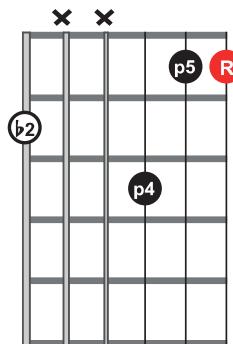
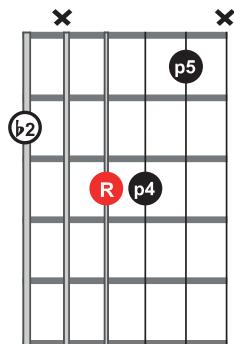
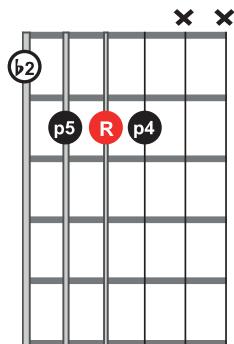
$$\frac{\text{Sus4}\Delta}{\text{b3}} = \text{Maj}^{69}$$



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



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



## 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**

$$\begin{matrix} \frac{E}{C} & = & \text{Cmaj}^{7\#5} & = & C & \end{matrix}$$

1      3      #5      7

E      G#      B

Because  $\frac{C}{E}$  is a type of C major 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:

$$\begin{matrix} \frac{\text{ELyd}}{C} & = & C & \end{matrix}$$

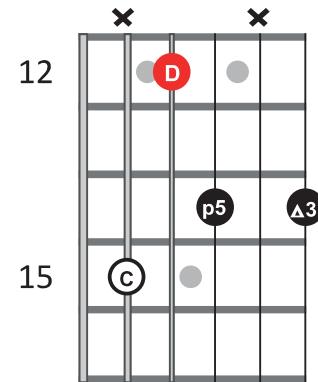
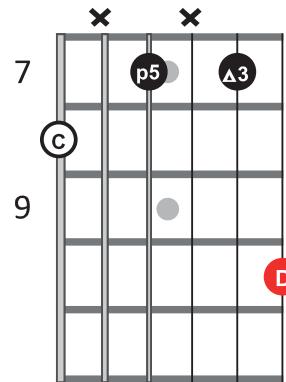
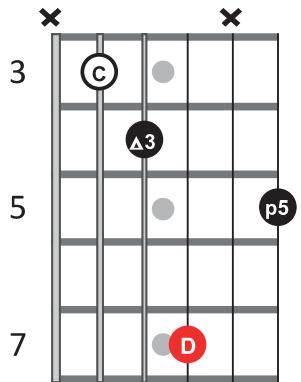
3½ step intervals

Elyd

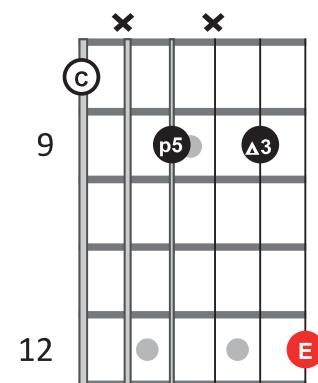
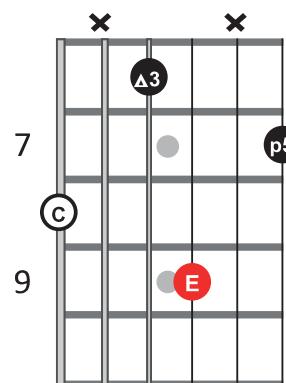
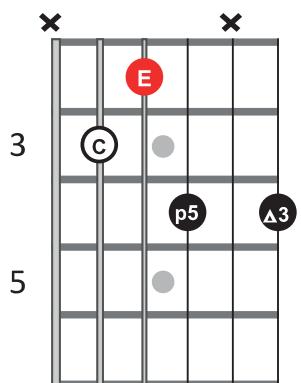
E      A#      B

**Major Type Spread Triads**  
**Bass Notes (C)**

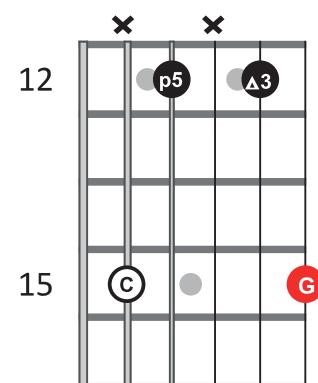
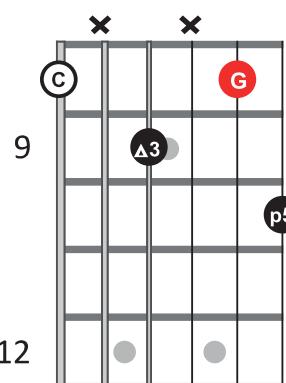
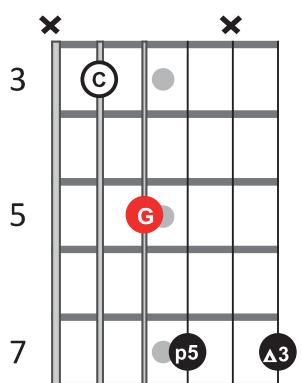
D  
C



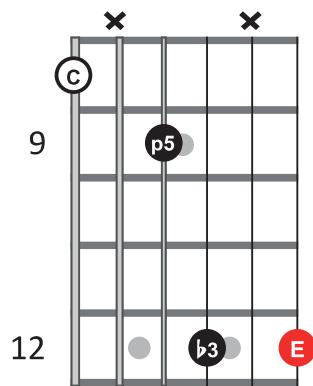
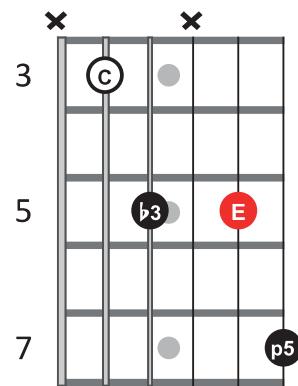
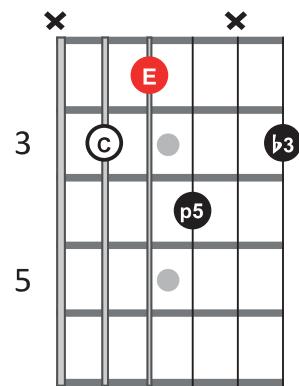
E  
C



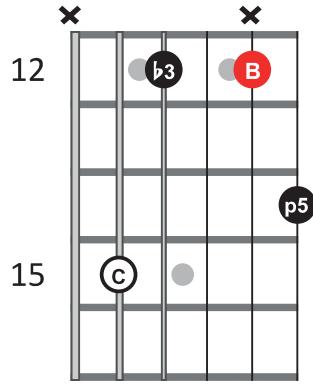
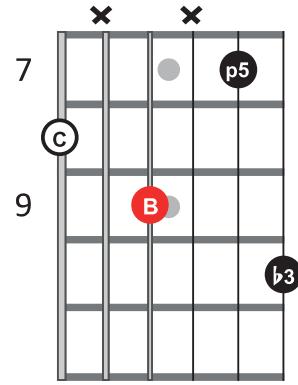
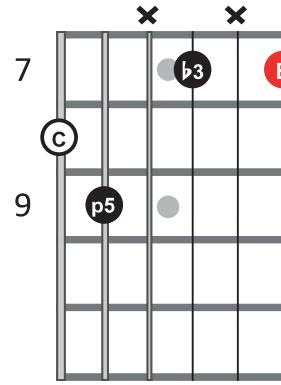
G  
C



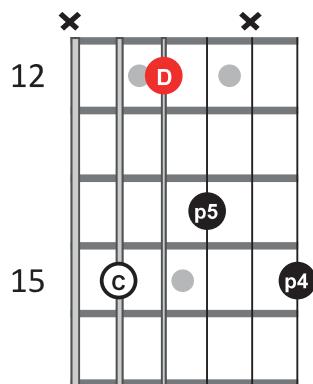
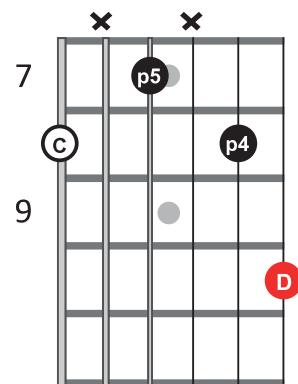
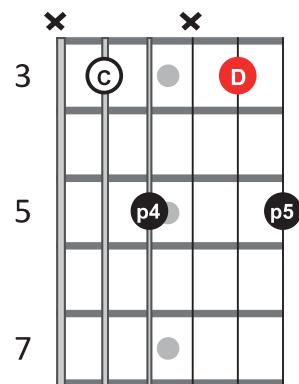
E-  
C

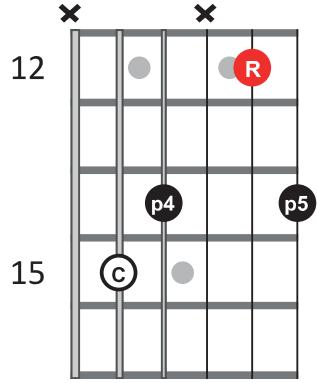
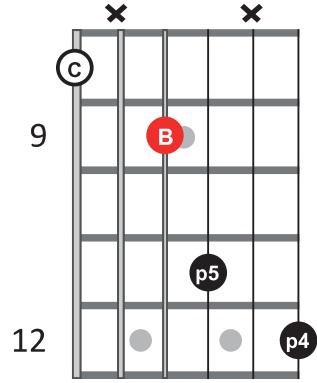
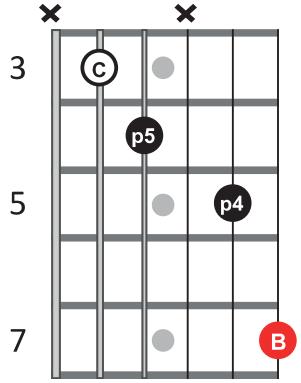
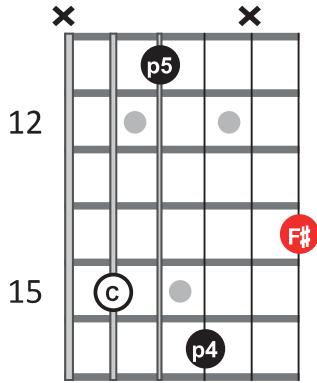
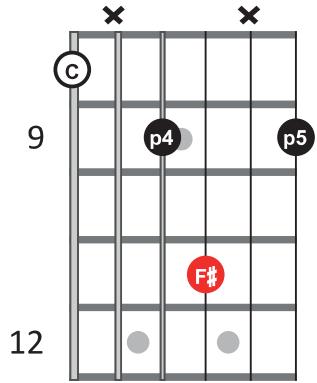
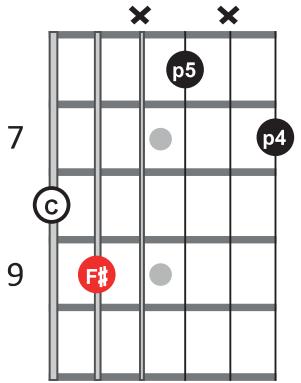
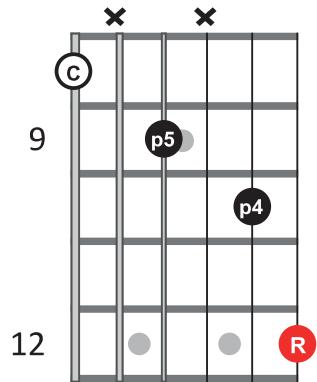
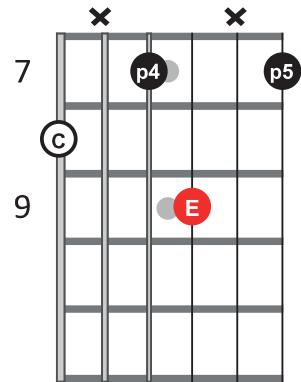
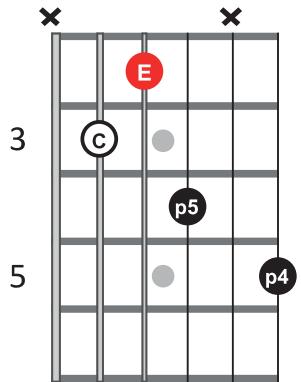
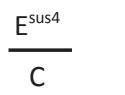


B-  
C

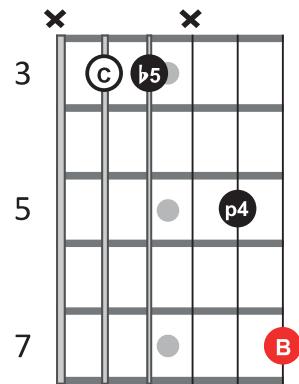
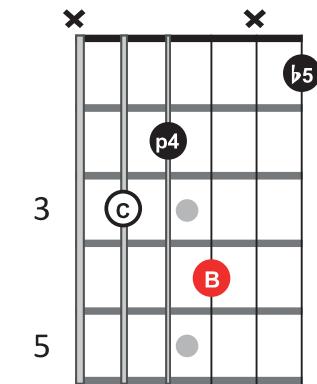
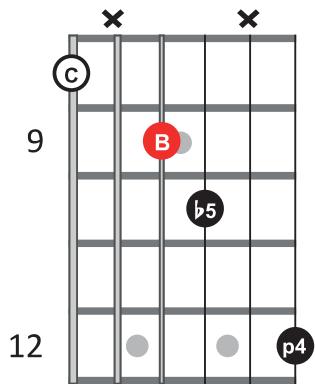


D<sup>sus4</sup>  
C



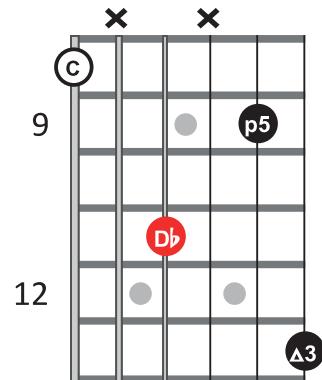
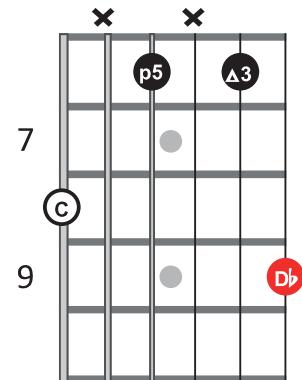
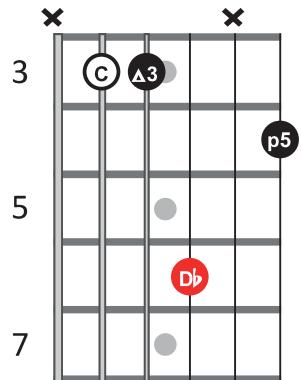


$\frac{B^{loc}}{C}$

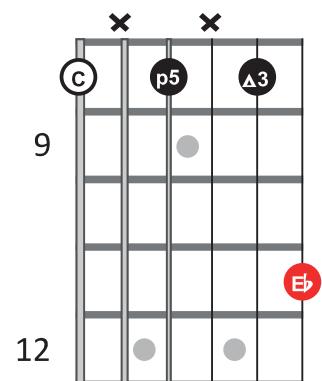
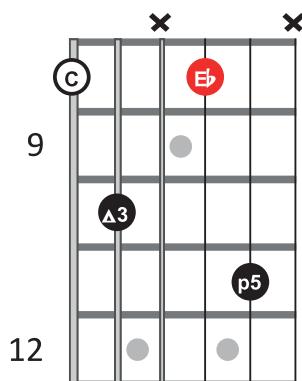
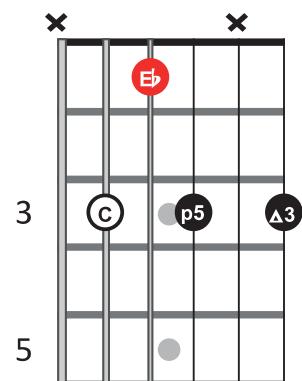


**Minor Type Spread Triads**  
**Bass Notes (C)**

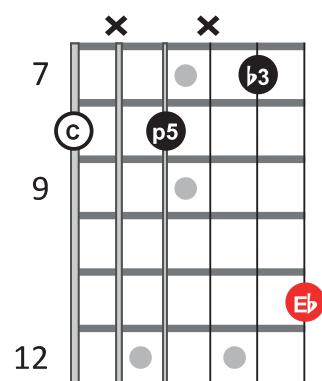
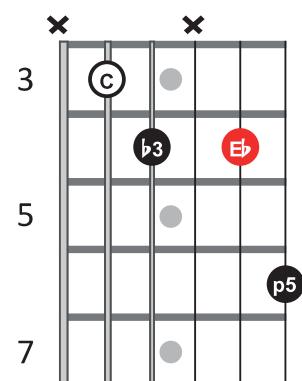
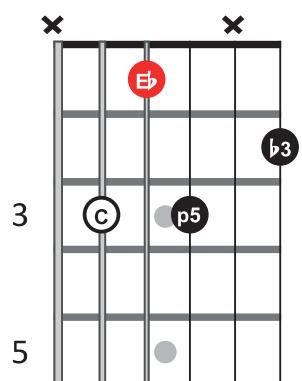
$\frac{D\flat}{C}$



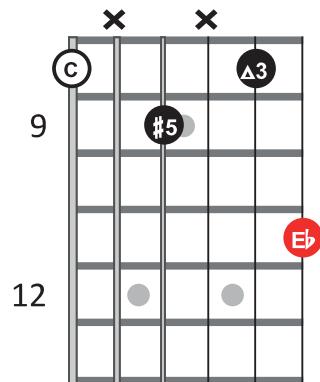
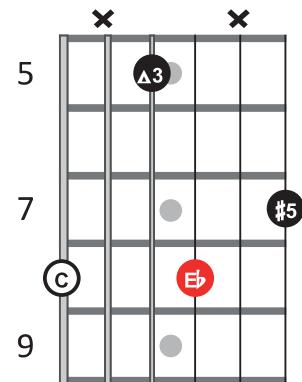
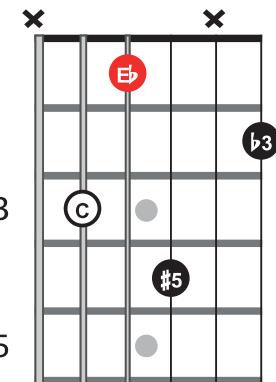
$\frac{E\flat}{C}$



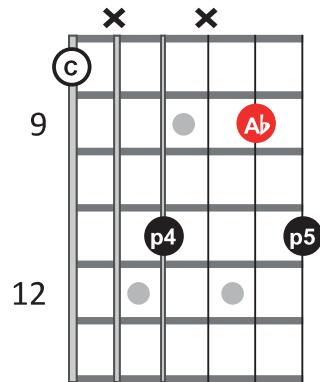
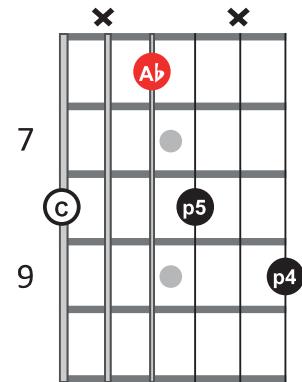
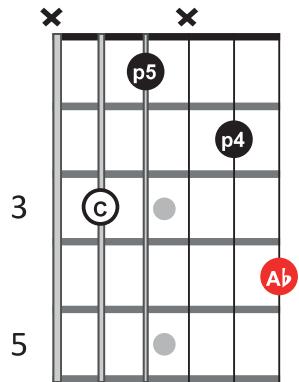
$\frac{E\flat}{C}$



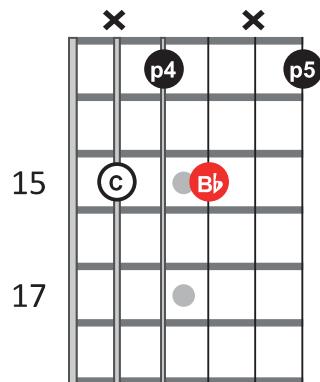
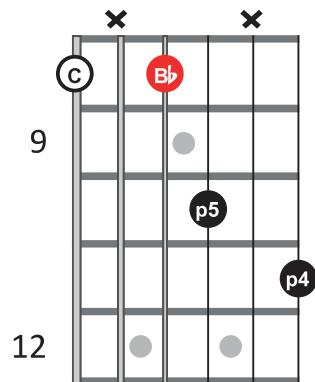
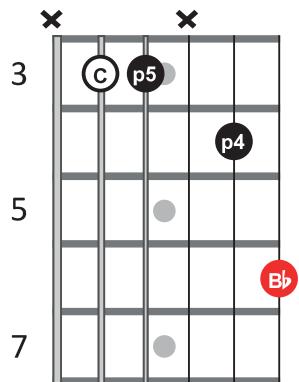
$E_{b+}$   
C



$A_{b\text{ sus}4}$   
C

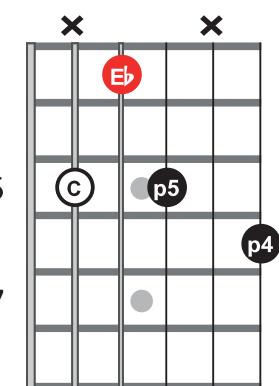
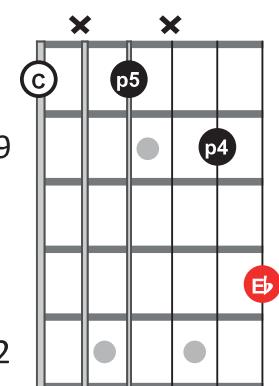
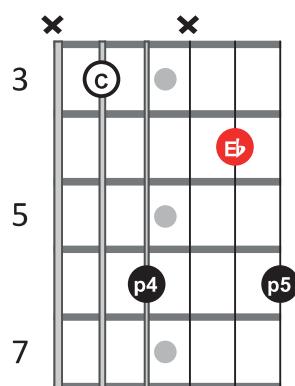


$B_{b\text{ sus}4}$   
C



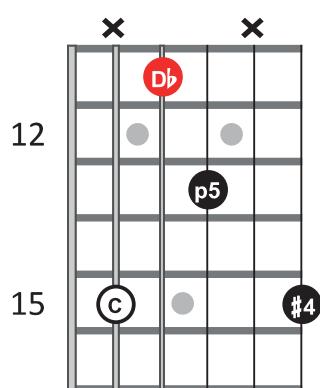
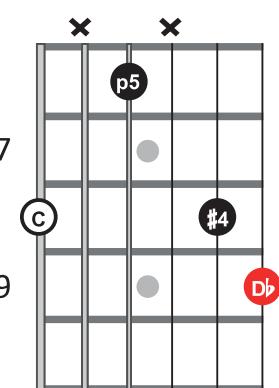
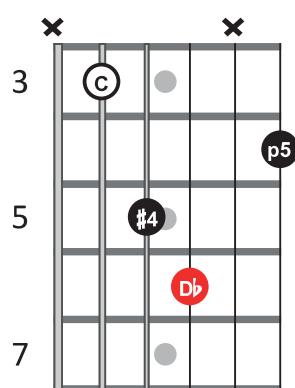
$Eb^{sus4}$

C



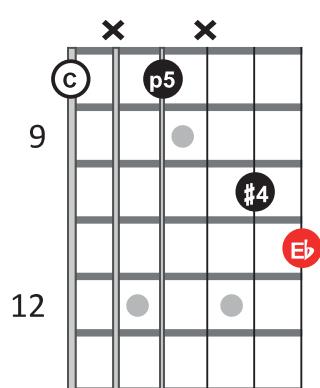
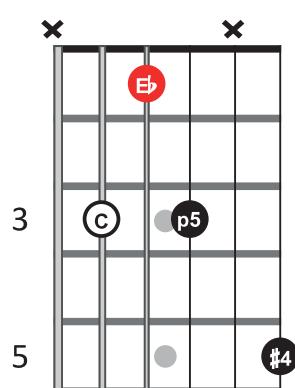
$D\flat^{lyd}$

C



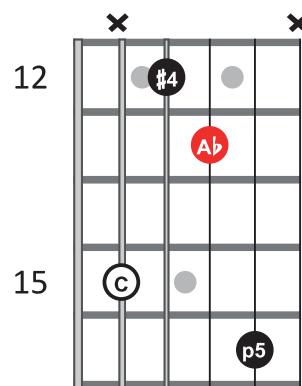
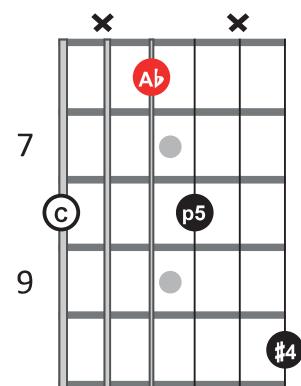
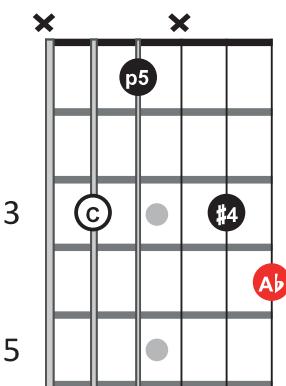
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C

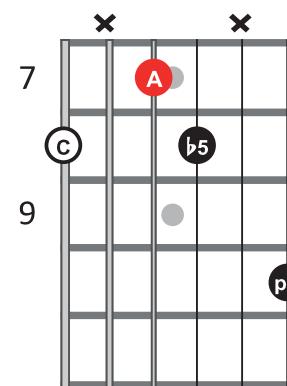
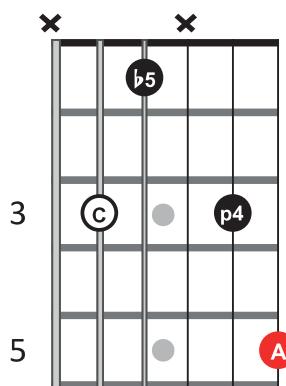


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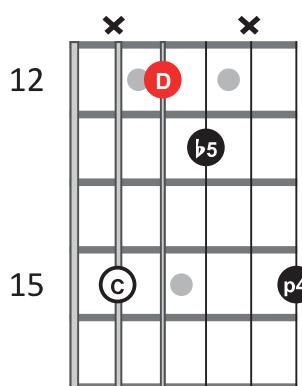
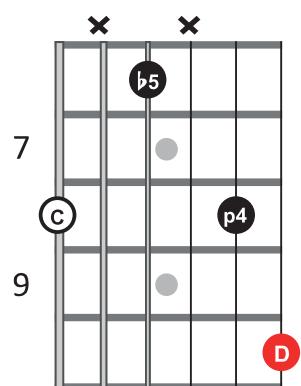
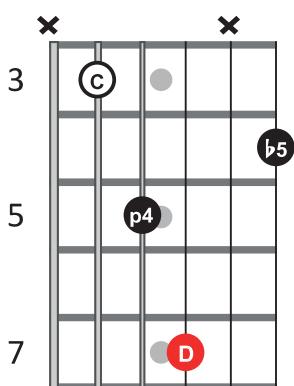
C

 $A_{\text{loc}}$ 

C

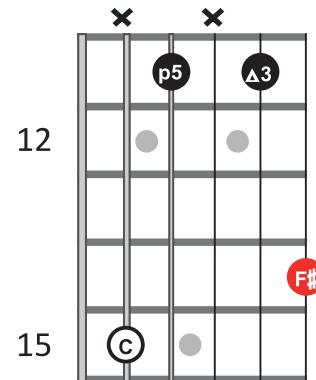
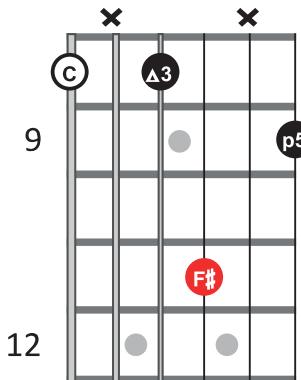
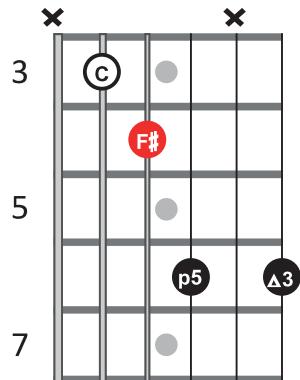
 $D_{\text{loc}}$ 

C

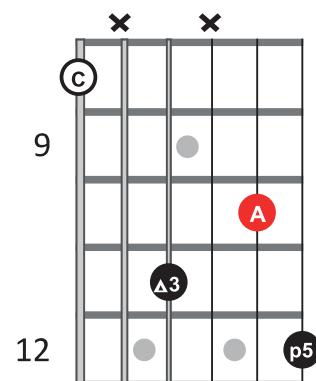
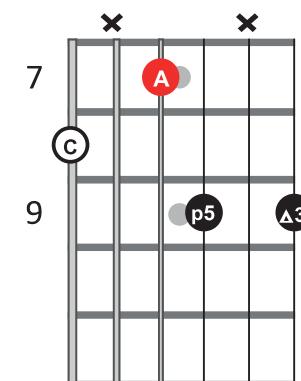
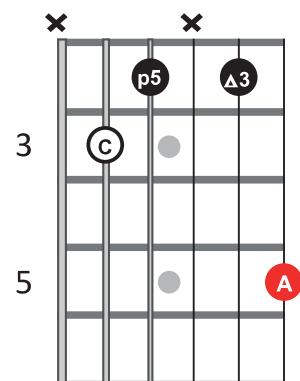


**Dom<sup>7</sup> Type Spread Triads**  
**Bass Notes (C)**

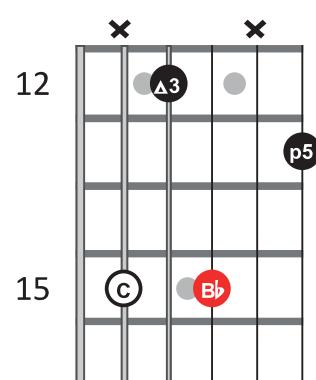
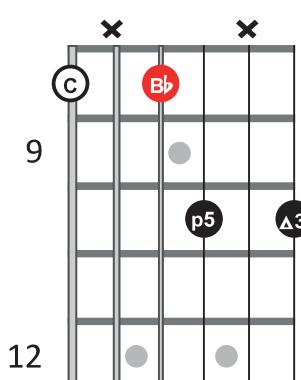
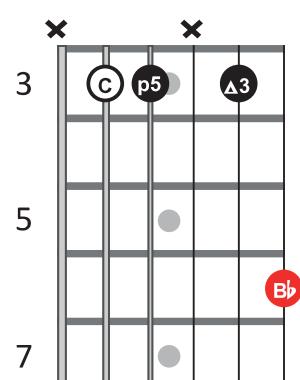
F#  
C

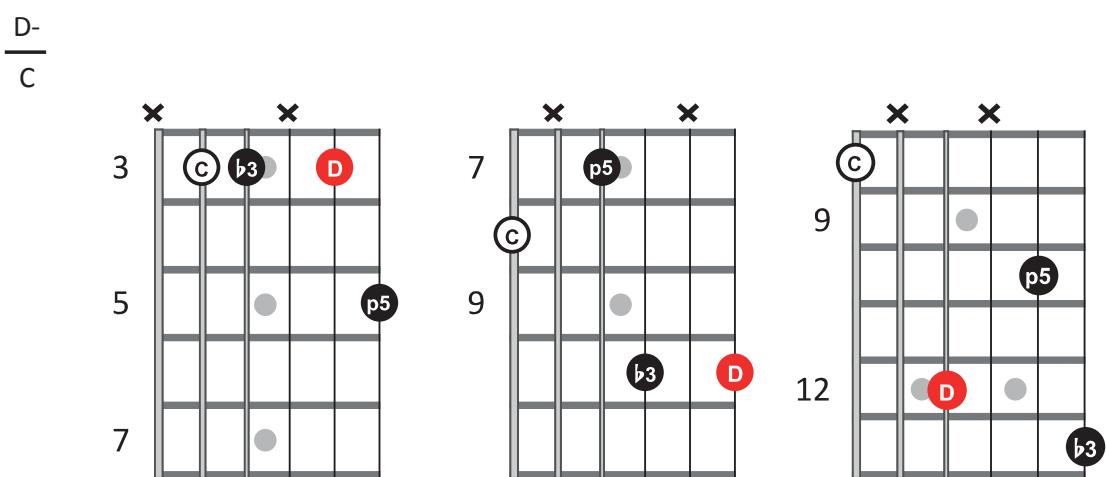
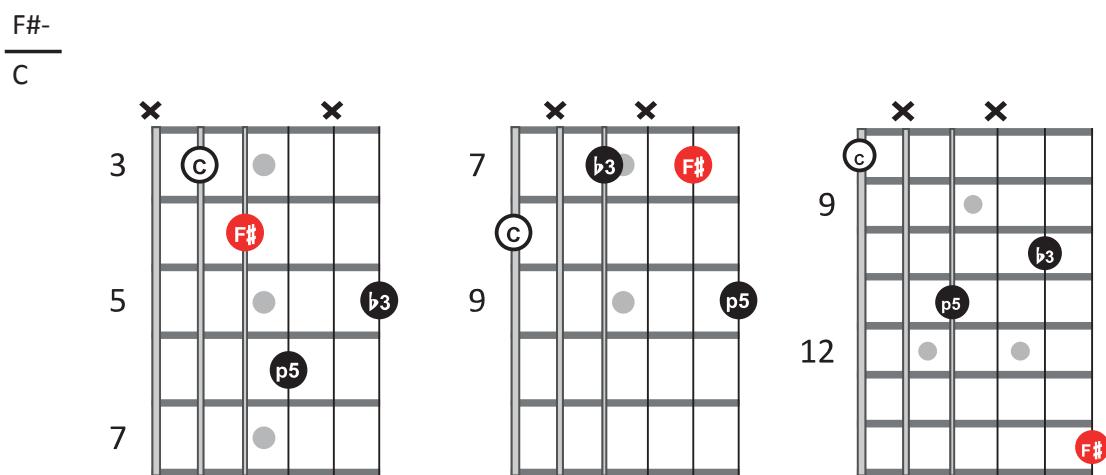
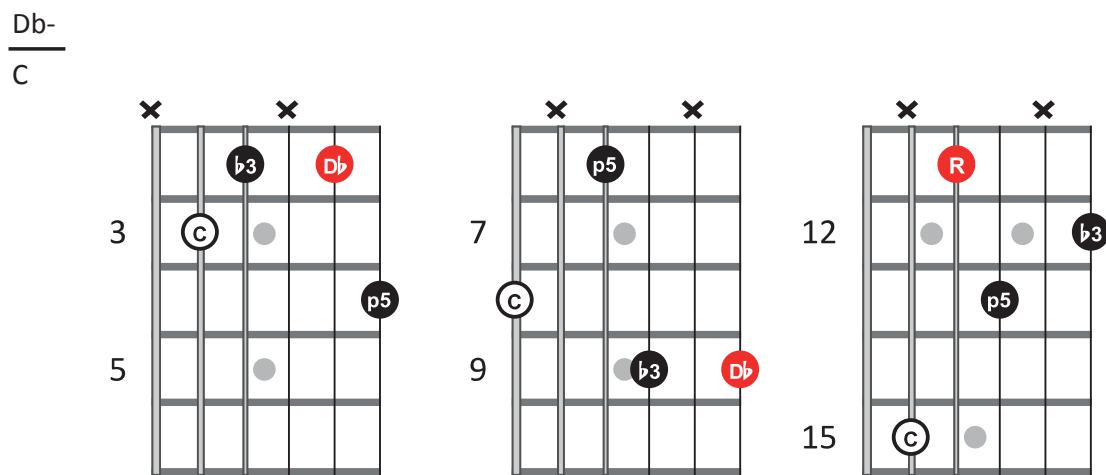


A  
C

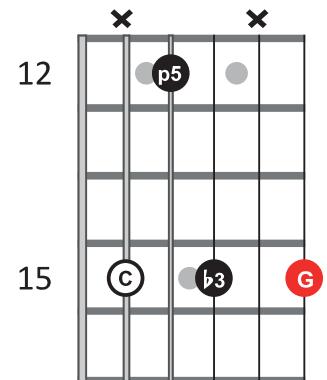
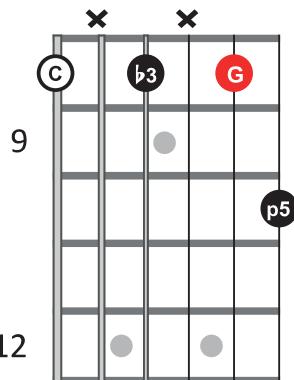
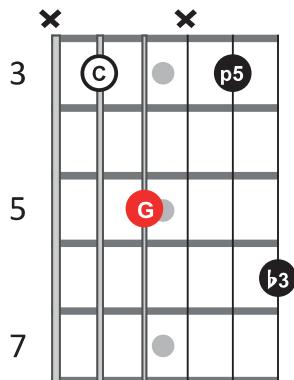


Bb  
C

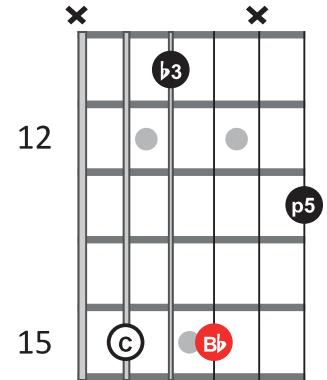
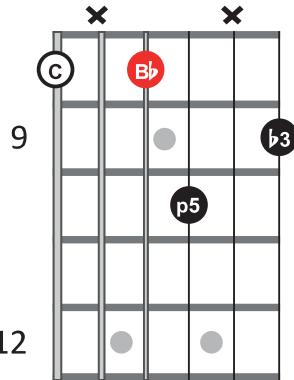
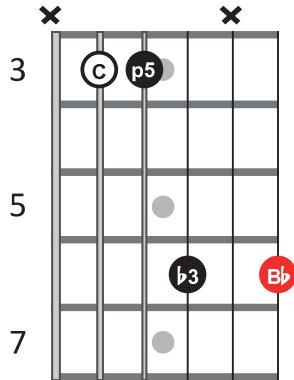




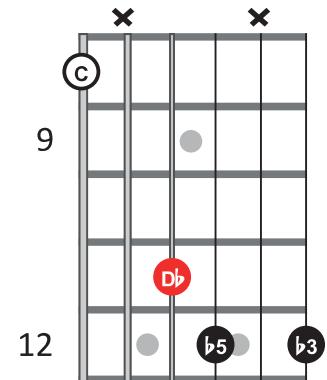
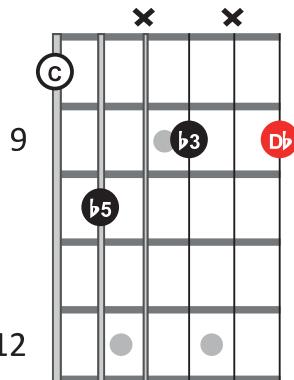
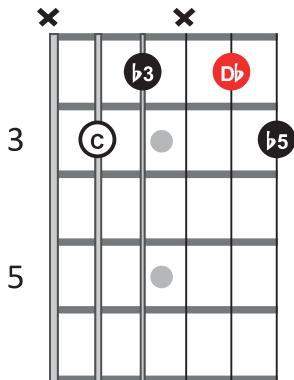
$\frac{G}{C}$



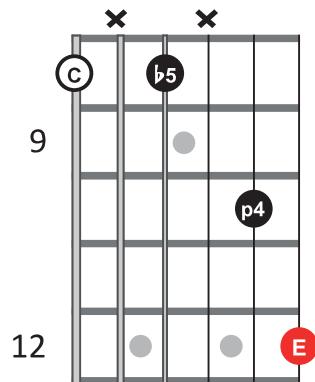
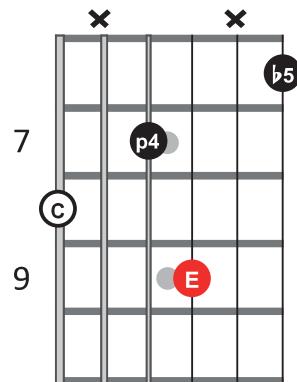
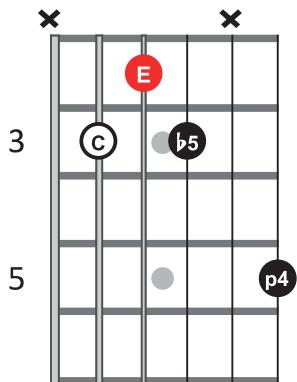
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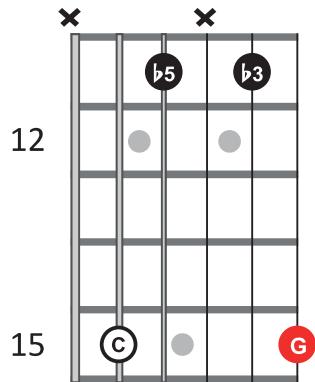
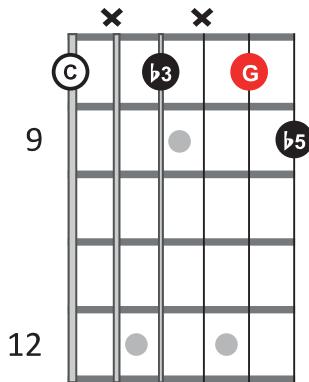
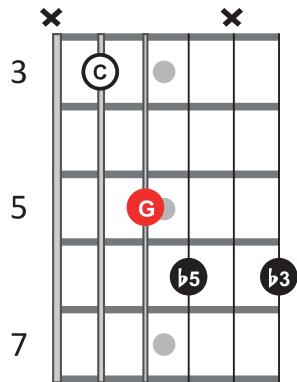
$\frac{Db^o}{C}$



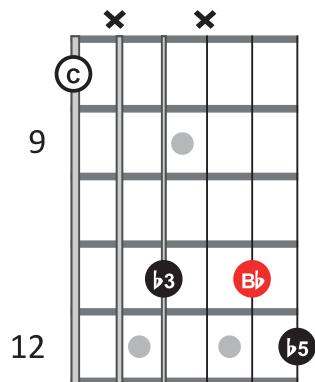
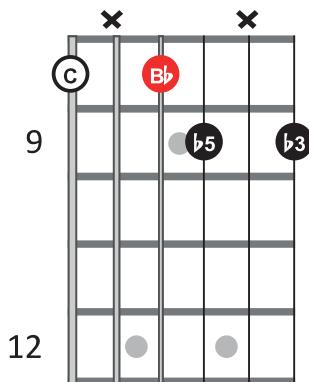
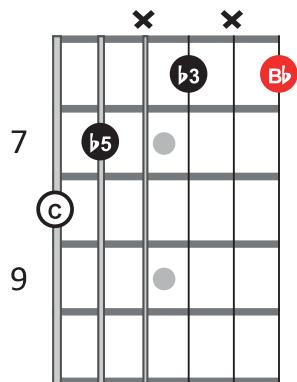
$E^o$   
C



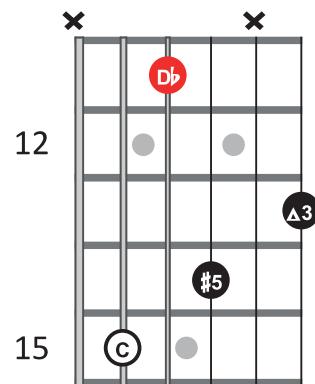
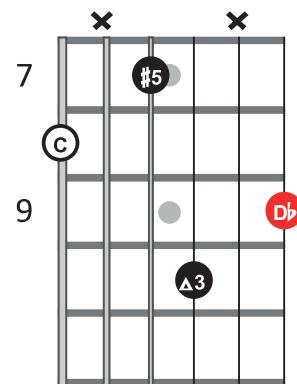
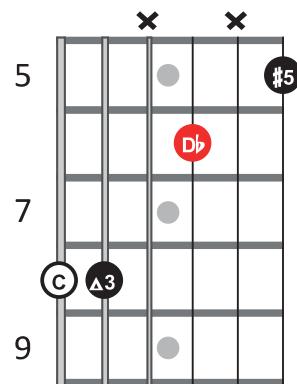
$G^o$   
C



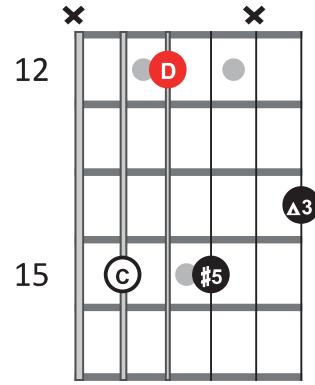
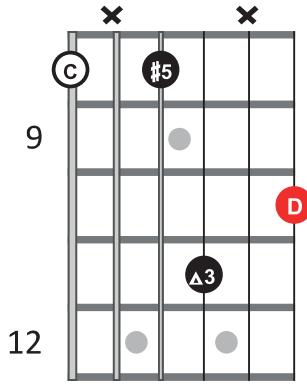
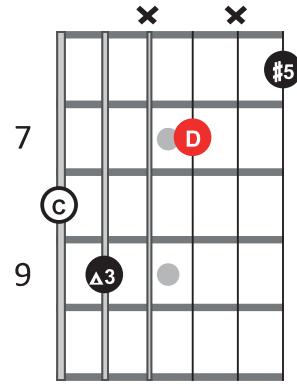
$Bb^o$   
C



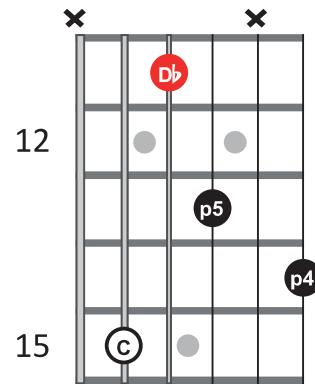
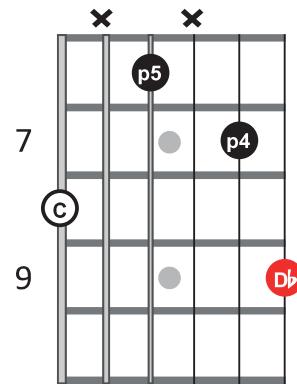
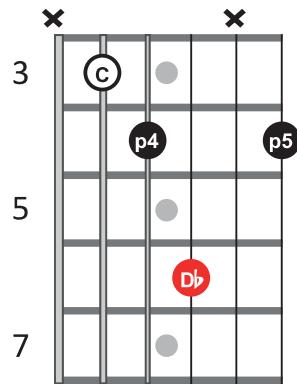
$\text{Db+}$   
C



$\text{D+}$   
C

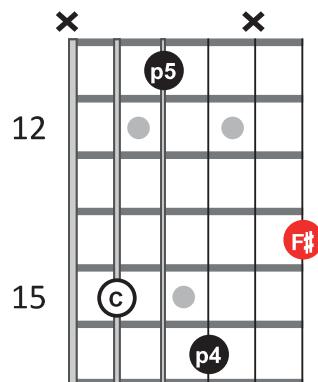
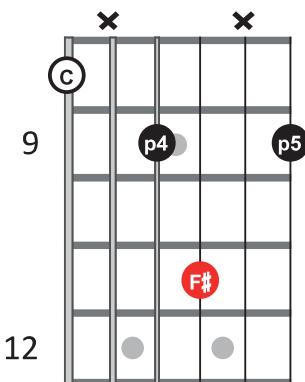
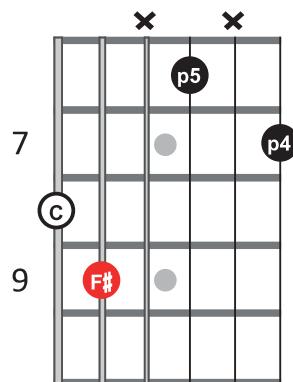


$\text{Db}^{\text{sus4}}$   
C



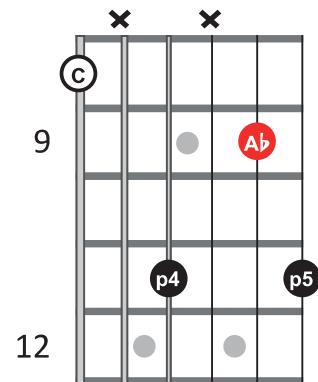
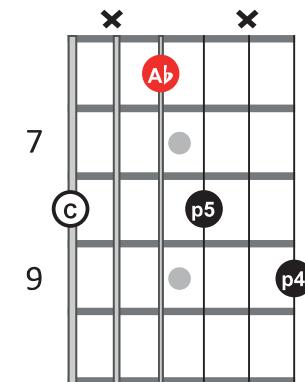
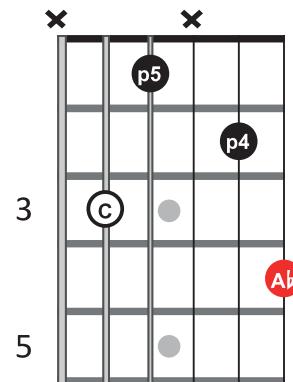
F#<sup>sus4</sup>

C



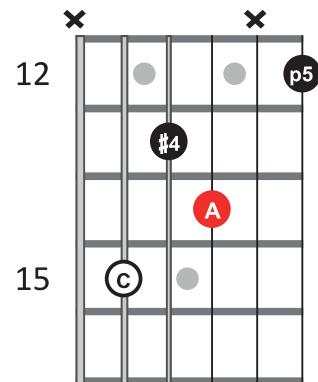
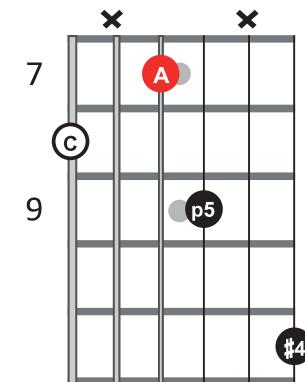
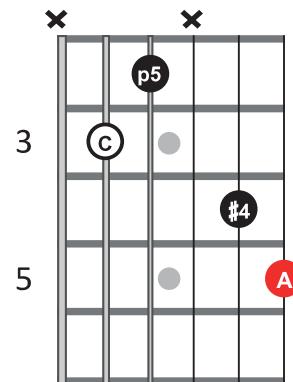
Ab<sup>sus4</sup>

C



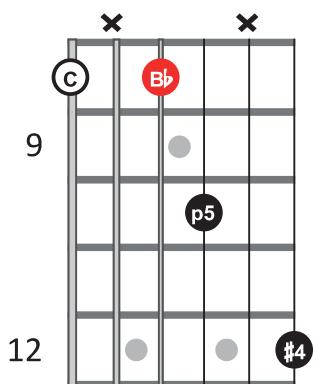
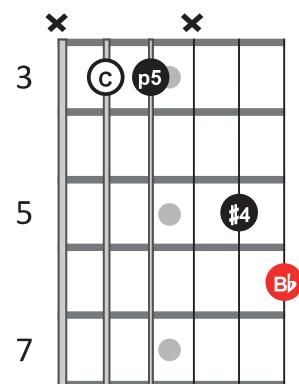
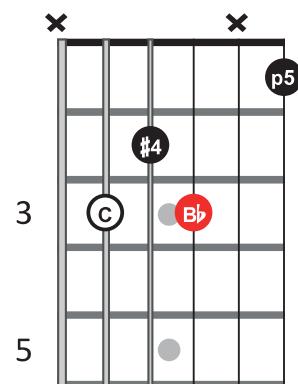
A<sup>lyd</sup>

C



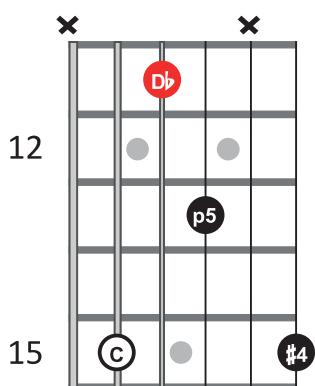
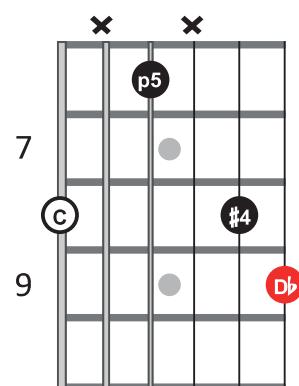
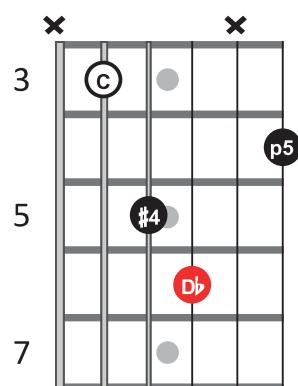
B $\flat$ <sup>lyd</sup>

C



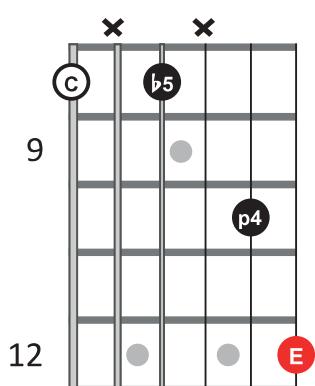
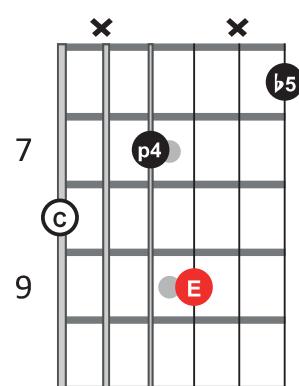
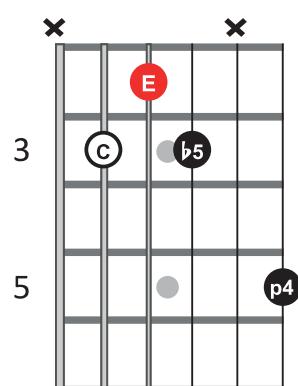
D $\flat$ <sup>lyd</sup>

C



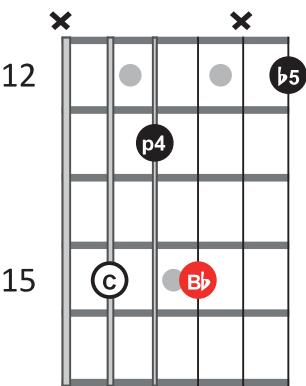
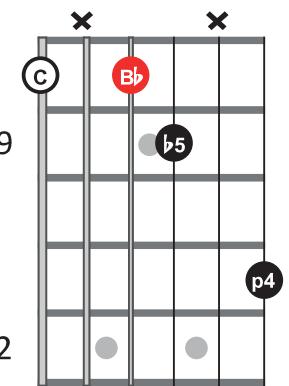
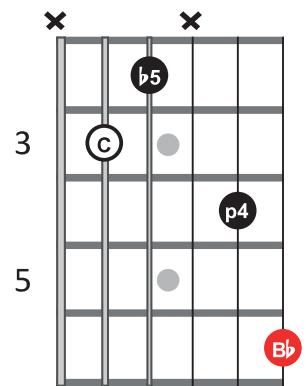
E<sup>loc</sup>

C

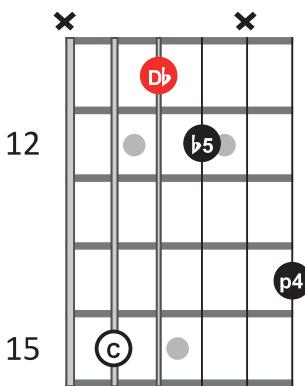
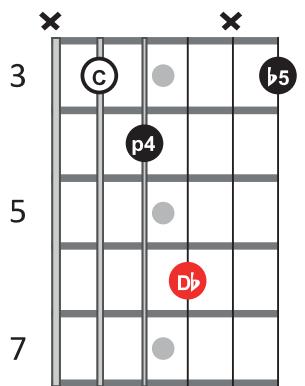


$Bb^{loc}$ 

C

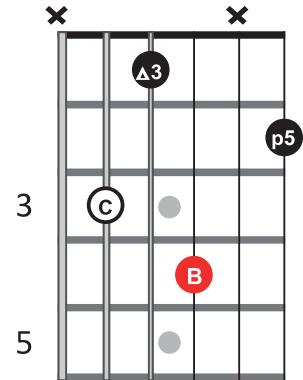
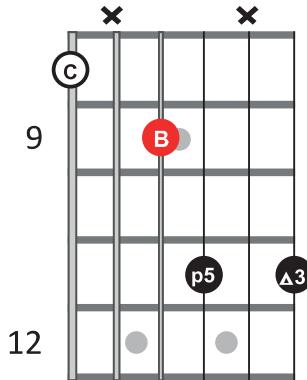
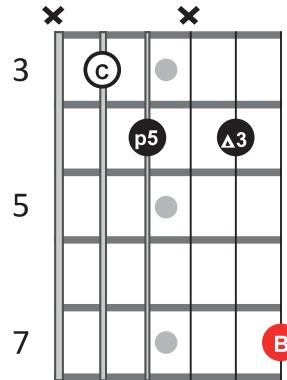
 $D_b^{loc}$ 

C

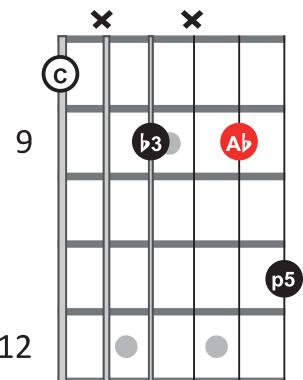
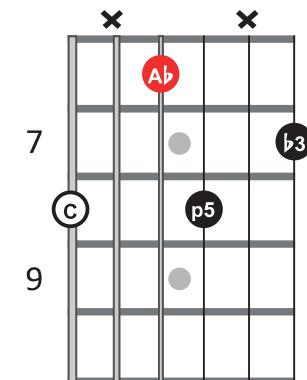
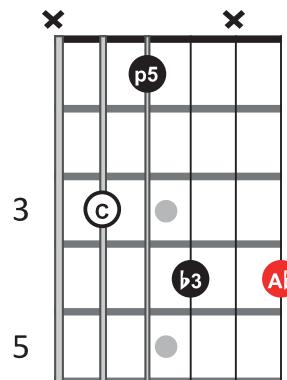


**Diminished Type Spread Triads**  
**Bass Notes (C)**

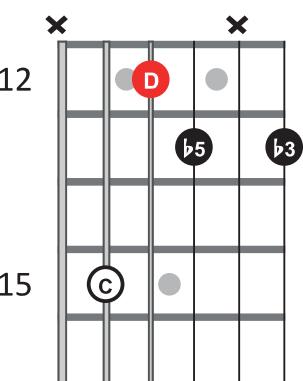
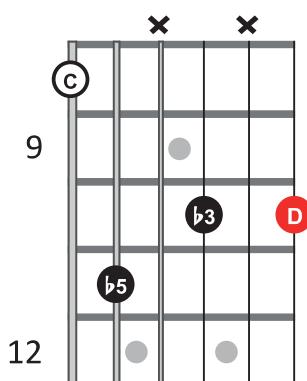
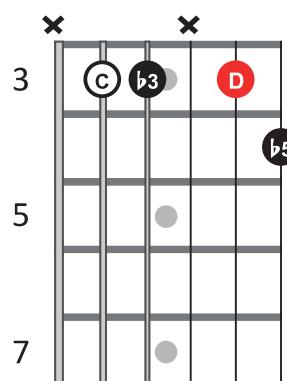
B  
C



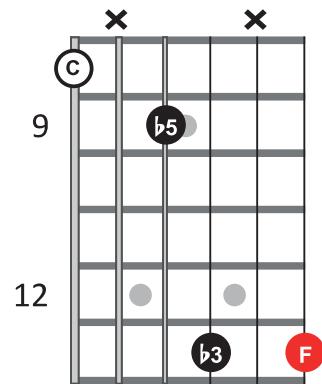
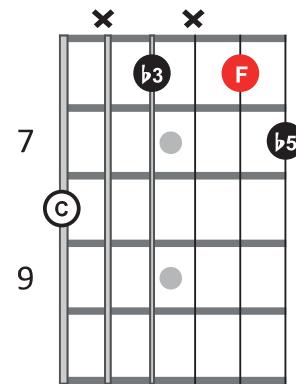
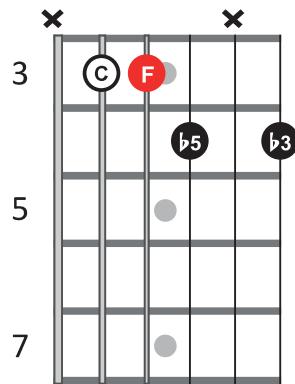
Ab-  
C



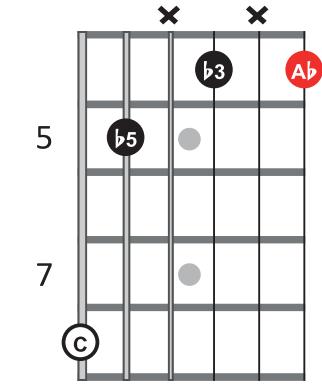
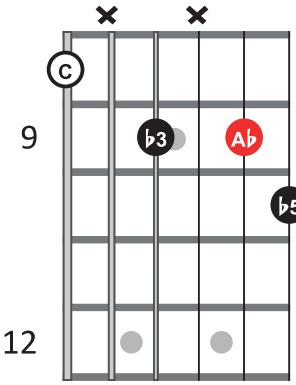
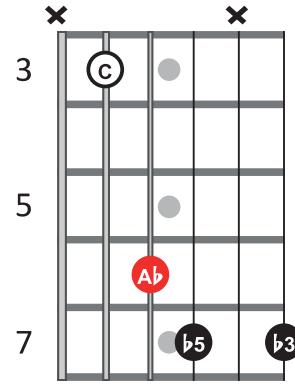
D°  
C



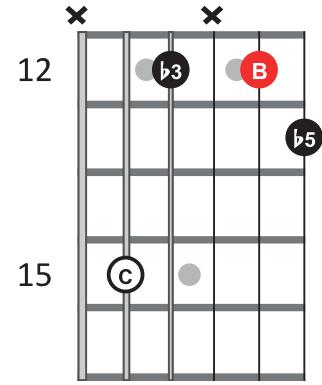
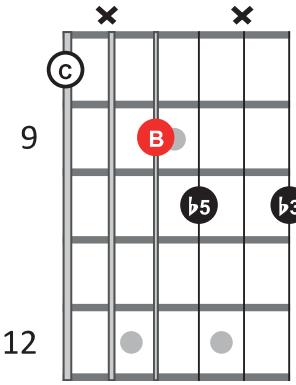
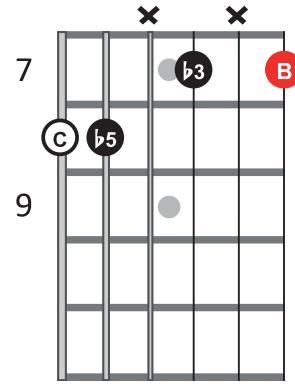
$F^\circ$   
C



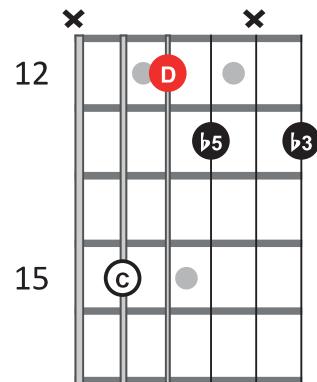
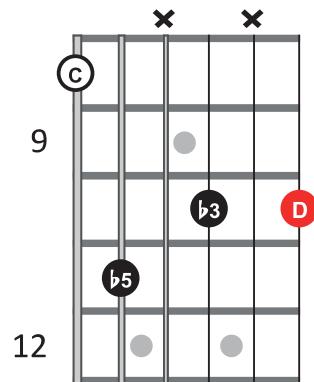
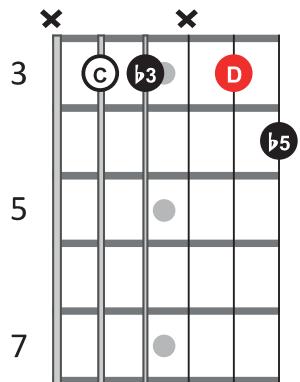
$A\flat^\circ$   
C



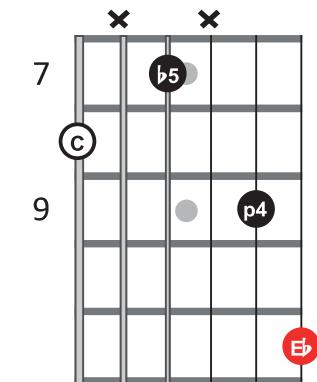
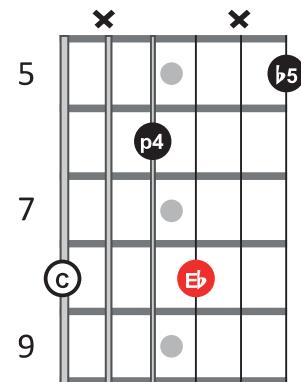
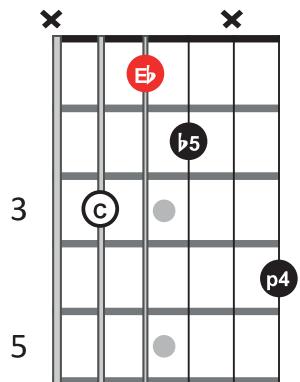
$B^\circ$   
C



$D^o$   
C



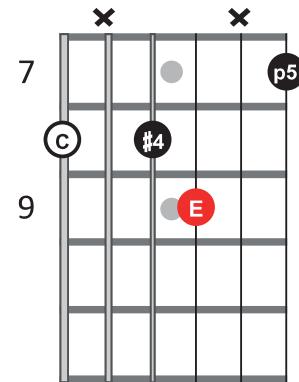
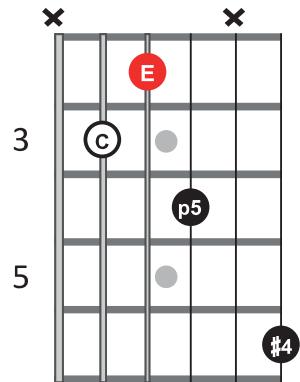
$Eb^{loc}$   
C



**Twelve Tone Type Spread Triads**  
**Bass Notes (C)**

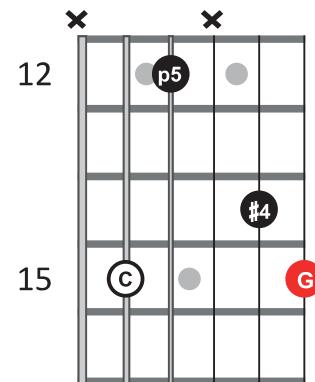
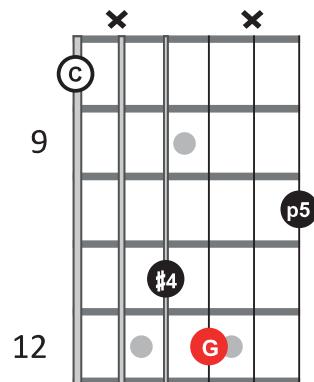
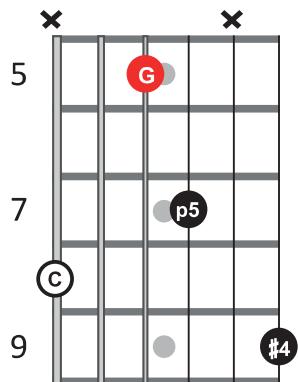
E<sup>lyd</sup>

C



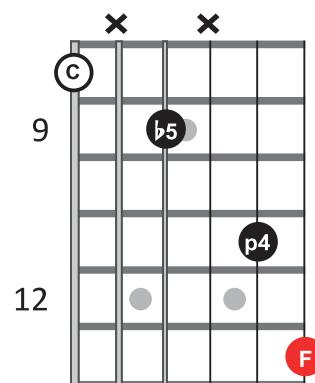
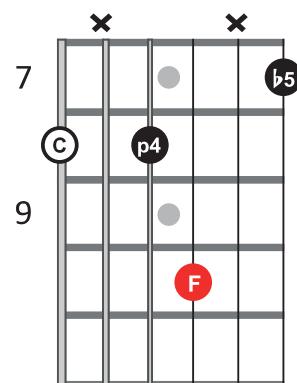
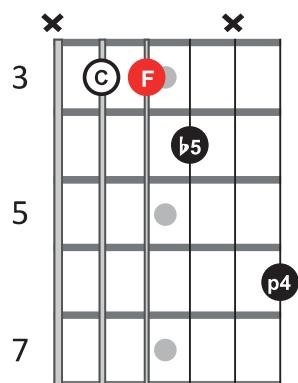
G<sup>lyd</sup>

C

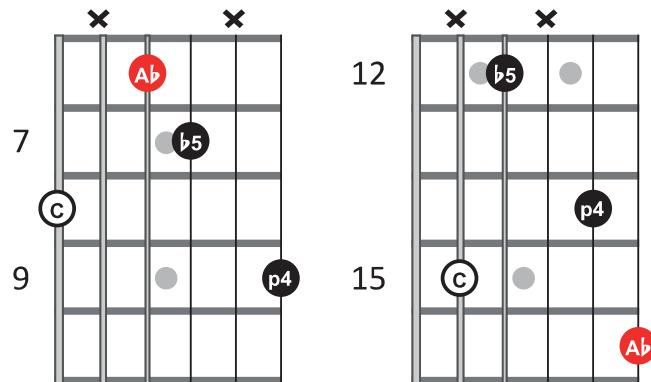


F<sup>loc</sup>

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

The musical staff shows seven three-part quartal voicings in C major. The voicings are labeled above the staff: CQ<sup>+4</sup>, DQ, EQ, F<sup>+4</sup>Q, GQ, AQ, and BQ. Each voicing is represented by a stack of three eighth notes on a single staff. The staff begins with a treble clef and a key signature of one sharp (F#). The notes in each voicing are: CQ<sup>+4</sup> (C, F, B), DQ (D, A, E), EQ (E, B, G), F<sup>+4</sup>Q (F, C, G), GQ (G, D, A), AQ (A, E, B), and BQ (B, F#, C).

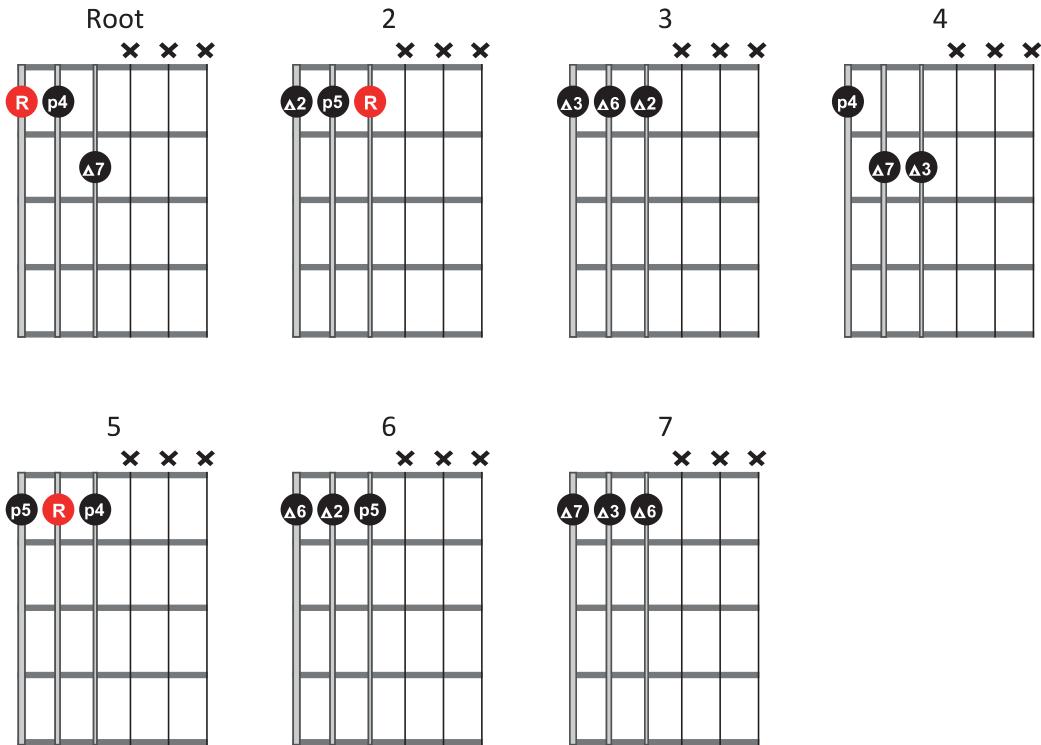
#### **Ex. 141**

- a)  $F^{+4}Q = \begin{array}{c} +4 \\ F-B-E \\ \backslash / \end{array} \longrightarrow 1 \ #4 \ 7$
- b)  $CQ^{+4} = \begin{array}{c} P4 \quad +4 \\ C-F-B \\ \backslash / \end{array} \longrightarrow 1 \ 4 \ 7$
- c)  $GQ = \begin{array}{c} P4 \quad P4 \\ G-C-F \\ \backslash / \end{array} \longrightarrow 1 \ 4 \ b7$

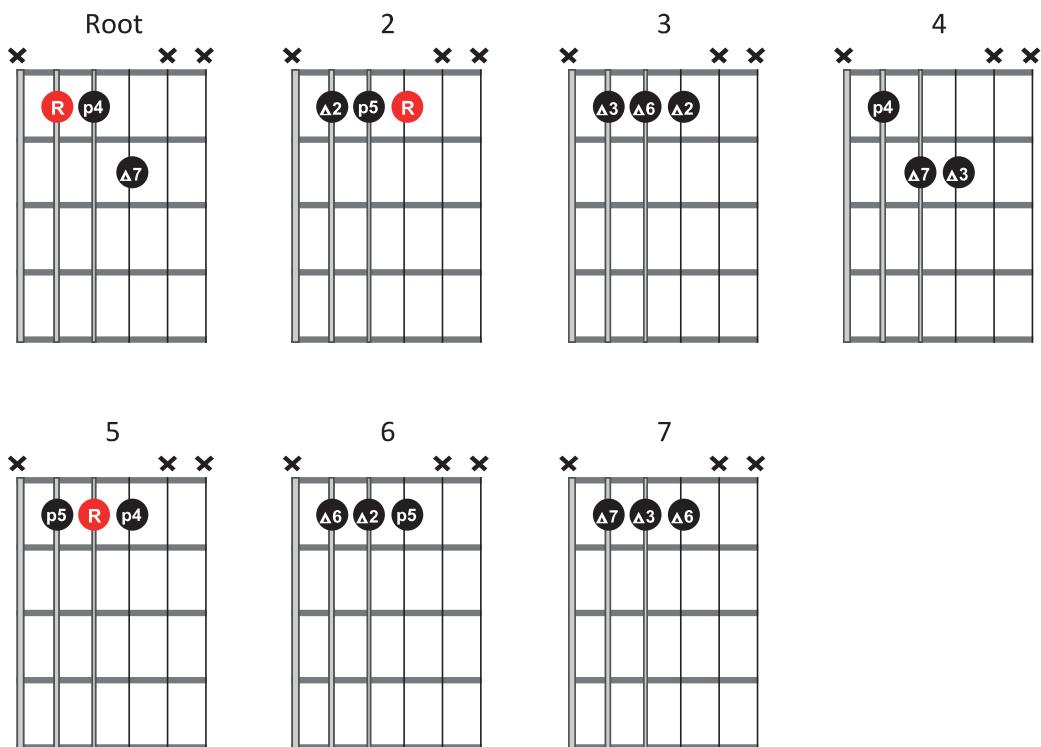
Four, Five, and Six-Part Quartal Voicings have not been specifically labeled.

### 3part-Quartal Voicings – Major Scale

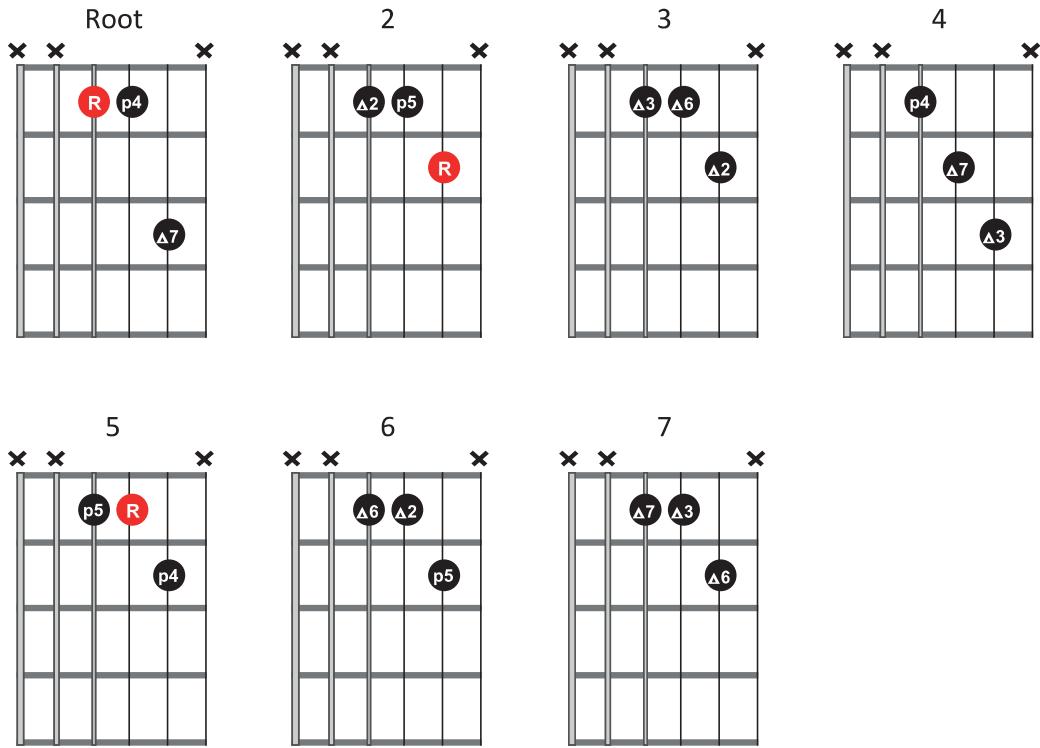
#### Stringset E-A-D



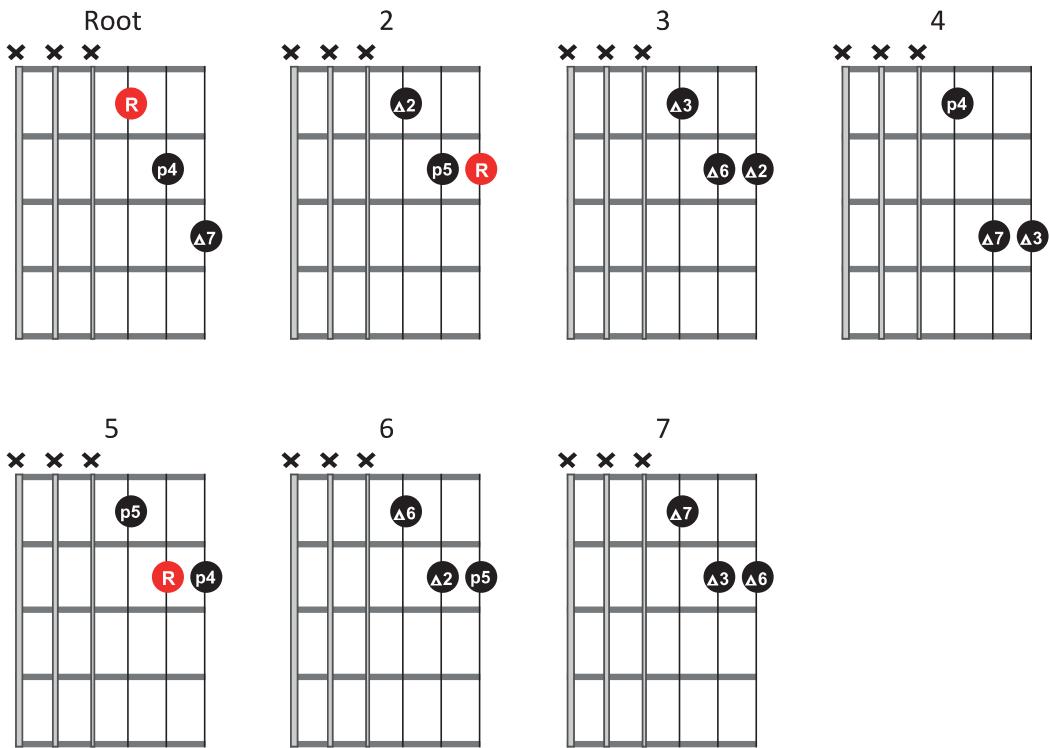
#### Stringset A-D-G



### Stringset D-G-B



### Stringset G-B-E



## 4part-Quartal Voicings – Major Scale

Stringset E-A-D-G

The diagram displays seven guitar fretboards, each representing a different 4part-Quartal voicing for the Major Scale using the stringset E-A-D-G. The voicings are labeled as follows:

- Root:** Shows a pair of red circles at the top (E and A), with black circles below them (D and G).
- 2:** Shows a red circle at the top (E), with black circles below it (A, D, G).
- 3:** Shows black circles at the top (A, D, G), with a red circle below them (E).
- 4:** Shows a black circle at the top (G), with red circles below it (E, A, D).
- 5:** Shows black circles at the top (A, D), with red circles below them (E, G).
- 6:** Shows black circles at the top (A, G), with red circles below them (E, D).
- 7:** Shows black circles at the top (A, D, G), with a red circle below them (E).

Each fretboard has two 'x' marks at the top, indicating where the 4th and 5th strings are muted.

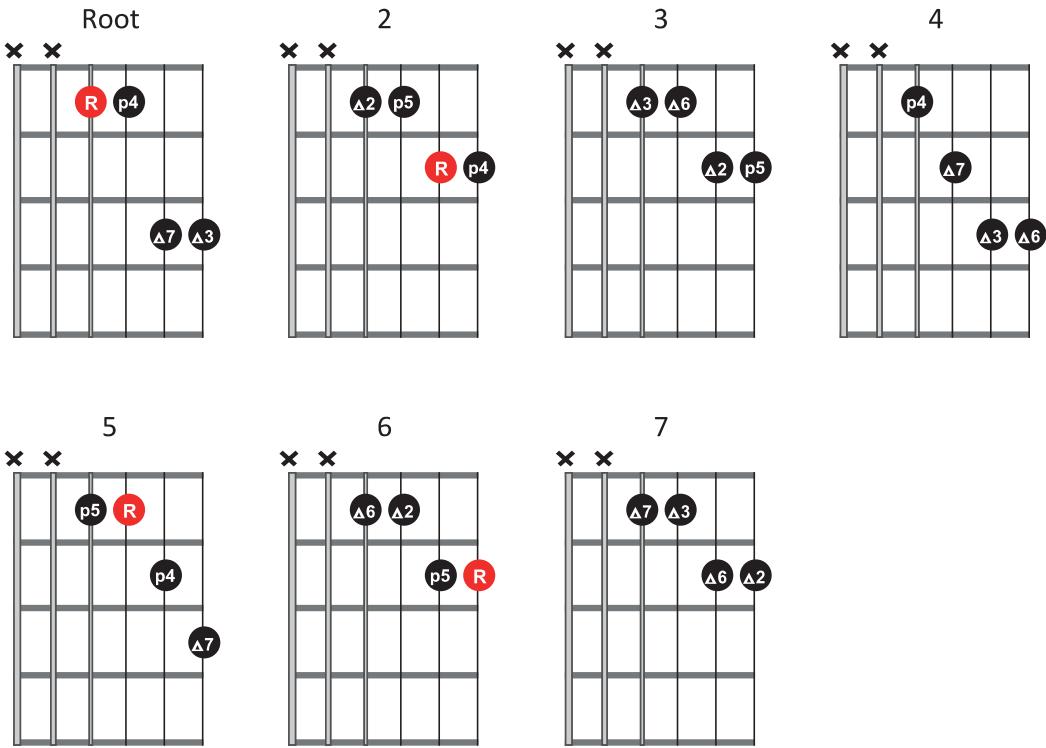
Stringset A-D-G-B

The diagram displays seven guitar fretboards, each representing a different 4part-Quartal voicing for the Major Scale using the stringset A-D-G-B. The voicings are labeled as follows:

- Root:** Shows a red circle at the top (A), with black circles below it (D, G, B).
- 2:** Shows black circles at the top (D, G, B), with a red circle below them (A).
- 3:** Shows black circles at the top (D, G, B), with black circles below them (A, E).
- 4:** Shows a black circle at the top (B), with red circles below it (A, D, G).
- 5:** Shows black circles at the top (D, G, B), with red circles below them (A, E).
- 6:** Shows black circles at the top (D, G), with red circles below them (A, E, B).
- 7:** Shows black circles at the top (D, G, B), with a black circle below them (A).

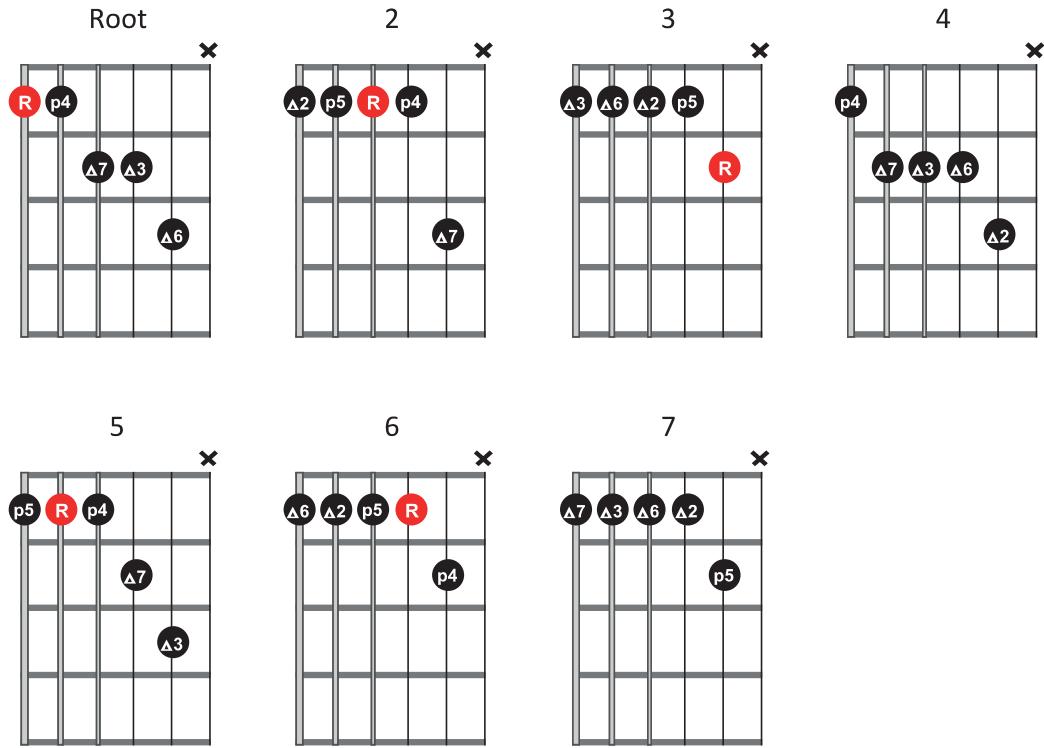
Each fretboard has two 'x' marks at the top, indicating where the 4th and 5th strings are muted.

**Stringset D-G-B-E**

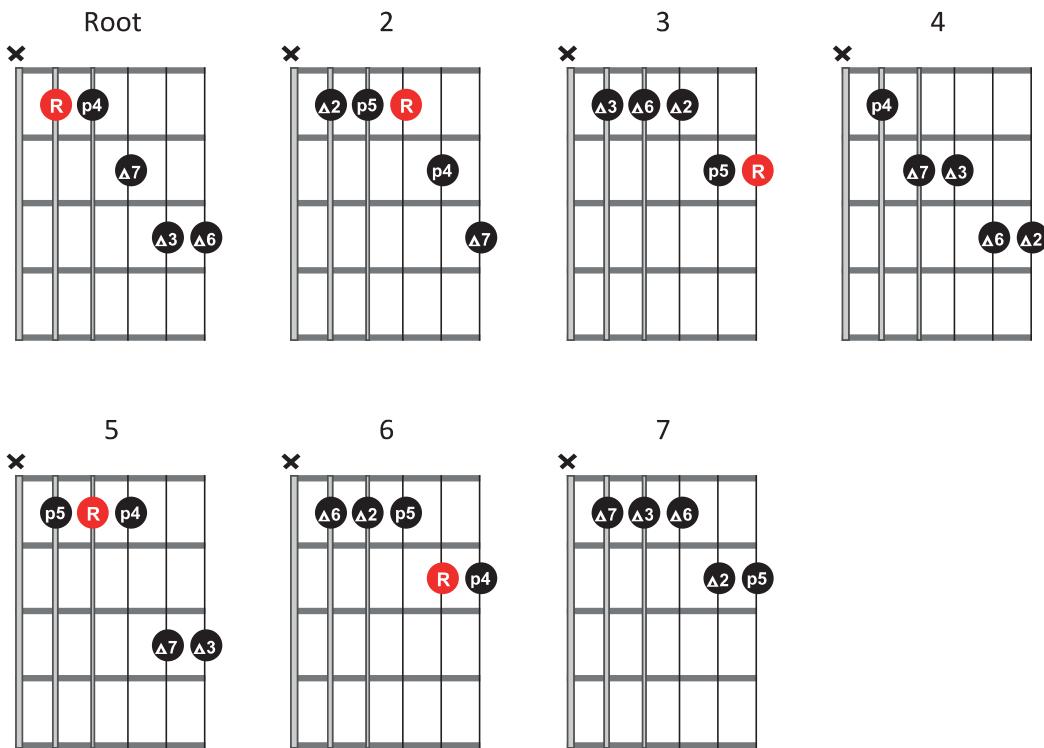


## 5part-Quartal Voicings – Major Scale

Stringset E-A-D-G-B

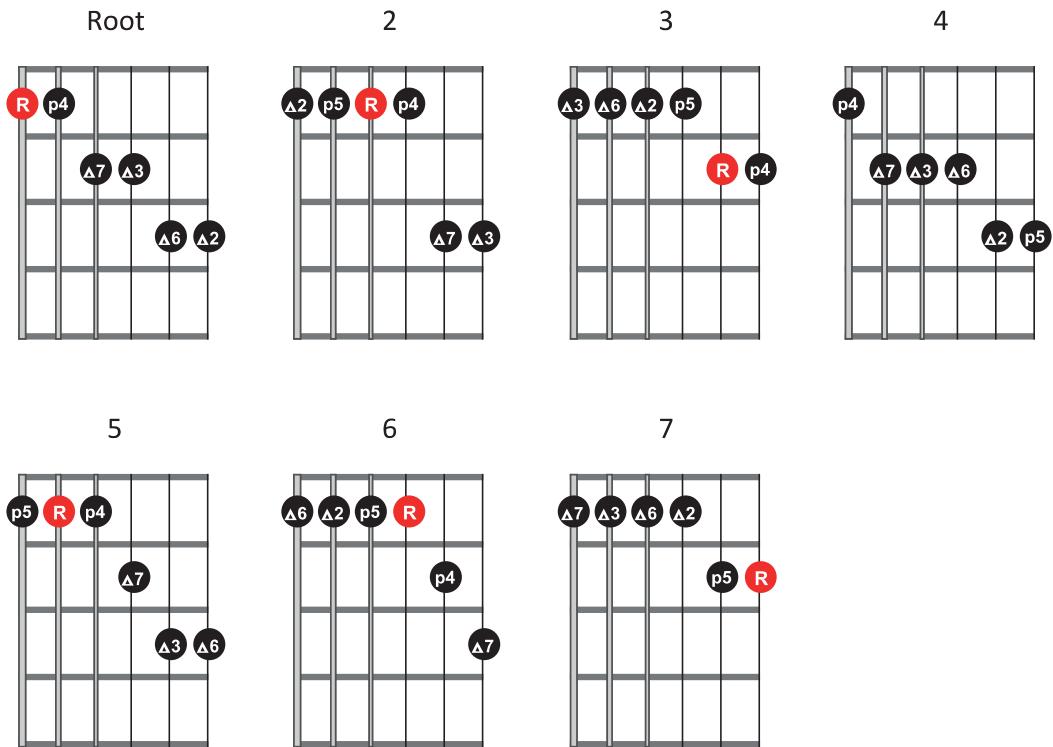


Stringset A-D-G-B-E



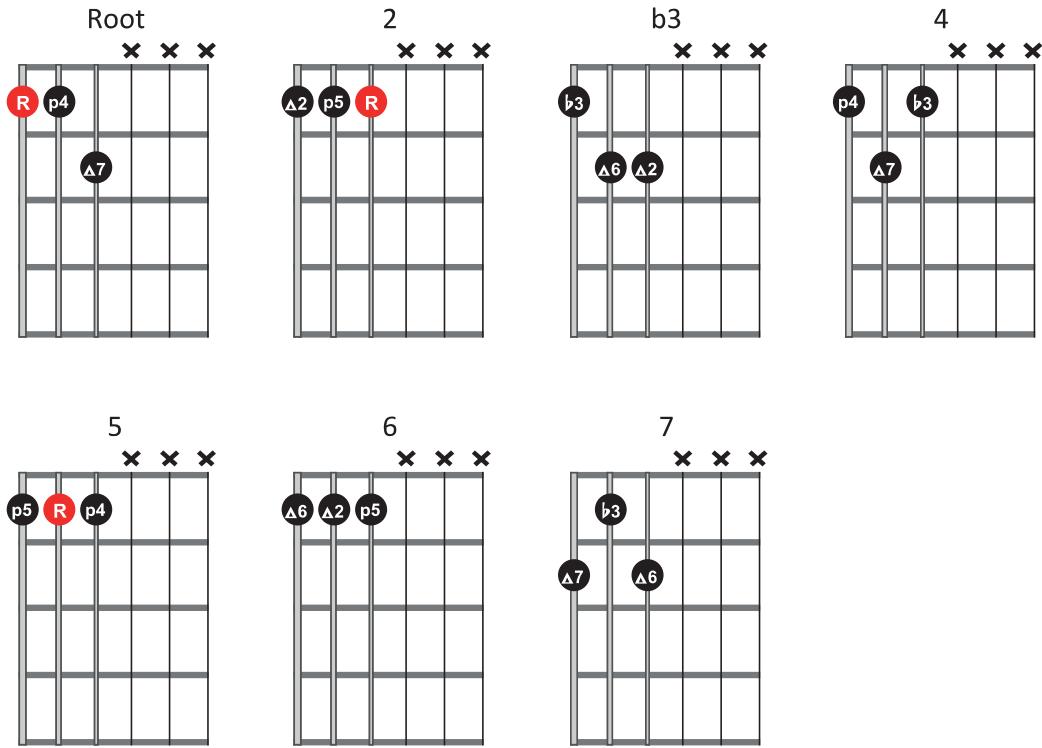
## 6part-Quartal Voicings – Major Scale

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

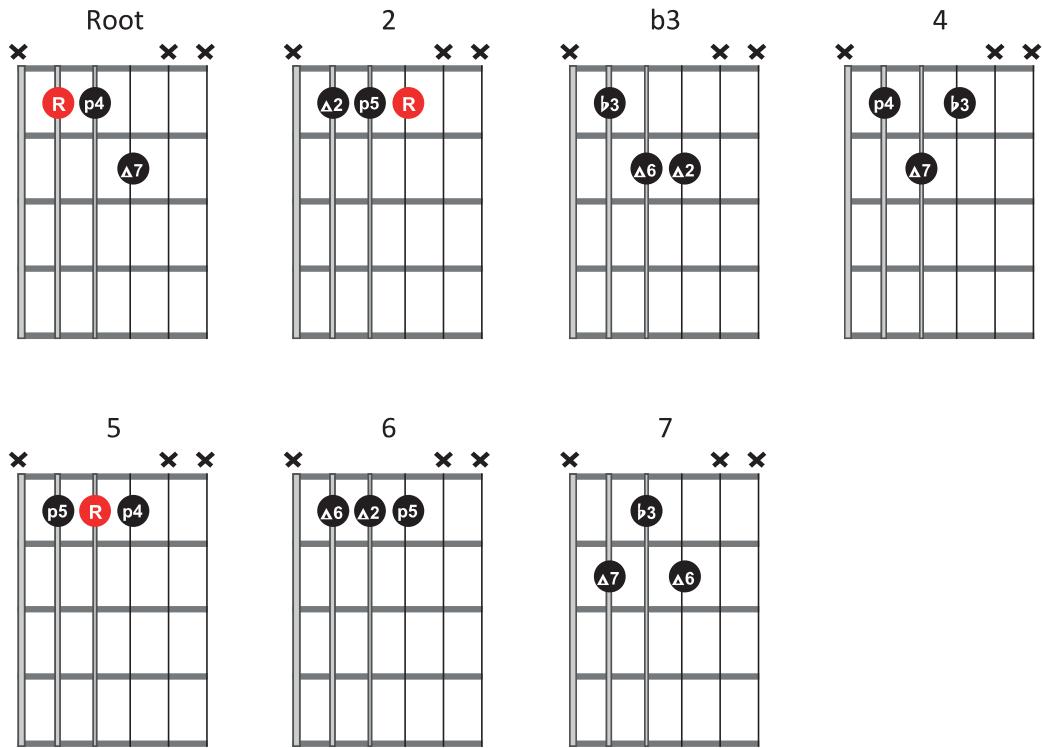


## 3part-Quartal Voicings – Melodic Minor

### Stringset E-A-D



### Stringset A-D-G



### Stringset D-G-B

The diagram displays seven guitar chords for the stringset D-G-B:

- Root:** Fret 1, strings 1 (D), 2 (G), and 3 (B) are marked with red circles labeled "R".
- 2:** Frets 2, 3, and 4, strings 1 (D), 2 (G), and 3 (B) are marked with black circles labeled "Δ2", "p5", and "R" respectively.
- b3:** Frets 3 and 4, strings 1 (D) and 2 (G) are marked with black circles labeled "b3" and "Δ6" respectively.
- 4:** Fret 4, strings 1 (D), 2 (G), and 3 (B) are marked with black circles labeled "p4", "Δ7", and "b3" respectively.
- 5:** Frets 2, 3, and 4, strings 1 (D), 2 (G), and 3 (B) are marked with black circles labeled "p5", "R", and "p4" respectively.
- 6:** Frets 2, 3, and 4, strings 1 (D), 2 (G), and 3 (B) are marked with black circles labeled "Δ6", "Δ2", and "p5" respectively.
- 7:** Frets 3 and 4, strings 1 (D) and 2 (G) are marked with black circles labeled "b3" and "Δ7" respectively.

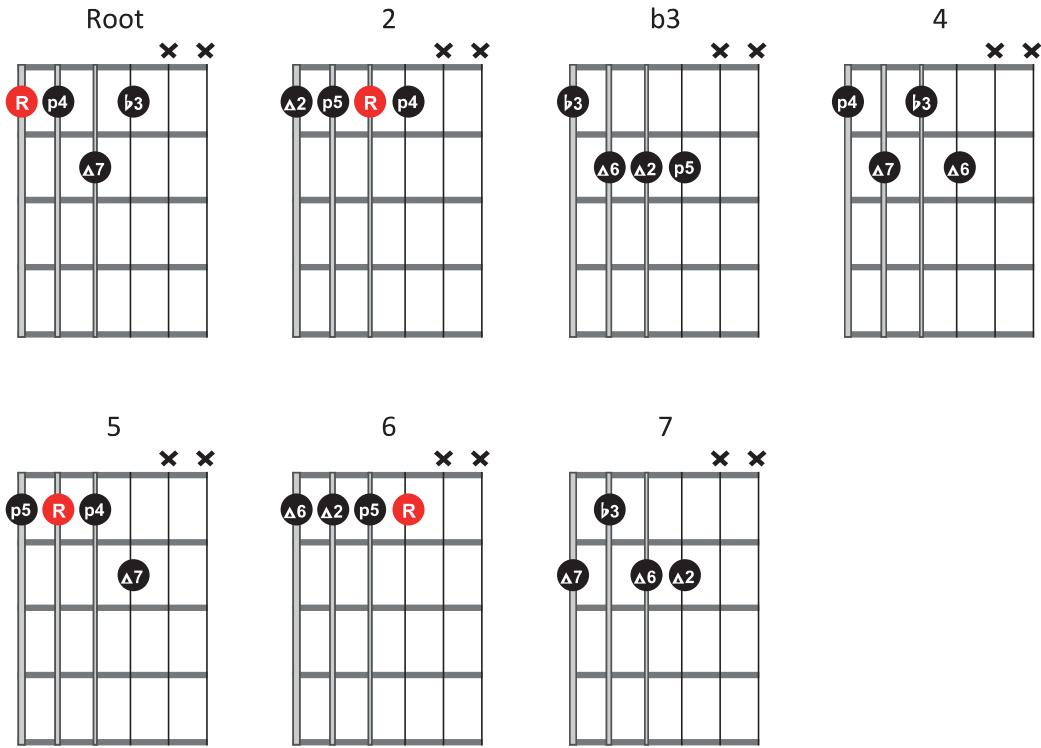
### Stringset G-B-E

The diagram displays seven guitar chords for the stringset G-B-E:

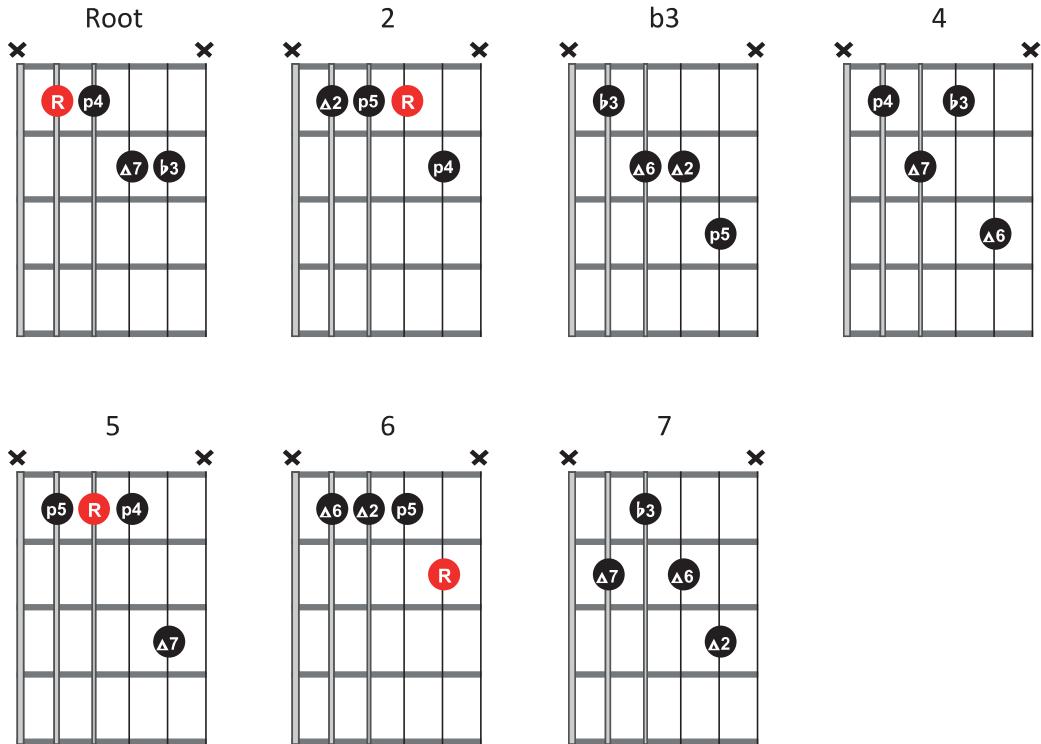
- Root:** Fret 1, strings 1 (G), 2 (B), and 3 (E) are marked with red circles labeled "R".
- 2:** Frets 2, 3, and 4, strings 1 (G), 2 (B), and 3 (E) are marked with black circles labeled "Δ2", "p5", and "R" respectively.
- b3:** Frets 3 and 4, strings 1 (G) and 2 (B) are marked with black circles labeled "b3" and "Δ6, Δ2" respectively.
- 4:** Fret 4, strings 1 (G), 2 (B), and 3 (E) are marked with black circles labeled "p4", "Δ7", and "b3" respectively.
- 5:** Frets 2, 3, and 4, strings 1 (G), 2 (B), and 3 (E) are marked with black circles labeled "p5", "R", and "p4" respectively.
- 6:** Frets 2, 3, and 4, strings 1 (G), 2 (B), and 3 (E) are marked with black circles labeled "Δ6", "Δ2", and "p5" respectively.
- 7:** Frets 3 and 4, strings 1 (G) and 2 (B) are marked with black circles labeled "Δ7, b3" and "Δ6" respectively.

## 4part-Quartal Voicings – Melodic Minor

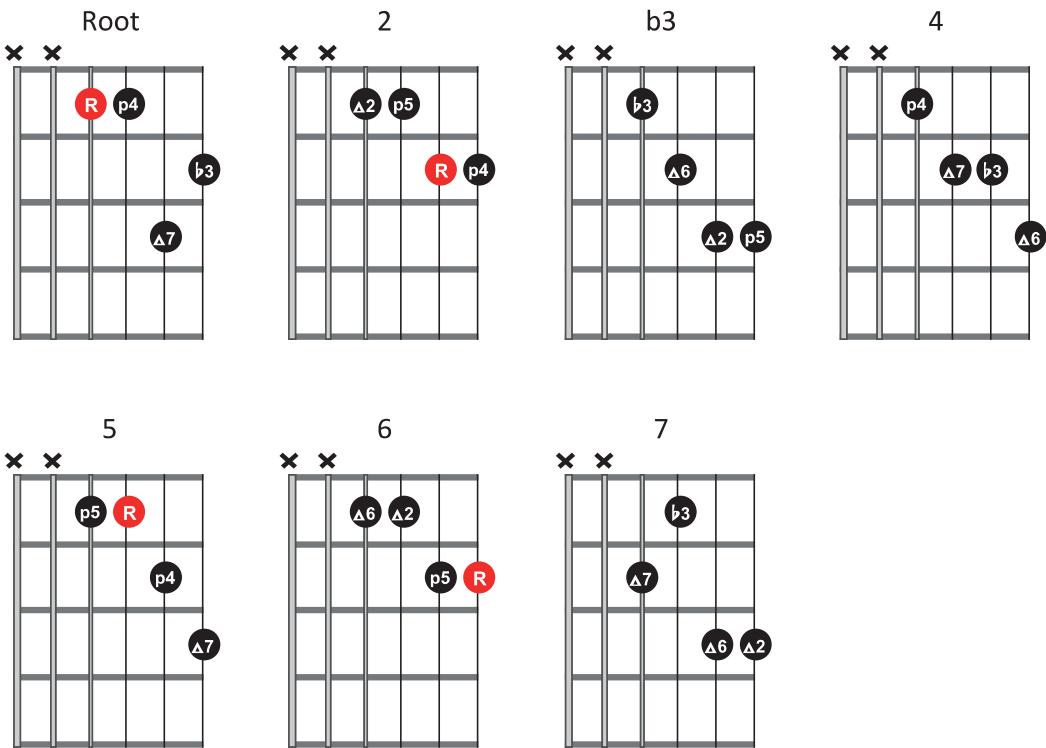
Stringset E-A-D-G



Stringset A-D-G-B

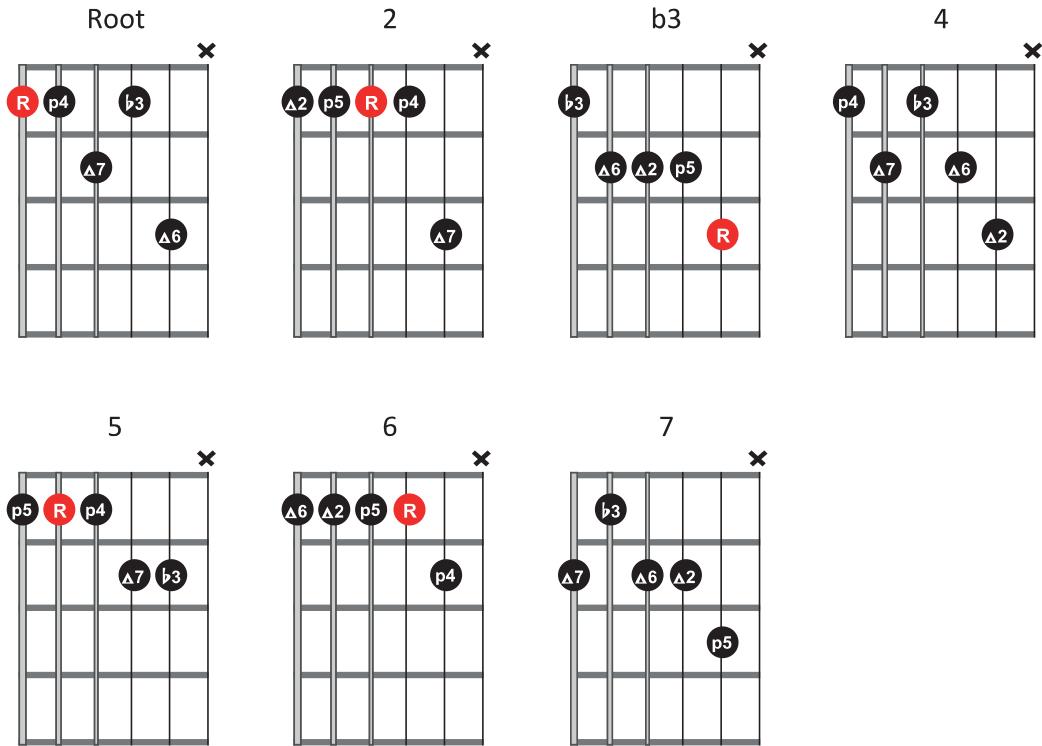


**Stringset D-G-B-E**

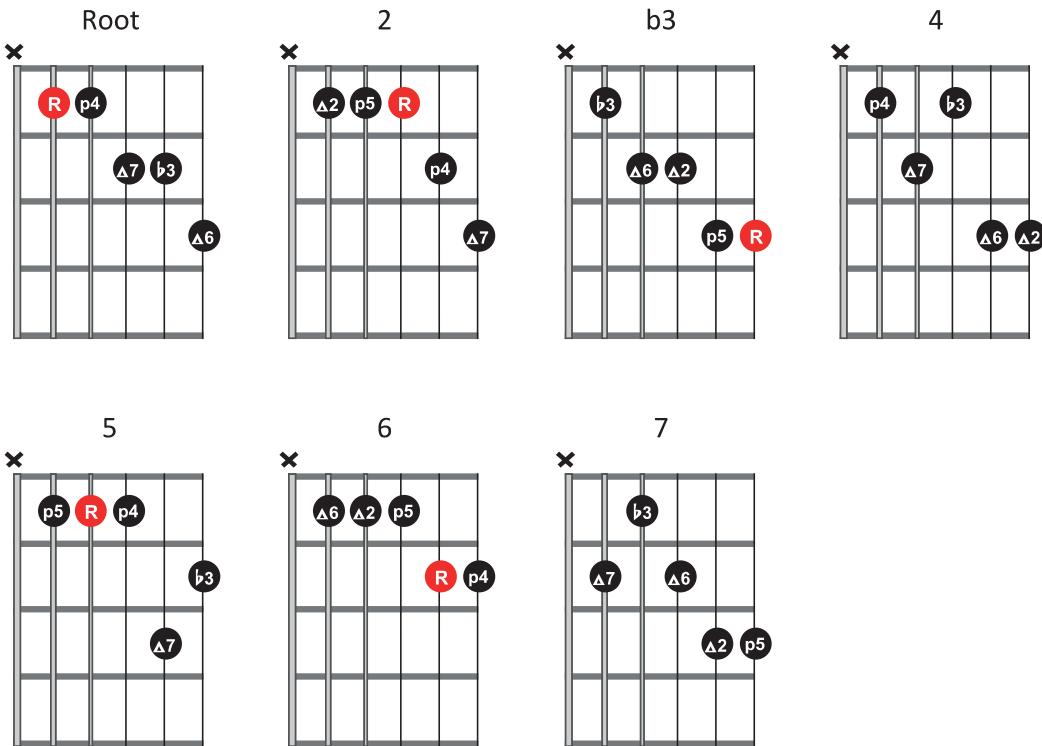


## 5part-Quartal Voicings – Melodic Minor

Stringset E-A-D-G-B

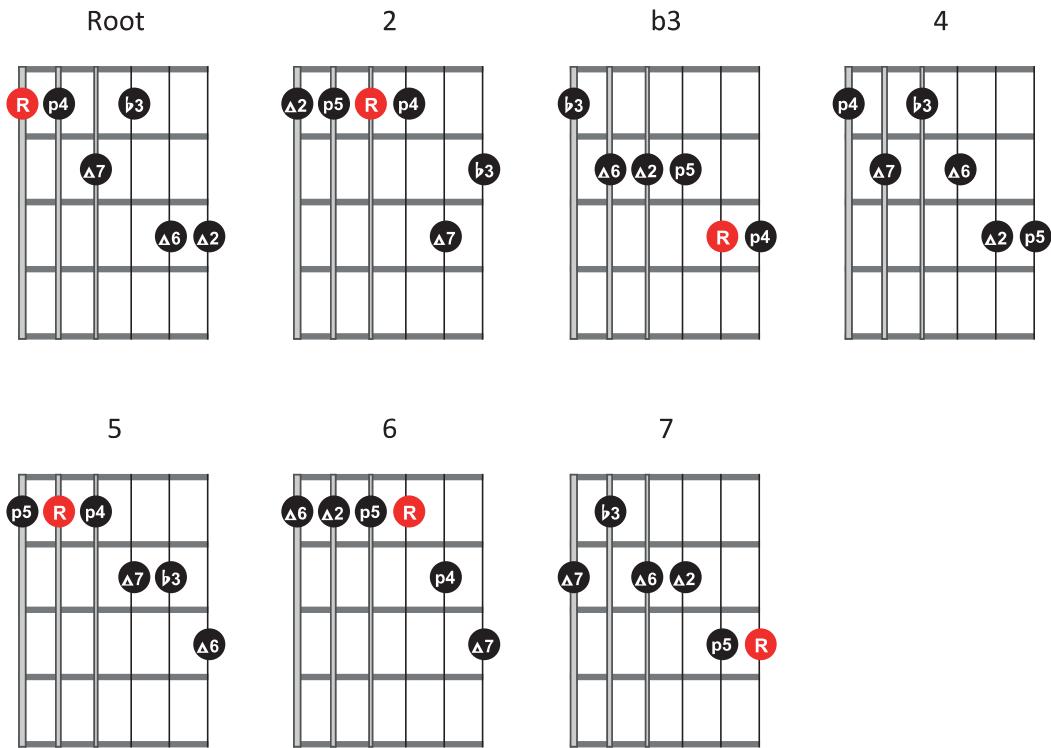


Stringset A-D-G-B-E



## 6part-Quartal Voicings – Melodic Minor

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



## 3part-Quartal Voicings – Harmonic Minor

### Stringset E-A-D

The diagram illustrates seven 3part-Quartal Voicings for the stringset E-A-D in Harmonic Minor:

- Root:** E-A-D (Root position)
- 2:** A-D-G (Second inversion)
- b3:** G-B-E (First inversion)
- 4:** D-G-B (Root position)
- 5:** G-B-E (Root position)
- b6:** B-E-G (First inversion)
- 7:** E-G-B (Root position)

### Stringset A-D-G

The diagram illustrates seven 3part-Quartal Voicings for the stringset A-D-G in Harmonic Minor:

- Root:** A-D-G (Root position)
- 2:** D-G-A (Second inversion)
- b3:** G-B-A (First inversion)
- 4:** A-D-G (Root position)
- 5:** D-G-A (Root position)
- b6:** G-B-A (First inversion)
- 7:** B-E-G (Root position)

### Stringset D-G-B

Root      2      b3      4

5      b6      7

### Stringset G-B-E

Root      2      b3      4

5      b6      7

## 4part-Quartal Voicings – Harmonic Minor

Stringset E-A-D-G

The diagram displays seven 4-part quartal voicing patterns for the stringset E-A-D-G in Harmonic Minor. Each pattern is a 6-string grid:

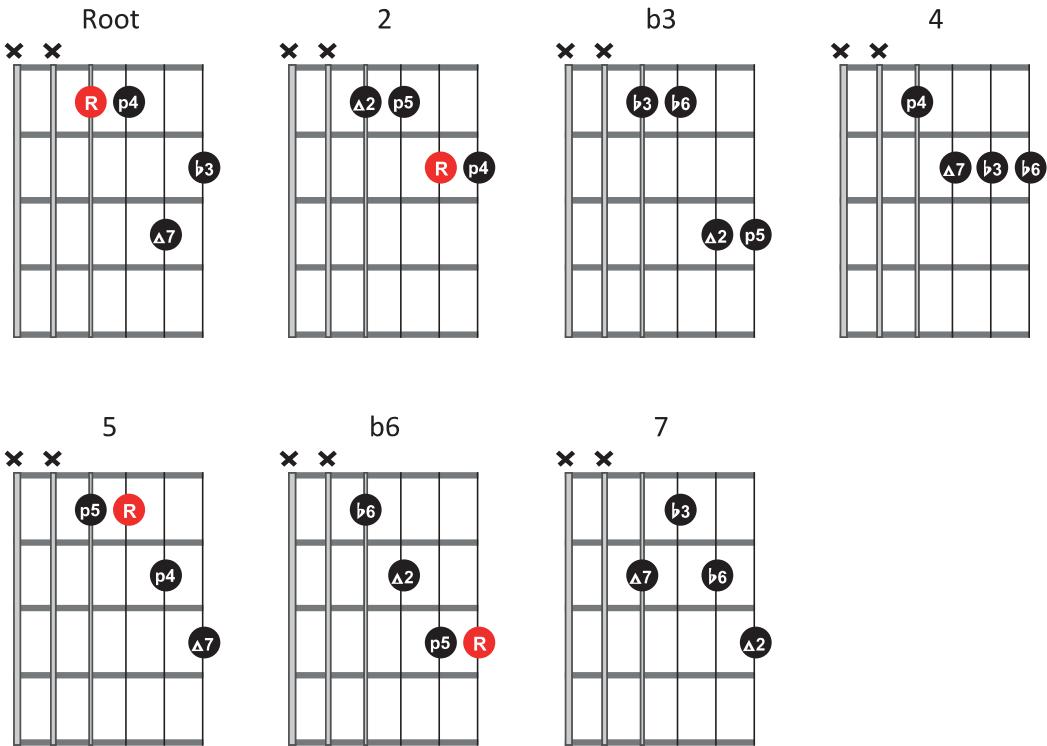
- Root:** R (red), p4, b3, Δ7, p5, b3.
- 2:** Δ2, p5, R (red), p4, b3, b6.
- b3:** b3, b6, Δ2, p5, b3, b6.
- 4:** p4, b3, b6, Δ7, p4, b3.
- 5:** p5, R (red), p4, Δ7, p5, R (red).
- b6:** b6, Δ2, p5, R (red), Δ2, p5.
- 7:** Δ7, b3, b6, Δ2, b3, b6.

Stringset A-D-G-B

The diagram displays seven 4-part quartal voicing patterns for the stringset A-D-G-B in Harmonic Minor. Each pattern is a 6-string grid:

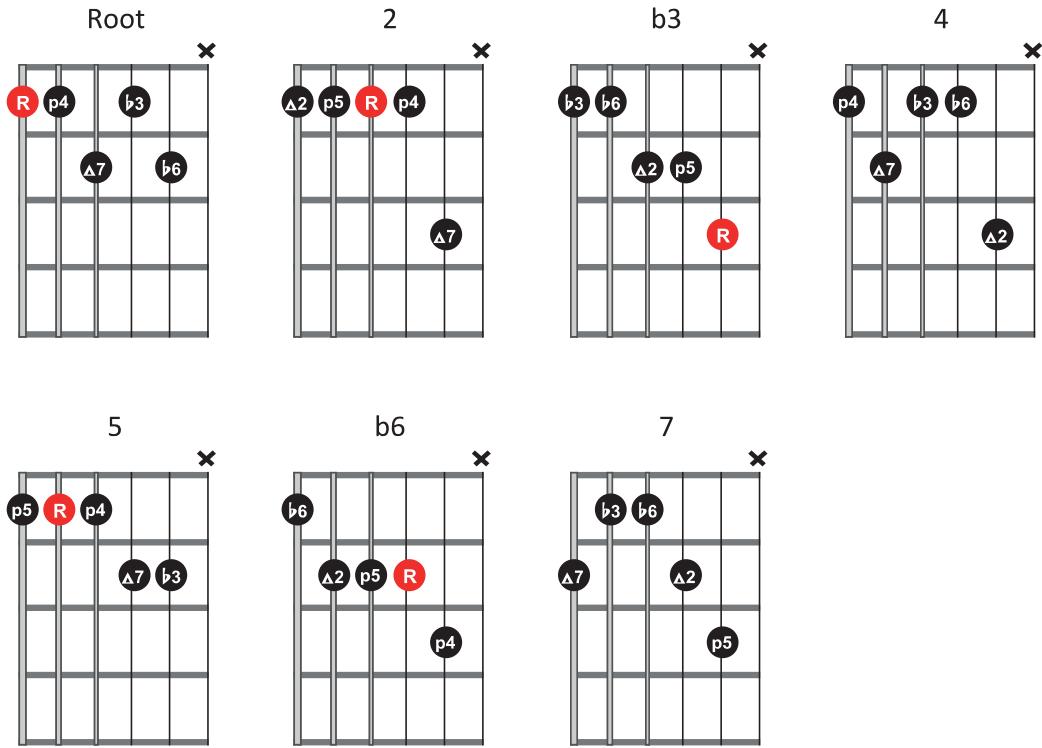
- Root:** R (red), p4, Δ7, b3, p4, b3.
- 2:** Δ2, p5, R (red), p4, Δ2, p5.
- b3:** b3, b6, Δ2, p5, b3, b6.
- 4:** p4, b3, b6, Δ7, p4, b3.
- 5:** p5, R (red), p4, Δ7, p5, R (red).
- b6:** b6, Δ2, p5, R (red), Δ2, p5.
- 7:** Δ7, b3, b6, Δ2, b3, b6.

**Stringset D-G-B-E**

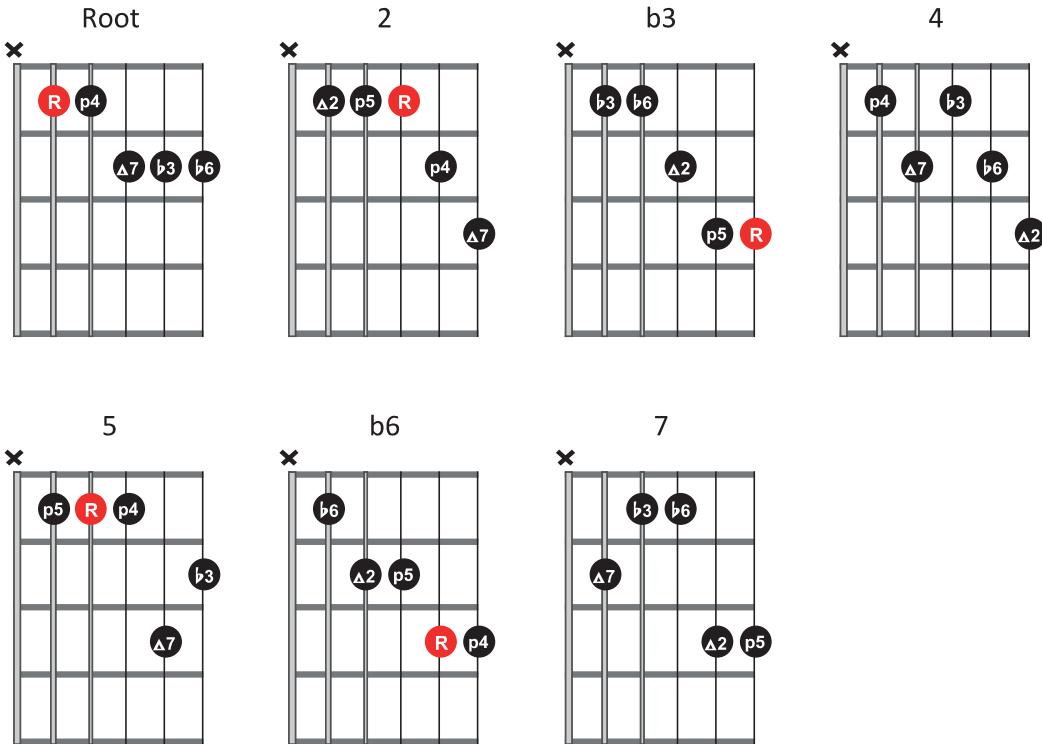


## 5part-Quartal Voicings – Harmonic Minor

Stringset E-A-D-G-B

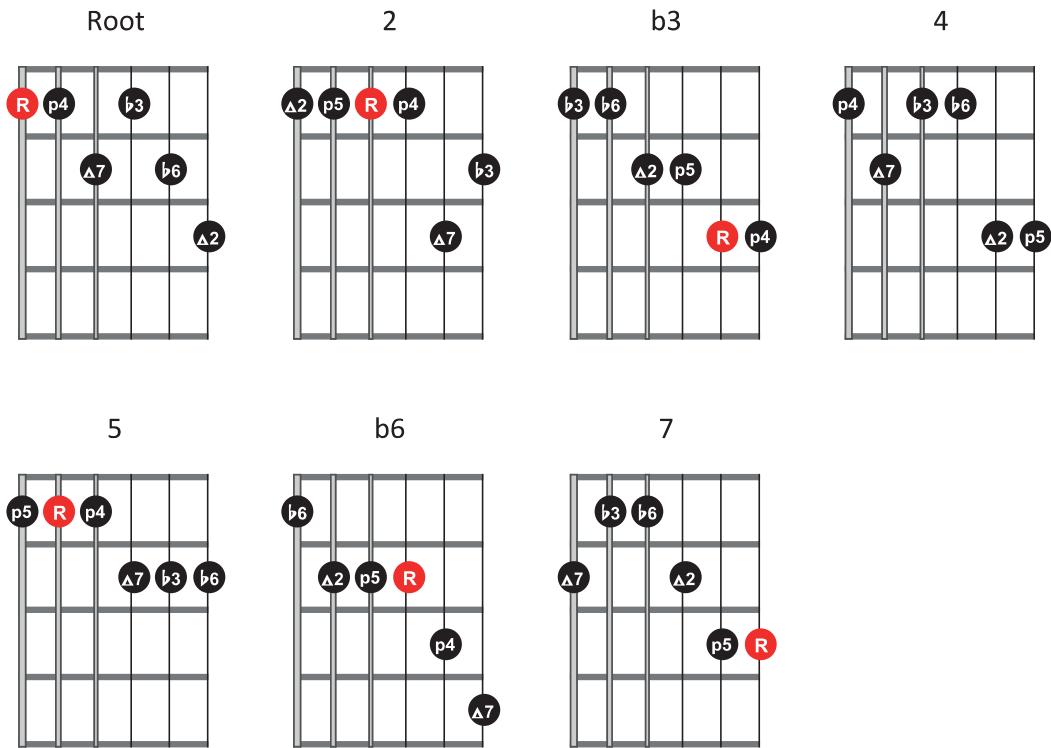


Stringset A-D-G-B-E



## 6part-Quartal Voicings – Harmonic Minor

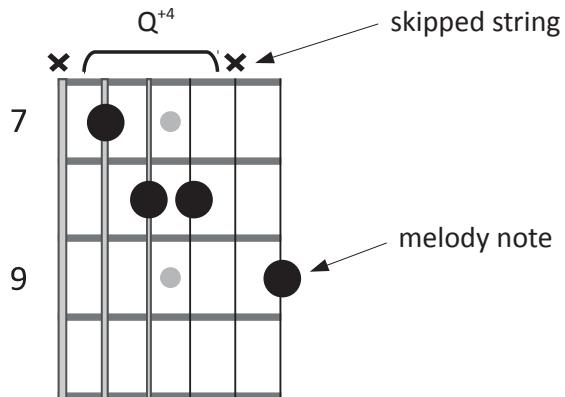
Stringset E-A-D-G-B-E



## 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#<sup>13</sup>, C<sup>7#9b9</sup>, E<sup>b7b9</sup>, A<sup>7b5b9</sup>, E<sup>MA#11#5</sup>, G<sup>97b13</sup>.

Try to discover all the substitution possibilities of each form.

## Major Scale Skipped String Voicings

**Root**

2

3

4

5

6

7

**Root**

2

3

4

5

6

7

## Melodic Minor Scale Skipped String Voicings

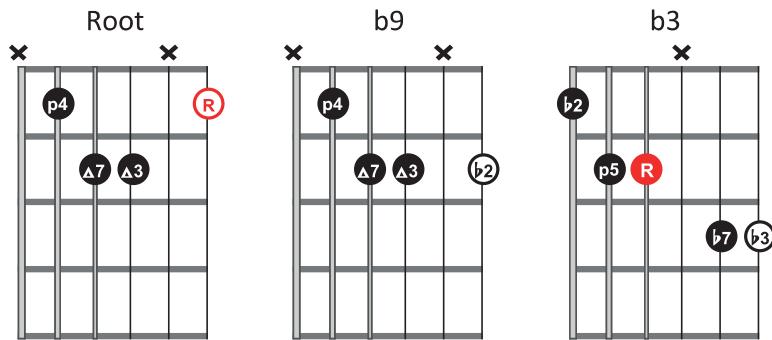
Root      2      b3      4

5      6      7

Root      2      b3      4

5      6      7

## Dominant Diminished Skipped String Voicings



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

**Ex. 143**

The musical score consists of six staves of guitar tablature, arranged vertically. The first staff begins with a rest followed by a bass note, then a F7 chord. The second staff starts with a bass note, followed by a series of eighth-note patterns grouped by vertical bar lines and underlined by horizontal brackets labeled '3'. The third staff continues the bass line and eighth-note patterns. The fourth staff begins with a Bb7 chord, followed by a bass line and eighth-note patterns. The fifth staff begins with a D7b9 chord, followed by a bass line and eighth-note patterns. The sixth staff begins with a G-7 chord, followed by a bass line and eighth-note patterns. The seventh staff begins with a C7 alt chord, followed by a bass line and eighth-note patterns. The eighth staff begins with an F7 chord, followed by a bass line and eighth-note patterns. The ninth staff begins with a D7 alt chord, followed by a bass line and eighth-note patterns. The tenth staff begins with a G-7 chord, followed by a bass line and eighth-note patterns. The eleventh staff begins with a C7 chord, followed by a bass line and eighth-note patterns. The twelfth staff begins with an F7 chord, followed by a bass line and eighth-note patterns.

## 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<sup>6/9/sus4</sup>

A<sup>MA9/sus4</sup>

F#<sup>sus4/3</sup>

Ab<sup>-9</sup>

F<sup>MA9</sup>

C<sup>MA9/#4</sup>

F#<sup>sus4/3</sup>

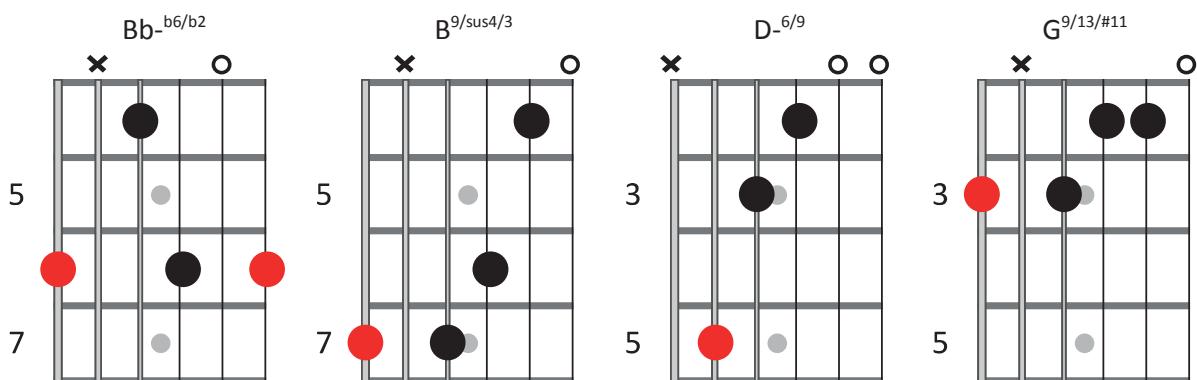
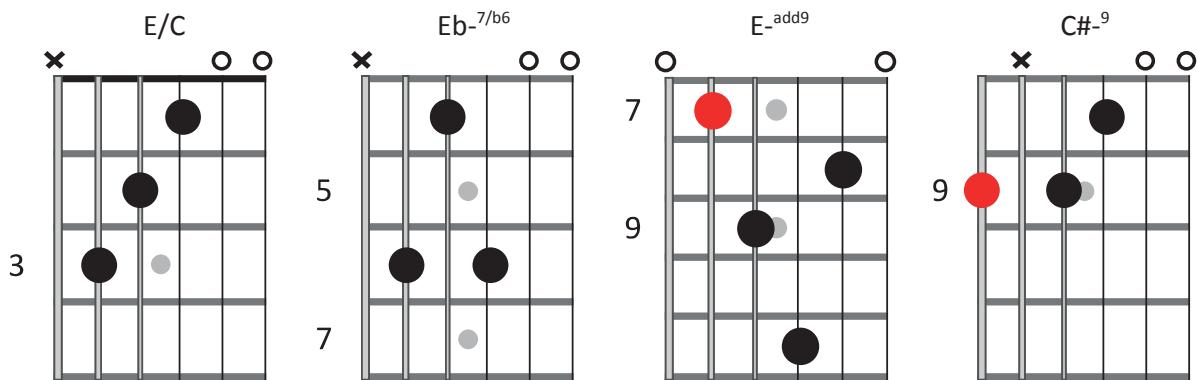
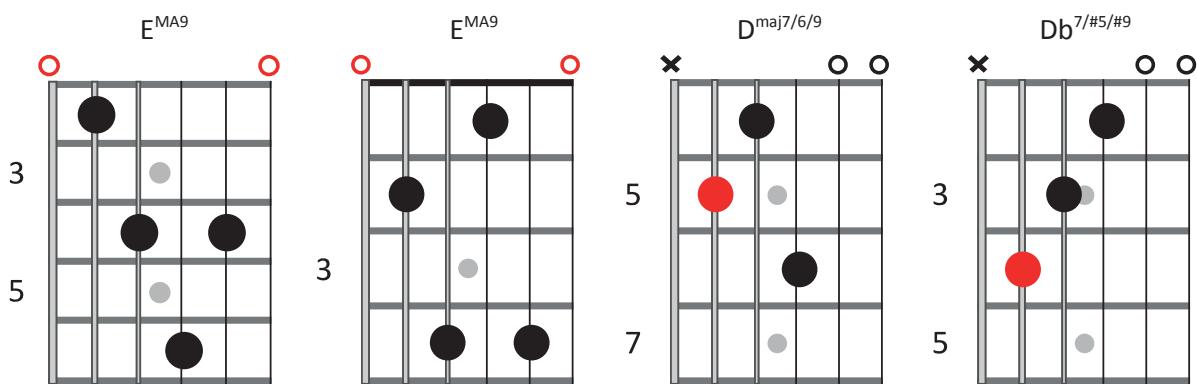
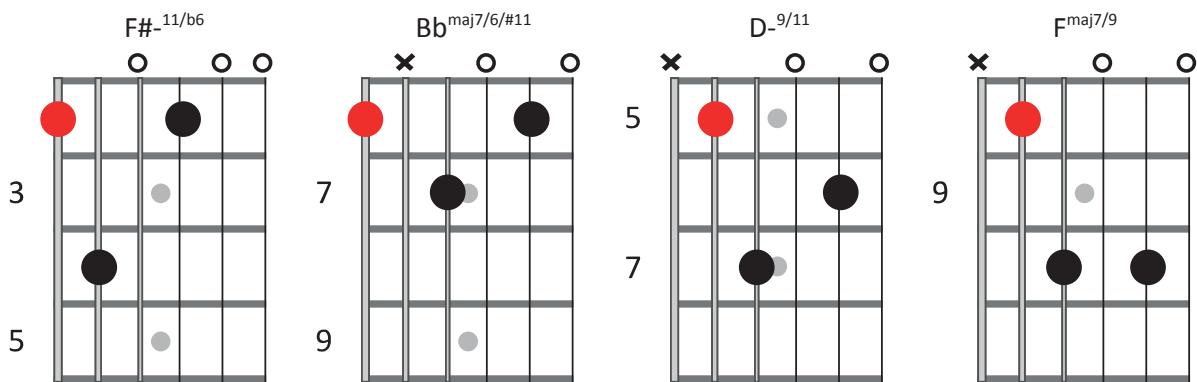
G<sup>MA9/13/#4</sup>

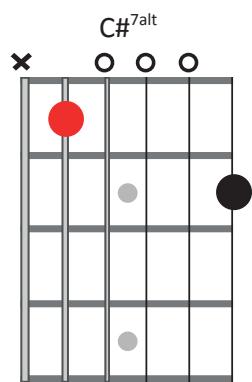
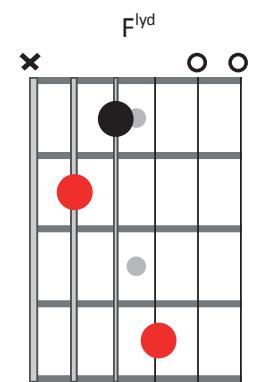
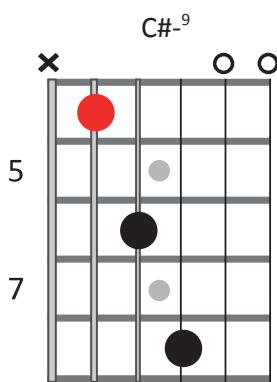
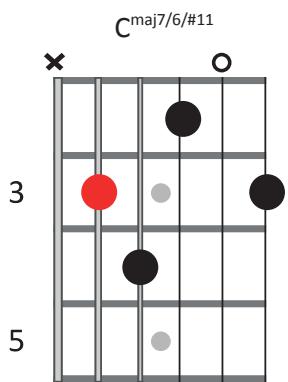
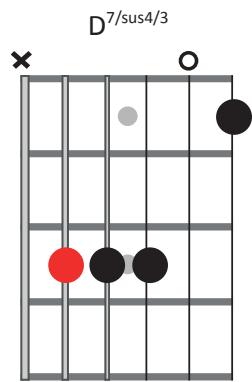
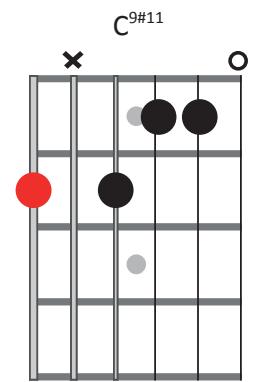
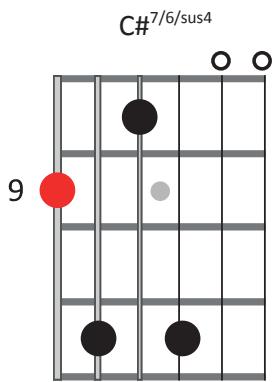
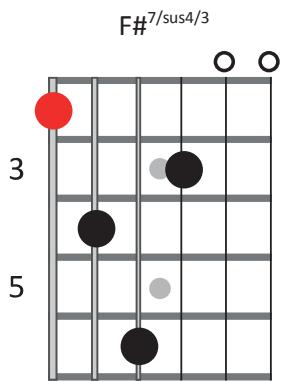
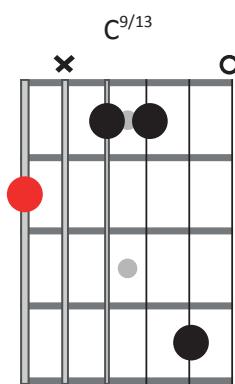
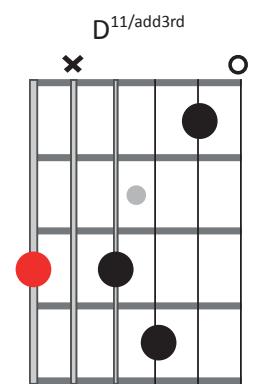
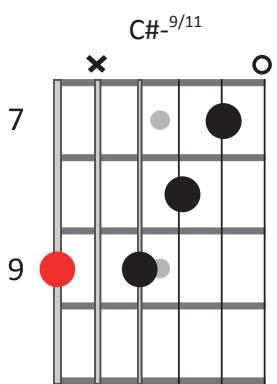
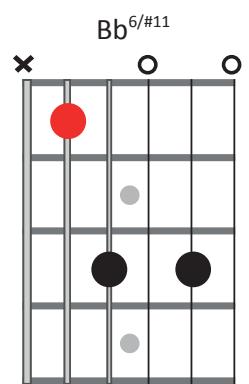
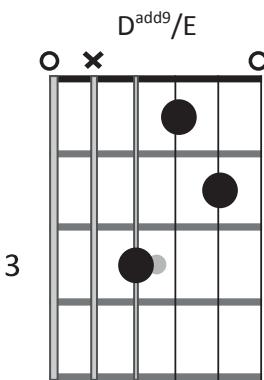
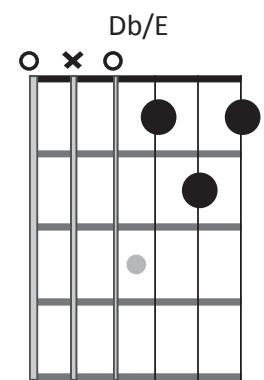
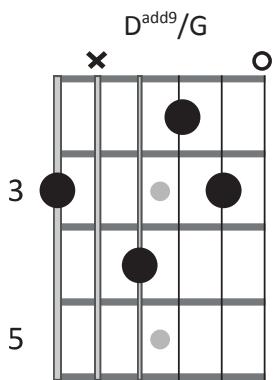
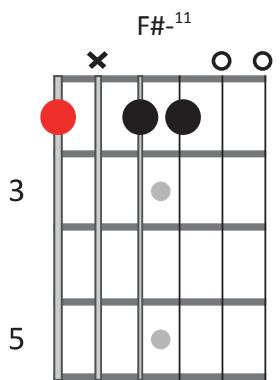
Ab<sup>-11/b6</sup>

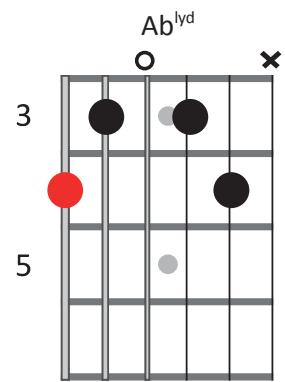
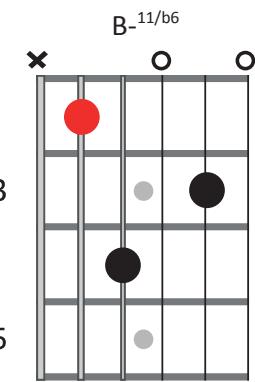
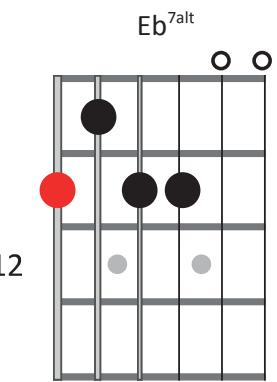
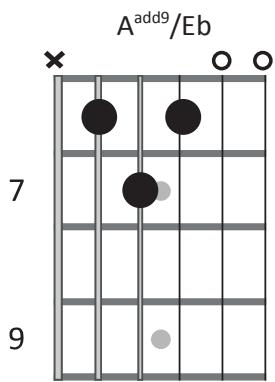
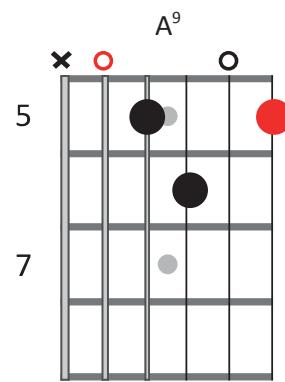
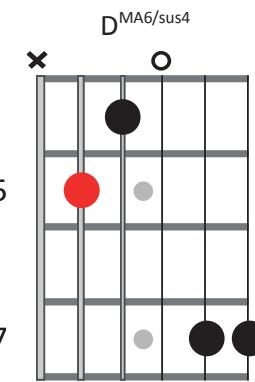
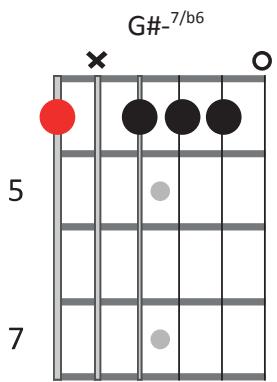
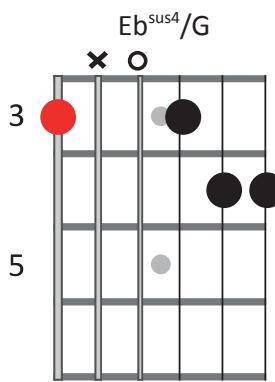
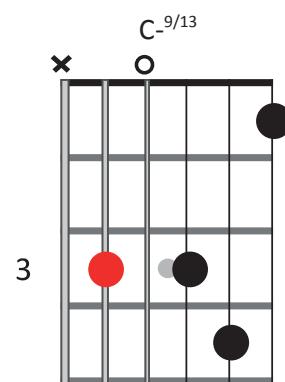
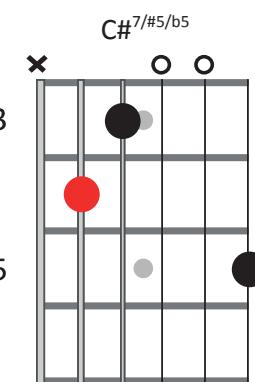
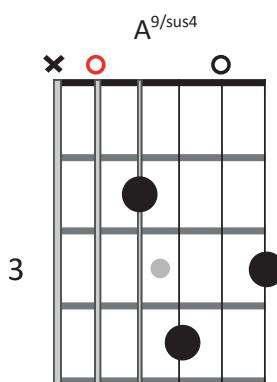
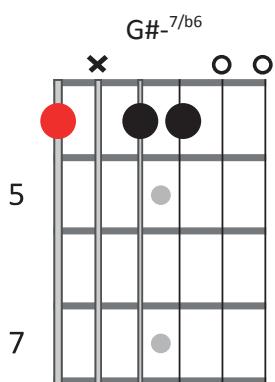
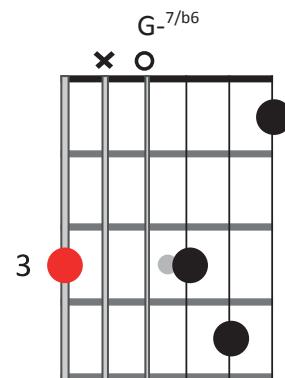
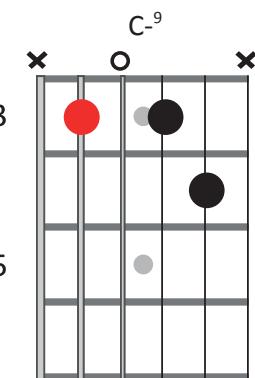
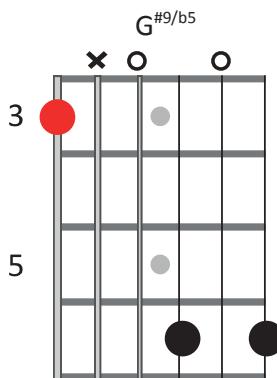
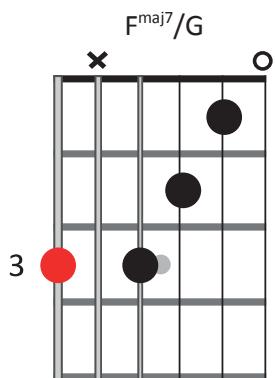
F#<sup>7/6/sus4</sup>

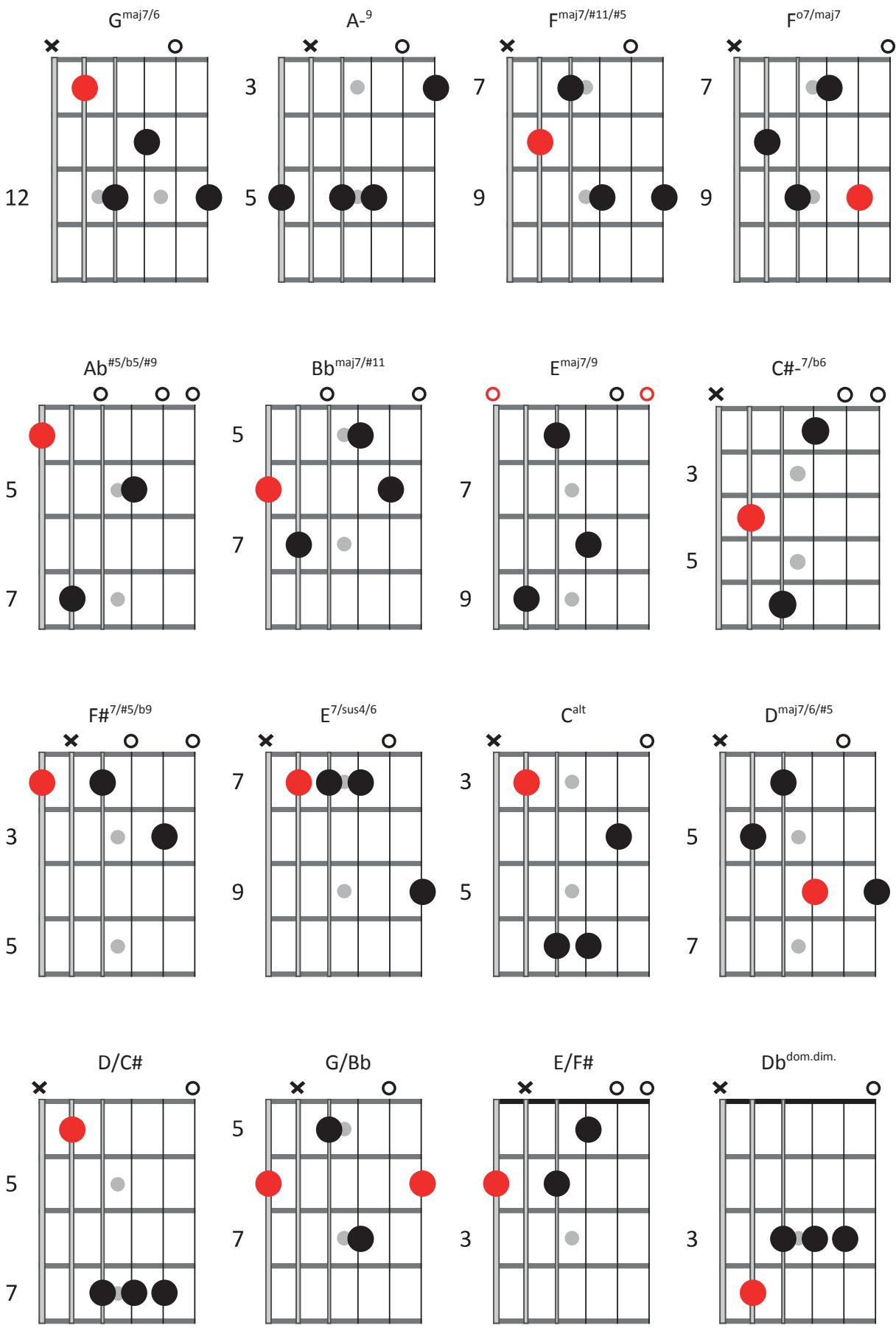
F<sup>maj7/#11</sup>

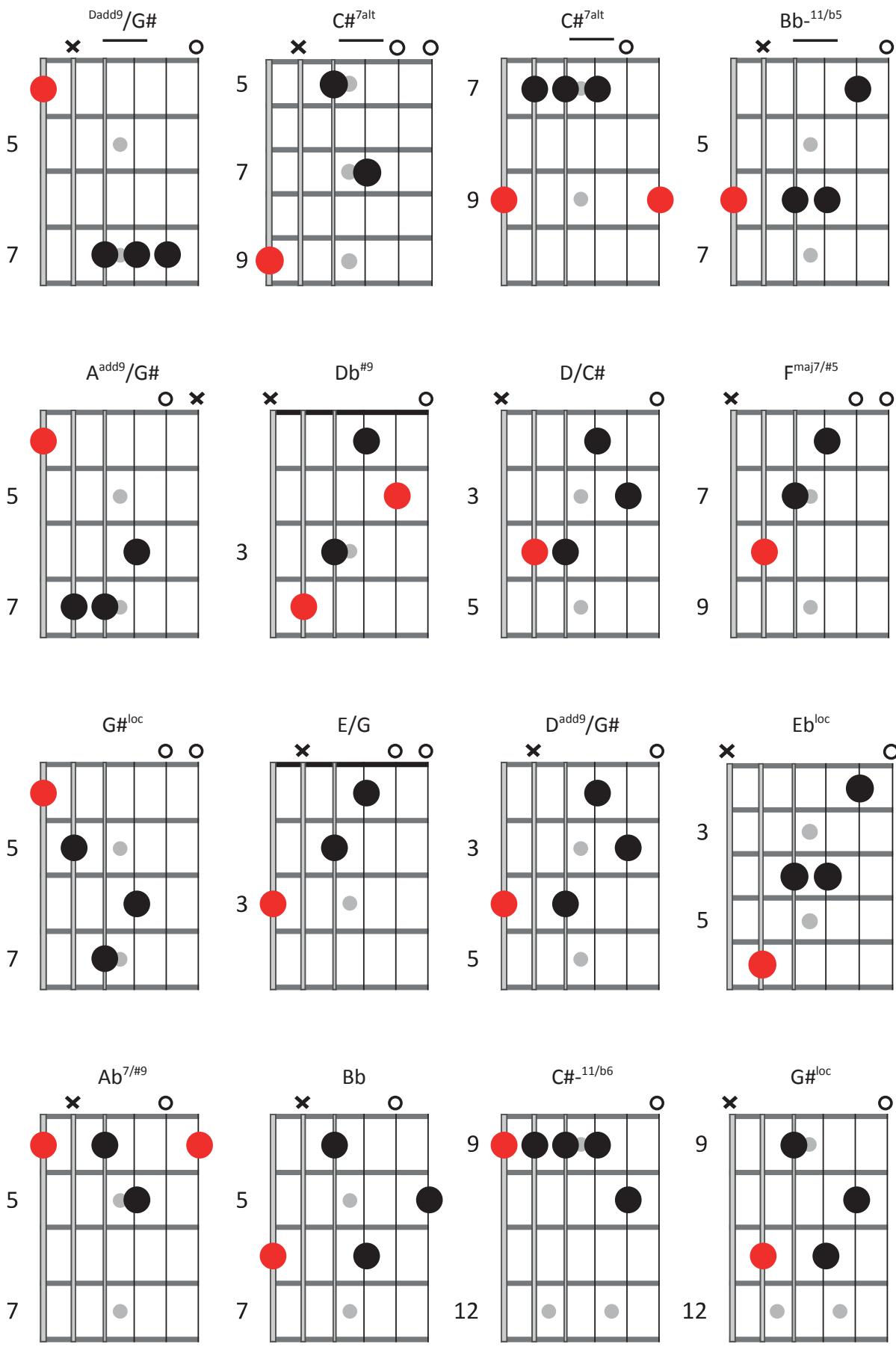
E<sup>sus4/add9</sup>

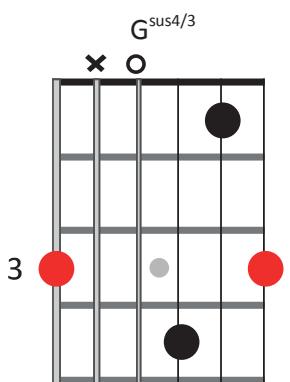
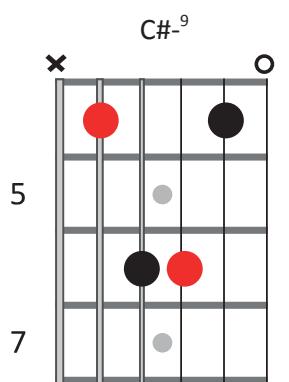
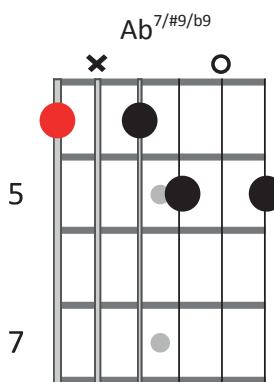
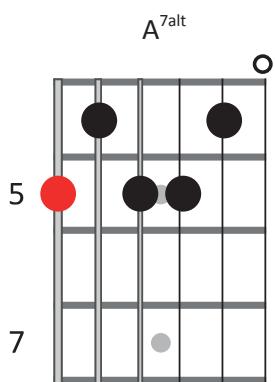
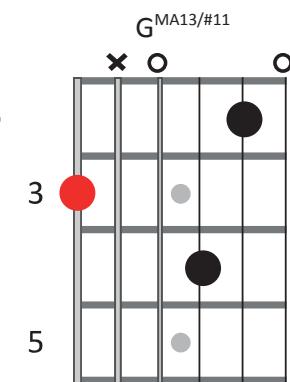
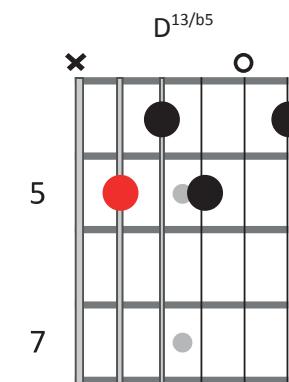
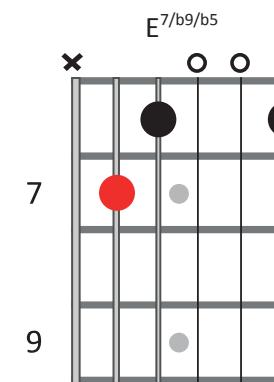
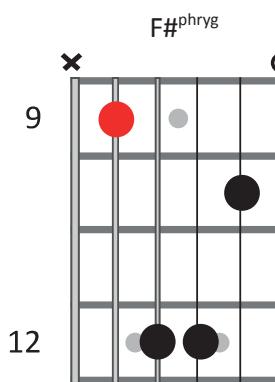
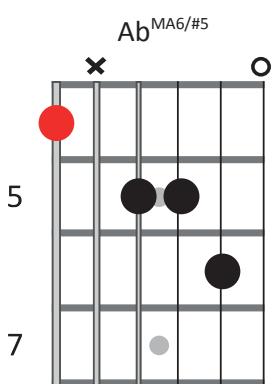
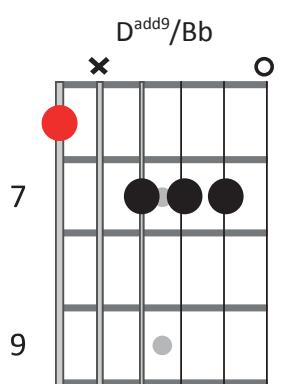
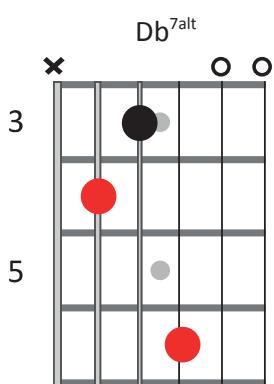
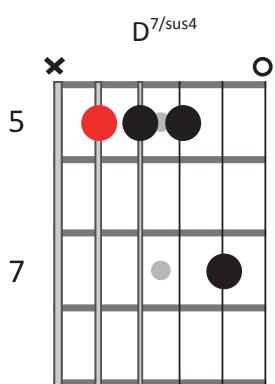
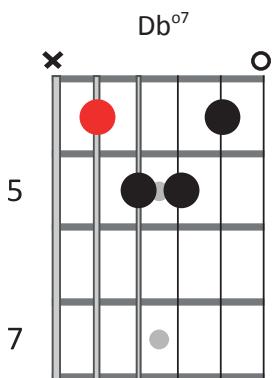
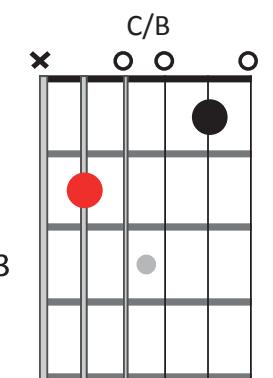
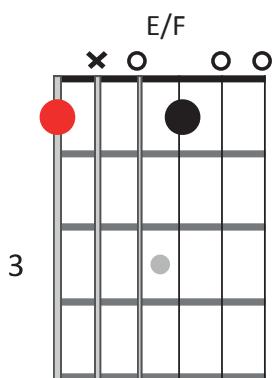
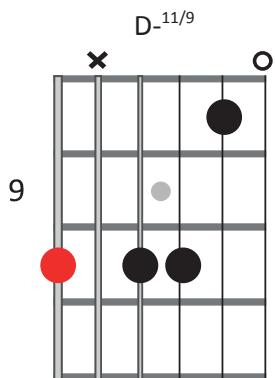


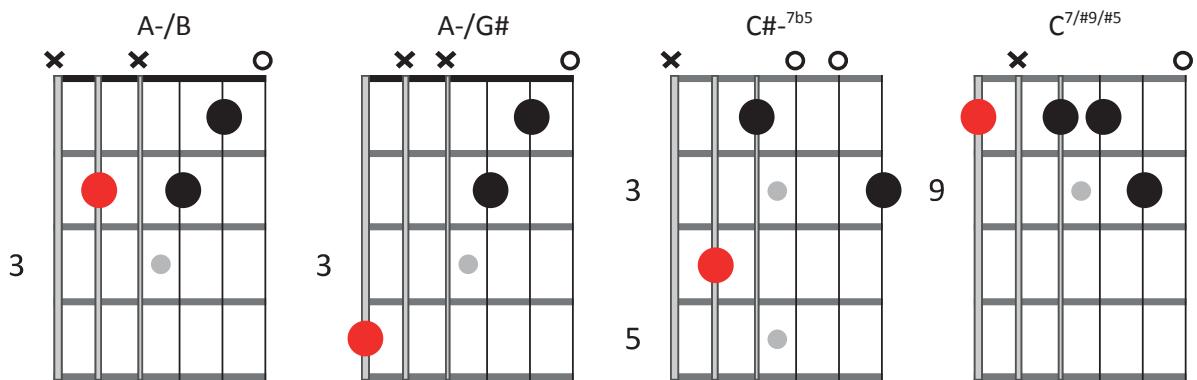
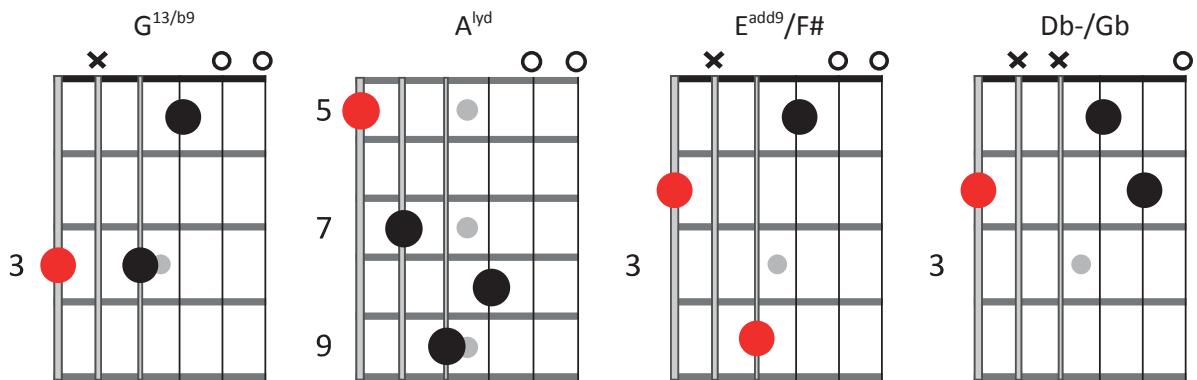
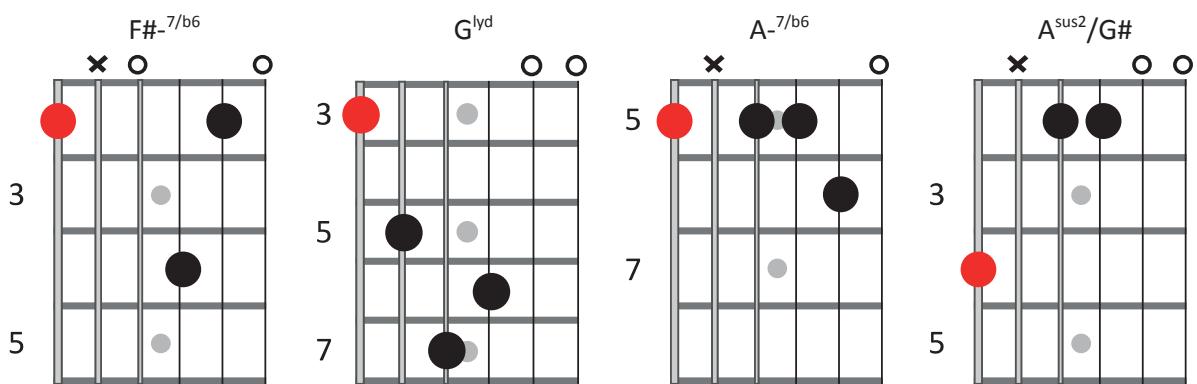
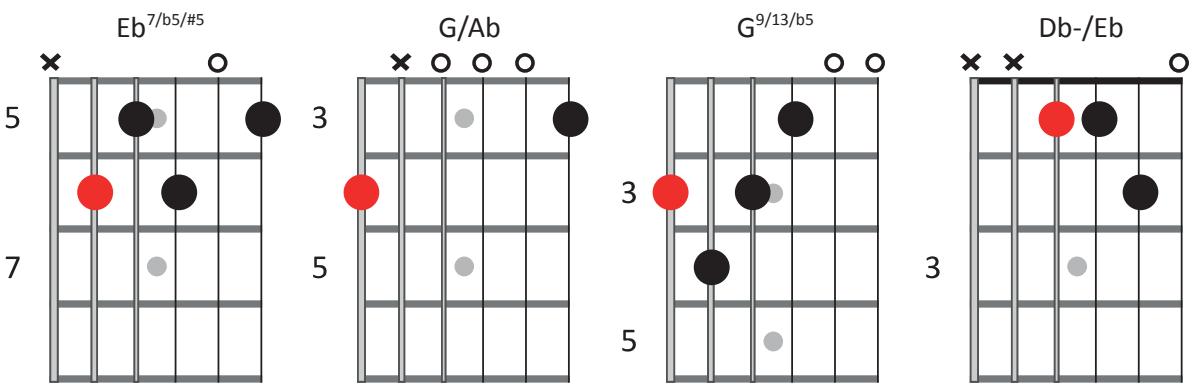


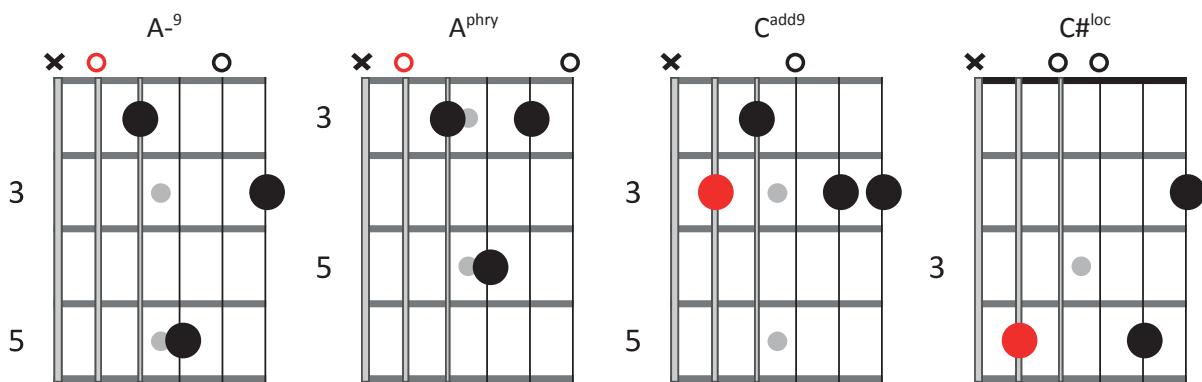
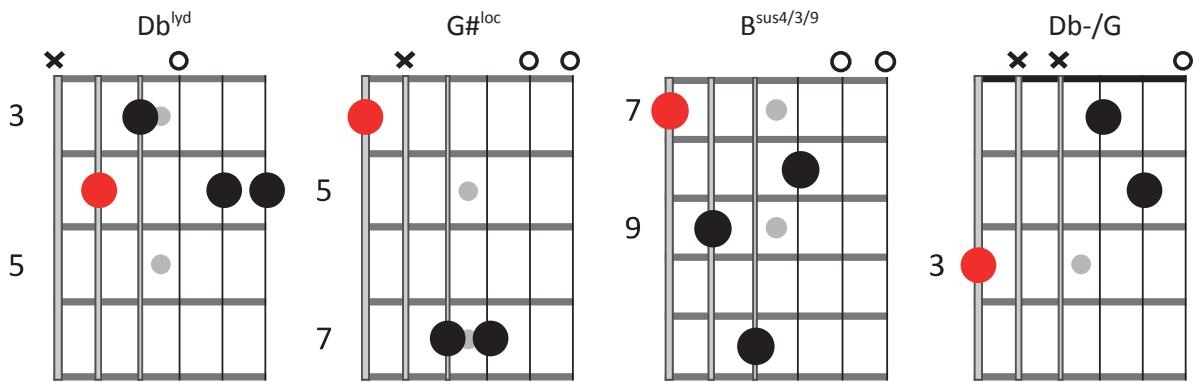
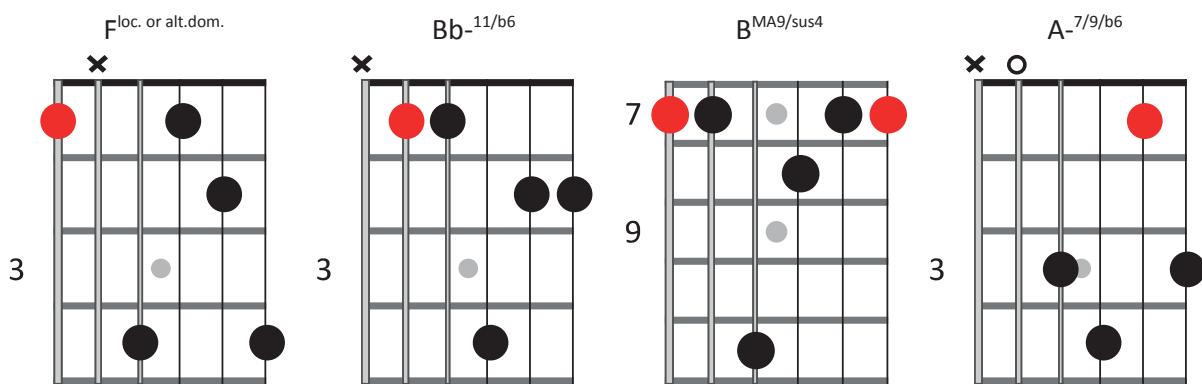
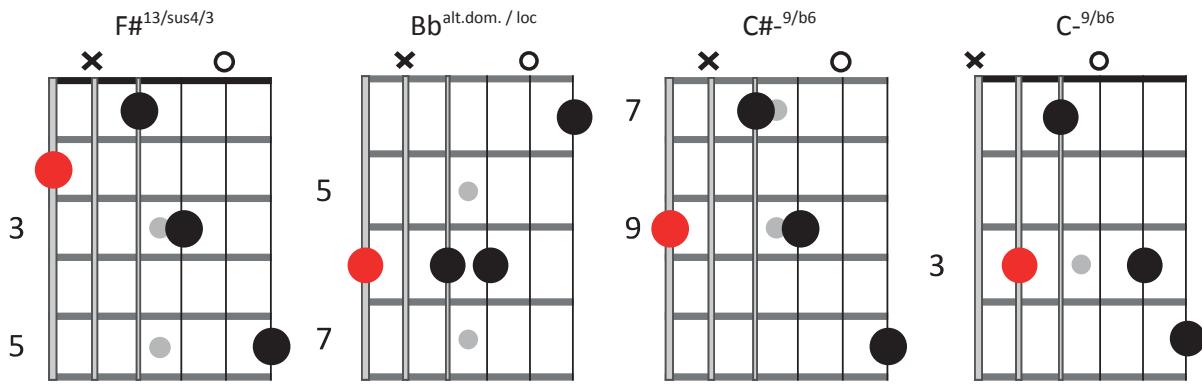


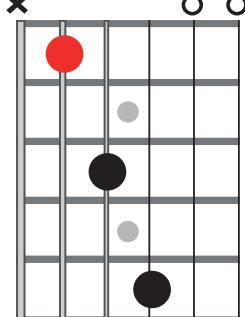
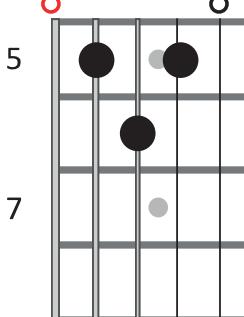
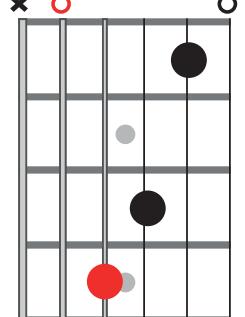
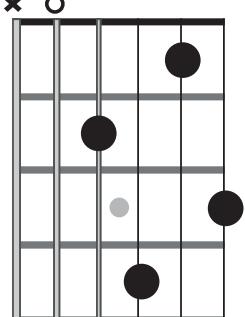
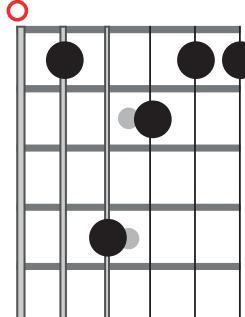
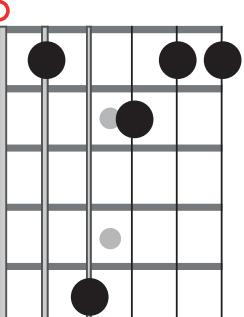
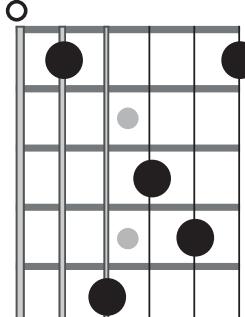
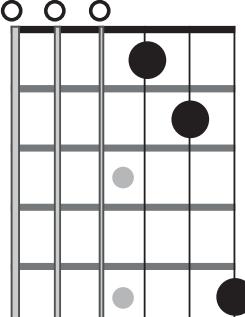
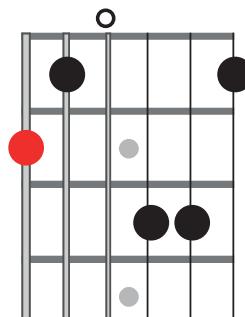
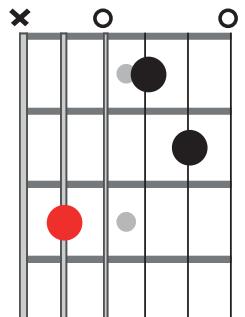
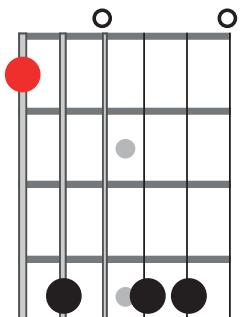
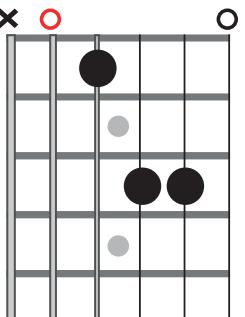
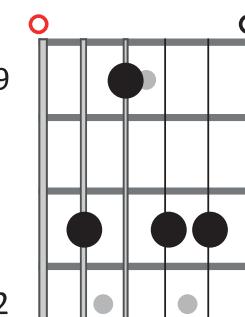
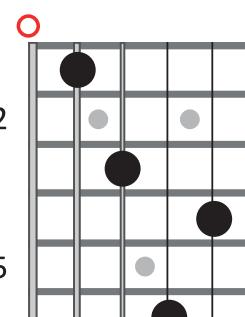
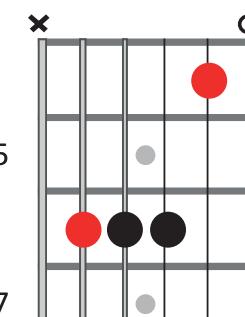
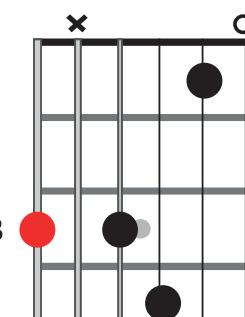


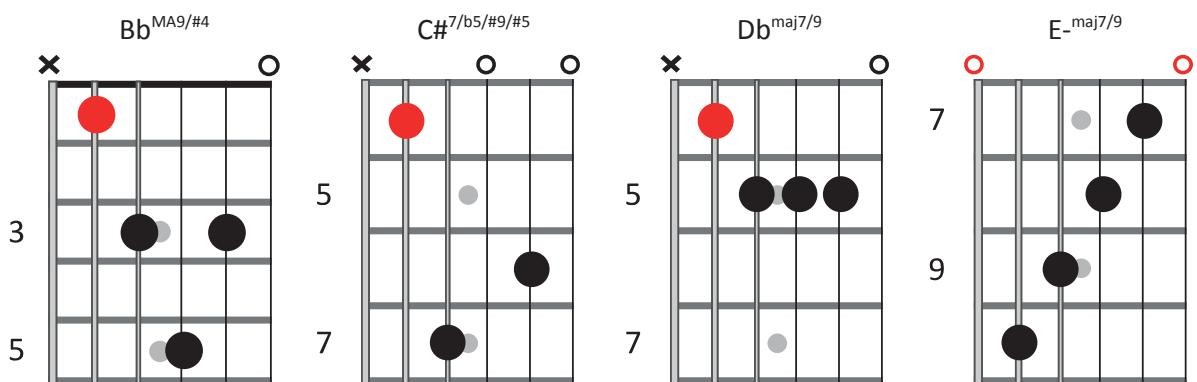
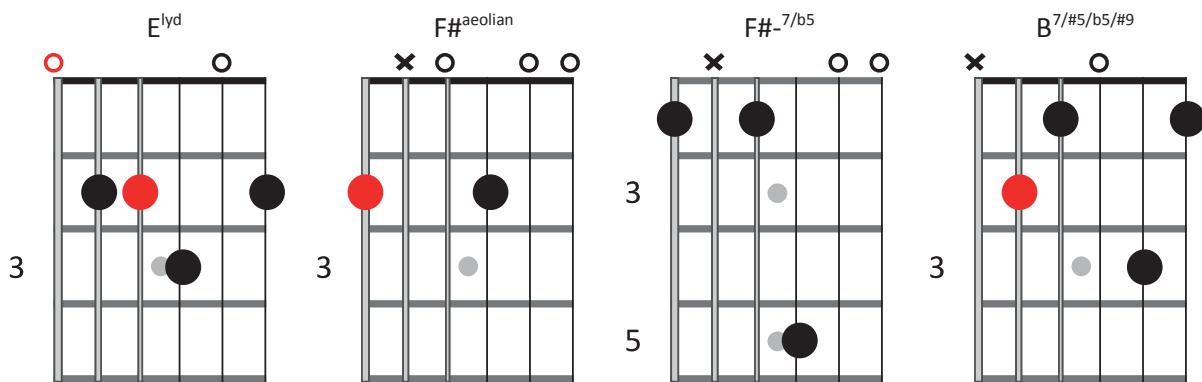
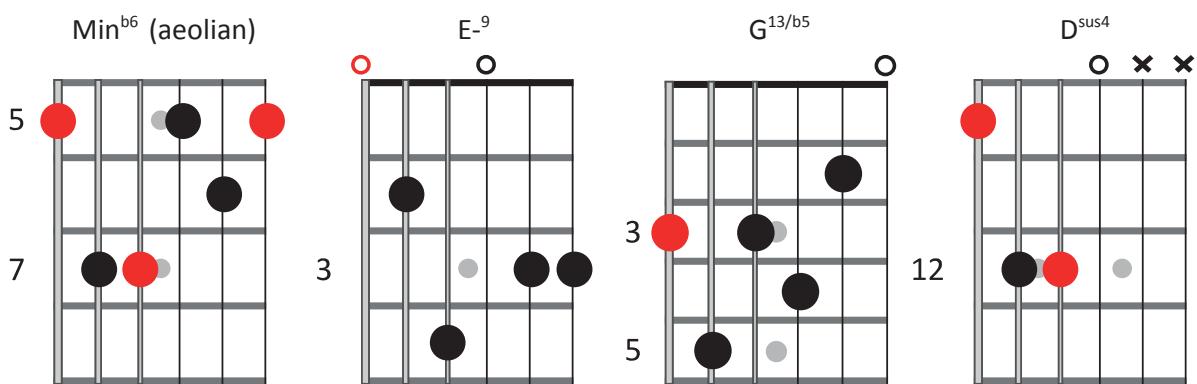
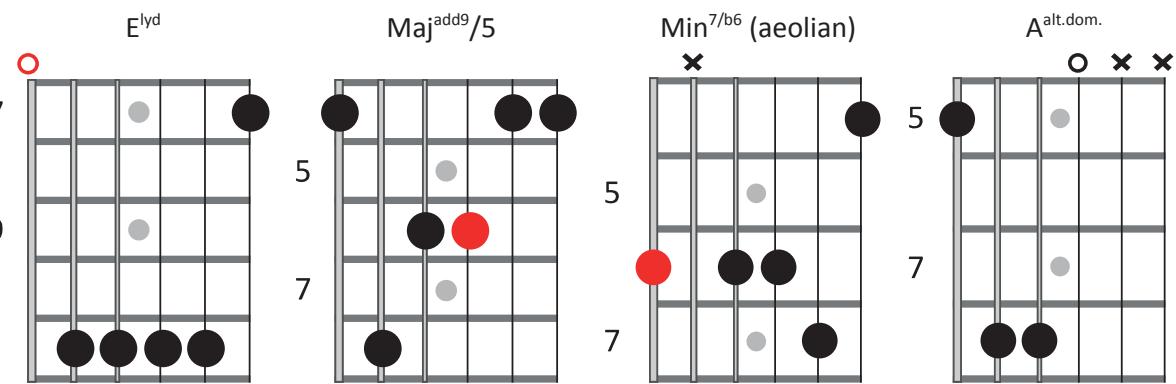






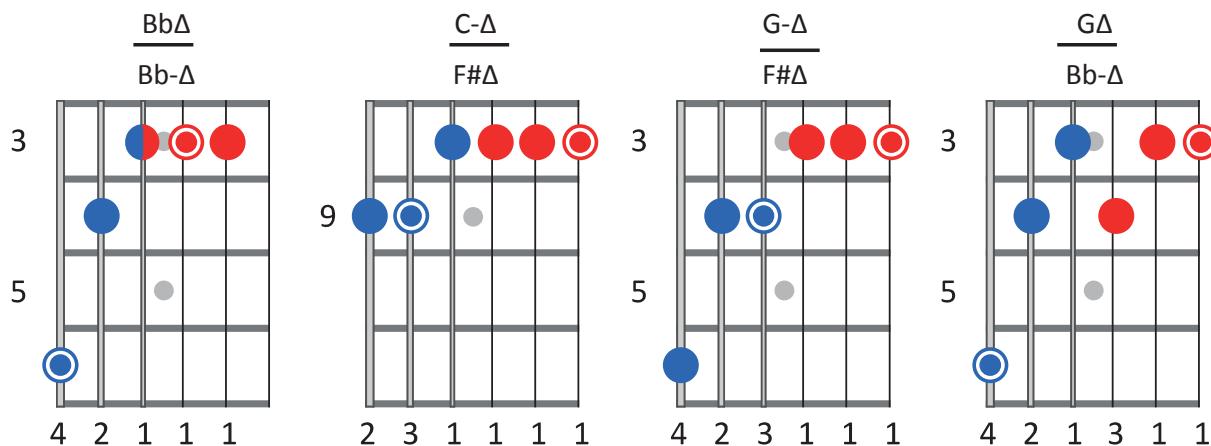
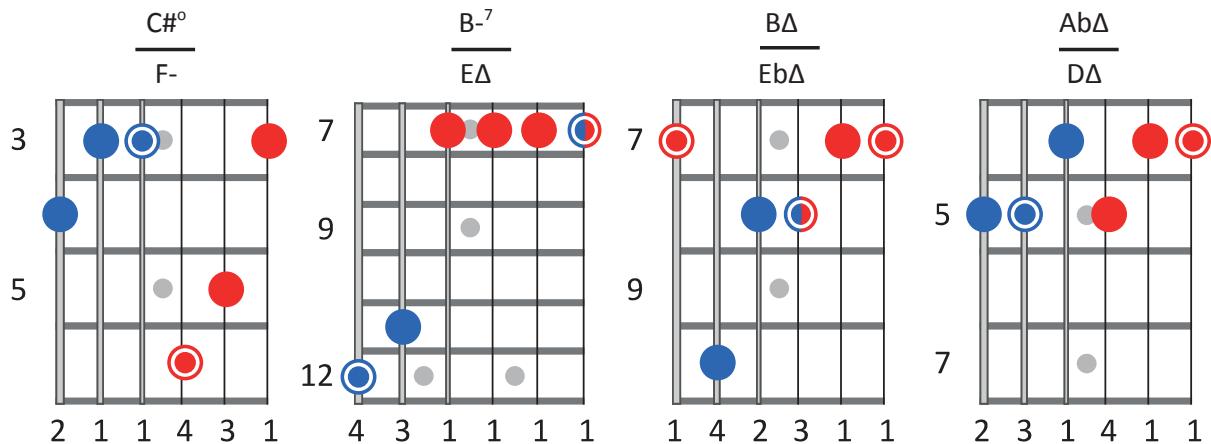


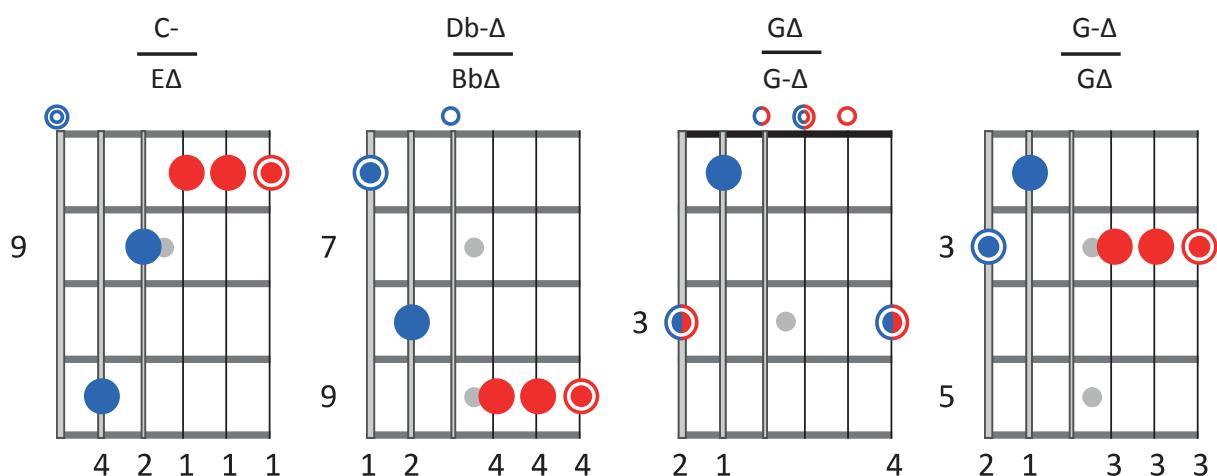
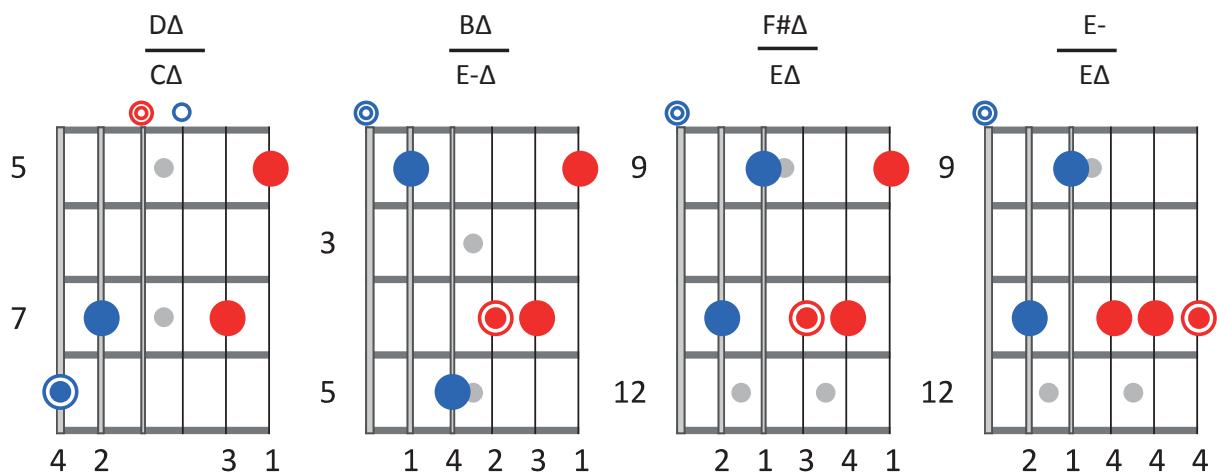
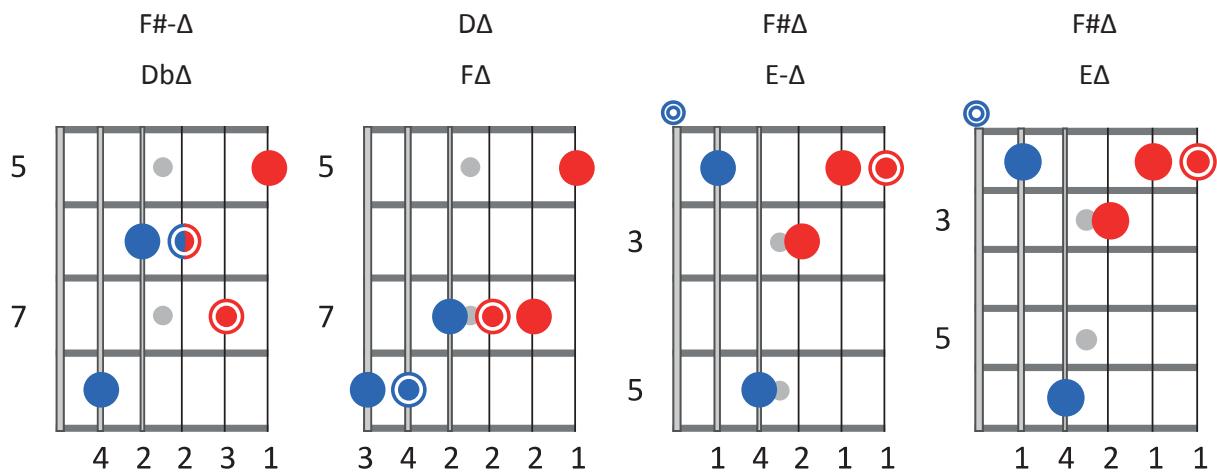
<b>any fret</b> 	<b>E<sup>7/b6</sup></b> 	<b>A<sup>lyd</sup></b> 	<b>any fret</b> 
<b>F#/E-</b> 	<b>E<sup>lyd</sup></b> 		
<b>B/G</b> 	<b>E<sup>7alt</sup></b> 	<b>G#<sup>7alt</sup></b> 	<b>A<sup>lyd</sup></b> 
<b>E<sup>lyd</sup></b> 	<b>E<sup>MA13</sup></b> 	<b>Eb<sup>7/sus4/b9</sup></b> 	<b>G<sup>13/sus4/3</sup></b> 

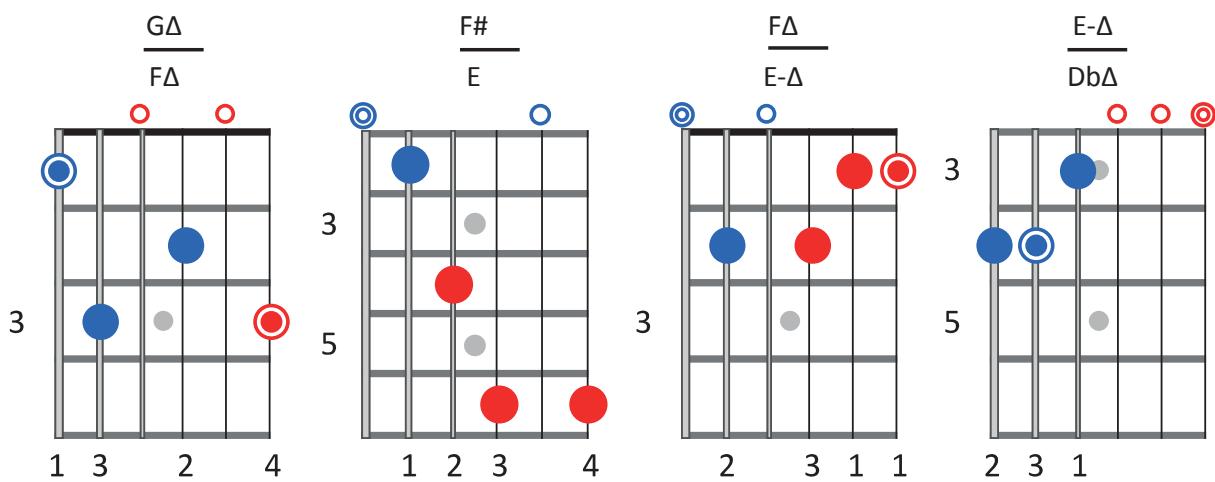
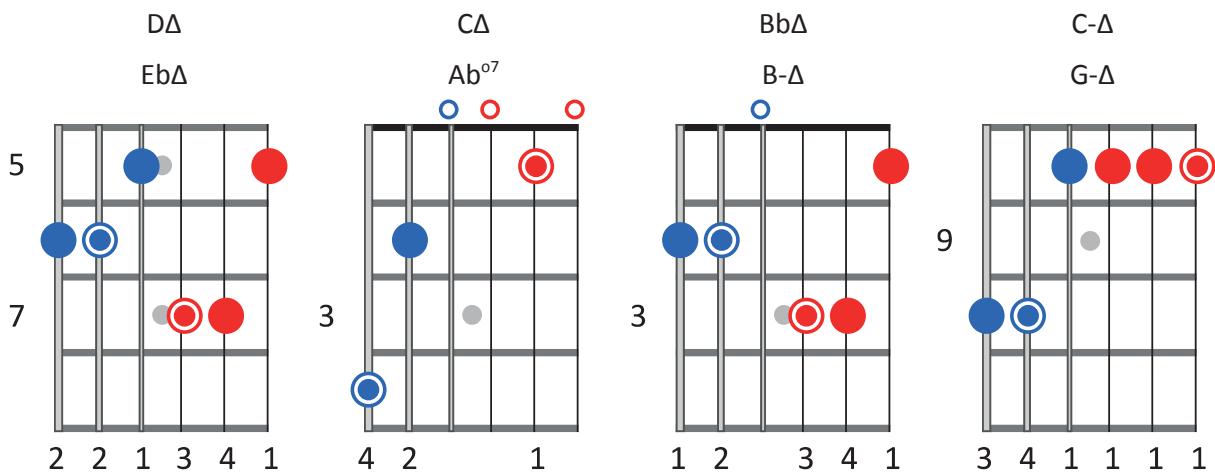


## Polychords (Triads over Triads)

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<sup>7alt</sup>.

### **Ex. 144**

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

Any of these substitutions (and their inversions) will work in place of Eb<sup>7alt</sup>, 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.

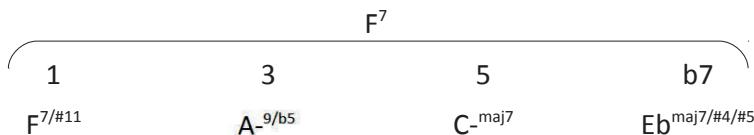
What I would first do is decide on an appropriate scale, in this case we'll use Fmix#11. Then, using the parent melodic minor scale, list all of the chords generated by the scale.

### **Ex. 145**

C-<sup>maj7</sup>      D<sup>7/sus4/b13</sup>      Eb<sup>maj7/#4/#5</sup>      F<sup>7/#11</sup>      G<sup>7/b13</sup>      A-<sup>9/b5</sup>      B<sup>7/#9/b9/#5/b5</sup>

Next I would isolate all of the chords whose root was a basic chord tone of F<sup>7</sup>.

### **Ex. 146**



Out of these chords I would pick two, in this case C-<sup>maj7</sup> and Eb<sup>maj7/#5/#4</sup>, 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.

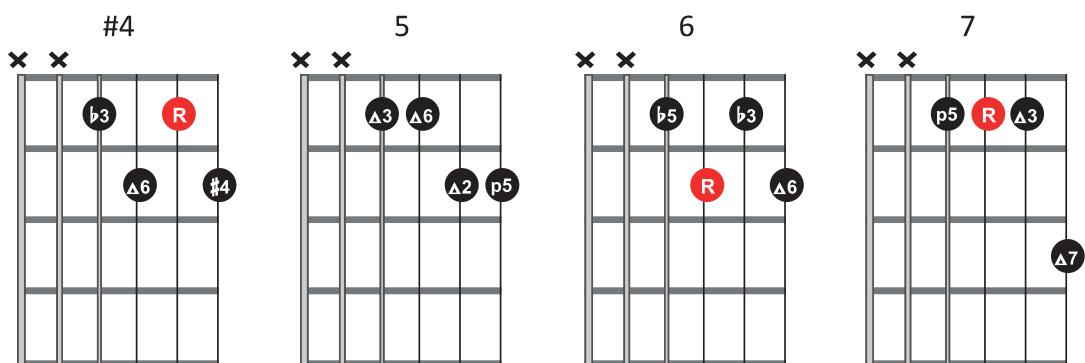
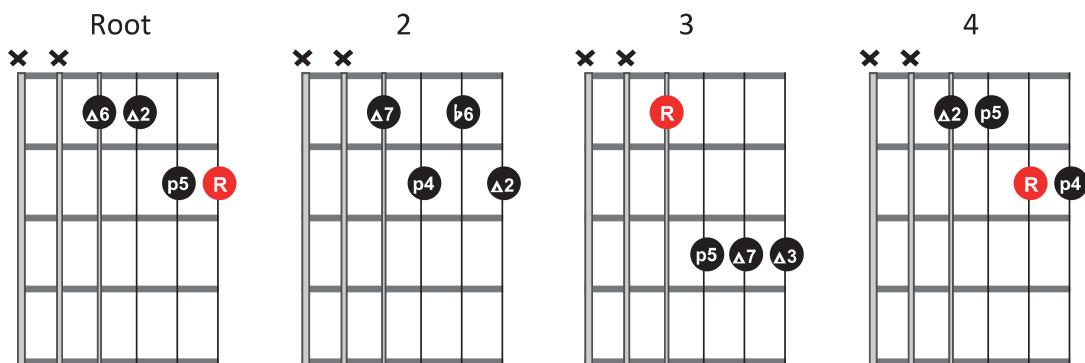
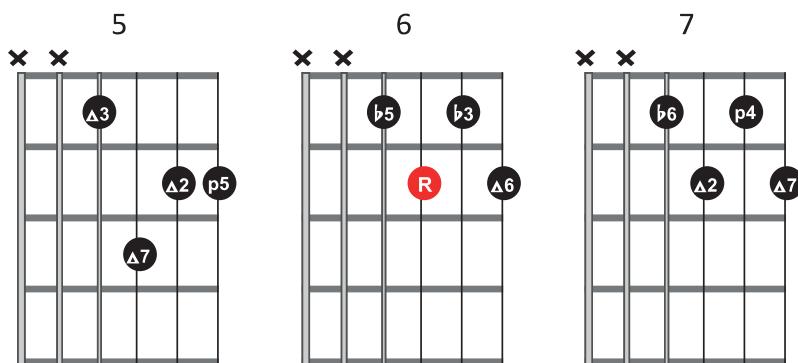
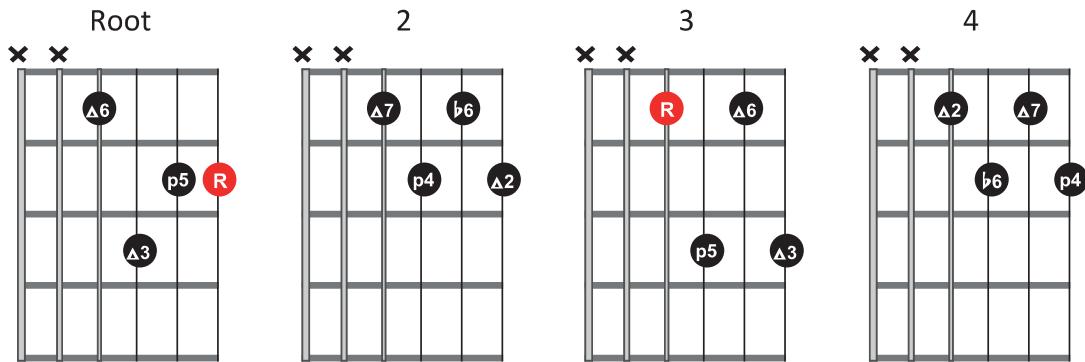
### **Ex. 147**

A musical staff in treble clef and common time. It shows a sequence of chords: F<sup>13</sup>, C-<sup>Maj7</sup>, Eb-<sup>Maj7#4</sup>, C-<sup>Maj7</sup>, C-<sup>Maj7</sup>, Eb-<sup>Maj7#4</sup>, and F<sup>9 (A-7b5)</sup>. The chords are shown in various upper-string voicings, primarily using the 3rd and 4th strings.

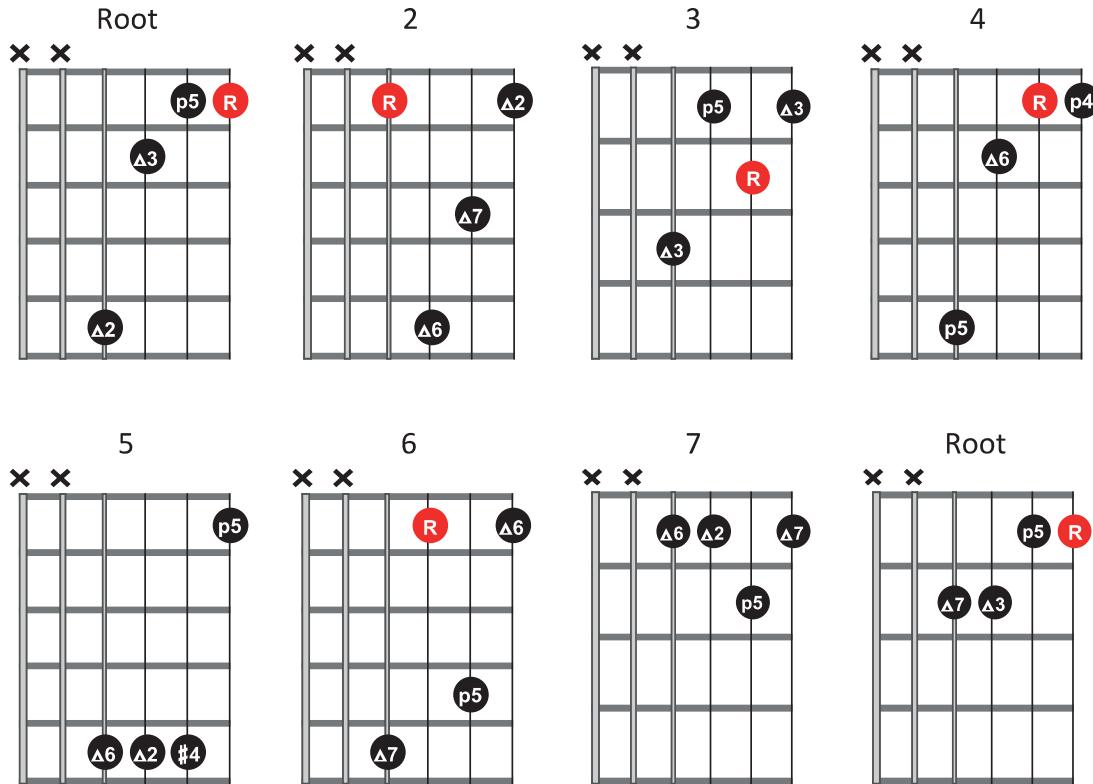
Remember, you may mix together any of the drop voicing groups for these purposes.

## Chordal Scales

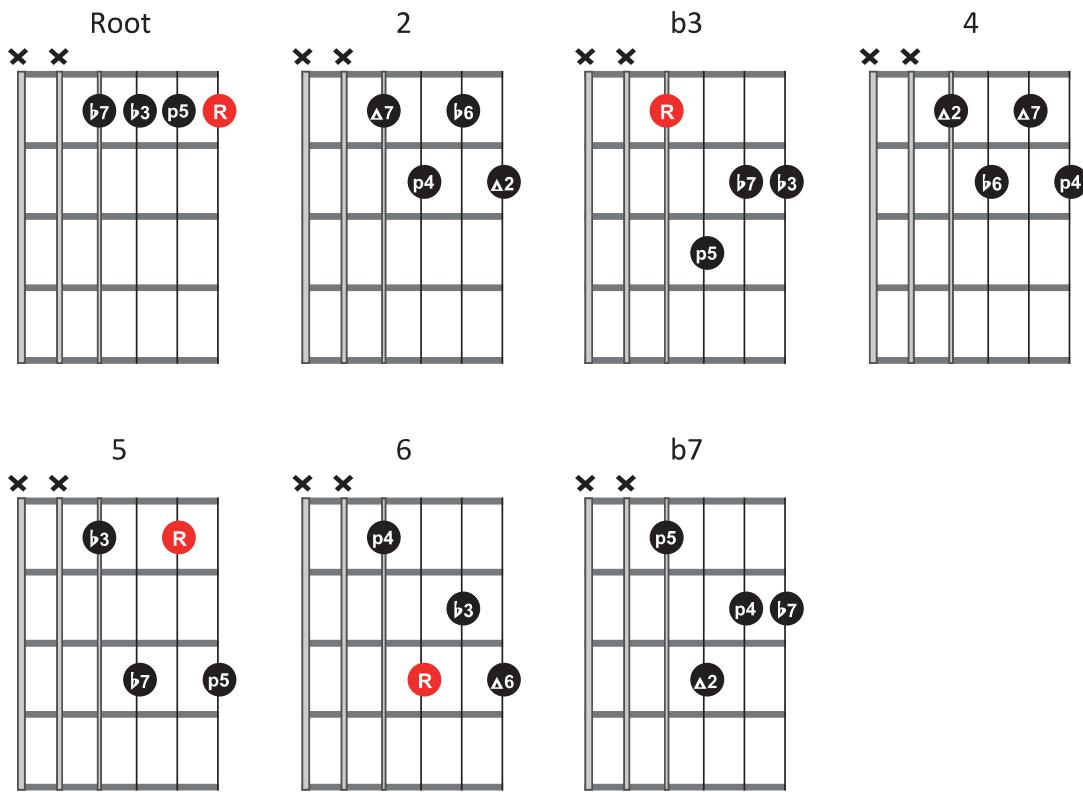
### *Major Scale (Bebop)*



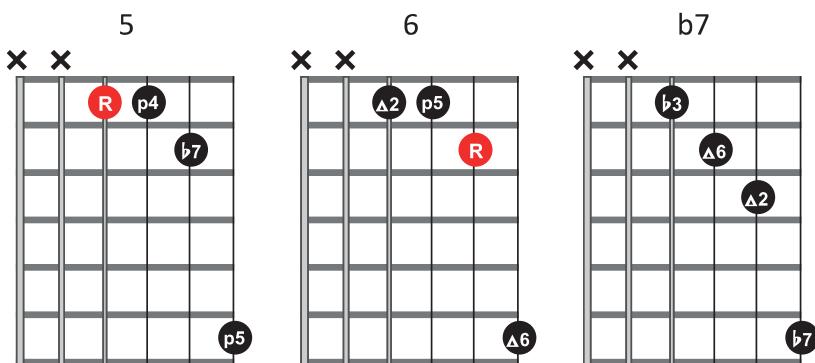
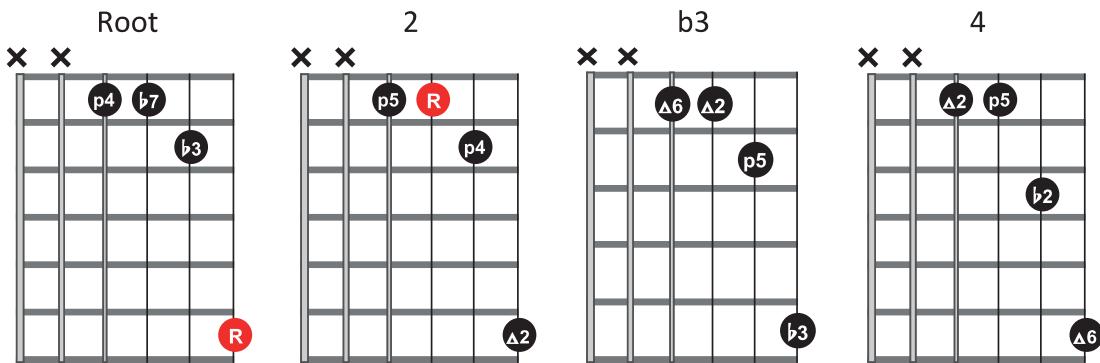
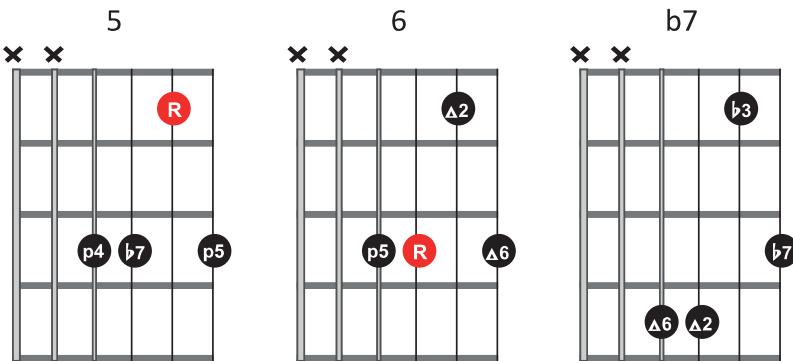
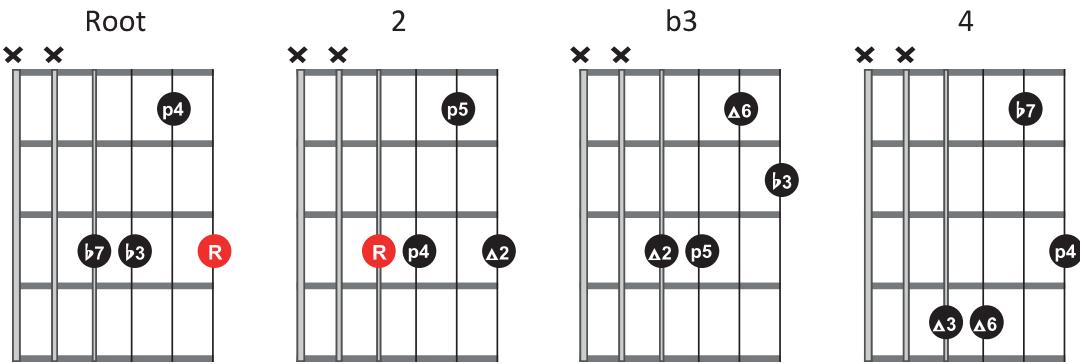
### *Major Scale (modern)*



### *Dorian/Minor (Bebop)*

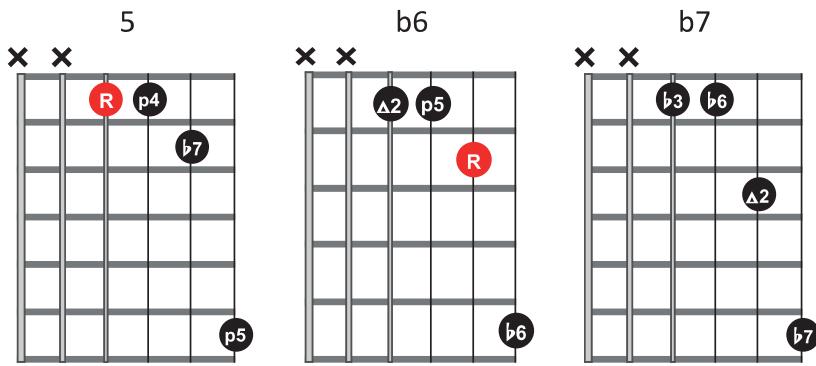
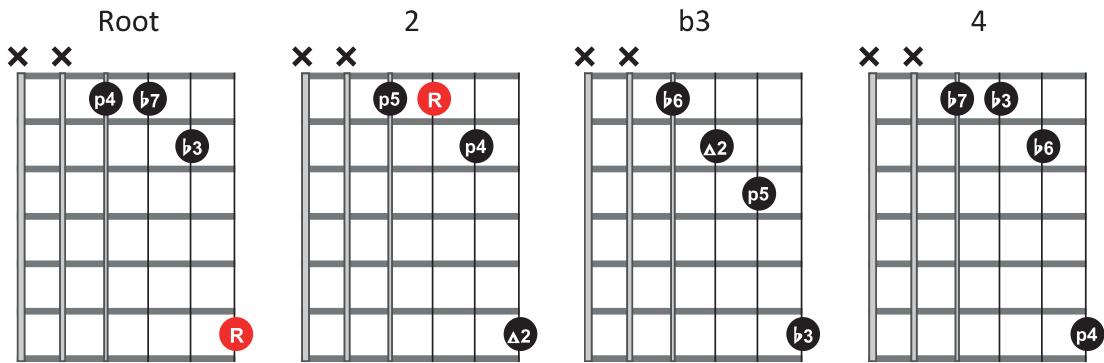


*Dorian/Minor (modern)*

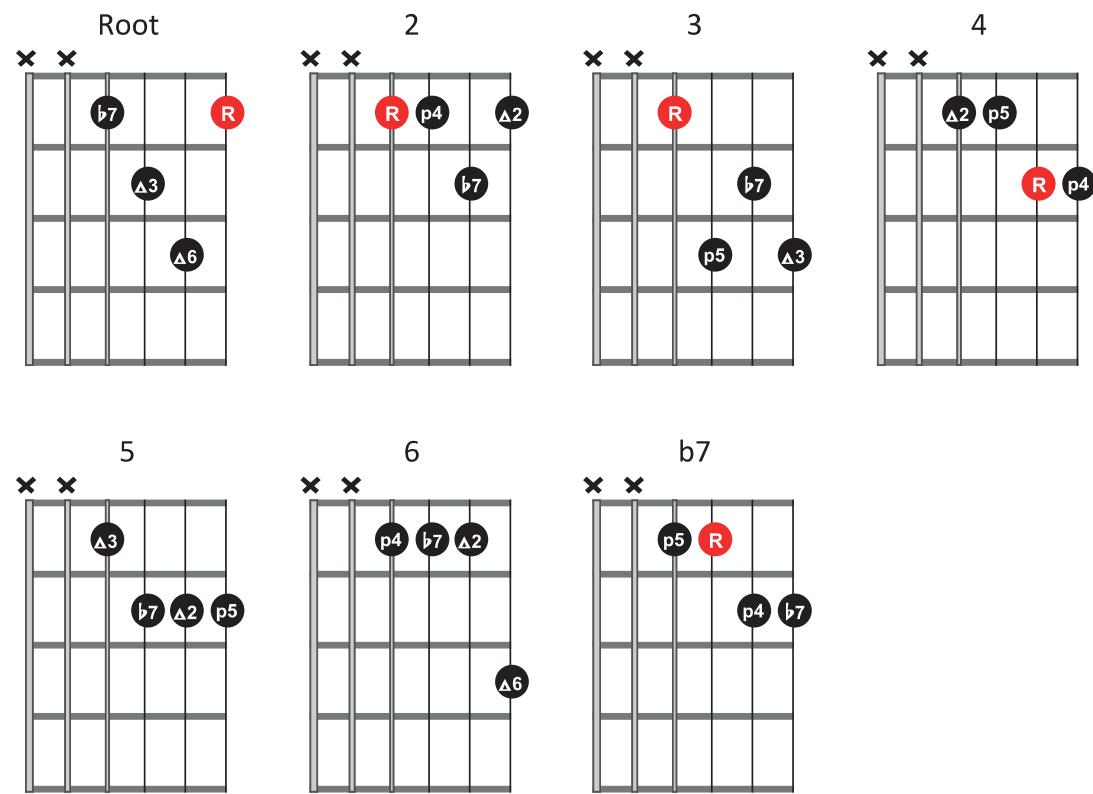


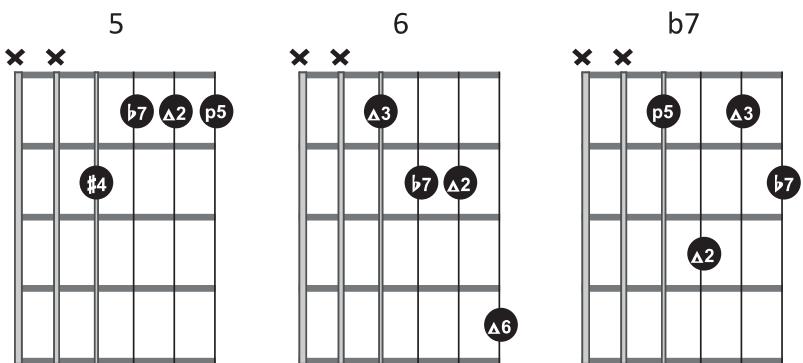
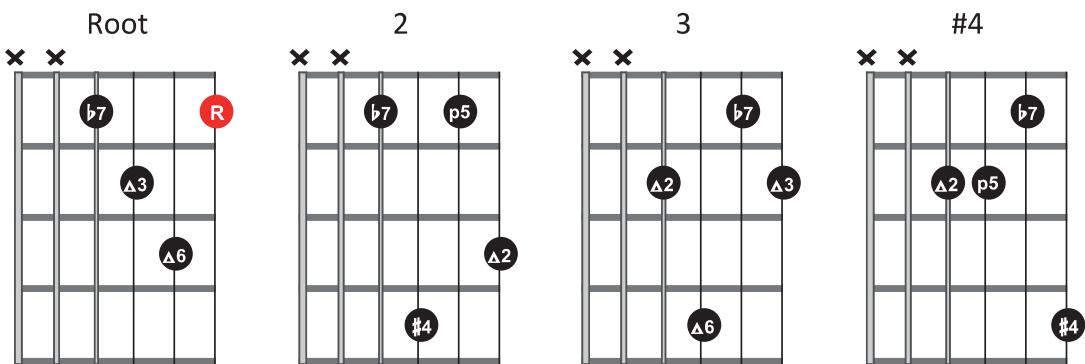
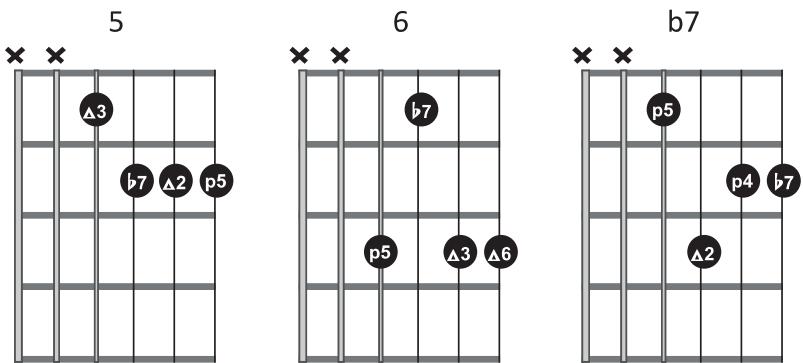
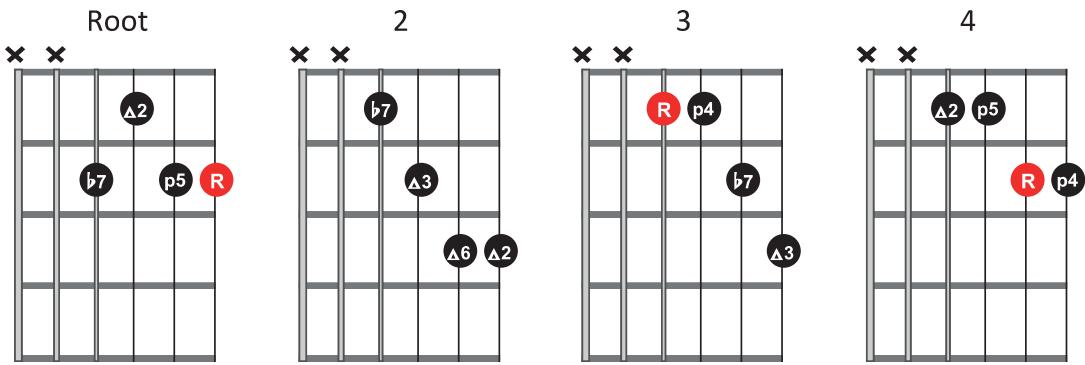
### Aeolian/Minor

<p><b>Root</b></p>	<p><b>2</b></p>	<p><b>b3</b></p>	<p><b>4</b></p>
<p><b>5</b></p>	<p><b>b6</b></p>	<p><b>b7</b></p>	
<p><b>Root</b></p>	<p><b>2</b></p>	<p><b>b3</b></p>	<p><b>4</b></p>
<p><b>5</b></p>	<p><b>b6</b></p>	<p><b>b7</b></p>	



### *Dom<sup>7</sup> (unaltered)*





**Dom<sup>7</sup> (altered Dom)**

Root	b9	#9	3
#4	#5	b7	b9
b9			

**Root**

**b9**

**#9**

**3**

**#4**

**#5**

**b7**

### *Dom<sup>7</sup> (Dominant Dim)*

**Root**

**b9**

**#9**

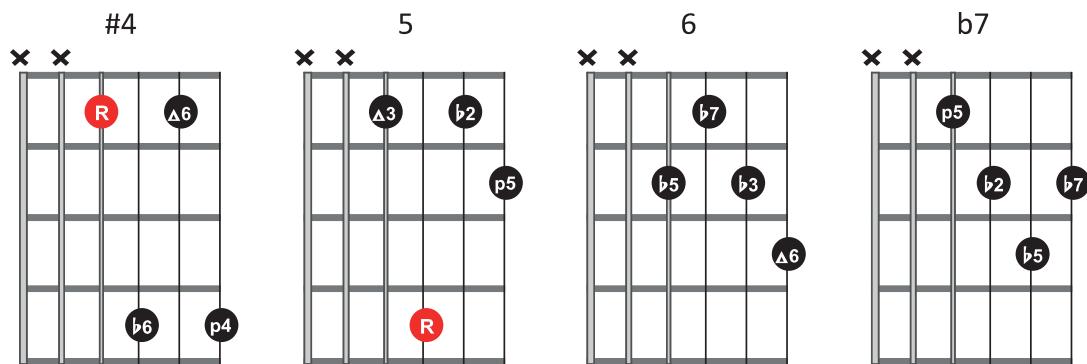
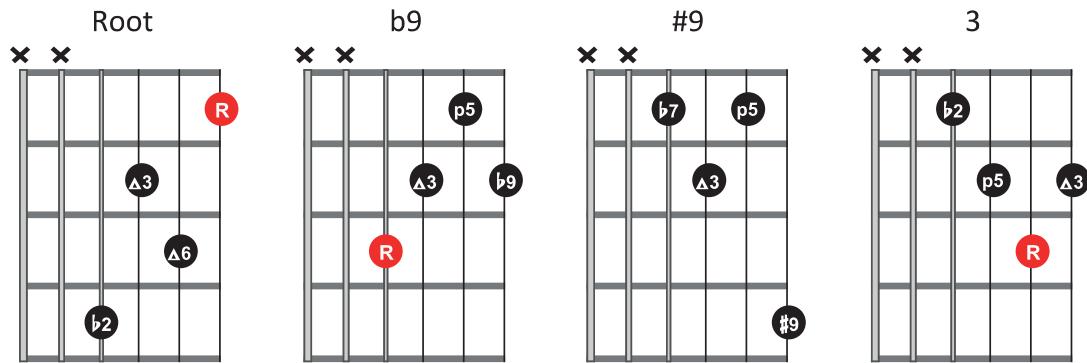
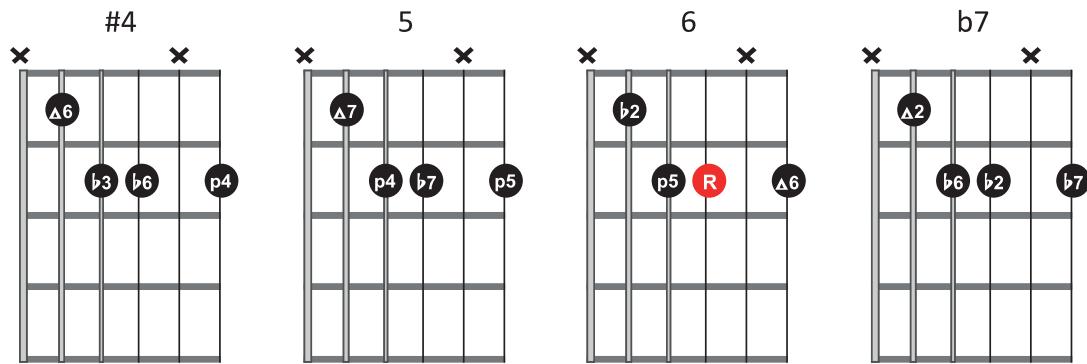
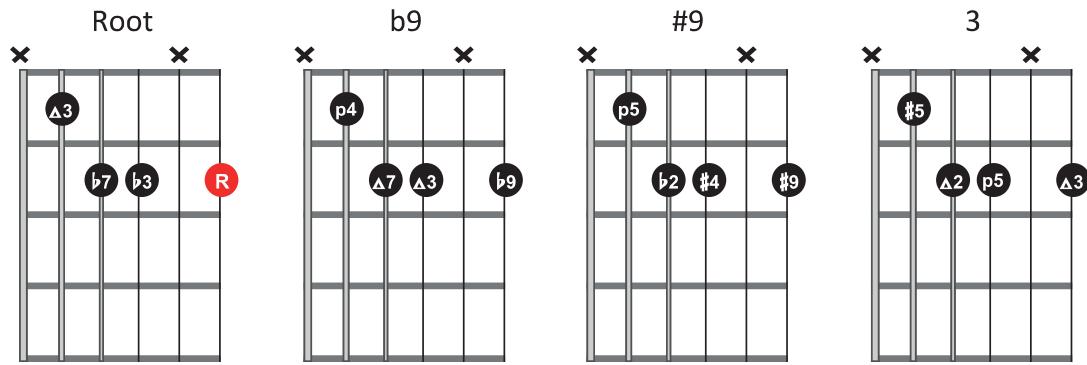
**3**

**#4**

**5**

**6**

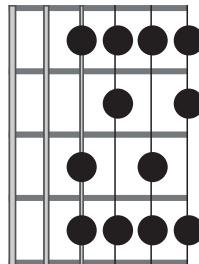
**b7**



## 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.

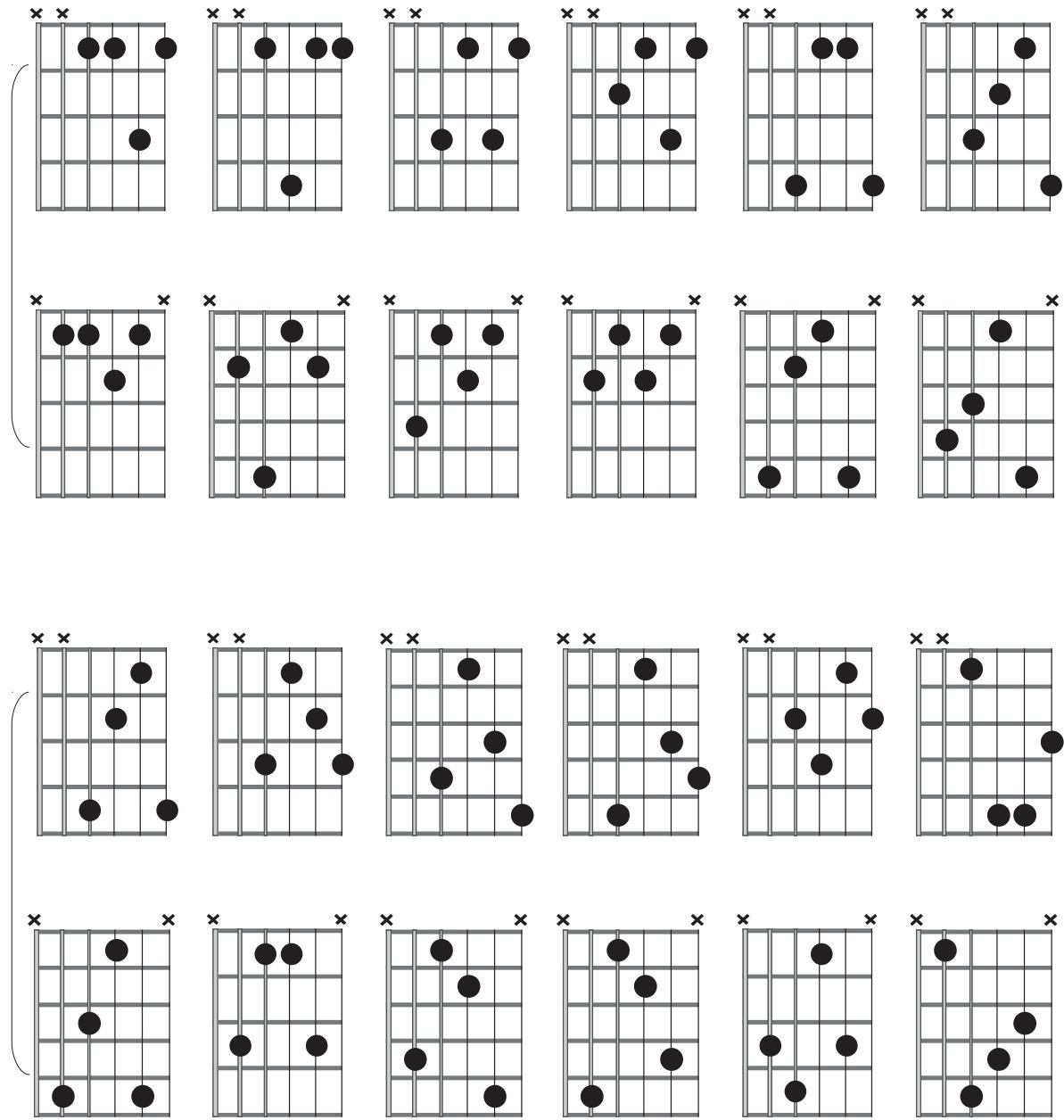
### **Ex. 150**

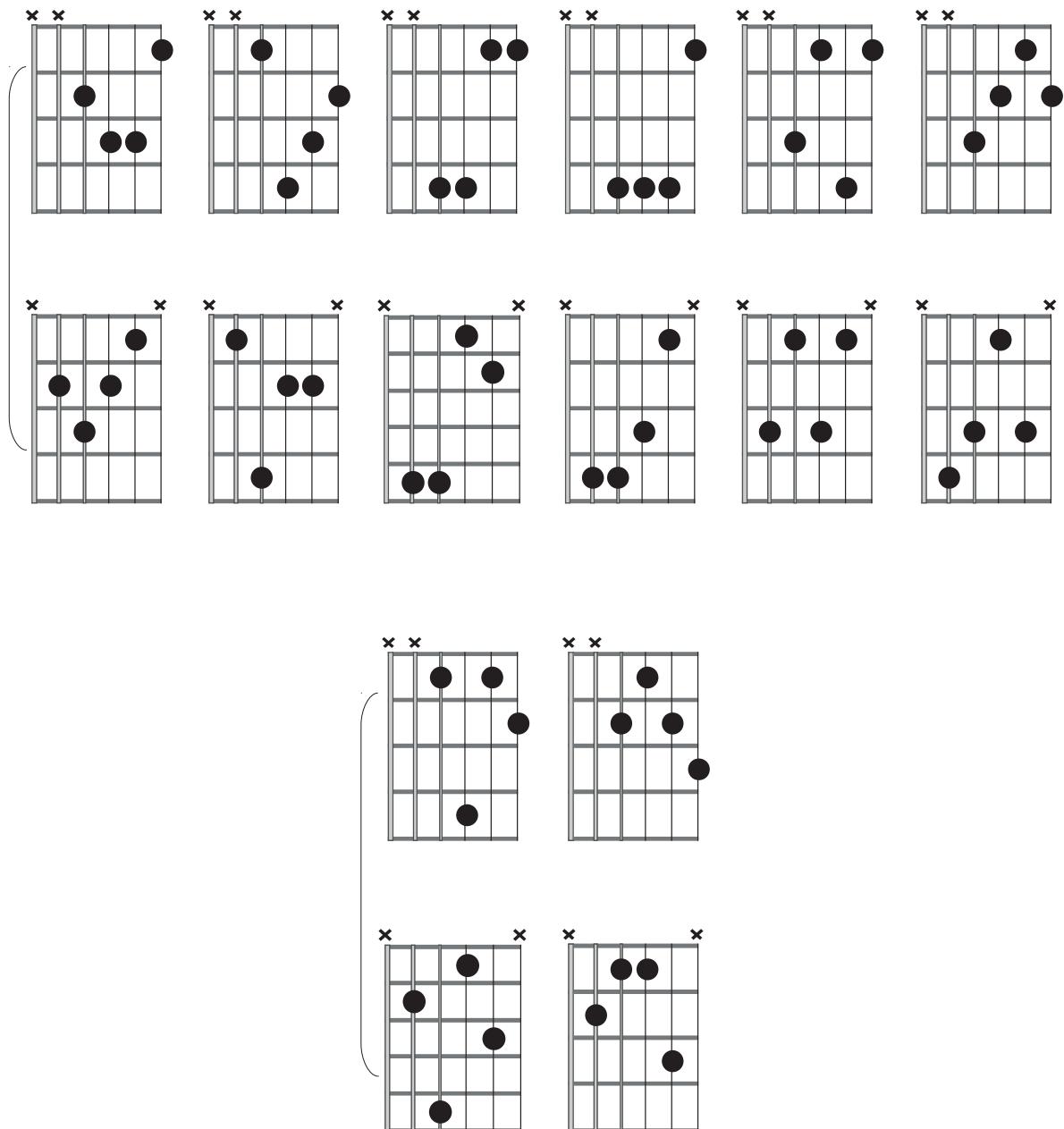
Remember, all of the voicings are moveable by minor thirds.

## Dim<sup>7</sup> Type Comping Voicings

The image displays a collection of 24 guitar chord diagrams, specifically for Dim<sup>7</sup> type comping voicings, arranged in a 4x6 grid. Each diagram illustrates a different finger position on a six-string guitar neck. Black dots represent fingers, and crosses (x) indicate muted or unplayed strings. Brackets on the left side of each row group the first two diagrams together.

- Row 1:** Shows various voicings with notes on the 6th, 5th, and 4th strings, often with the 3rd string muted.
- Row 2:** Shows voicings where the 6th string is often muted, and the 5th string is a primary note.
- Row 3:** Shows voicings with notes on the 6th, 5th, and 3rd strings, with the 4th string muted.
- Row 4:** Shows voicings with notes on the 6th, 5th, and 4th strings, with the 3rd string muted.





## 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**

A musical staff in G clef (treble clef) shows seven chords. The chords are: C major (C-E-G), D major (D-F#-A), E major (E-G-B), F# major (F#-A-C#), G major (G-B-D), A major (A-C#-E), and B major (B-D-F#). A bracket below the staff is labeled "Modal Movement in C major". To the left of the staff, another bracket is labeled "original voicing from key of C major".

## Stretch Voicings

**C<sup>maj7/9</sup>**

**C<sup>MA6/9</sup>**

**C<sup>maj7/9/sus4</sup>**

**C<sup>add9</sup>**

**C<sup>lyd</sup>**

**C<sup>maj7</sup>**

**C<sup>MA6</sup>**

**C<sup>MA6/9</sup>**

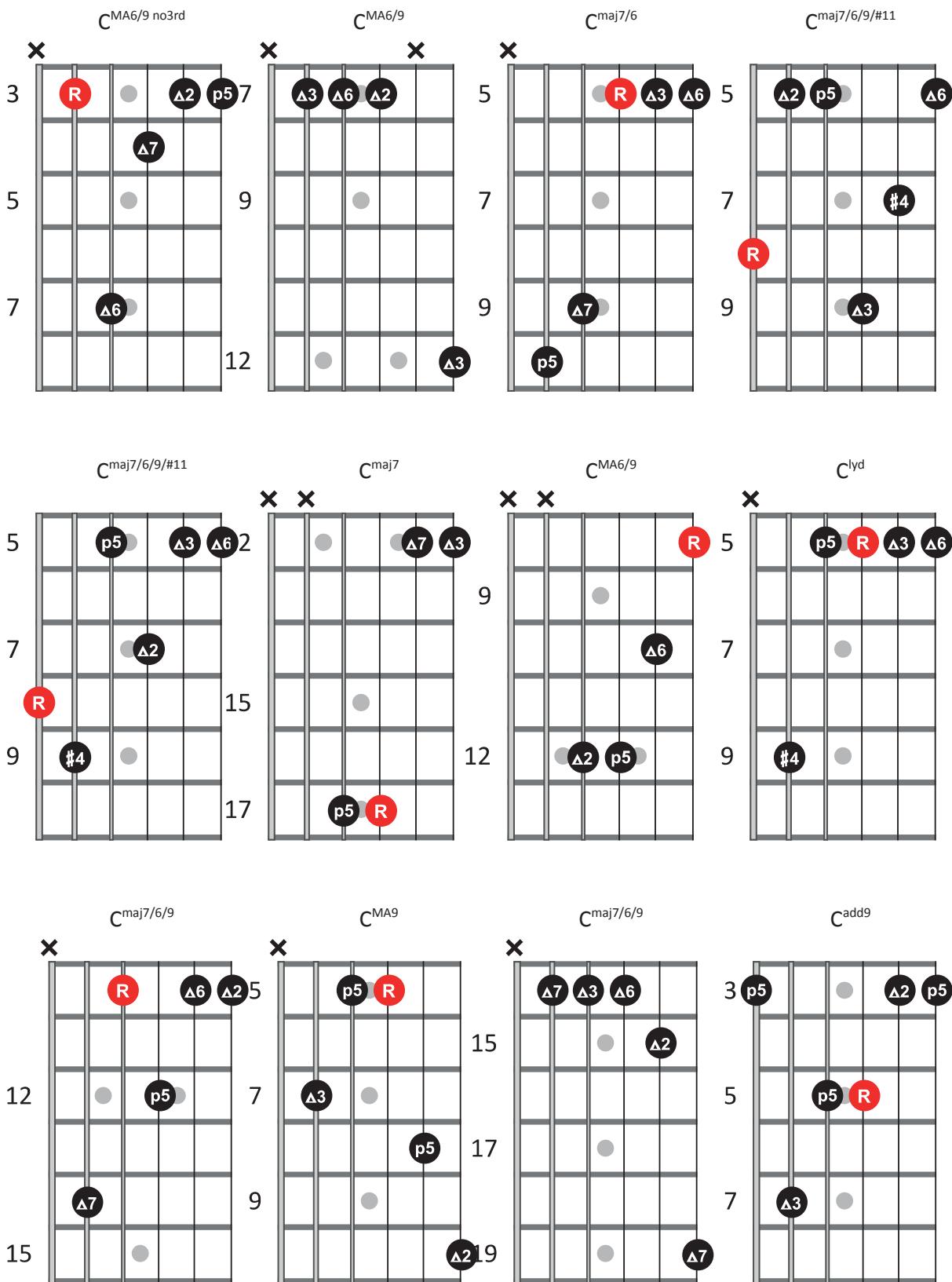
  

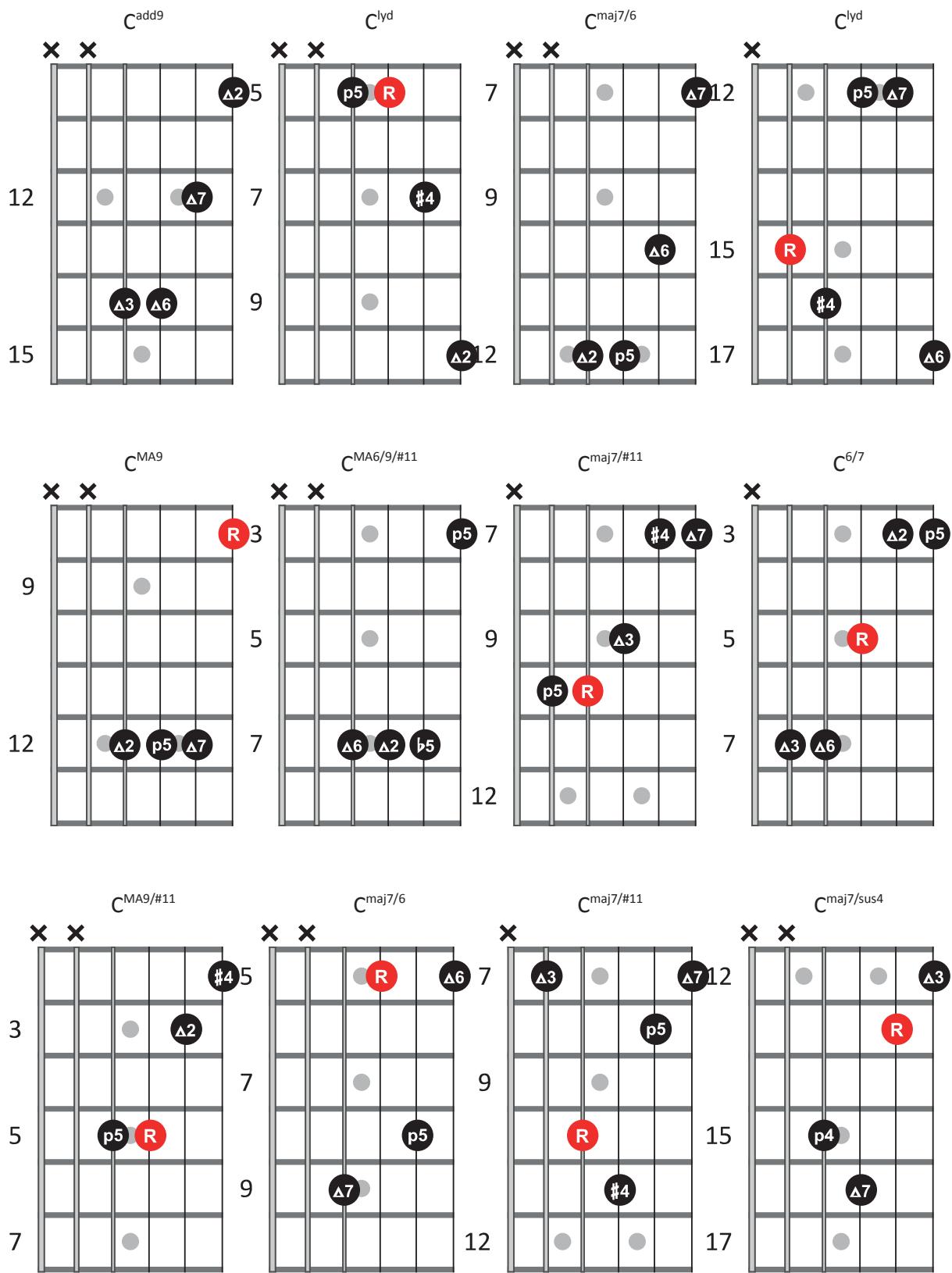
**C<sup>maj7/9/6</sup>**

**C<sup>maj7/9 no3rd</sup>**

**C<sup>MA6/9</sup>**

**C<sup>lyd</sup>**





## Chordal Lines (ii<sup>7</sup> V<sup>7</sup> I<sup>maj7</sup>)

Here are some chordal lines for ii<sup>7</sup> V<sup>7</sup> I<sup>maj7</sup> 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*

D-7                    G7                    C<sup>6</sup>  
A-G-F-E-D-C-B-A      G-F#-E-D-C-B-A-G      C-E-G-C

### *Ex. 152b*

D-7                    G7<sub>alt</sub>                    C<sub>ma</sub>7  
A-G-F-E-D-C-B-A      G-F#-E-B-A-G-F#-E      C-E-G-C

### *Ex. 152c*

D-7                    G7<sub>alt</sub>                    C<sup>6</sup>  
A-G-F-E-D-C-B-A      G-F#-E-B-A-G-F#-E      C-E-G-C

### *Ex. 152d*

D-7                    G7<sub>alt</sub>                    C<sup>6</sup>  
A-G-F-E-D-C-B-A      G-F#-E-B-A-G-F#-E      C-E-G-C

**Ex. 152e**

D-9                    G<sup>7b5(13)</sup>                    C<sup>6</sup>

A musical staff in 4/4 time. It shows three chords: D-9 (two stacked eighth notes), G<sup>7b5(13)</sup> (two eighth notes with a bass note), and C<sup>6</sup> (two eighth notes with a bass note).

Here are some examples of ii<sup>7</sup> V<sup>7</sup> I<sup>maj7</sup> chord lines in the key of Fmajor. The arrows are used to designate the use of the same voicing.

**Ex. 153a**

(D7<sup>b9</sup>)            (D7<sup>b9</sup>)            (D7<sup>b9</sup>)            (D7<sup>b9</sup>)            single note  
 G-7 F#07 G-7 A07 G-7 G-7 A07 G-7 G-7 F#07 G-7 C7alt S.N. F<sub>MA</sub>7

A musical staff in 4/4 time. It shows a sequence of chords: G-7, F#07, G-7, A07, G-7, G-7, A07, G-7, G-7, F#07, G-7, C7alt (labeled "S.N."), and F<sub>MA</sub>7. Arrows above the staff indicate specific voicings for certain chords.

**Ex. 153b**

(D7<sup>b9</sup>)  
 G-7 G-7 F#07 G-7 C7<sup>b5</sup> (G-<sup>MAJ7</sup>) C7 F<sub>MA</sub>7

A musical staff in 4/4 time. It shows a sequence of chords: G-7, G-7 F#07 G-7, C7<sup>b5</sup> (labeled G-<sup>MAJ7</sup>), C7, and F<sub>MA</sub>7. Arrows above the staff indicate specific voicings for certain chords.

**Ex. 153c**

G-7 C7alt F<sub>MAJ7</sub>

A musical staff in 4/4 time. It shows a sequence of chords: G-7, C7alt, and F<sub>MAJ7</sub>. Arrows above the staff indicate specific voicings for certain chords.

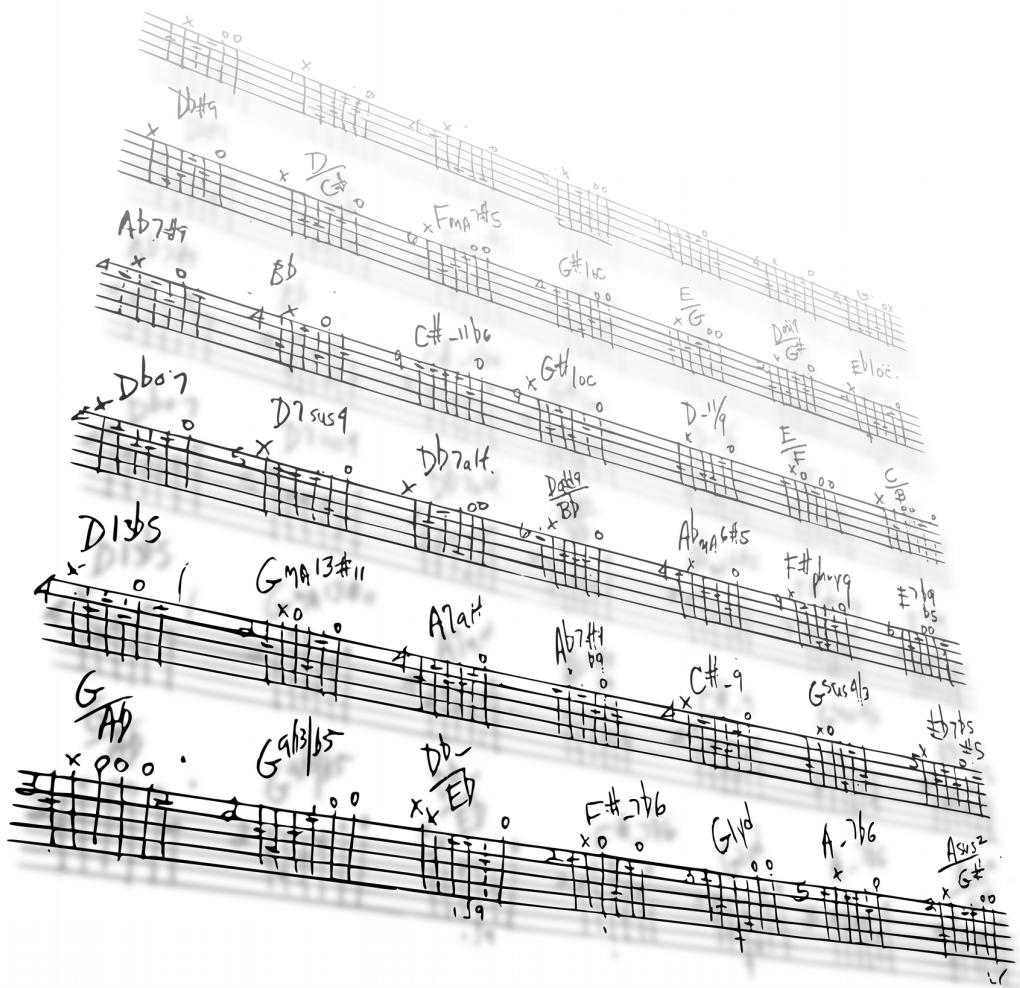
**Ex. 153d**

G-7 C7alt F<sub>MA</sub>7

A musical staff in 4/4 time. It shows a sequence of chords: G-7, C7alt, and F<sub>MA</sub>7. Arrows above the staff indicate specific voicings for certain chords.

# CHAPTER 3

## SCALES + ARPEGGIOS



## **Chapter 3**

### **Mode (Scale) Practice**

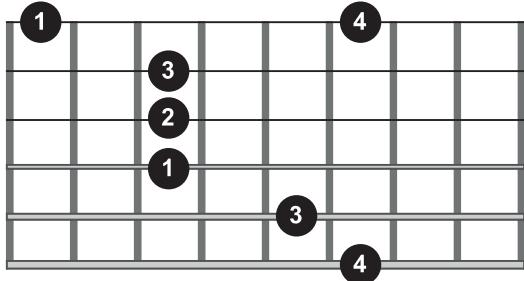
Modes should be practiced every day to warm-up the hands and develop fingerboard understanding. They should be practiced to a metronome in a variety of rhythms (eighths, quarters, eighth-note triplets, sixteenths, sixteenth-note triplets and dotted rhythms) paying particular attention to sound clarity.

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

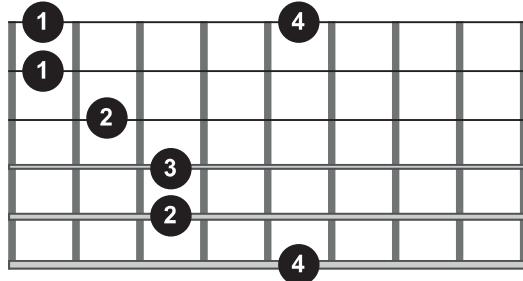
I would recommend practicing one scale group (major, melodic minor or harmonic minor) per day, isolating one mode for the purpose of interval studies. Practicing too many interval or arpeggio studies in one sitting will only add to your confusion.

## Triads

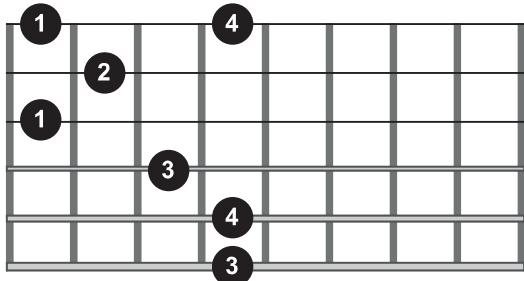
Major (Root Position)



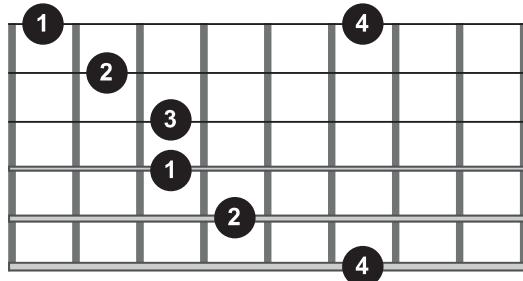
Major (3<sup>rd</sup> in Bass)



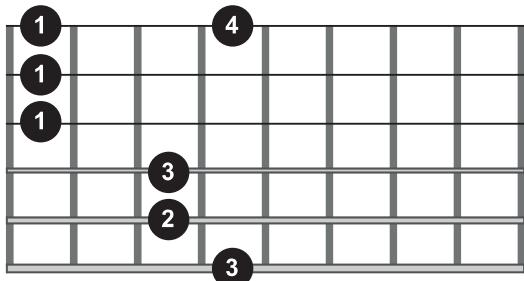
Major (5<sup>th</sup> in Bass)



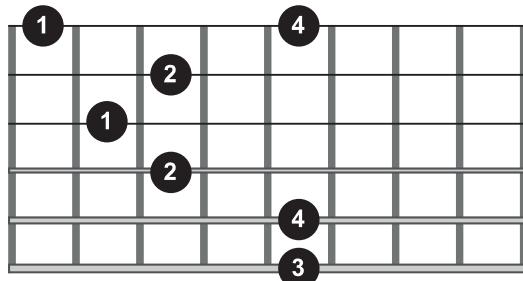
Minor (Root Position)



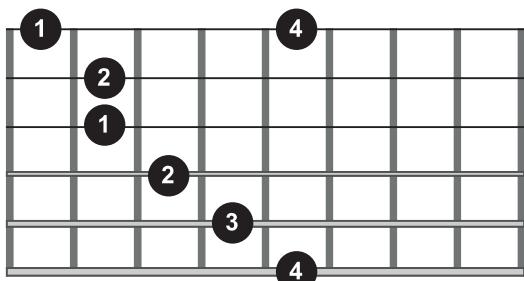
Minor (3<sup>rd</sup> in Bass)



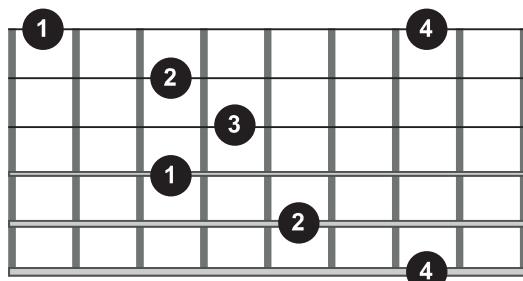
Minor (5<sup>th</sup> in Bass)



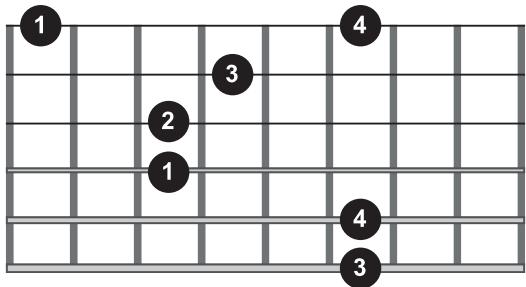
Augmented



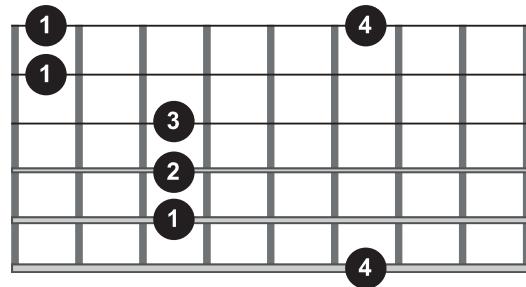
Diminished



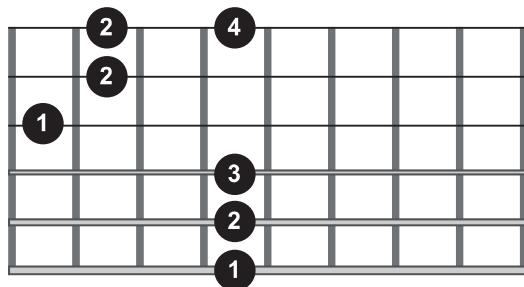
Sus<sup>4</sup>



Sus<sup>2</sup>

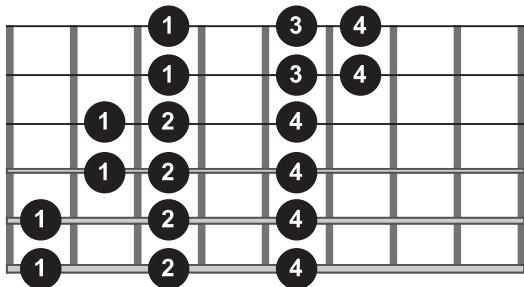


Quartal

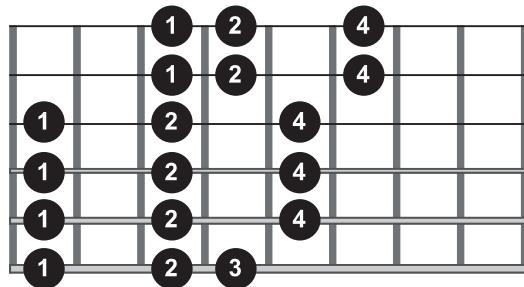


## Modes of the Major Scale

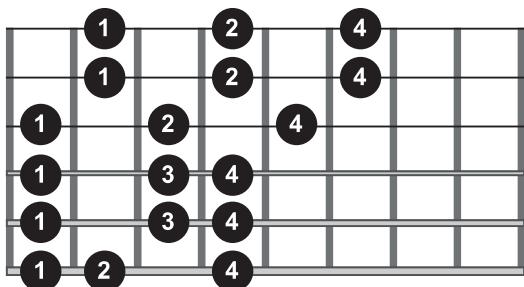
Ionian



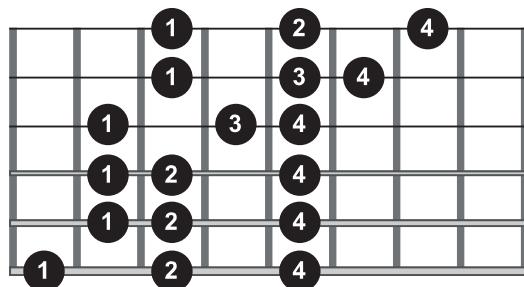
Dorian



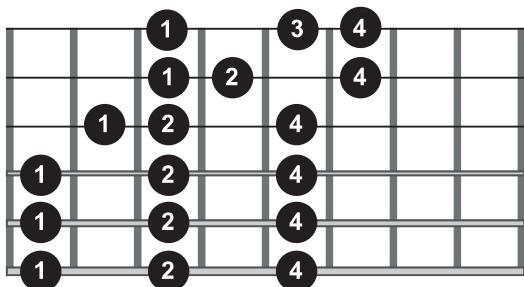
Phrygian



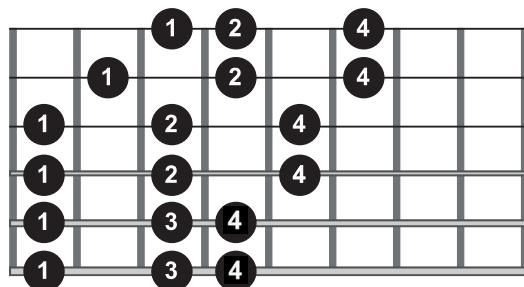
Lydian



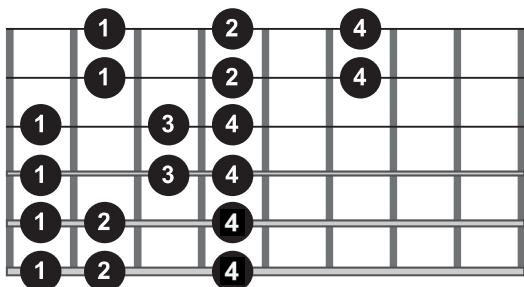
Mixolydian



Aeolian

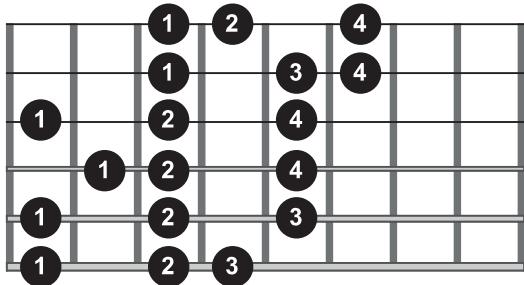


Locrian

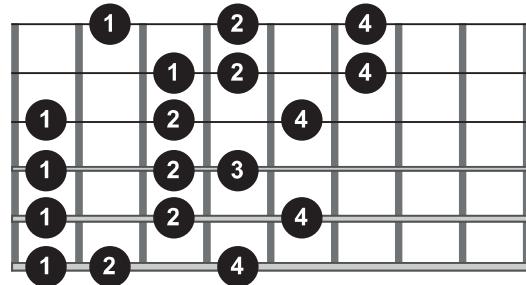


## Modes of the Melodic Minor Scale

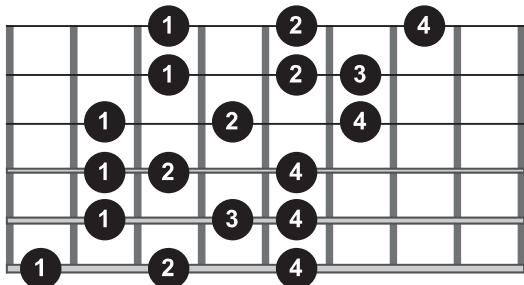
Melodic Minor



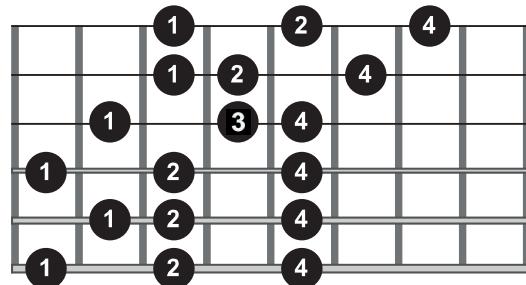
Dorian b2



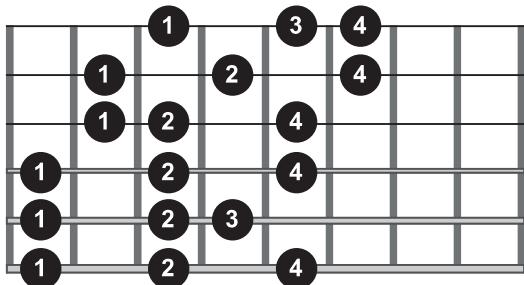
Lydian Augmented



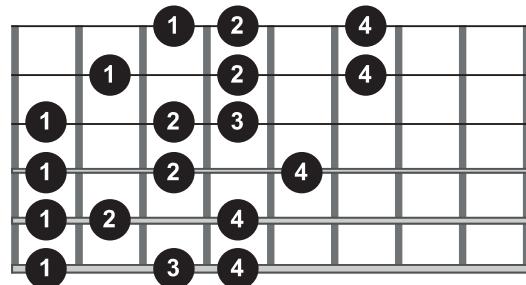
Mixolydian #11



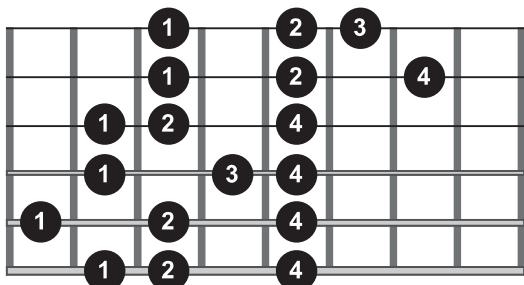
Mixolydian b6



Locrian nat.2

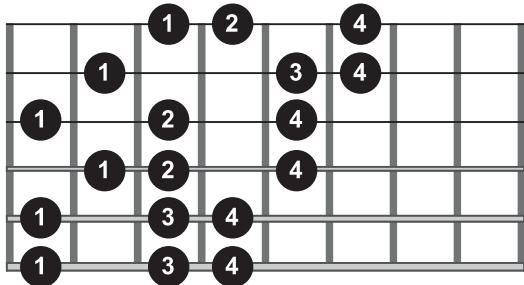


Altered Dominant

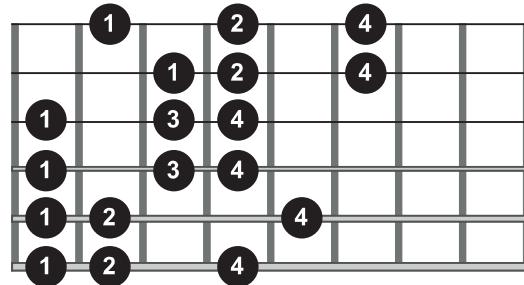


## Modes of the Harmonic Minor Scale

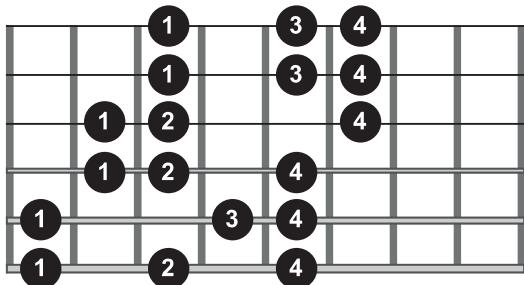
Harmonic Minor



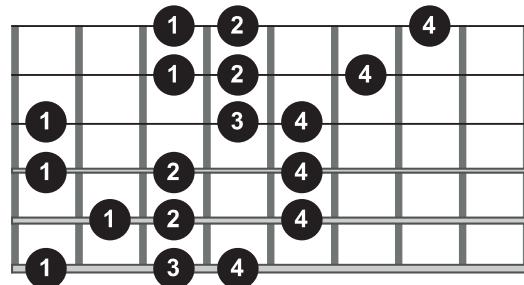
Locrian nat. 6



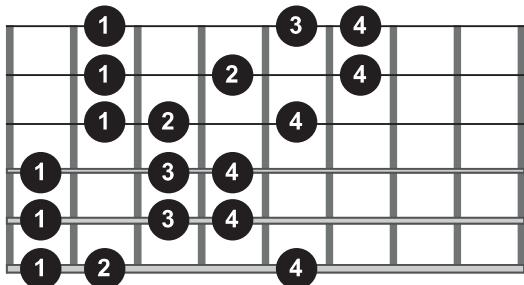
Ionian Augmented



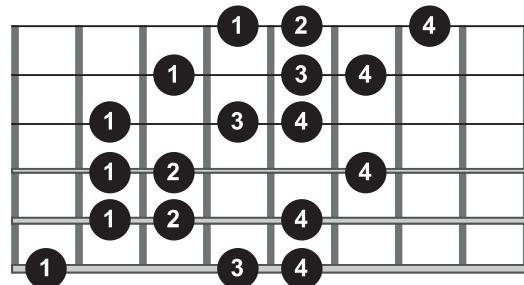
Dorian #4



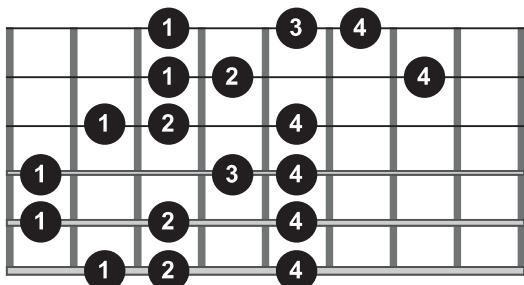
Phrygian Major



Lydian #9

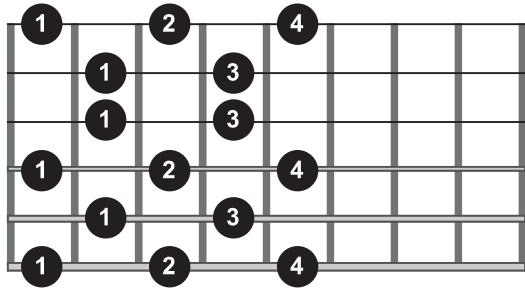


Altered Dominant bb7

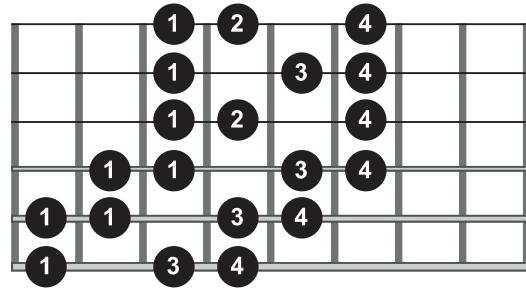


## Miscellaneous Scales

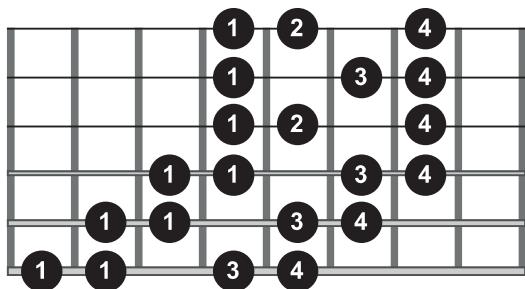
Whole Tone



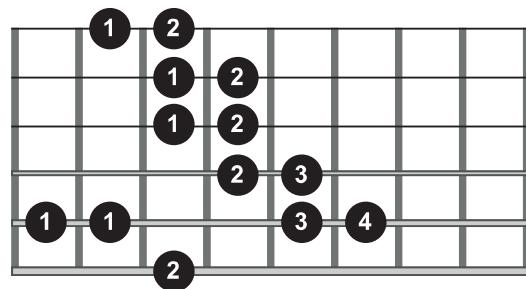
Tonic Diminished



Dominant Diminished



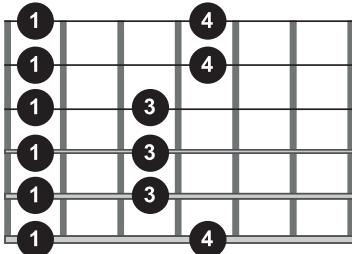
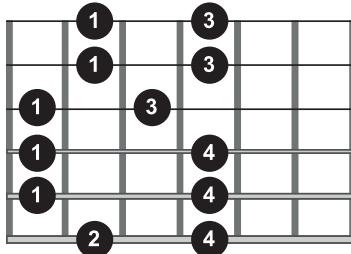
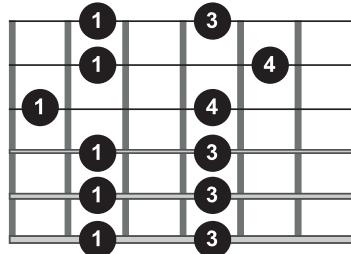
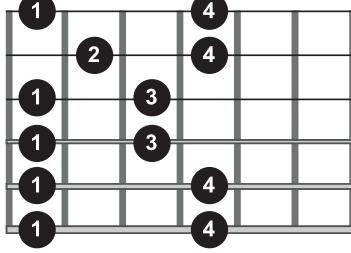
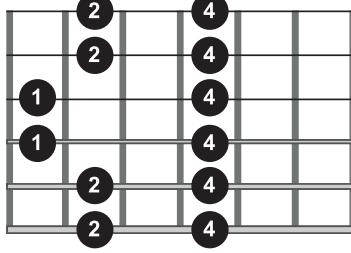
Augmented



## Blues and Pentatonic Scales

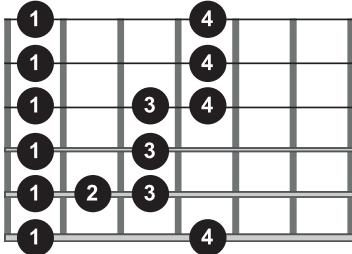
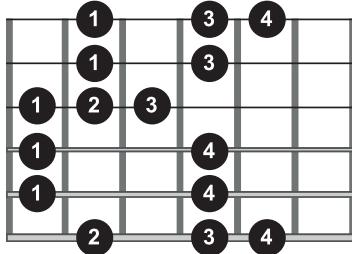
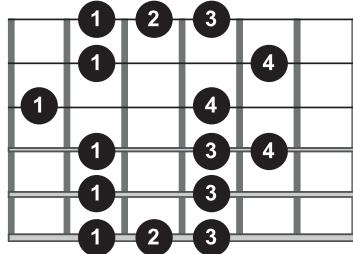
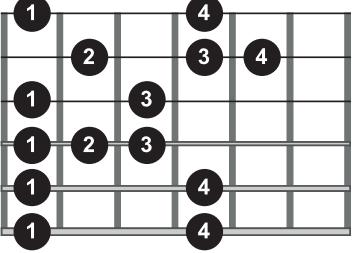
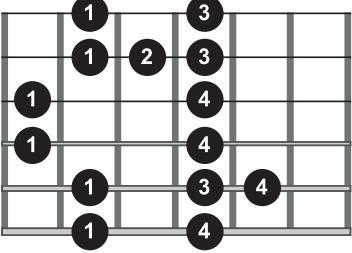
### Pentatonic Scales:

<b>Major:</b>	1	2	3	5	6
<b>Minor:</b>	1	b3	4	5	b7

Maj / Min (6 <sup>th</sup> /Root)	R/b3 <sup>rd</sup>	2 <sup>nd</sup> /4 <sup>th</sup>
 Position I	 Position II	 Position III
3 <sup>rd</sup> /5 <sup>th</sup>		5 <sup>th</sup> /b7 <sup>th</sup>
 Position IV		 Position V

**Blues Scales:**

<b>Major:</b>	1	2	b3	3	5	6
<b>Minor:</b>	1	b3	4	#4	5	b7

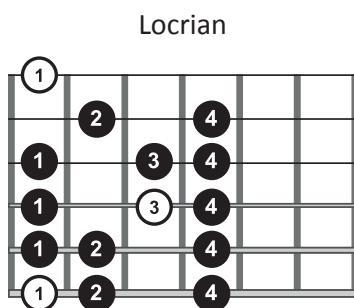
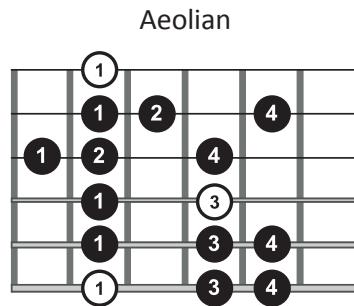
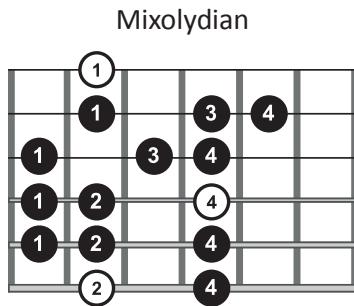
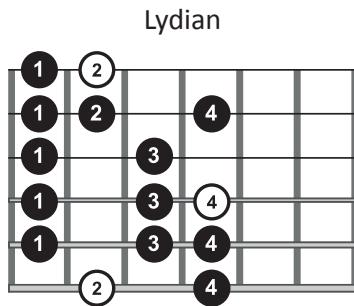
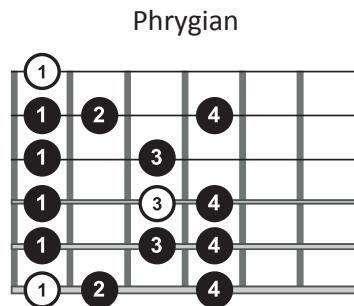
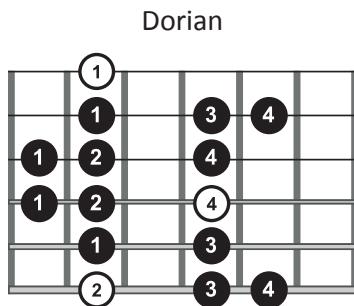
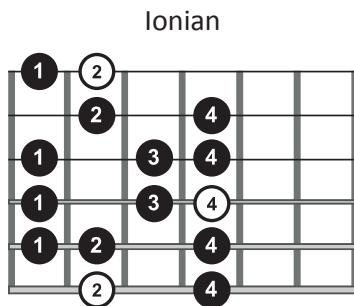
Maj / Min (6 <sup>th</sup> /Root)	R/b3 <sup>rd</sup>	2 <sup>nd</sup> /4 <sup>th</sup>
 Position I	 Position II	 Position III
3 <sup>rd</sup> /5 <sup>th</sup>	5 <sup>th</sup> /b7 <sup>th</sup>	
 Position IV	 Position V	

## 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.

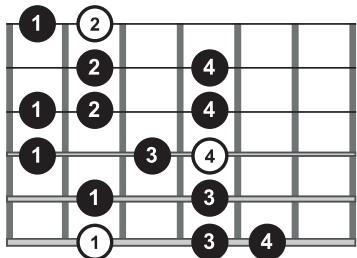
The added striking power creates a percussive attack aurally resembling a picked note. If you are already familiar with these fingerings move on to the two note per string scales.

### Major Scale

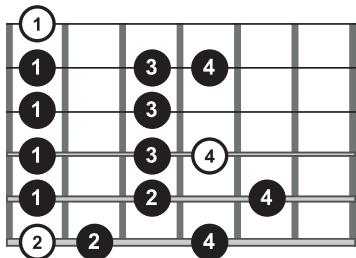


## Melodic Minor Scale

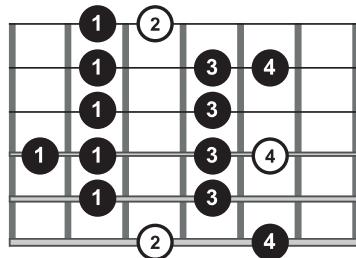
Melodic Minor



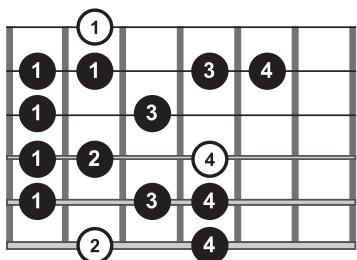
Dorian b2



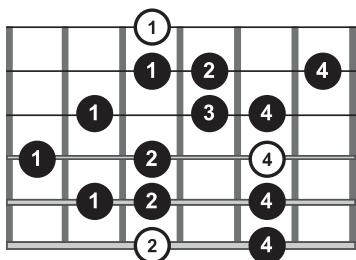
Lydian Augmented



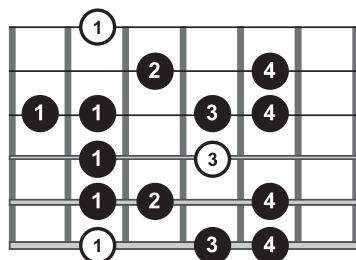
Mixolydian #11



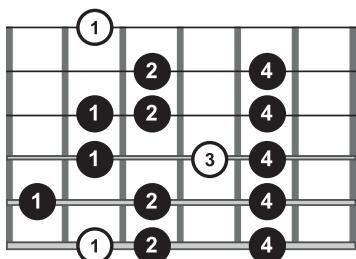
Mixolydian b6



Locrian nat.2

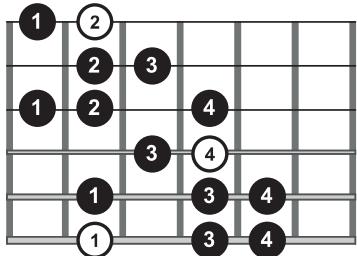


Altered Dominant

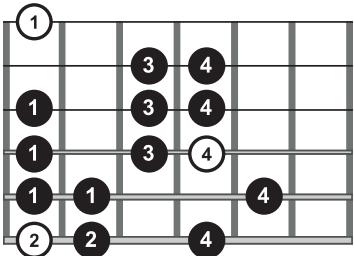


## Harmonic Minor Scale

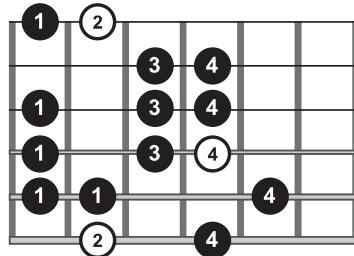
Harmonic Minor



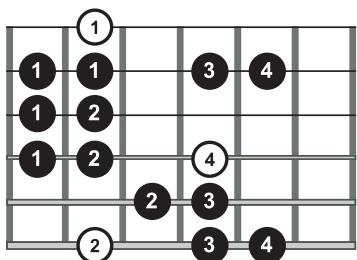
Locrian nat.6



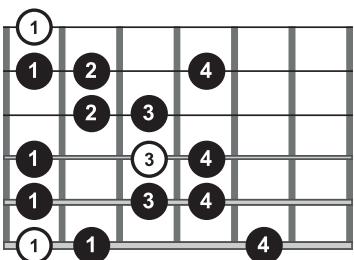
Ionian Augmented



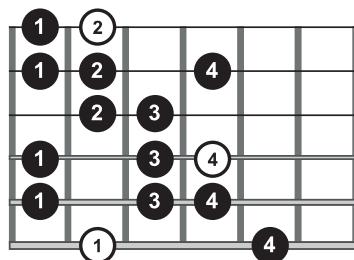
Dorian #4



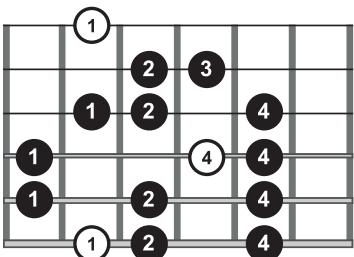
Phrygian Major



Lydian #9



Altered Dominant bb7



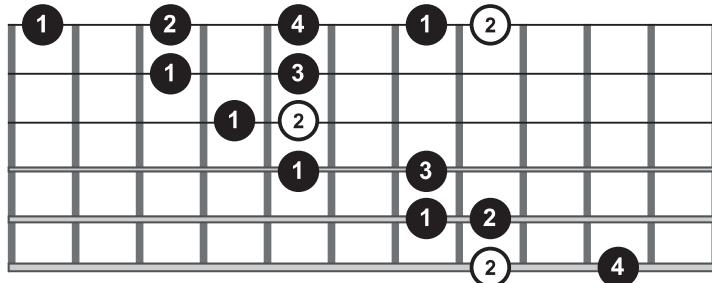
## Scales with two notes per string

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).

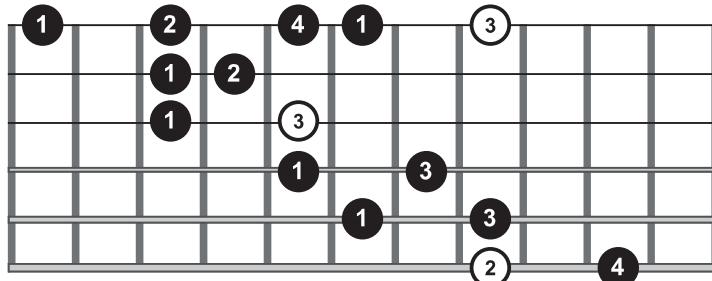
This unusual movement will open up your fingering possibilities and lead you in different directions while improvising. These fingerings work nicely if you slur on each string.

### Modes of the Major Scale

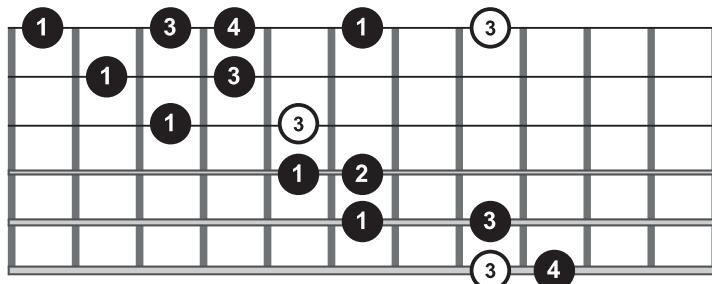
Ionian:



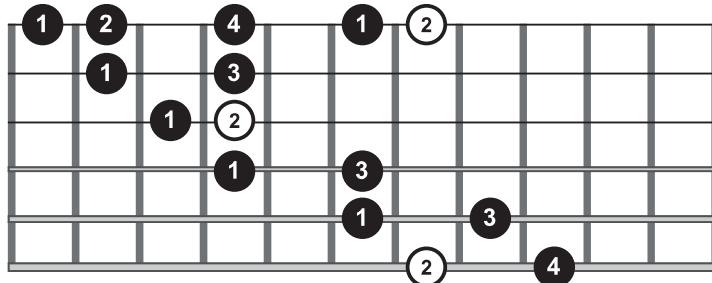
Dorian:



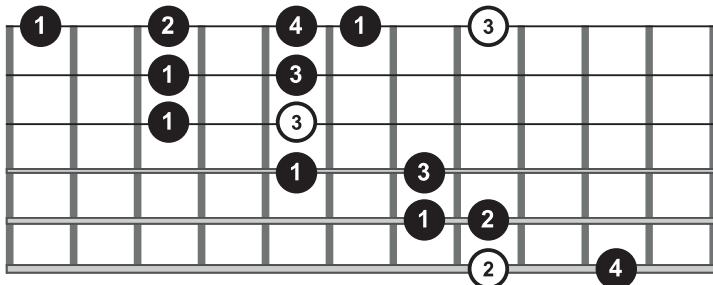
Phrygian:



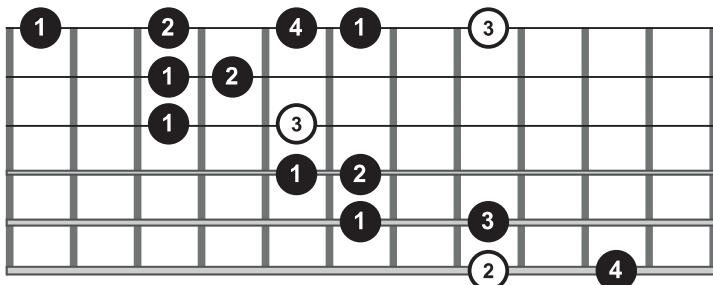
Lydian:



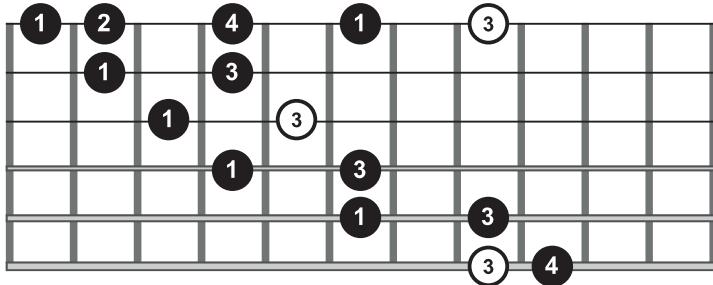
Mixolydian:



Aeolian:

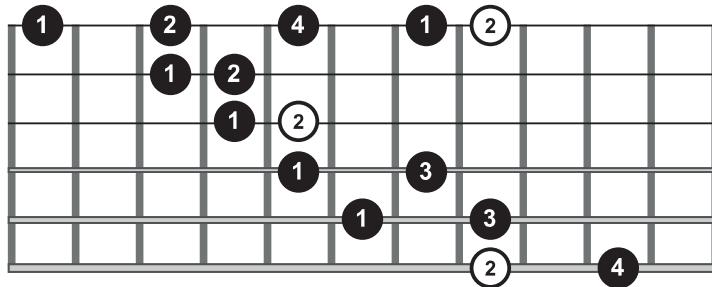


Locrian:

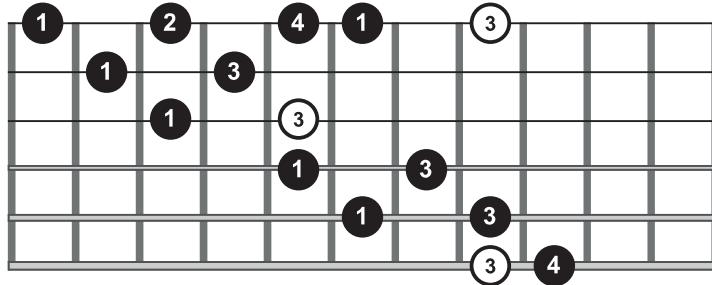


## Modes of the Melodic Minor Scale

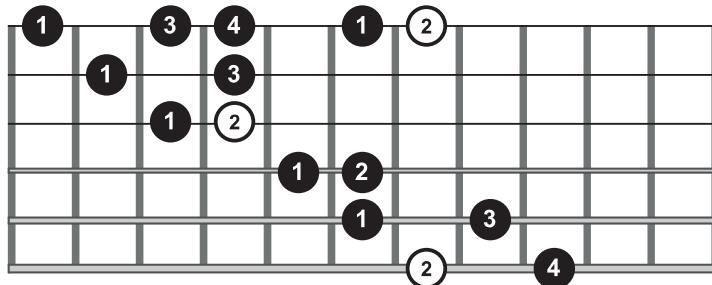
Melodic Minor:



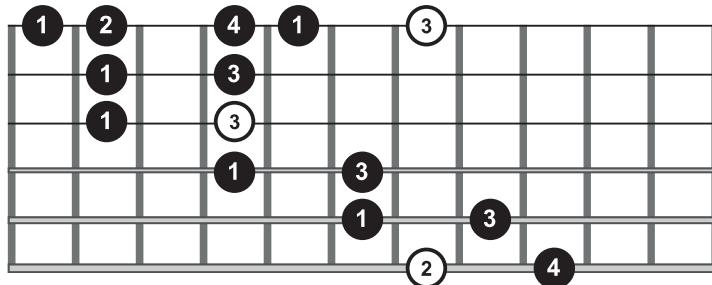
Dorian b2



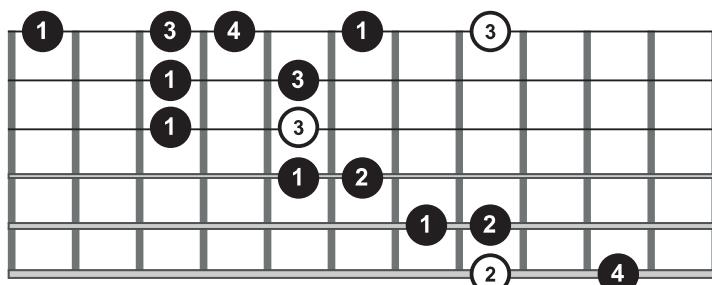
Lydian Augmented



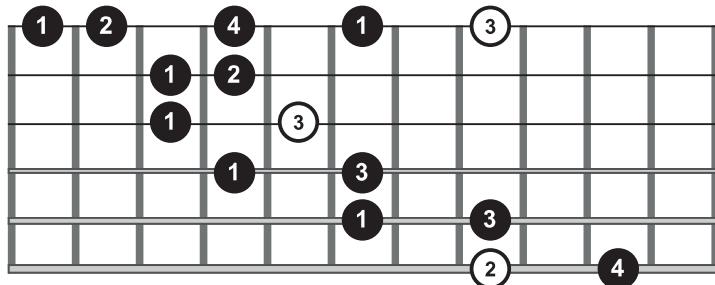
Mixolydian #11



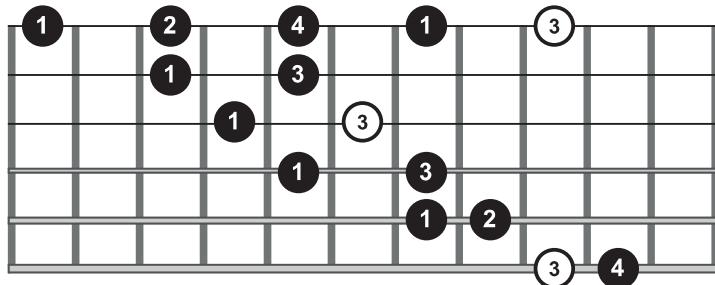
Mixolydian b6



Locrian nat.2

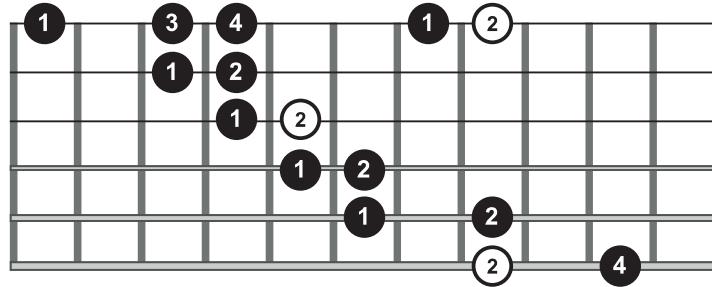


Altered Dominant

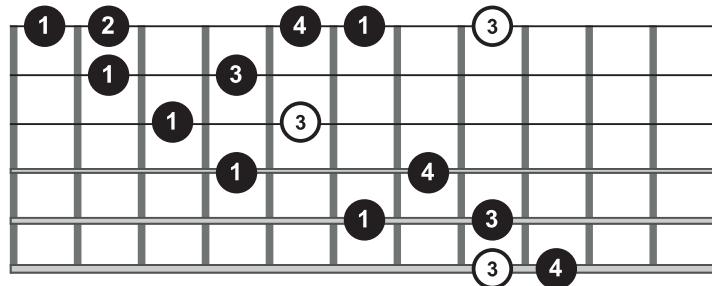


## Modes of the Harmonic Minor Scale

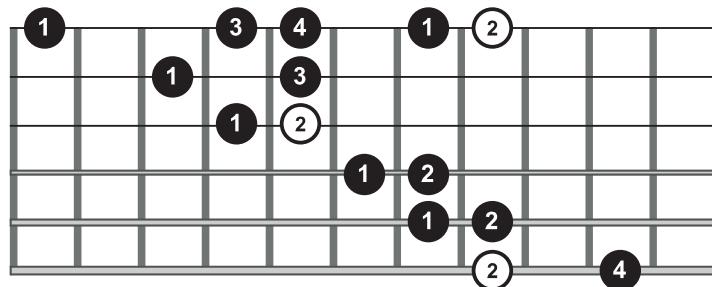
Harmonic Minor:



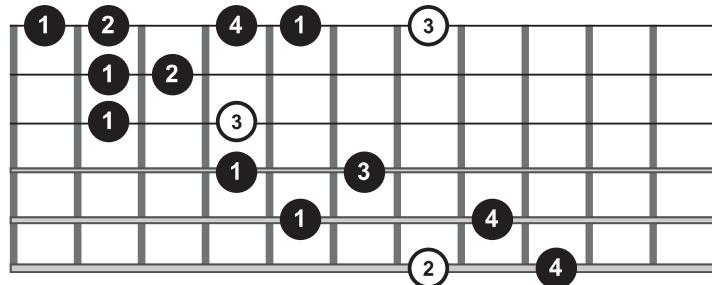
Locrian nat.6



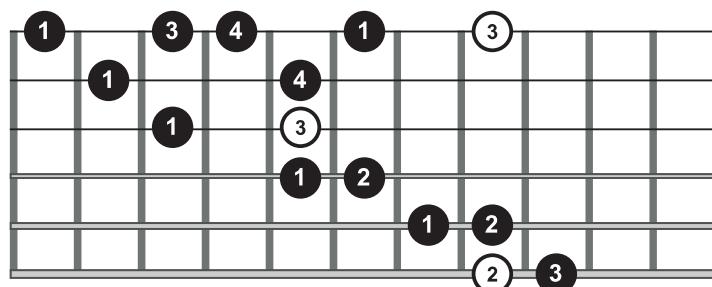
Ionian Augmented



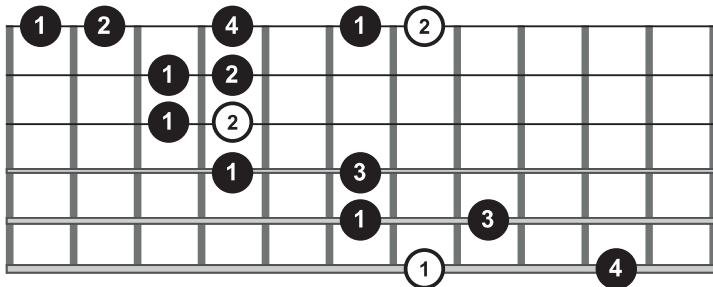
Dorian #4



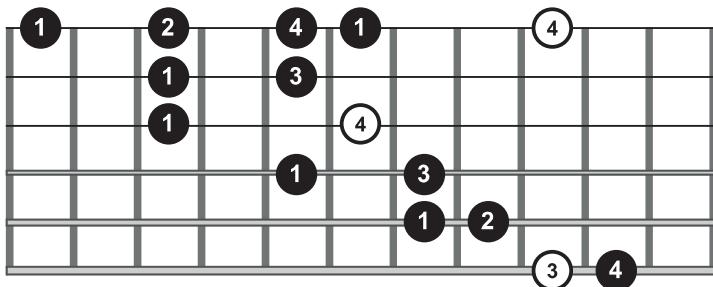
Phrygian Major



Lydian #9

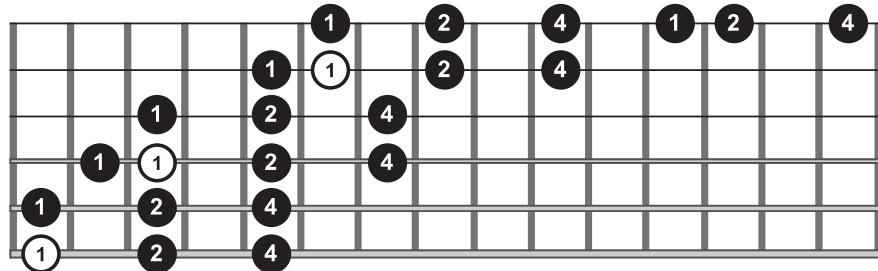


Altered Dominant bb7

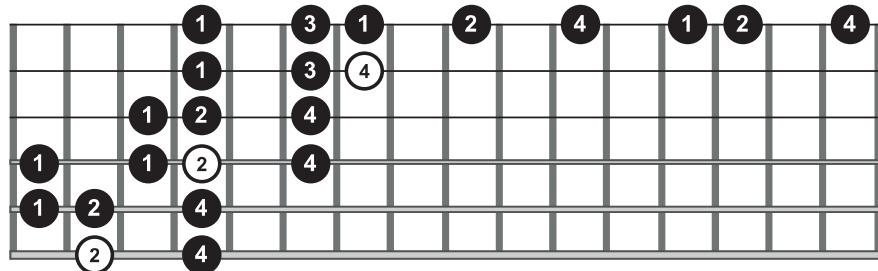


## Examples of Extended Range Scale Fingerings

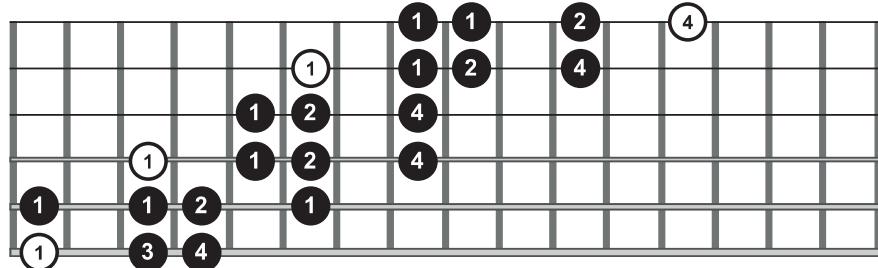
Major:



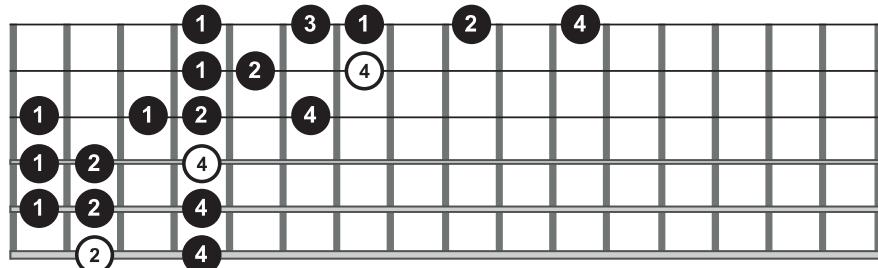
Major:



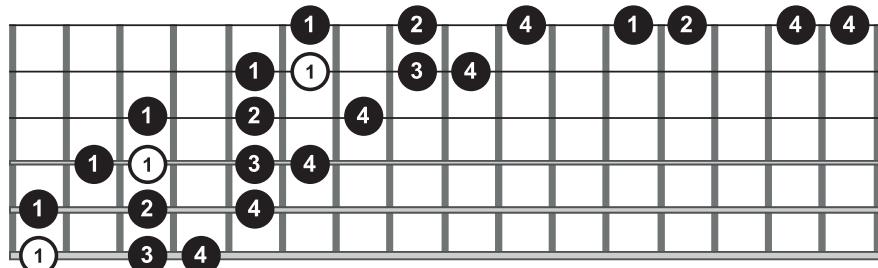
Aeolian:



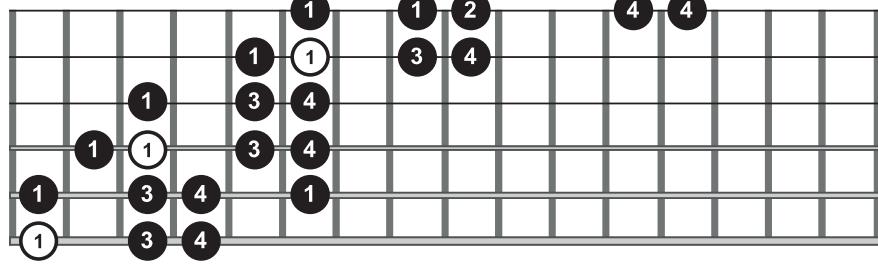
Mixolydian:



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*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "2 nds".

### *Ex. 154b*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "3 rds".

### *Ex. 154c*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "4 ths".

### *Ex. 154d*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "5 ths".

### *Ex. 154e*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "6 ths".

### *Ex. 154f*

A musical staff in G clef, 4/4 time. The notes are: A (open circle), B (open circle), C (open circle), D (open circle), E (open circle), F (open circle), G (open circle), A (open circle). Above the staff, it says "7 ths".

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*

A musical staff in G clef. The notes are: C, D-, E-, F, G, A-, B°, C. The notes are grouped into pairs by vertical bar lines, representing two-note per string fingerings.

#### *Ex. 155b*

A musical staff in G clef. The notes are: C, B°, A-, G, F, E-, D-, C. The notes are grouped into pairs by vertical bar lines, representing two-note per string fingerings.

#### *Ex. 155c*

A musical staff in G clef. The notes are: C, D-, E-, F, G, A-, B°, C. The notes are grouped into pairs by vertical bar lines, representing two-note per string fingerings.

#### *Ex. 155d*

A musical staff in G clef. The notes are: C, B°, A-, G, F, E-, D-, C. The notes are grouped into pairs by vertical bar lines, representing two-note per string fingerings.

## Seventh Chords

Ex. 156a

C<sub>MA7</sub> D-7 E-7 F<sub>MA7</sub> G7 A-7 B-7<sup>b5</sup> C<sub>MA7</sub>

A musical staff in treble clef with eight measures. The chords listed above the staff are: C<sub>MA7</sub>, D-7, E-7, F<sub>MA7</sub>, G7, A-7, B-7<sup>b5</sup>, and C<sub>MA7</sub>. The staff contains eighth-note patterns corresponding to these chords.

Ex. 156b

C<sub>MA7</sub> B-7<sup>b5</sup> A-7 G7 F<sub>MA7</sub> E-7 D-7 C<sub>MA7</sub>

A musical staff in treble clef with eight measures. The chords listed above the staff are: C<sub>MA7</sub>, B-7<sup>b5</sup>, A-7, G7, F<sub>MA7</sub>, E-7, D-7, and C<sub>MA7</sub>. The staff contains eighth-note patterns corresponding to these chords.

Ex. 156c

C<sub>MA7</sub> D-7 E-7 F<sub>MA7</sub> G7 A-7 B-7<sup>b5</sup> C<sub>MA7</sub>

A musical staff in treble clef with eight measures. The chords listed above the staff are: C<sub>MA7</sub>, D-7, E-7, F<sub>MA7</sub>, G7, A-7, B-7<sup>b5</sup>, and C<sub>MA7</sub>. The staff contains eighth-note patterns corresponding to these chords.

Ex. 156d

C<sub>MA7</sub> B-7<sup>b5</sup> A-7 G7 F<sub>MA7</sub> E-7 D-7 C<sub>MA7</sub>

A musical staff in treble clef with eight measures. The chords listed above the staff are: C<sub>MA7</sub>, B-7<sup>b5</sup>, A-7, G7, F<sub>MA7</sub>, E-7, D-7, and C<sub>MA7</sub>. The staff contains eighth-note patterns corresponding to these chords.

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<sup>o</sup> C

A musical staff in treble clef with eight measures. The chords listed above the staff are: C, D-, E-, F, G, A-, B<sup>o</sup>, and C. The staff contains eighth-note patterns corresponding to these chords.

## Seventh Chord Variation

Ex. 158

C<sub>MA</sub>7    D-7    E-7    F<sub>MA</sub>7    G7    A-7    B-7<sup>b5</sup>

A musical staff in common time with a treble clef. It features a sequence of eighth-note patterns. Above the staff, seven chord symbols are listed: C<sub>MA</sub>7, D-7, E-7, F<sub>MA</sub>7, G7, A-7, and B-7<sup>b5</sup>. The first two patterns consist of eighth-note pairs connected by horizontal beams. The third pattern has a single eighth note. The fourth pattern consists of two eighth-note pairs. The fifth pattern has a single eighth note. The sixth pattern consists of two eighth-note pairs. The seventh pattern has a single eighth note.

# Spread Triad Arpeggios

Ascending & Descending

The score consists of seven horizontal rows, each representing a different chord progression. Each row contains two measures of music, one for ascending and one for descending. Above each measure is a chord diagram for a six-string guitar, with the bottom string being the 6th string (low E) and the top string being the 1st string (high E). The diagrams show various fingerings for each chord.

- Row 1:** C, C/E, C/G, C, C/G, C/E, C. Chord diagrams: C (8th string: x), C/E (7th string: x), C/G (8th string: xx), C (10th string: xx), C/G (8th string: xx), C/E (7th string: x), C (8th string: xx).
- Row 2:** Cm, Cm/Eb, Cm/G, Cm, Cm/G, Cm/Eb, Cm. Chord diagrams: Cm (8th string: x), Cm/Eb (10th string: x), Cm/G (10th string: xx), Cm (10th string: xx), Cm/G (10th string: xx), Cm/Eb (10th string: xx), Cm (8th string: xx).
- Row 3:** C°, C°/Eb, C°/Gb, C°, C°/Gb, C°/Eb, C°. Chord diagrams: C° (8th string: x), C°/Eb (10th string: x), C°/Gb (9th string: xx), C° (10th string: xx), C°/Gb (9th string: xx), C°/Eb (10th string: xx), C° (8th string: xx).
- Row 4:** C+, C+/E, C+/G#, C+, C+/G#, C+/E, C+. Chord diagrams: C+ (8th string: x), C+/E (10th string: x), C+/G# (9th string: xx), C+ (10th string: xx), C+/G# (9th string: xx), C+/E (10th string: xx), C+ (8th string: xx).
- Row 5:** Csus4, Csus4/F, Csus4/G, Csus4, Csus4/G, Csus4/F, Csus4. Chord diagrams: Csus4 (8th string: x), Csus4/F (10th string: x), Csus4/G (10th string: xx), Csus4 (10th string: xx), Csus4/G (10th string: xx), Csus4/F (10th string: xx), Csus4 (8th string: xx).
- Row 6:** Clyd, Clyd/F#, Clyd/G, Clyd, Clyd/G, Clyd/F#, Clyd. Chord diagrams: Clyd (8th string: x), Clyd/F# (10th string: x), Clyd/G (10th string: xx), Clyd (10th string: xx), Clyd/G (10th string: xx), Clyd/F# (10th string: xx), Clyd (8th string: xx).

## 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).

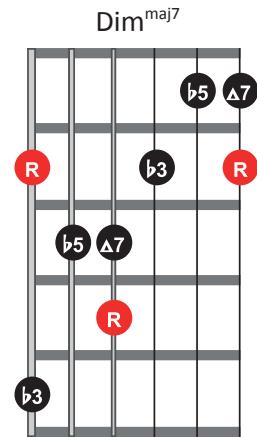
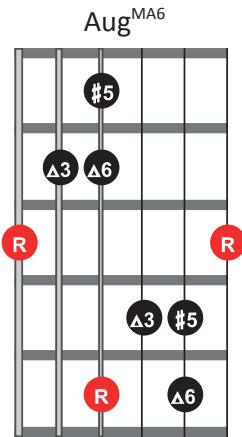
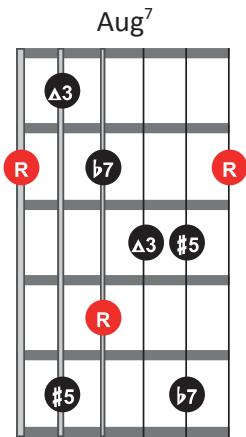
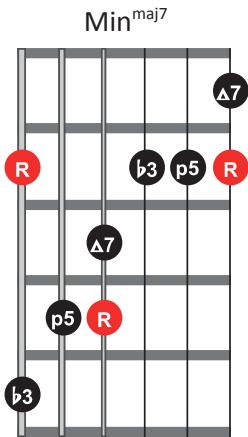
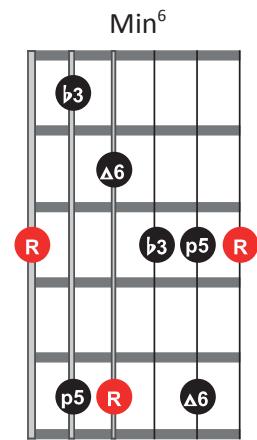
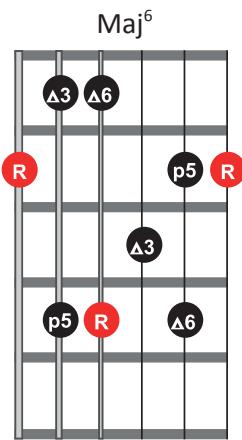
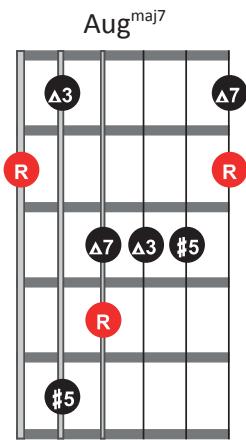
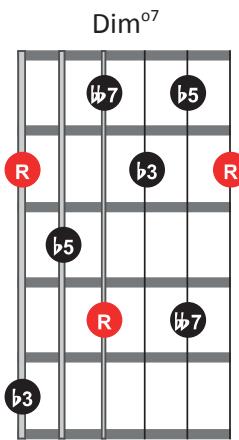
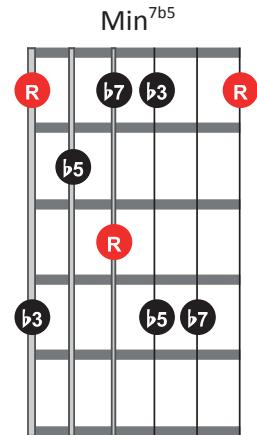
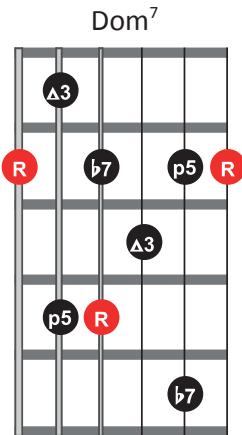
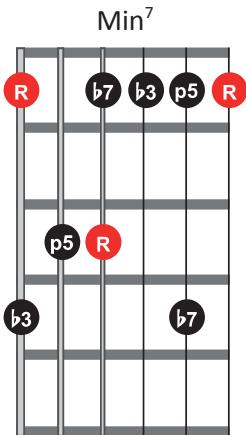
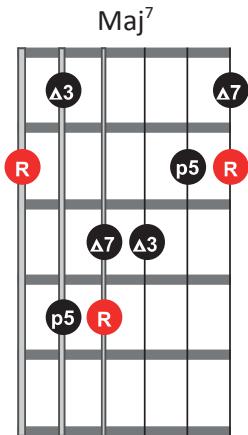
### Seventh Chord Formulas

Maj <sup>7</sup>	1    3    5    7		MajΔ <sup>add9</sup>	1    4    5    bb7
			5	
Dom <sup>7</sup>	1    3    5    b7		Maj <sup>7/b5/sus4</sup>	1    4    b5    7
Maj <sup>6</sup>	1    3    5    6 (bb7)		Dom <sup>7/b5/sus4</sup>	1    4    b5    b7
Aug <sup>maj7</sup>	1    3    #5    7		MajΔ <sup>b9</sup>	1    4    b5    bb7
			5	
Aug <sup>7</sup>	1    3    #5    b7		Maj <sup>7/sus4/#5</sup>	1    4    #5    7
Aug <sup>MA6</sup>	1    3    #5    6 (bb7)		MinΔ <sup>add9</sup>	1    4    #5    b7
			5	
Min <sup>maj7</sup>	1    b3    5    7		MajΔ <sup>#9</sup>	1    4    #5    bb7
			5	
Min <sup>7</sup>	1    b3    5    b7		Maj <sup>7/sus2</sup>	1    2    5    7
Min <sup>6</sup>	1    b3    5    6		Dom <sup>7/sus2</sup>	1    2    5    b7
Tonic Dim	1    b3    #5    7		Maj <sup>6/sus2</sup>	1    2    5    6 (bb7)
MajΔ <sup>add9</sup>	1    b3    #5    b7		Maj <sup>7/sus2/#5</sup>	1    2    #5    7
	3			
Min <sup>6/#5</sup>	1    b3    #5    6 (bb7)		Dom <sup>7/sus2/#5</sup>	1    2    #5    b7
Maj <sup>7/b5</sup>	1    3    b5    7		Dim <sup>MA9/b13</sup>	1    2    #5    bb7
Dom <sup>7/b5</sup>	1    3    b5    b7		Maj <sup>7/b5/sus2</sup>	1    2    b5    7
∅ <sup>4</sup> <sub>3</sub>	1    3    b5    bb7		Dom <sup>7/b5/sus2</sup>	1    2    b5    b7
Dim <sup>maj7</sup>	1    b3    b5    7		Dom <sup>4</sup> <sub>2</sub>	1    2    b5    bb7 (6)
Min <sup>7/b5</sup>	1    b3    b5    b7		Maj <sup>7/bb5</sup>	1    3    4 (bb5)    7
Dim <sup>7</sup>	1    b3    b5    bb7		Dom <sup>7/bb5</sup>	1    3    4    b7
Maj <sup>7/sus4</sup>	1    4    5    7		Maj <sup>6/bb5</sup>	1    3    4    bb7
Dom <sup>7/sus4</sup>	1    4    5    b7		Min <sup>maj7/bb5</sup>	1    b3    4    7
Min <sup>7/bb5</sup>	1    b3    4    b7		Min <sup>6/bb5</sup>	1    b3    4    6 (bb7)
Maj <sup>7/sus2/bb5</sup>	1    2    4    7		Dom <sup>7/sus2/bb5</sup>	1    2    4    b7
Maj <sup>6/sus2/bb5</sup>	1    2    4    6 (bb7)			

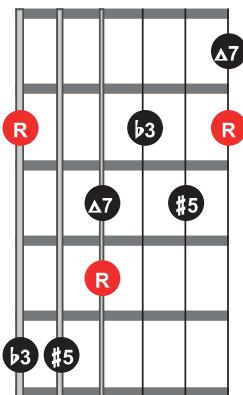
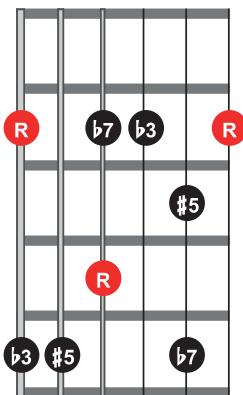
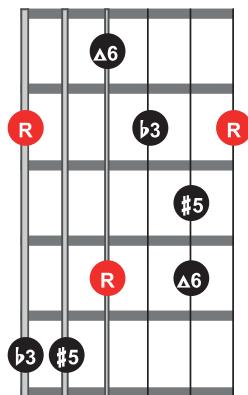
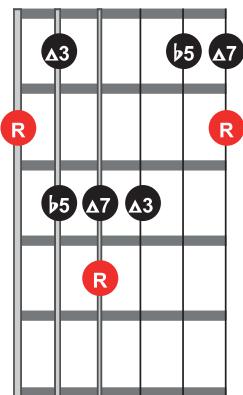
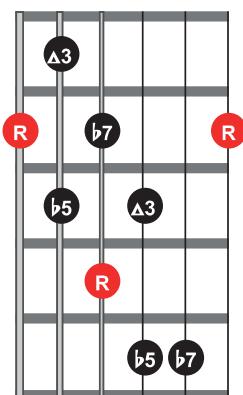
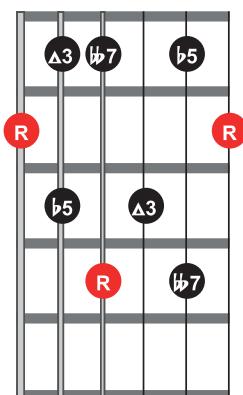
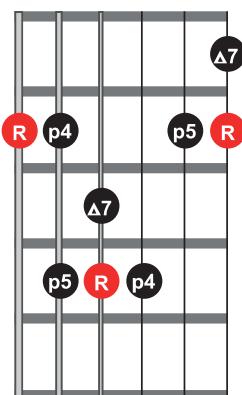
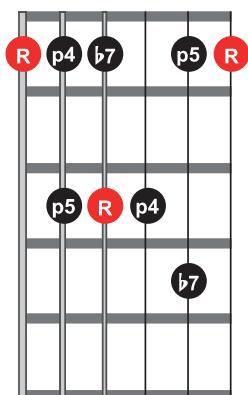
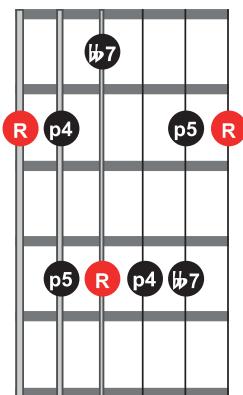
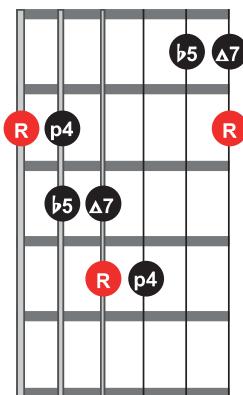
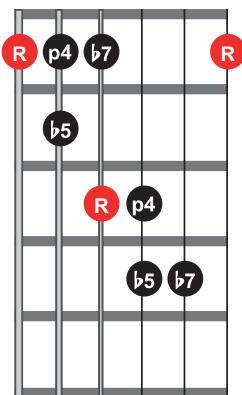
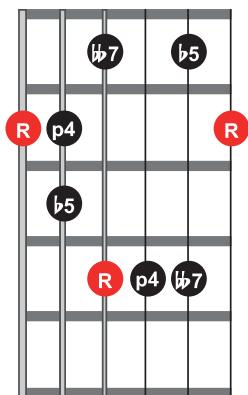
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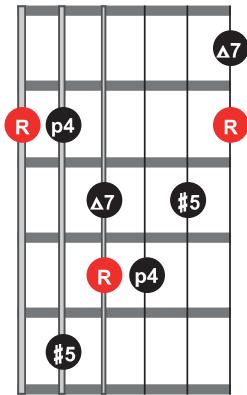
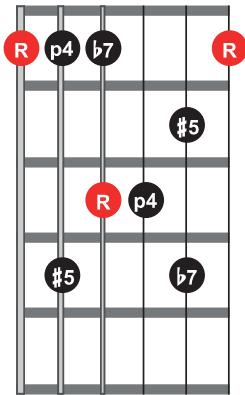
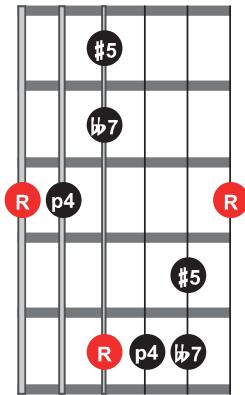
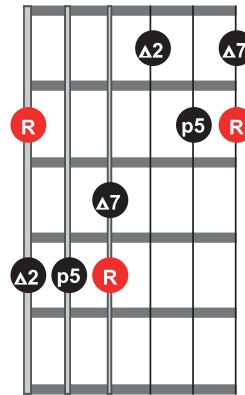
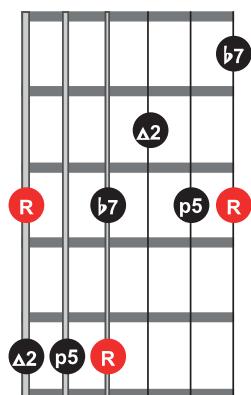
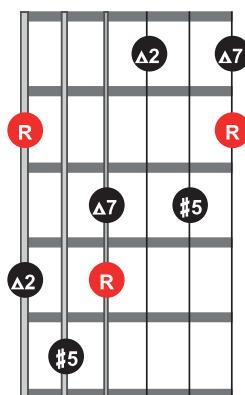
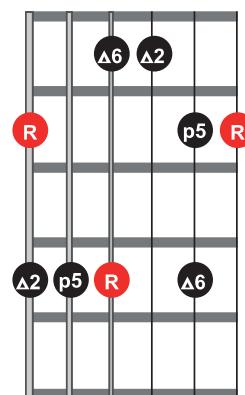
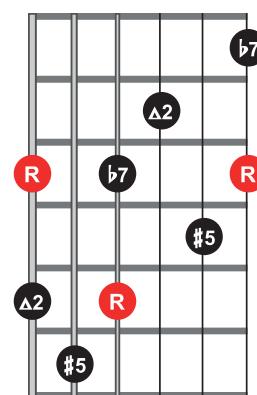
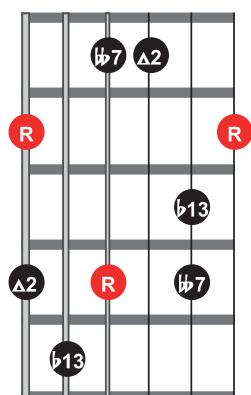
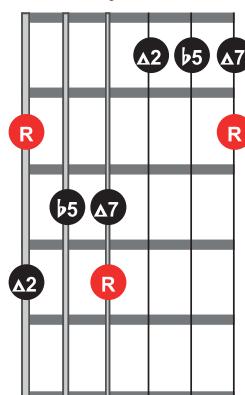
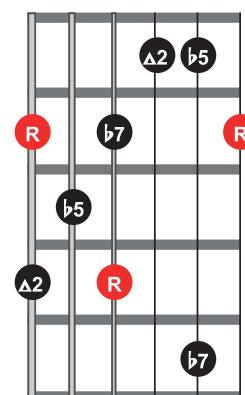
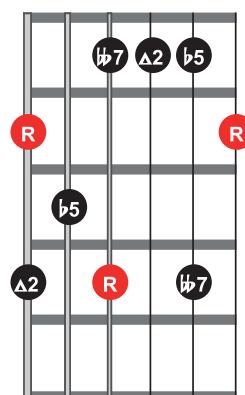
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Min	1	b3	5	8	Loc.Δ	1	b2	b5	8
Dim	1	b3	b5	8	Lyd.Δ	1	#4	5	8
Aug	1	3	#5	8	MajΔ <sup>b5</sup>	1	3	#4	8
ΔSus <sup>4 (no 5th)</sup>	1	3	4	8	Q <sup>+4</sup>	1	4	7	8
-ΔSus <sup>4 (no 5th)</sup>	1	b3	4	8	Q	1	4	b7	8
Sus <sup>2</sup>	1	2	5	8	+4Q	1	#4	7	8
Sus <sup>2b5</sup>	1	2	b5	8	+4 <sup>d4</sup>	1	#4	b7	8
Sus <sup>2/4 (no 5th)</sup>	1	2	4	8					
Sus <sup>2#5</sup>	1	2	#5	8					
Sus <sup>4</sup>	1	4	5	8					
Sus <sup>4b5</sup>	1	4	b5	8					
Sus <sup>4#5</sup>	1	4	#5	8					

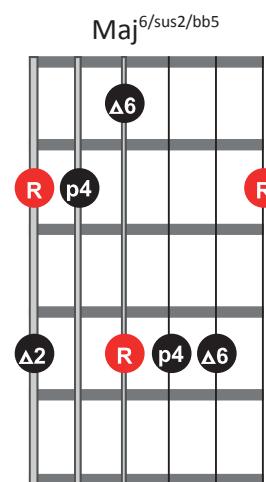
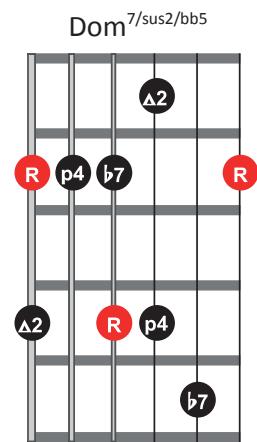
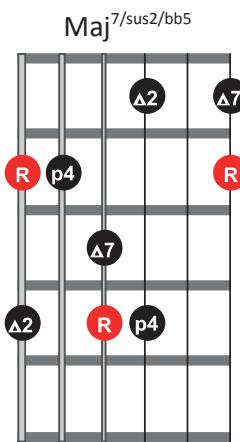
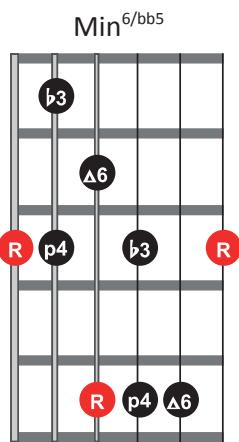
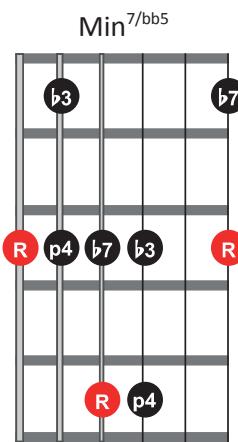
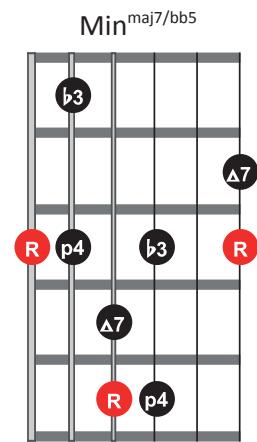
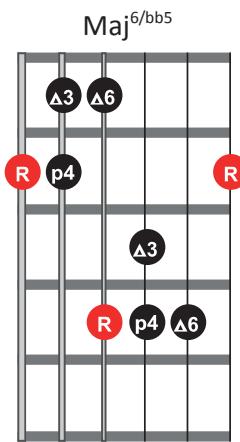
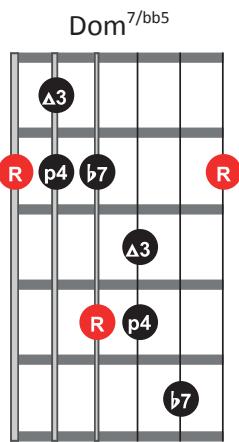
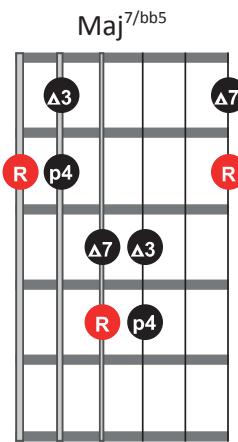
## Seventh Chord Arpeggios Root 6

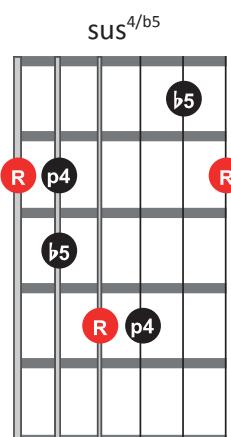
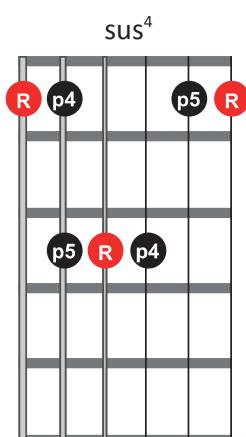
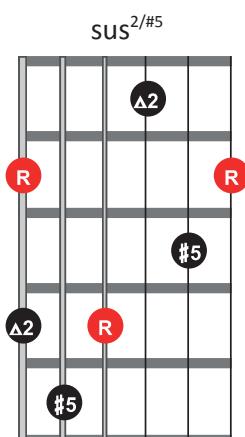
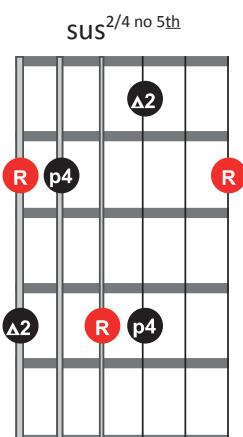
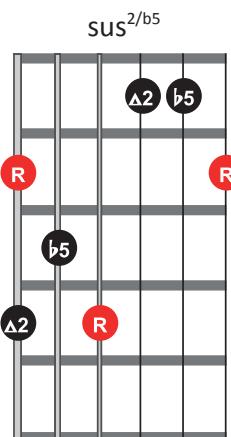
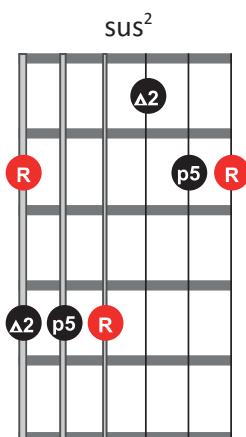
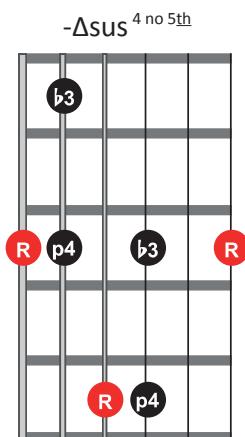
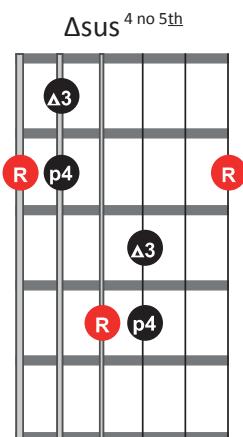
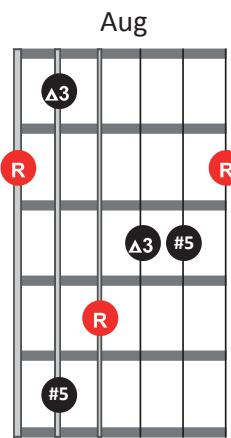
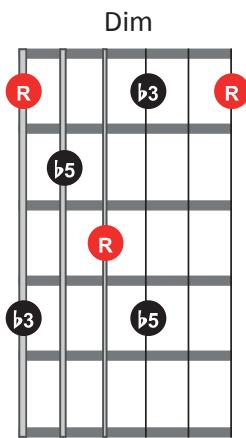
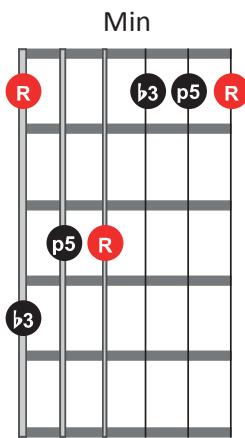
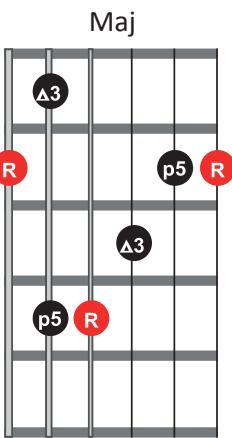


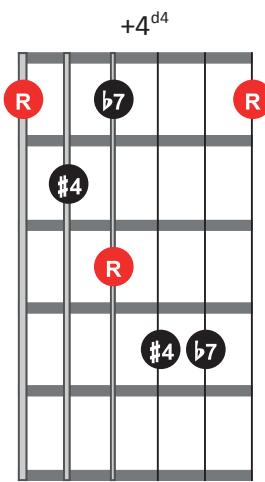
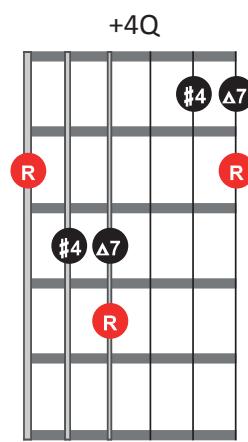
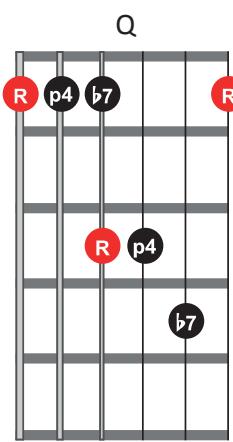
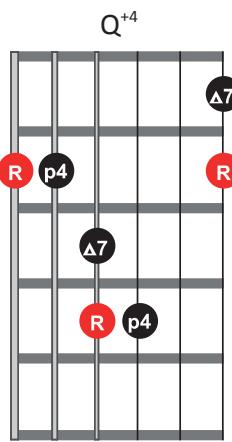
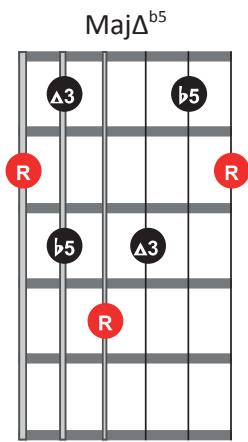
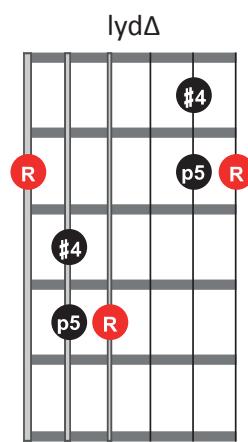
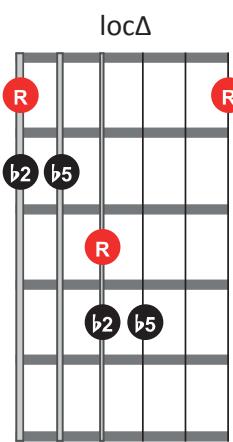
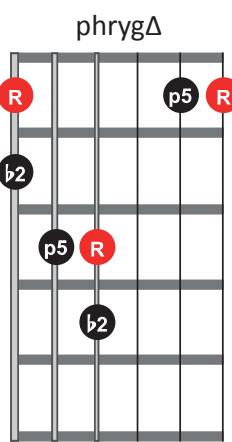
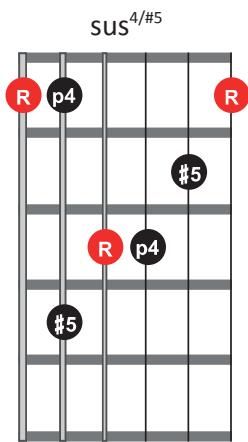
Tonic Dim

MajΔ<sup>add9</sup> / 3<sup>rd</sup>Min<sup>6/#5</sup>Maj<sup>7/b5</sup>Dom<sup>7/b5</sup>∅<sup>4</sup><sub>3</sub>Maj<sup>7sus4</sup>Dom<sup>7sus4</sup>MajΔ<sup>add9</sup> / 5<sup>th</sup>Maj<sup>7/b5/sus4</sup>Dom<sup>7/b5/sus4</sup>MajΔ<sup>b9</sup> / 5<sup>th</sup>

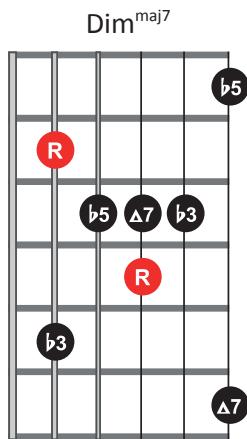
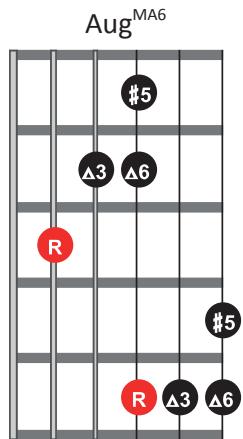
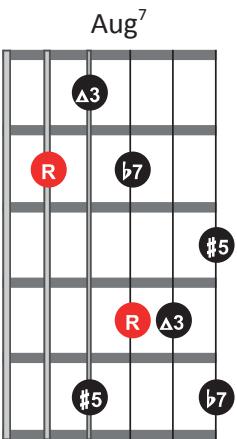
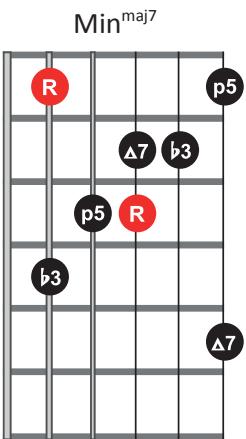
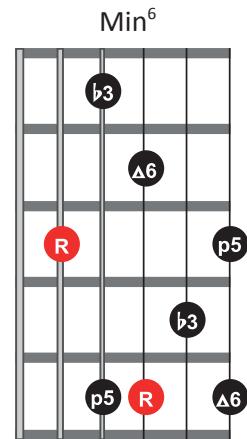
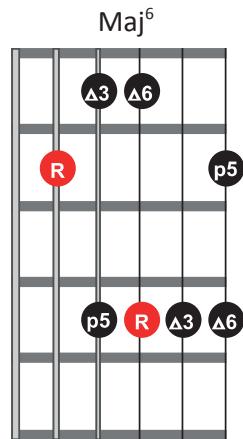
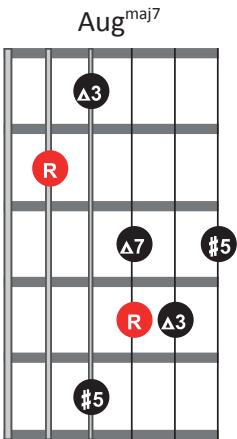
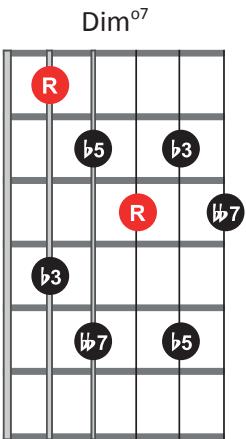
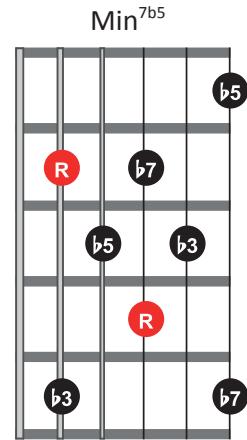
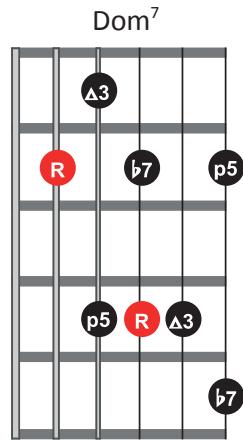
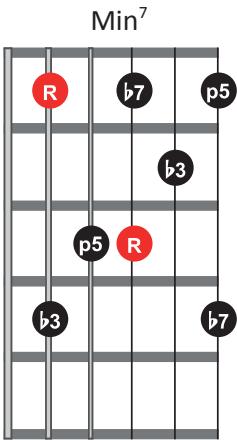
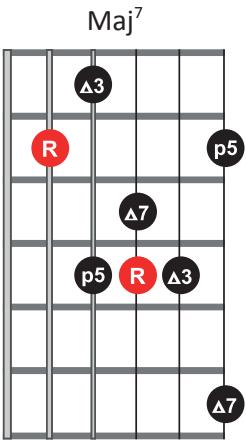
Maj<sup>7/sus4/#5</sup>MinΔ<sup>add9/5<sup>th</sup></sup>MajΔ<sup>add9/5<sup>th</sup></sup>Maj<sup>7sus2</sup>Dom<sup>7sus2</sup>Maj<sup>7/sus2/#5</sup>Maj<sup>6/sus2</sup>Dom<sup>7/sus2/#5</sup>Dim<sup>o7/MA9/b13</sup>Maj<sup>7/b5/sus2</sup>Dom<sup>7/b5/sus2</sup>Dom<sup>4<sub>2</sub></sup>



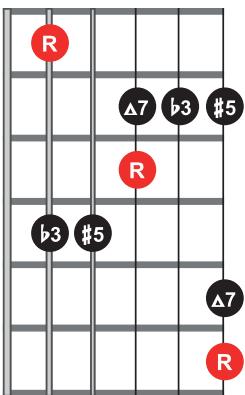
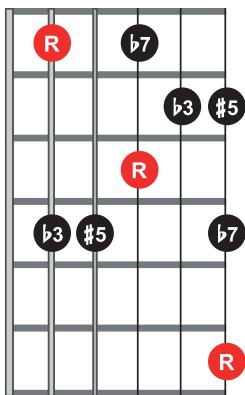
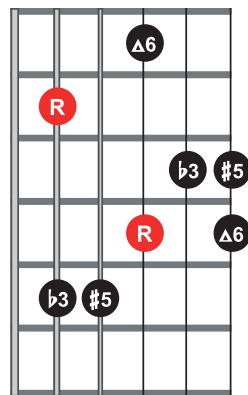
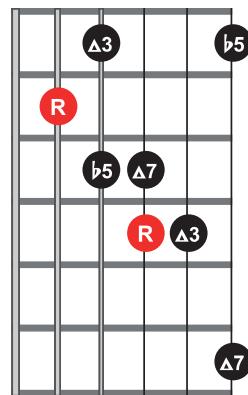
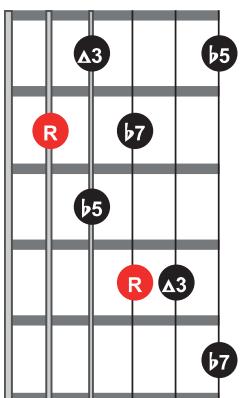
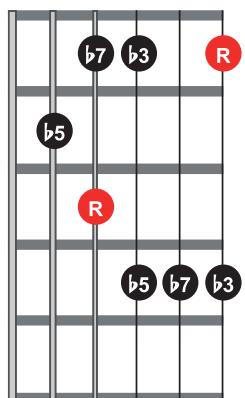
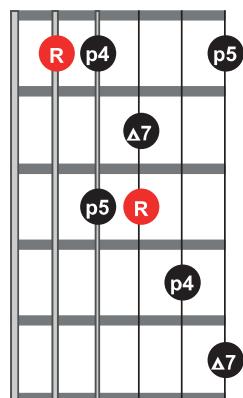
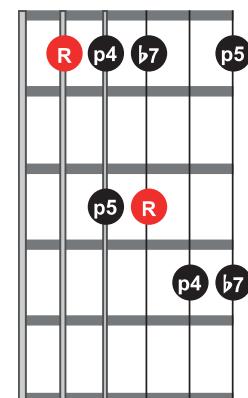
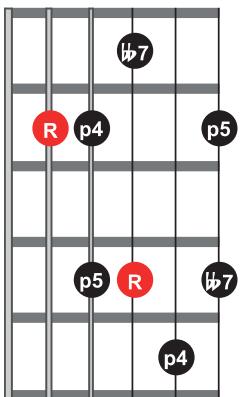
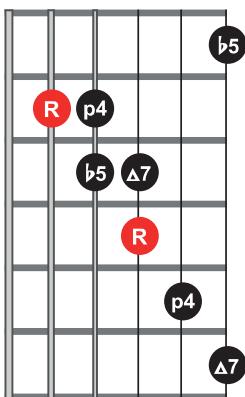
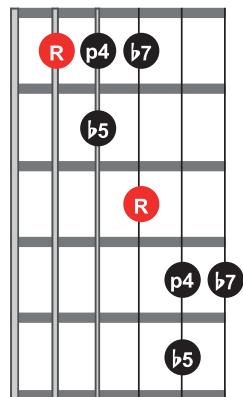
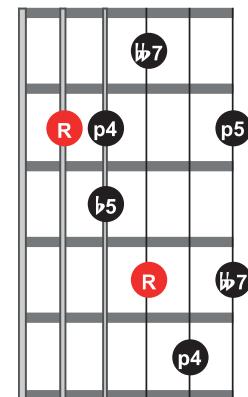


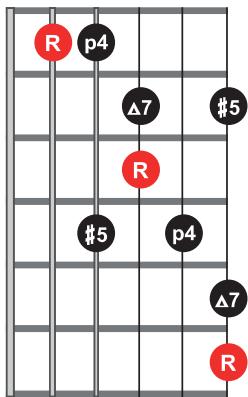
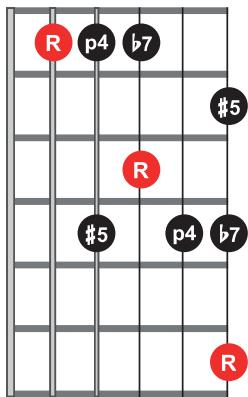
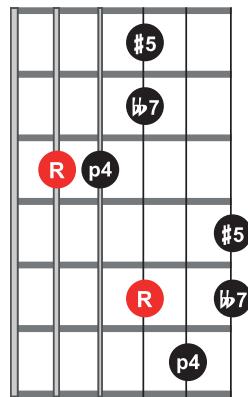
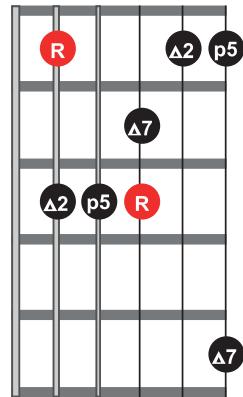
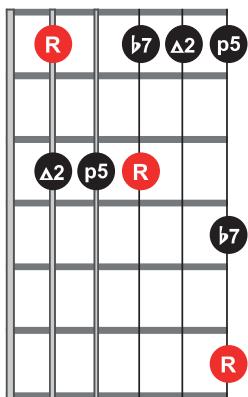
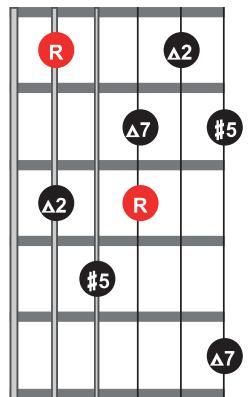
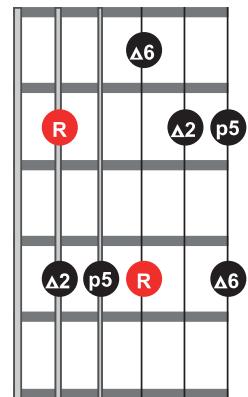
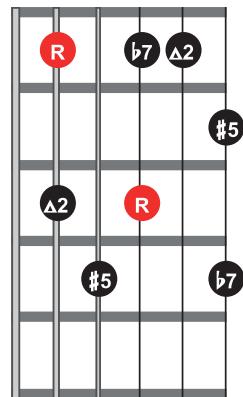
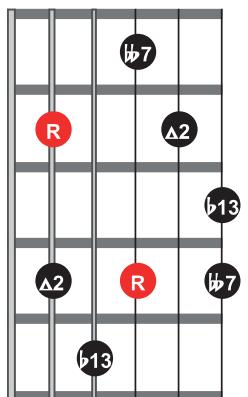
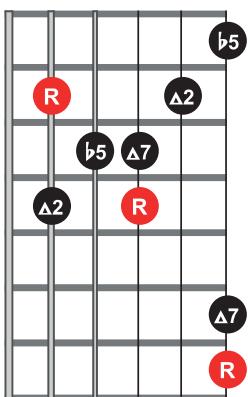
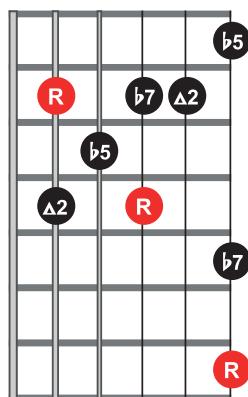
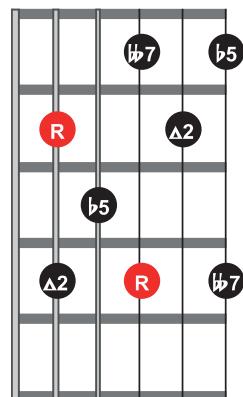


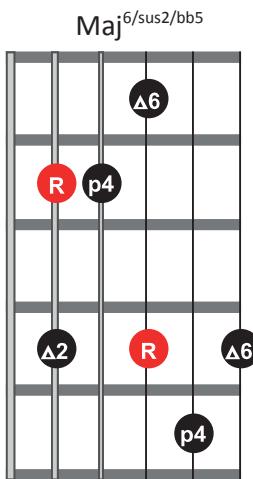
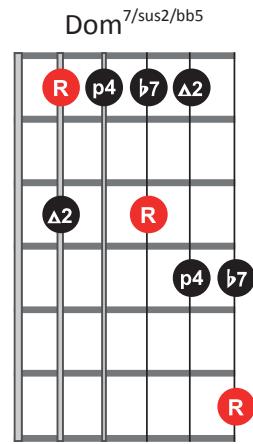
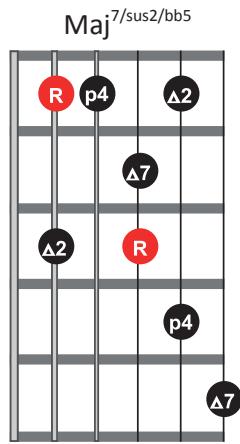
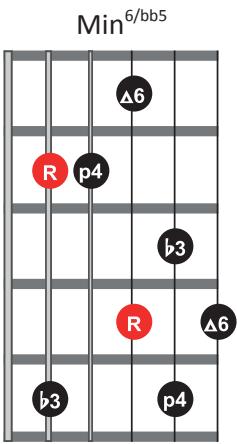
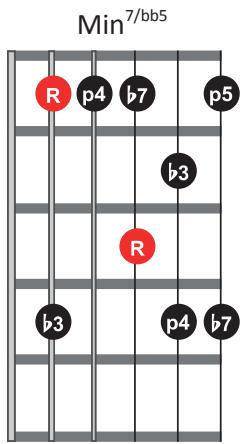
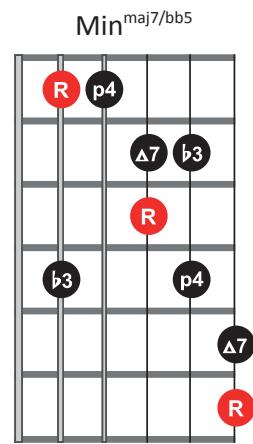
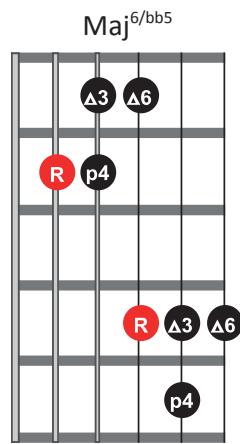
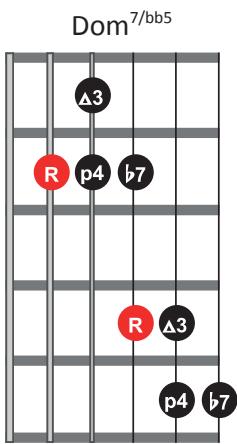
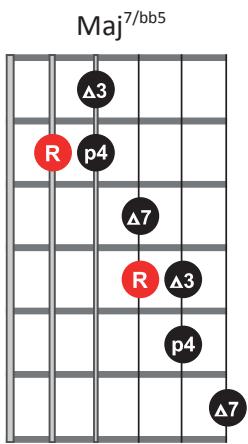
## Seventh Chord Arpeggios Root 5

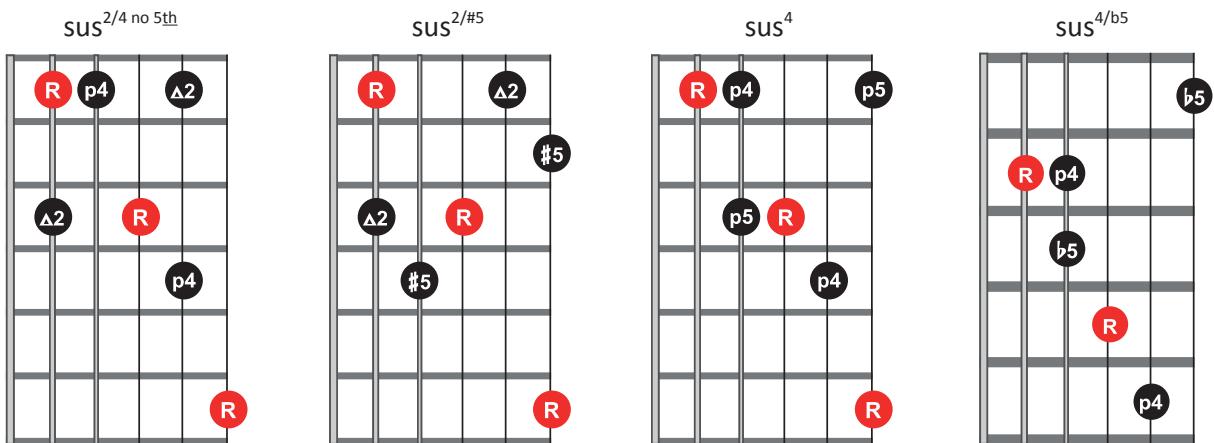
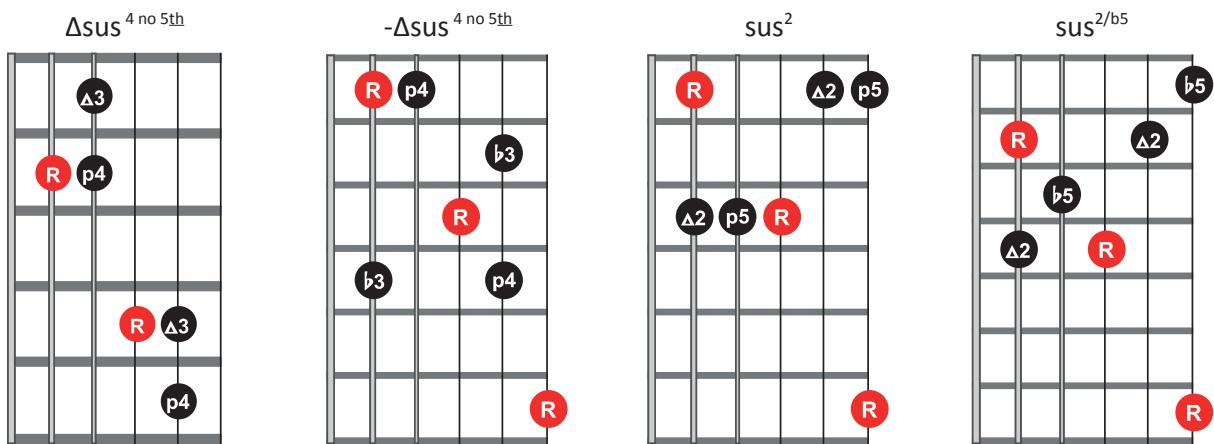
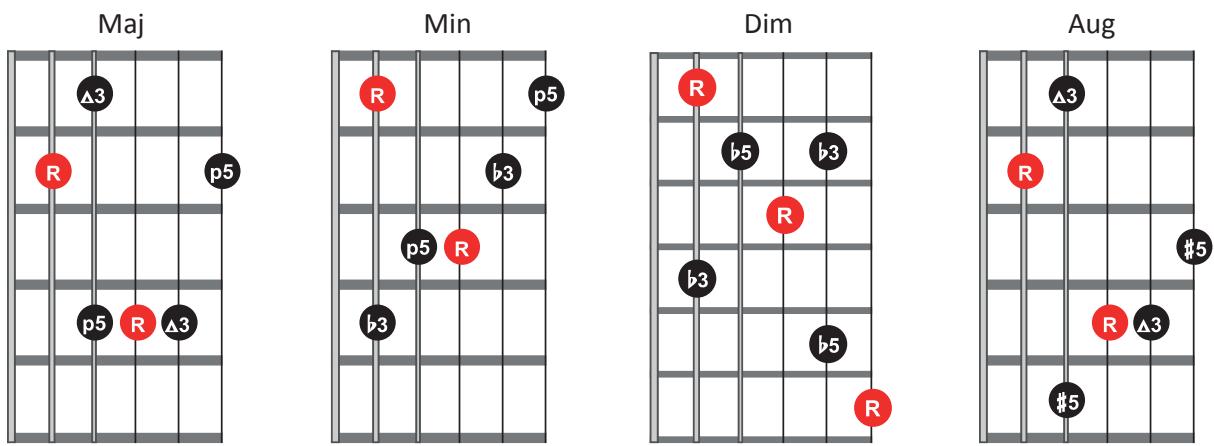


Tonic Dim

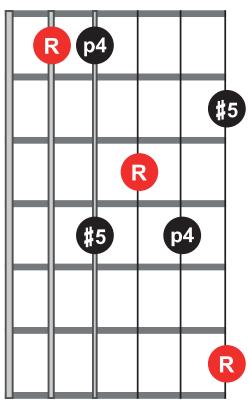
MajΔ<sup>add9</sup>/3<sup>rd</sup>Min<sup>6/#5</sup>Maj<sup>7/b5</sup>Dom<sup>7/b5</sup>∅<sup>4</sup><sub>3</sub>Maj<sup>7sus4</sup>Dom<sup>7sus4</sup>MajΔ<sup>add9</sup>/5<sup>th</sup>Maj<sup>7/b5/sus4</sup>Dom<sup>7/b5/sus4</sup>MajΔ<sup>b9</sup>/5<sup>th</sup>

Maj<sup>9/sus4/#5</sup>MinΔ<sup>add9/5<sup>th</sup></sup>MajΔ<sup>#9/5<sup>th</sup></sup>Maj<sup>7sus2</sup>Dom<sup>7sus2</sup>Maj<sup>7/sus2/#5</sup>Maj<sup>6/sus2</sup>Dom<sup>7/sus2/#5</sup>Dim<sup>o7/MA9/b13</sup>Maj<sup>7/b5/sus2</sup>Dom<sup>7/b5/sus2</sup>Dom<sup>4</sup><sub>2</sub>

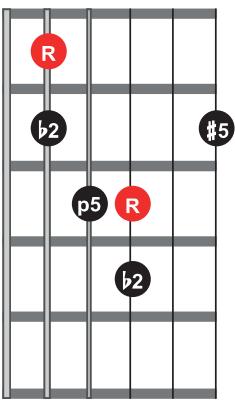




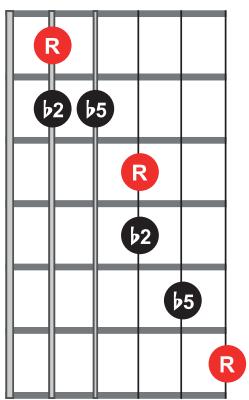
$\text{sus}^{4/\#5}$



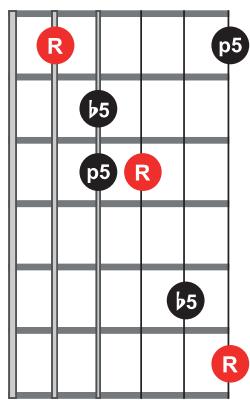
PhrygΔ



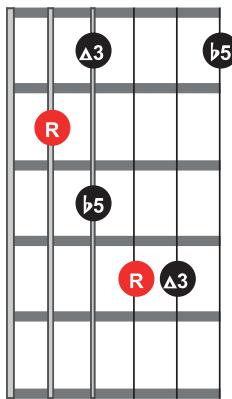
LocΔ



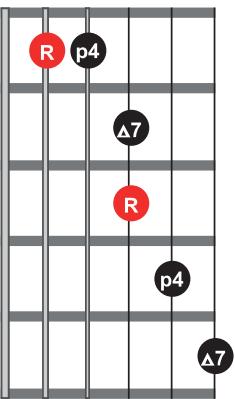
LydΔ



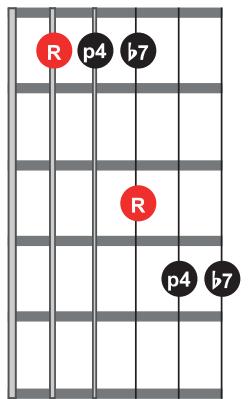
MajΔ<sup>b5</sup>



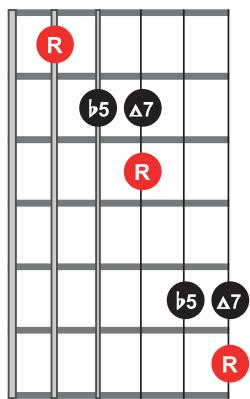
Q<sup>+4</sup>



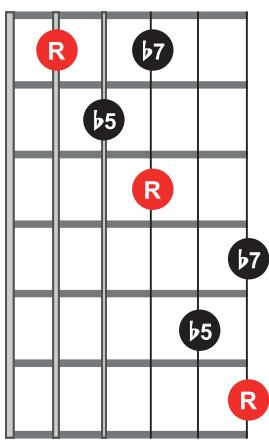
Q



+4Q



+4<sup>d4</sup>



## Bitonal Arpeggios

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

*Ex. 159a*

C  
—  
C-

A musical staff in 4/4 time with a treble clef. It shows a sequence of notes: a C note, followed by a B-flat note, then another C note, then an A note, then a G note, then a G-sharp note, then an A note, then a B-flat note, then a C note. The notes are connected by vertical stems. Below the staff, a bracket labeled "C-" spans from the first C note to the last C note. Above the staff, a bracket labeled "C" spans from the first C note to the last C note. The notes are positioned such that they represent the alternating triads of C major and C minor.

*Ex. 159b*

B  
—  
C

A musical staff in 4/4 time with a treble clef. It shows a sequence of notes: a B note, then an A note, then a G note, then a G-sharp note, then an A note, then a B note, then a C note, then a D note, then an E note. The notes are connected by vertical stems. Below the staff, a bracket labeled "C" spans from the first C note to the last C note. Above the staff, a bracket labeled "B" spans from the first B note to the last B note. The notes are positioned such that they represent the alternating triads of B major and C major.

*Ex. 159c*

F#  
—  
C-

closest available chord tones

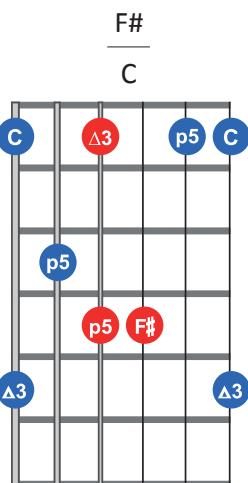
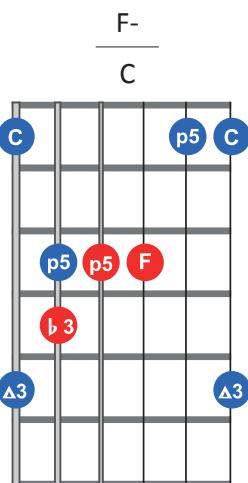
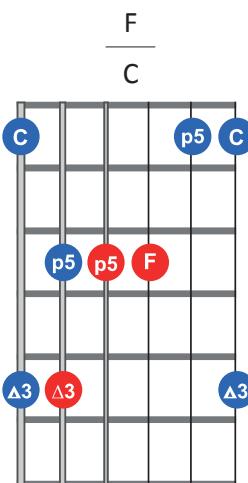
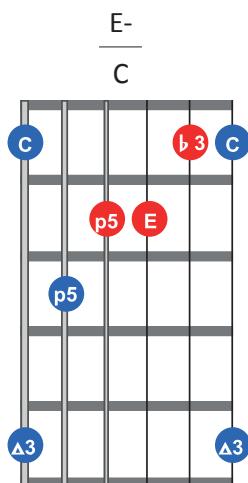
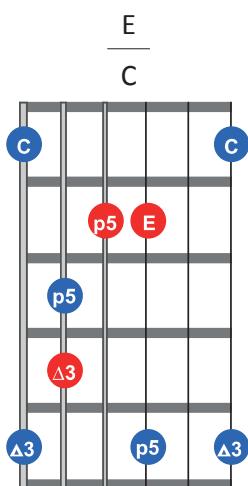
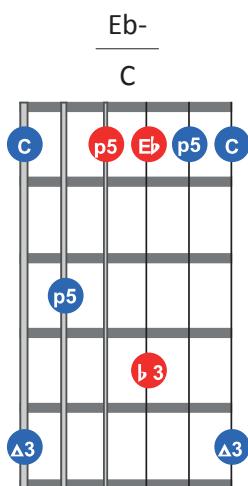
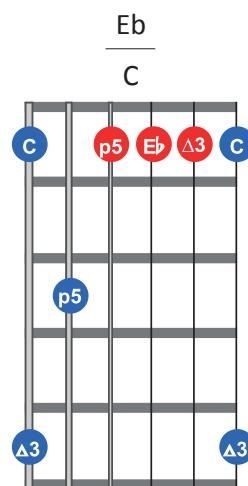
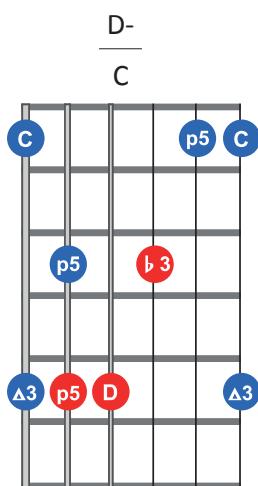
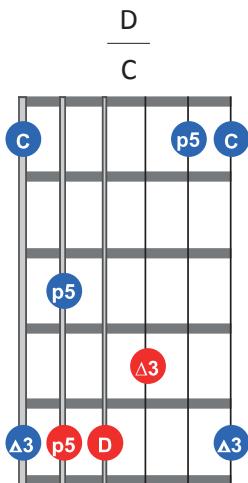
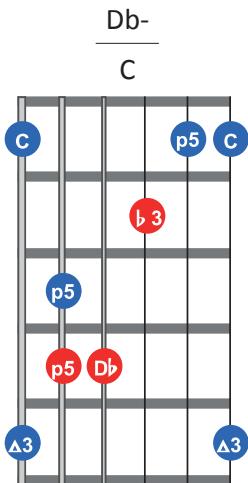
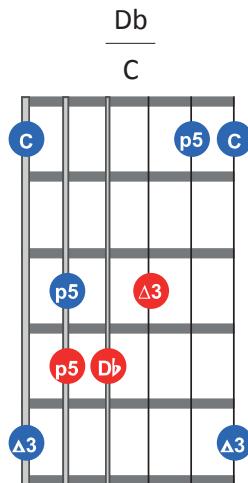
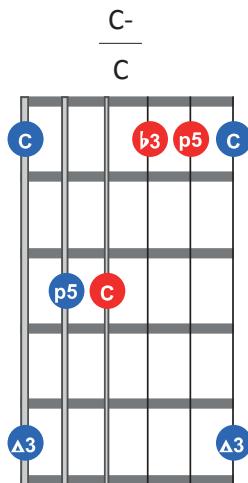
A musical staff in 4/4 time with a treble clef. It shows a sequence of notes: a C note, followed by a B-flat note, then another C note, then an A note, then a G note, then a G-sharp note, then an A note, then a B-flat note, then a C note. The notes are connected by vertical stems. Below the staff, a bracket labeled "C-" spans from the first C note to the last C note. Above the staff, a bracket labeled "F#" spans from the first F# note to the last F# note. Two arrows point from the text "closest available chord tones" to the G and G-sharp notes, indicating that the G note is the closest available chord tone for the F# major triad, and the G-sharp note is the closest available chord tone for the C minor triad.

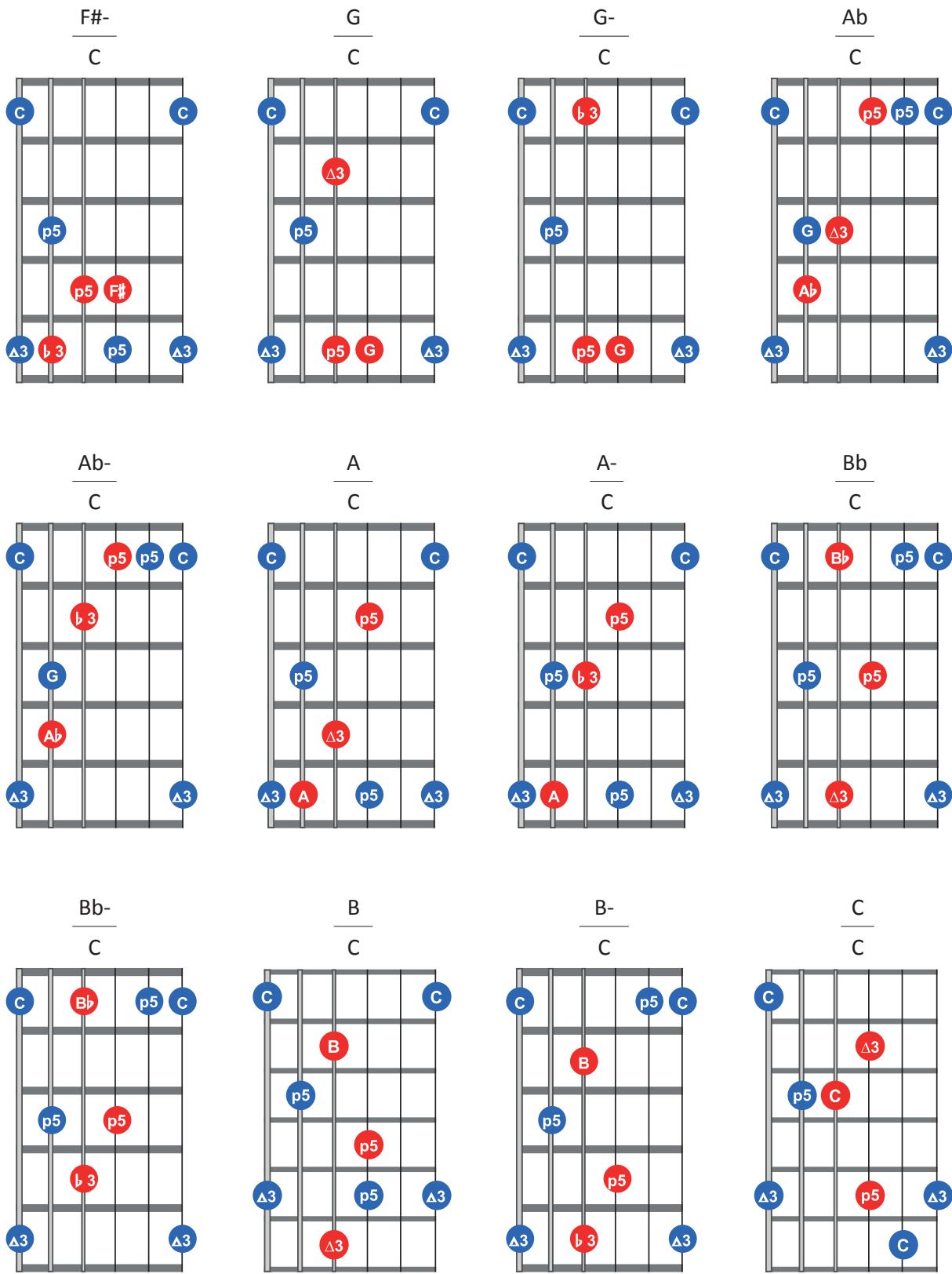
## Major and Minor Bitonal Arpeggios

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

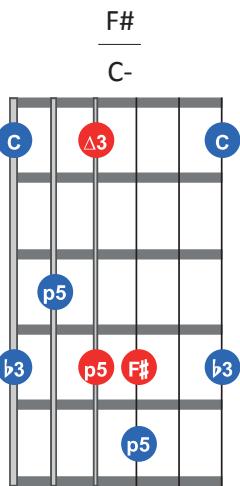
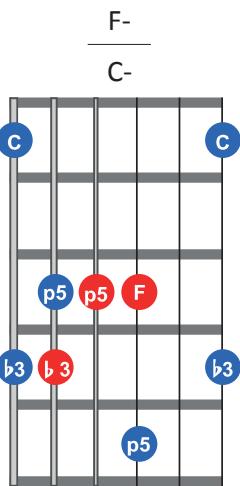
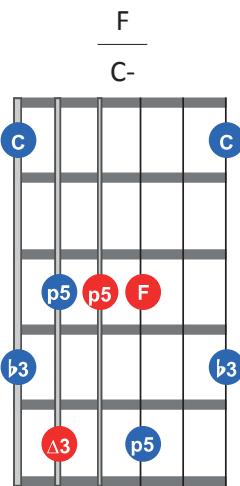
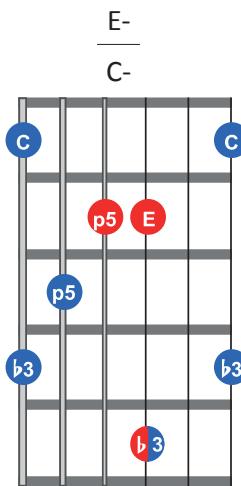
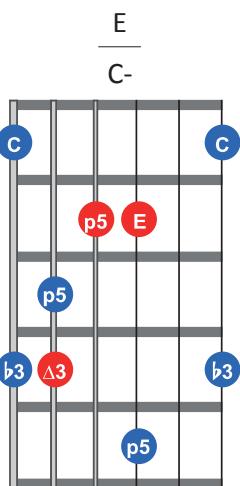
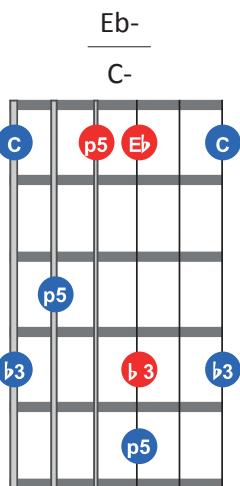
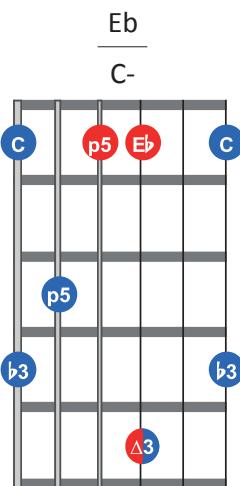
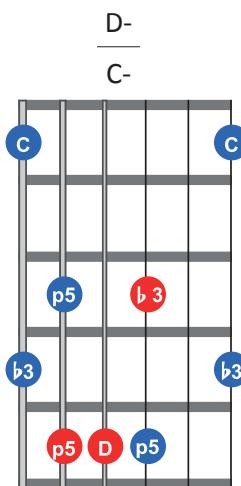
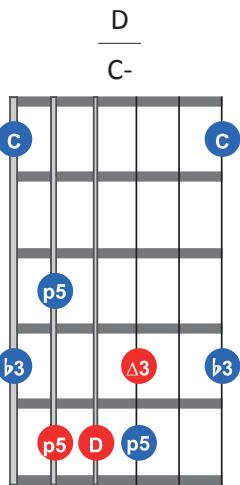
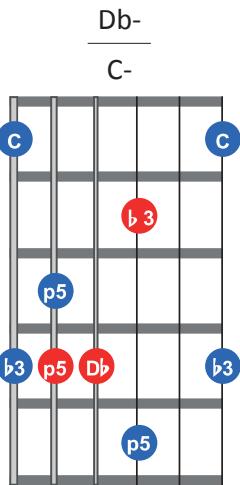
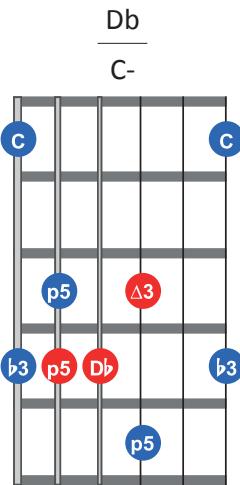
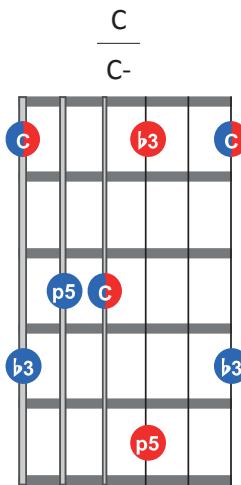
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$\frac{Db}{C} = 1$	3	5	b6	b9	11						
$\frac{Db-}{C} = 1$	3	5	b6	b9							
$\frac{D}{C} = 1$	3	5	13	9	#11						
$\frac{D-}{C} = 1$	3	5	6	9	11						
$\frac{Eb}{C} = 1$	3	5	b7	#9							
$\frac{Eb-}{C} = 1$	3	5	b7	#9	#11						
$\frac{E}{C} = 1$	3	5	#5	7							
$\frac{E-}{C} = 1$	3	5	7								
$\frac{F}{C} = 1$	3	5	6	11							
$\frac{F-}{C} = 1$	3	5	b6	11							
$\frac{F\#}{C} = 1$	3	5	b7	b9	#11						
$\frac{F\#-}{C} = 1$	3	5	13	b9	#11						
$\frac{G}{C} = 1$	3	5	7	9							
$\frac{G-}{C} = 1$	3	5	b7	9							
$\frac{Ab}{C} = 1$	3	5	#5	#9							
$\frac{Ab-}{C} = 1$	3	5	#5	7	#9						
$\frac{A}{C} = 1$	3	5	6	b9							
$\frac{A-}{C} = 1$	3	5	6								
$\frac{Bb}{C} = 1$	3	5	b7	9	11						
$\frac{Bb-}{C} = 1$	3	5	b7	b9	sus4						
$\frac{B}{C} = 1$	33	5	7	#9	#11						
$\frac{B-}{C} = 1$	3	5	7	9	#11						

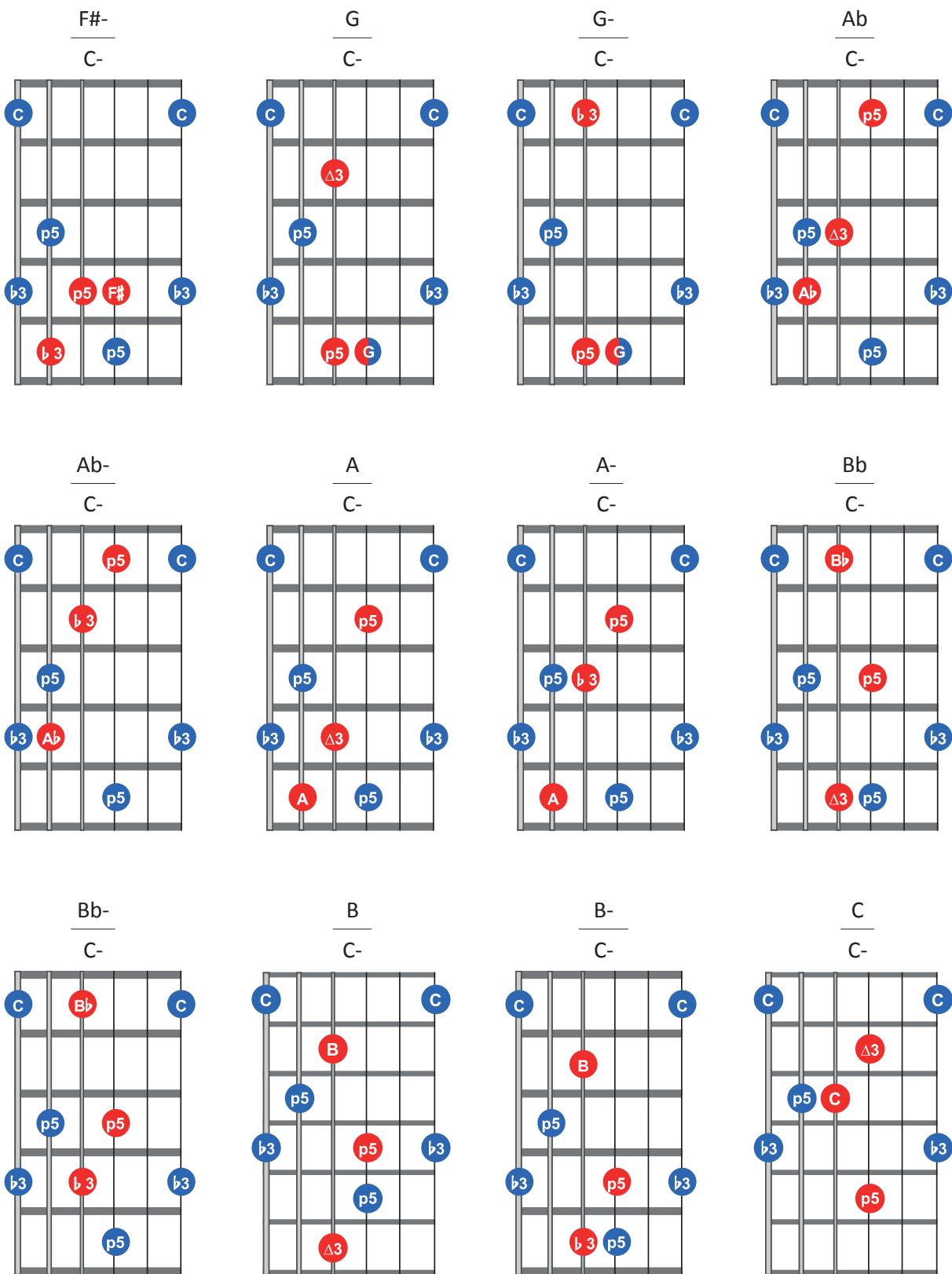
## Major Bitonal Arpeggios (over C at the 8<sup>th</sup> fret)





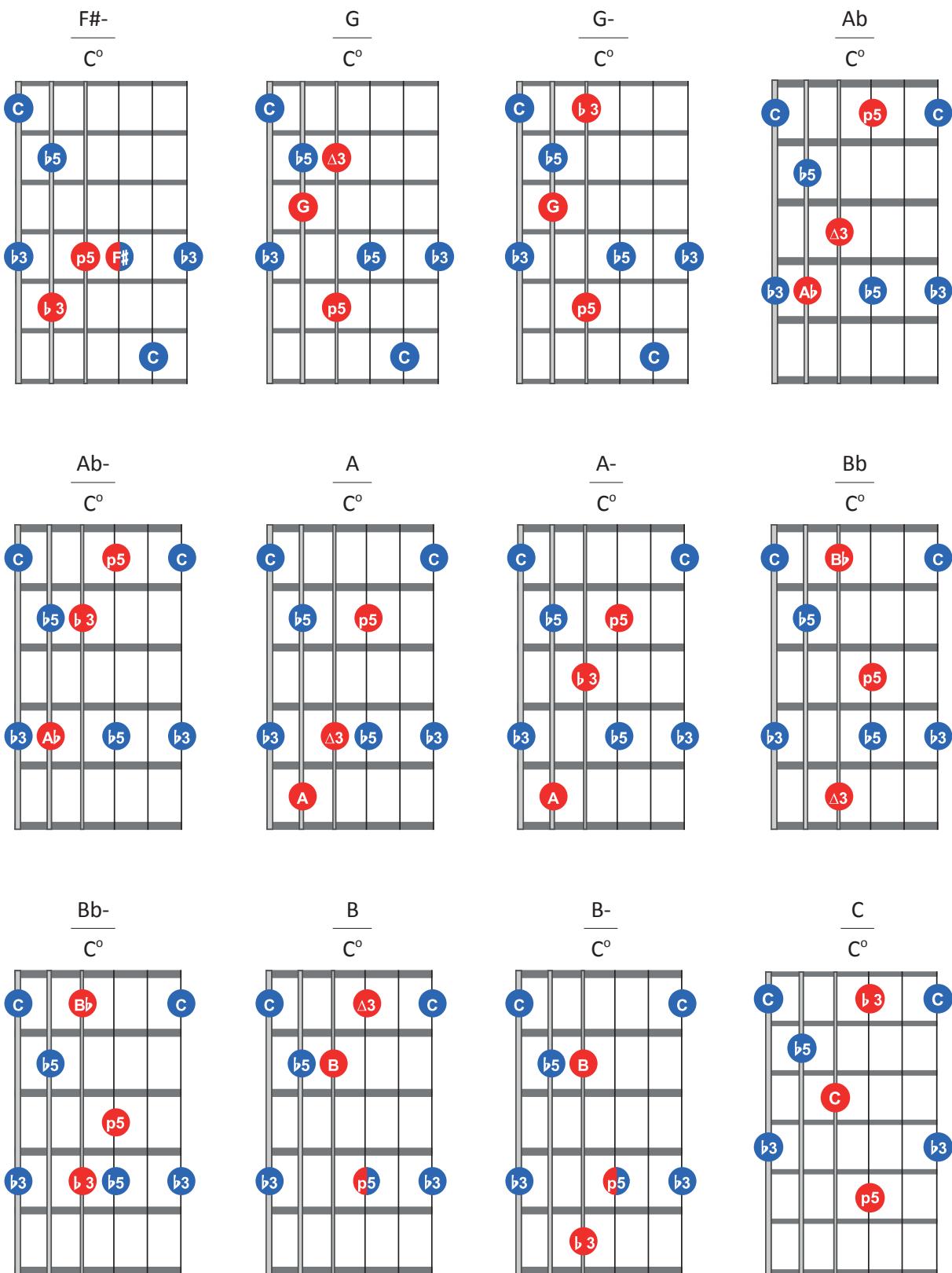
## Minor Bitonal Arpeggios (over C- at the 8<sup>th</sup> fret)



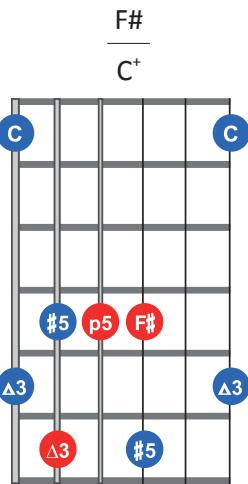
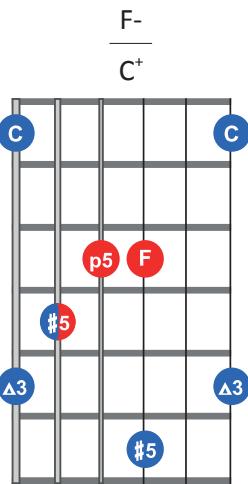
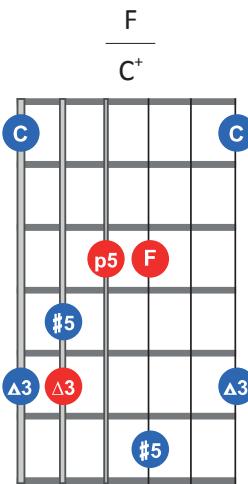
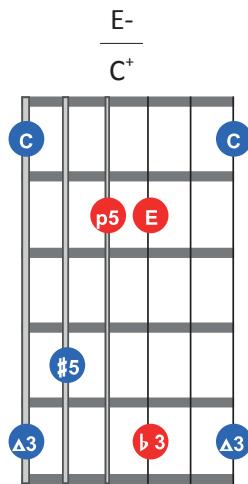
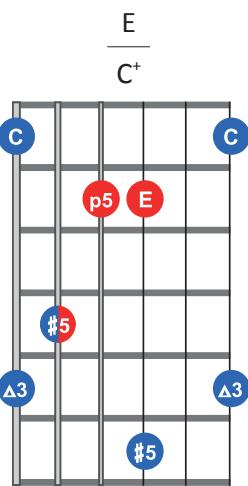
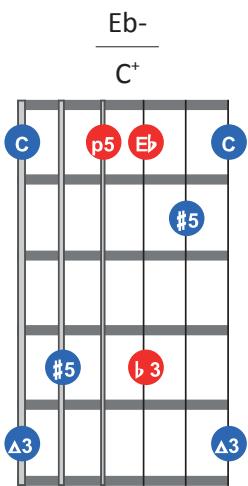
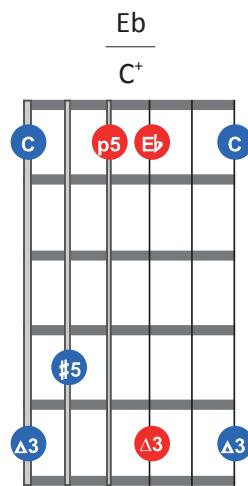
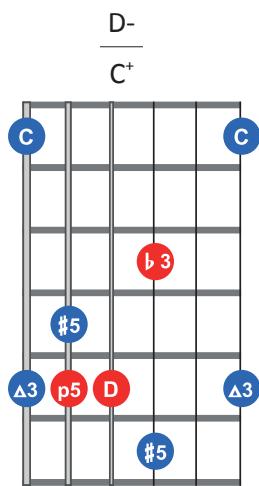
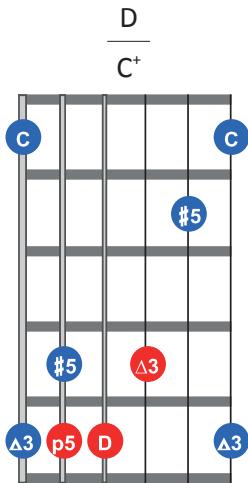
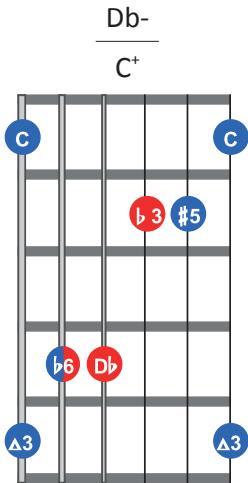
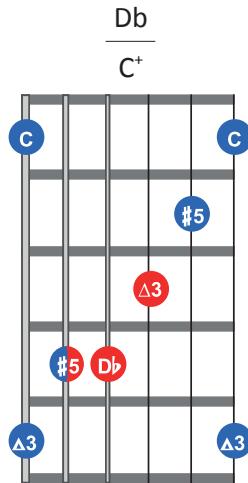
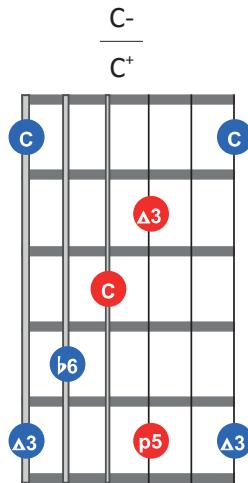


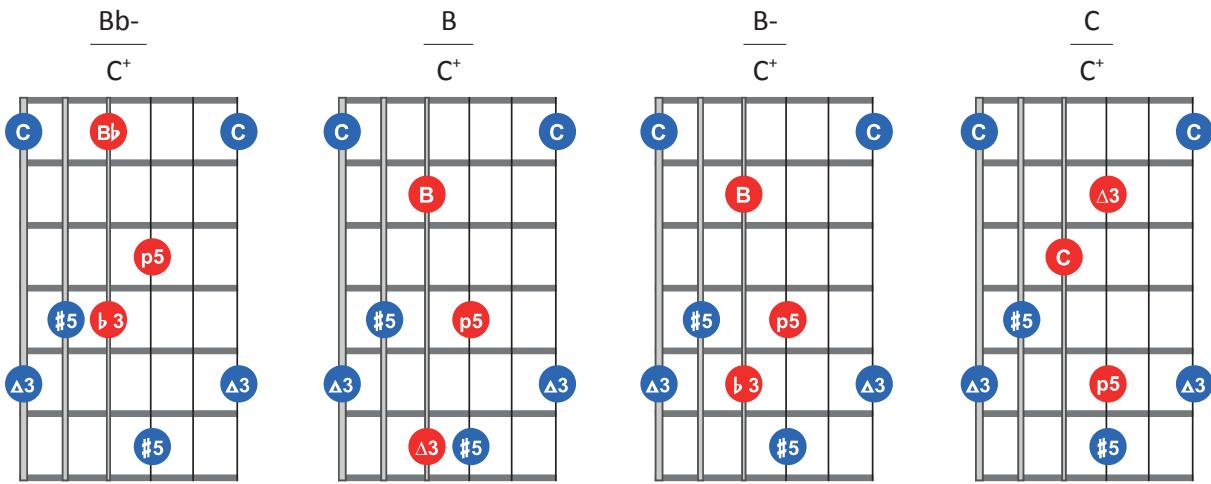
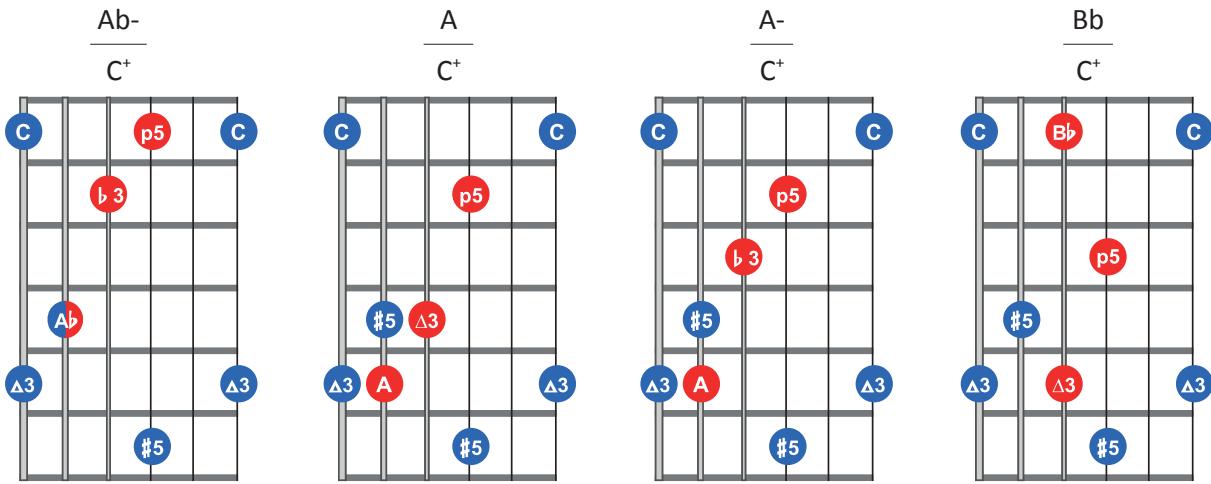
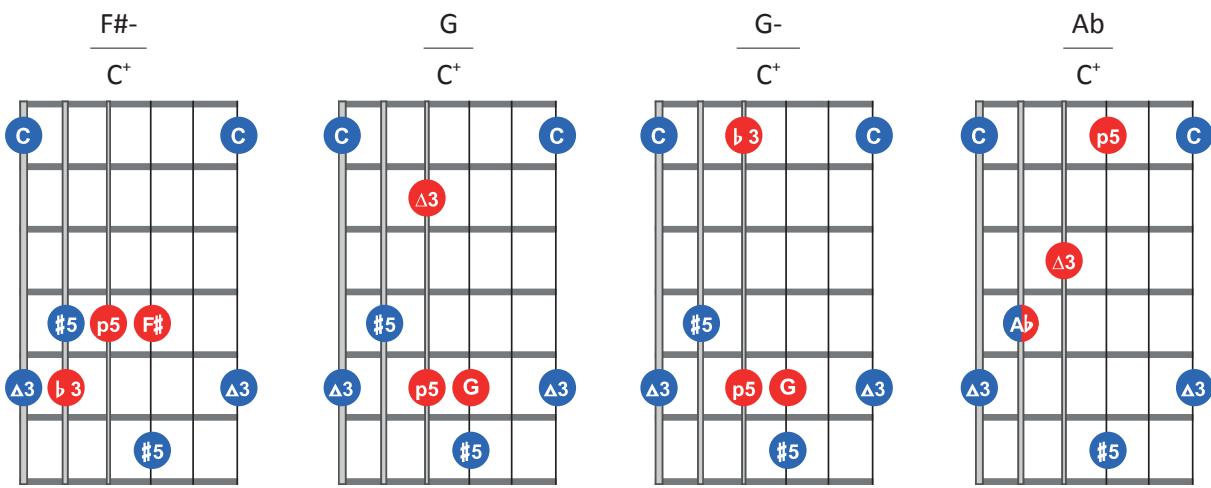
## Diminished Bitonal Arpeggios (over C° at the 8<sup>th</sup> fret)

<p><b>C-</b></p> <hr/> <p><b>C°</b></p>	<p><b>Db</b></p> <hr/> <p><b>C°</b></p>	<p><b>Db-</b></p> <hr/> <p><b>C°</b></p>	<p><b>D</b></p> <hr/> <p><b>C°</b></p>
<p><b>D-</b></p> <hr/> <p><b>C°</b>    <b>C°</b></p>	<p><b>Eb</b></p> <hr/> <p><b>C°</b></p>	<p><b>Eb-</b></p> <hr/> <p><b>C°</b></p>	<p><b>E</b></p> <hr/> <p><b>C°</b></p>
<p><b>E-</b></p> <hr/> <p><b>C°</b></p>	<p><b>F</b></p> <hr/> <p><b>C°</b></p>	<p><b>F-</b></p> <hr/> <p><b>C°</b></p>	<p><b>F#</b></p> <hr/> <p><b>C°</b></p>



## Augmented Bitonal Arpeggios (over C<sup>+</sup> at the 8<sup>th</sup> 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 <sup>7</sup>	V <sup>7</sup>	IMA7
Comb. 1 Parent Scale	D-Dorian (C-Major)	G-Mixolydian (C-Major)	C-Ionian (C-Major)
Comb. 2 Parent Scale	D-Dorian (C-Major)	G-Alt.Dom. (Ab-Mel. Min.)	C-Lydian (G-Major)

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

### **Ex. 161**

ii <sup>7</sup>	V <sup>7</sup>	I <sup>maj7</sup>
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)      G7alt (Alt. Dom.)      CMA7#11 (Lydian)

3rds (in 2<sup>nds</sup>)

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

# CHAPTER 4

# LINEAR STUDIES

A handwritten musical score for a six-string guitar, featuring six staves of music. The notation includes various note heads, stems, and rests, with many notes having horizontal dashes through them. Chord names are written above the staves, such as C-7, F7, D-7, G7alt, C-7, F7alt, B7Maj7, G7alt, C-7, F7alt, D-7, G7alt, C-7, F7alt, D-7, G7alt, C-7, F7alt, B7Maj7, G7alt, C-7, F7alt, B7Maj7, G7alt, C-7, F7alt, B7Maj7, G7alt.

## 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<sup>7</sup>                  I<sup>maj7</sup>

Dmin<sup>7</sup>                  G<sup>7(13)</sup>                  C<sup>maj7</sup>

unaltered (basic)

**b)**      ii<sup>7</sup>                  V<sup>7alt</sup>                  I<sup>maj7</sup>

Dmin<sup>7</sup>                  G<sup>7/#5/b9</sup>                  C<sup>maj7</sup>

with altered Dom. Chord

**c)**      ii<sup>7</sup>                  V<sup>7</sup>                  I<sup>7</sup>

D-<sup>7</sup>                  G<sup>7(9)</sup>                  C<sup>7(13)</sup>

Dom.<sup>7</sup> tonic chord with unaltered V<sup>7</sup>

**d)**      ii<sup>7</sup>                  V<sup>7alt</sup>                  I<sup>7alt</sup>

D-<sup>7</sup>                  G<sup>7/#9/#5</sup>                  C<sup>7/b9/b5</sup>

altered Dom.<sup>7</sup> tonic chord with altered V<sup>7</sup>

**e)**      ii<sup>7/b6</sup>                  V<sup>7alt</sup>                  I<sup>maj7/#5</sup>

D-<sup>7/b6</sup>                  Ab<sup>sus4</sup>                  C<sup>maj7/#4/#5</sup>

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<sup>7b5</sup>              V<sup>7alt</sup>              i<sup>7 (maj7)</sup>  
D-<sup>7b5</sup>              G<sup>7/#5/b9</sup>              C-<sup>7 (maj7)</sup>

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              C7(#11)              FMA7

A musical staff in 4/4 time with a treble clef. It shows a melody line consisting of six notes. Above the staff, the chords G-7, C7(#11), and FMA7 are labeled. Below the staff, under the first note, are the numbers 1, b3, 5, b7. Under the second note is a sharp sign (#). Under the third note is a sharp sign (#) and the number 11. Under the fourth note is a sharp sign (#) and the number 13. The fifth note has a fermata symbol above it. The sixth note has a fermata symbol above it and is positioned below the staff line.

## **ii V's in One Measure**

Ex. 166

### *Major keys*

a)

Guitar tablature for the first measure of the solo, starting with a Gm7 chord. The tab shows a single note on the 6th string at the 5th fret, followed by a grace note on the 5th string at the 7th fret. The 6th string is muted.

b)

The image shows a musical score for guitar. The top staff is in G major (Gm7) with a key signature of one sharp. The middle staff is in C major (C7alt) with a key signature of one sharp. The bottom staff is in F major (Fmaj7) with a key signature of no sharps or flats. The TAB notation below the staff shows the fret positions for each note: 8, 11, 10, 9, 9, 8, 11, 10.

c)

The musical score shows a treble clef staff with a key signature of one sharp (F#) and a common time signature. The first measure is labeled Gm7, featuring a G major seventh chord. The second measure is labeled C7, featuring a C dominant seventh chord. The third measure is labeled Fmaj7, featuring an F major seventh chord. Below the staff, a tablature for a bass guitar (T, A, B strings) shows the notes corresponding to the chords above. The bass line consists of eighth-note patterns: T (13), A (11), B (10), T (12), A (10), B (12), T (9), A (12), B (10). A bracket under the bass line indicates a three-measure measure repeat.

d)

Guitar tablature for the first measure of the solo, showing a melodic line starting on the 5th fret of the A string. The tab includes fingerings (7, 8), a hammer-on (H) at the 8th fret, and a pull-off (P) at the 7th fret. The measure ends with a bend (B) at the 8th fret.

e)

Musical staff showing a melodic line for Gm7, C7b9, and Fmaj7 chords. The staff includes a treble clef, a key signature of one sharp, and a common time signature. The melody consists of eighth and sixteenth notes. Below the staff is a tablature for a guitar neck, with the strings labeled T (top), A, and B from left to right. The tablature shows fingerings: 3, 3, 6, 5, 6, 5, 3, 2.

f)

Guitar tablature for the first measure of the solo, starting with a Gm7 chord. The tab shows a C major scale pattern with a bend on the 11th fret of the A string. The notes are: G (open), B (10th), D (7th), F# (8th), A (11th), C (9th), E (10th), G (11th), B (10th), D (9th), F# (8th). The tab includes a staff with a treble clef and a bass staff with a bass clef.

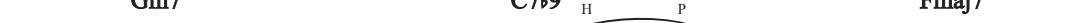
g)

Musical score for Gm7, C7b9, and Fmaj7 chords. The score shows a treble clef, a key signature of one sharp, and three measures of music. The first measure (Gm7) has notes at 6, 7, and 6. The second measure (C7b9) has notes at 5, 5, 8, and 8. The third measure (Fmaj7) has notes at 6, 6, and 5. Below the staff, a tablature shows strings T, A, and B with corresponding fingerings: 7, 7, 6; 5, 5, 8; and (8), 6, 5 respectively.

h)

The image shows a musical score for guitar. The top staff is a treble clef staff with three notes: a rest, a dotted quarter note, and a quarter note. The bottom staff is a bass staff with four notes: a half note (T), a quarter note (A), a half note (B), and a quarter note (G). Above the staff, the chords are labeled: Gm7, C7, and Fmaj7. Below the staff, the fingerings are indicated as follows: for Gm7, the first note has a 7 below it; for C7, the first note has a 5, the second has an 8, the third has a 5, and the fourth has a 6; for Fmaj7, the first note has a 7, the second has a 4, and the third has a (4) in parentheses.

i)

Gm7 C7**b**9 Fmaj7  
  
 T A B  
 -7 8 7 9 10 -8 9 8 11 10

j)

## *Minor keys*

Musical score for guitar showing chords Em7b5, A7alt, and Dm7 with corresponding TAB notation.

The score consists of three measures:

- Em7b5:** The first measure shows a descending eighth-note line on the high E string. TAB: T 5 - A 8 - B
- A7alt:** The second measure shows a descending eighth-note line on the B string. TAB: T 7 - A 5 - B 6
- Dm7:** The third measure shows a descending eighth-note line on the G string. TAB: T 8 - A 5 - B 6

k)

The image shows a musical score for guitar. The top staff is a treble clef staff with a key signature of one sharp (F#). It features three chords: Em7b5 (from bar 7 to 10), A7alt (from bar 10 to 12), and Dm9 (from bar 12 to 14). The A7alt chord is sustained across the bar line. The bottom staff is a standard six-string guitar tablature (T-A-B) from the 7th to the 12th fret. Fingerings are indicated above the strings: 7, 8, 8, 10, 10, 11, 12, and (12).

11

Musical score for guitar showing chords Em7b5, A7alt, and Dm9 with corresponding fingerings:

**Em7b5**

**A7alt**

**Dm9**

Fretboard diagram below:

T	3	3	2	2	3	2	5	5
A								
B								

m)

Em7b5                    A7alt                    Dm9

T 8 - 6 - 5 - 7 - 6 - 5 - 8 | 6 - 5 - 7 - 4

A

B

n)

Em7b5                    A7alt                    Dm9

T 2 - 3 - 5 - 2 - 4 - 5 - 2 - 3

A 5 -

B

o)

Em7b5                    A7alt                    Dm9

T 8 - (8) - 5 - 6 - 5 - 7 - 5 - (5)

A

B

p)

Em7b5                    A7alt                    Dm9

T 7 - 8 - 5 - 5 - 7 - 8 - 7 - 8 - 5 - 8

A

B

q)

Em7b5                    A7alt                    Dm11

T 2 - 3 - 2 - 5 - 3 - (3)

A 5 -

B

r)

Em7b5                    A7alt                    Dm11

T 5 - 6 - 4 - 5 - 8 - (8)

A 8 - 7 - 8 -

B

## One Measure ii V I's in Major

**Ex. 167**

**a)**

**Am7**

**D7**

**Gmaj7**

Fretboard diagram below the staff:

T	9	10	12	9	12	11	9	10	9	12	9	11	10	8	12
A															
B															

**b)**

**Am7**

**D7**

**Gmaj7**

Fretboard diagram below the staff:

T	10	10	8	10	7	10	8	7	7	10	8	7	7	9	(9)
A															
B															

**c)**

**Am7**

**D7**

**Gmaj7**

Fretboard diagram below the staff:

T	9	10	12	13	12	11	10	13	12	10	11	9	7	10	9	10	9	7
A																		
B																		

**d)**

**Am7**

**D7**

**Gmaj7**

Fretboard diagram below the staff:

T	12	(12)	10	10	9	12	12	10	12	10	9	10	(10)	12	10	10	11	9	(9)
A																			
B																			

e)

Am7

Melodic line (top staff): A series of eighth and sixteenth note patterns across three measures. The first measure starts on the 7th fret of the B string. The second measure starts on the 10th fret of the A string. The third measure starts on the 10th fret of the E string.

Tablature (bottom staff): Shows the fingerings for the melodic line. The first measure uses fingers 7 and 10 on the A and B strings respectively. The second measure uses fingers 9 and 8 on the A and B strings respectively. The third measure uses fingers 10, 8, and 7 on the E, A, and B strings respectively.

f)

The image shows a musical score for a guitar solo. The top staff is a treble clef staff with a 3/4 time signature. It features three chords: Am7, D7, and Gmaj7. The Am7 chord is preceded by a measure of rests. The D7 chord has three grace notes before it. The Gmaj7 chord is preceded by a measure of rests. The bottom staff is a guitar tablature with six strings labeled A, D, G, B, E, and F#. The tablature shows the fingerings and string skipping for each chord. The Am7 chord starts at the 10th fret of the A string. The D7 chord starts at the 12th fret of the A string, with the 10th and 12th frets being muted. The Gmaj7 chord starts at the 9th fret of the A string.

g)

Sheet music for Am7 and D7 chords. The top staff shows a treble clef, a key signature of one sharp, and a 4/4 time signature. The Am7 chord consists of a C note (open A string), an E note (D string), and a G note (B string). The D7 chord consists of an F# note (D string), an A note (G string), a C note (B string), and an E note (E string). The bottom staff is a guitar tab with six strings labeled A (top) to E (bottom). Fingerings are indicated above the strings: 10-12 for the first two strings, 12 for the third, 8-9 for the fourth, 12 for the fifth, and 11-10 for the sixth. Slurs and grace notes are also present.

h)

The image shows a musical score for a guitar. The top staff is a treble clef staff with a key signature of A minor (no sharps or flats). It features two chords: Am7 and D7. The Am7 chord is played with a hammer-on (H) on the 10th fret of the B string, followed by a grace note on the 12th fret of the A string. The D7 chord is played with a hammer-on (H) on the 12th fret of the B string, followed by a grace note on the 13th fret of the A string. The bottom staff is a guitar tablature (TAB) showing the strings T (Treble), A (A), and B (B). The tab indicates fingerings and positions for the chords. The Am7 chord is played at the 9th fret with fingers 1 and 2. The D7 chord is played at the 12th fret with fingers 1 and 2.

i)

The image shows a musical score for guitar. The top staff is in 4/4 time, featuring a treble clef and a key signature of one flat. It includes three chords: Cm7, F7alt, and Bmaj7, each with its own set of slurs and grace notes. The bottom staff is a guitar neck diagram with six strings and twelve frets. Fingerings are indicated by numbers above the strings, and slurs are shown as curved lines connecting specific notes. The chords are positioned across the strings at various frets, with the first chord starting at the 10th fret of the A string.

j)

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

T  
A  
B

5 4 7 5  
6 4  
7 8  
2 4

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

k)

**Am7**      **D7alt**      **Gmaj7**

T  
A  
B

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

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

P  
P  
P

l)

**Bm7**      **E7alt**

T  
A  
B

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

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

Amaj7

T  
A  
B

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

H  
H  
H  
H  
H  
P  
sl.  
H

m)

**Gm7**      **C7alt**      **Fmaj7**

T  
A  
B

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

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

n)

**Gm7**

**C7alt**

**Fmaj7**

T A B

7-8 10-11 8-9-10-9-8  
11-10-9-8 9-10-7-9 8-6  
6-7-9 9-11 11-13  
13-14 9-13-14

o)

**Dm7**

**G7alt**

**Cmaj9**

T A B

10-12 8-12-8 11-7 9-10-8 9-10-8 9-10  
7-9 8-10 (10)

p)

**Dm7**

**G7alt**

**Cmaj7**

T A B

10-12-14 10-9 12-10-12 13-10 9-11-13 10-13 12-9 7-8 9-9-7-9

q)

**Dm7**

**G13b9**

**Cmaj9**

T A B

12-12 9-10 11 9 12-10 10 12-10-8 9-7

r)

**Dm7**

**G7b9**

**Cmaj7**

T A B

14-15 12 13-15 12 15-13 14-15 13 14-14 13-15 15 12-15-12 16-12-14

s)

**Dm7**

**G7alt**

**Cmaj7**

sl.

T A B

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

*t*)

The image shows a musical score for guitar. The top staff features three chords: Dm7, G7, and Cmaj7. Each chord has specific fingering indicated by numbers below the notes: Dm7 (3, 3), G7 (P, P), and Cmaj7 (H). The bottom staff is a fretboard diagram with strings T, A, and B. Fret positions are marked from 10 down to 9. Fingerings correspond to the chords above: (10-9), (12-10-9) for Dm7; (P, P) for G7; and (H, 10-13-12-12) for Cmaj7.

## One Measure ii V I's in Minor

**Ex. 168**

**a)**

Dm7**b**5                    G7alt                    Cm7

**b)**

Dm7**b**5                    G7**b**9                    Cm7

**c)**

Dm7**b**5                    G7alt                    Cm7

**d)**

Dm7**b**5                    G7alt                    Cm7

**e)**

Dm7**b**5                    G7alt                    Cm7

*f)*

**Dm7**5****      **G7alt**      **Cm7**

T 11-9-8  
A 11-10-9-8-7  
B 10-10-9-6-7-9-10-8-9-11-12-9-10-12-13  
T 11-13-10-13-11-10  
A 13-13-12-10-10-13  
B -13

*g)*

**Dm7**5****      **G7alt**      **Cm7**

T 8  
A 9-10-8-7-10  
B 9-10-11-8-12  
T 10-8-8-7  
A 10-8-10-7  
B 11-8

*h)*

**Dm7**5****      **G7alt**      **Cm7**

T 3-6-5  
A 3-6  
B 5-6  
T 6-4-7-6-8  
A 6-8-5-6  
B 5-6

*i)*

**Gm7**5****      **H C7alt**      **Fm7**

T 8-10-11-10  
A 9-8-10-11  
B 8-10-11-13-10-13-11-14-13-11-15  
T 11-14-12-11-13-11-12-13-11-13  
A 13-11-12-13-13-10-11-13  
B 13-13-12-11-13-11-10-11-10

*j)*

**Gm7**5****      **C7alt**      **Fm7**

T 9-8-11-10-8-10-8-10-11-8-10-11-8-12  
A 11-10-8-10-8-10-11-8-10-11-13-14-13  
B 11-8-9-12-11-13-11-13-11-12-13-13-10-11-13  
T 11-14-12-11-13-11-12-13-11-12-13-13-10-11-13  
A 13-11-12-13-13-11-12-13-11-12-13-13-10-11-13  
B 11-10-11-13-13-11-10-11-13-11-10-11-10

k)

**Gm7**5****      **C7alt**      **Fm7**

T A B

10-13-10-11 11-8-9-11-8 11-9-8  
13-11 11-8-9 10-11-10-11 8

l)

**Gm7**5****      **C7alt**      **Fm7**

T A B

10-11-10-12 13-11-11 (11)-9-10-8 11-10-11-10  
10-11 13-10-13-11 8-8-5

m)

**Gm7**5****      **C7alt**      **Fm7**

T A B

11-10-11-10-13-14-14-13-16-16-14 12-10-10-11-13-10  
13-11 16-14

n)

**Gm7**5****      **C7alt**      **Fm7**

T A B

10-10-12-12-13-11-(11)-13-13-14-11 13-13-10-11-13  
11

o)

**Gm7**5****

T A B

16-13-16-13-16-13-15-13-15-14-15-14-17-14-17-18-17-18-14-15-15

**C7alt**

**Fm7**

## ii<sup>7</sup> V<sup>7</sup> I<sup>maj7</sup> substitute patterns

The substitutions presented in this section may be used over the major ii V<sup>7</sup> I<sup>maj7</sup> 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

#### ii<sup>7</sup> V<sup>7</sup> I<sup>maj7</sup> Substitutes

Interval Relation	D <sup>-7</sup>		G <sup>7</sup>		C <sup>maj7</sup>
R	D <sup>maj7</sup>	F <sup>7</sup>	Ab <sup>7</sup>	B <sup>7</sup>	C <sup>maj7</sup>
R	D <sup>maj7</sup>	F <sup>7</sup>	Bb <sup>maj7</sup>	Db <sup>7</sup>	C <sup>maj7</sup>
TT $\uparrow\downarrow$	Ab <sup>maj7</sup>	B <sup>7</sup>	E <sup>maj7</sup>	G <sup>7</sup>	C <sup>maj7</sup>
R	D <sup>-7</sup>	G <sup>7</sup>	Ab <sup>-7</sup>	Db <sup>7</sup>	C <sup>maj7</sup>
R	D <sup>-7</sup>		F <sup>-7</sup>		C <sup>maj7</sup> (E <sup>-7</sup> )
R	D <sup>-7</sup>		Db <sup>-7</sup>		C <sup>maj7</sup>
M2 $\uparrow$	E <sup>7</sup>	A <sup>7</sup>	D <sup>7</sup>	G <sup>7</sup>	C <sup>maj7</sup>
M3 $\downarrow$	Bb <sup>7</sup>	Eb <sup>7</sup>	Ab <sup>7</sup>	Db <sup>7</sup>	C <sup>maj7</sup>
TT $\uparrow\downarrow$	Ab <sup>-7</sup>	Eb <sup>-7</sup>	Bb <sup>-7</sup>	F <sup>-7</sup>	C <sup>maj7</sup>
M2 $\uparrow$	E <sup>-7</sup>	B <sup>-7</sup>	Gb <sup>-7</sup>	Db <sup>-7</sup>	C <sup>maj7</sup>
R	D <sup>-7</sup>	Eb <sup>7</sup>	Ab <sup>7</sup>	Db <sup>7</sup>	C <sup>maj7</sup>
M3 $\downarrow$	Bb <sup>7</sup>	Eb <sup>7</sup>	Ab <sup>7</sup>	G <sup>7</sup>	C <sup>maj7</sup>
m3 $\downarrow$	B <sup>-7</sup>	Gb <sup>7</sup>	Db <sup>-7</sup>	Ab <sup>-7</sup>	C <sup>maj7</sup>
M2 $\uparrow$	E <sup>-7</sup>	B <sup>-7</sup>	F# <sup>-7</sup>	C# <sup>-7</sup>	C <sup>maj7</sup>

## Examples off ii<sup>7</sup>-V<sup>7</sup>-I<sup>maj7</sup> Substitutions

**Ex. 170**

Original: (Dm7)

Dm7

a)

(G7)

A♭7

D♭7

(Cmaj7)

Cmaj7

b)

E7

A7

D7

G7

Cmaj7

c)

G♯m7

D♯m7

B♭m7

Fm7

Cmaj7

## **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<sup>V</sup>7/ii<sub>7</sub> V7 Exercise

Ex. 171

The sheet music consists of five staves of musical notation for guitar, each with a corresponding fingering chart below it. The staves are arranged vertically, and each staff includes a key signature, time signature, and a list of chords.

- Staff 1:** B<sub>b</sub>maj7, G7alt, Cm7, F7<sub>b</sub>9, Dm7, G7<sub>b</sub>9, Cm7, F7. Fingerings: T 13-10, A 13-12, B 13-12-10; 11-10, 12-11-10-9; 12-9, 10-13-9; 11-10-13-11-12-10-13-12. Slurs: sl. (over G7<sub>b</sub>9), sl. (over F7).
- Staff 2:** Dm7, G7alt, Cm7, F7alt, Dm7, G7<sub>#</sub>5, Cm7, F7alt. Fingerings: P 10-10, H 11-12, H 12-13-10-10-12-8-9, H 7-9-10-7-8-10-11-13-11. P sl. (over F7alt).
- Staff 3:** Dm7, G7alt, Cm7, F7alt, B<sub>b</sub>maj7, G7alt. Fingerings: P sl. (over G7alt), 3 (over Cm7), P 13-16-14, H 15-11-10-8-9, 12-11-8, 12-10-8-9-10, 11-10-11. 3 (over B<sub>b</sub>maj7).
- Staff 4:** C7alt, F7alt, B<sub>b</sub>maj7, G7alt, Cm7, Cm7, B<sub>b</sub>maj7, G7alt. Fingerings: P 11-8-9-11-11-14, 14-13, H 12-10-13-12-14, 10-12-13-10-11-13-11-14, 10-12-10-13-11-12-10.
- Staff 5:** C7alt, F7alt, Dm7<sub>b</sub>6, G7alt, Cm9, F7alt, B<sub>b</sub>maj7, Gm7. Fingerings: P 11-11-11-9-10-9, H 9-10-12-11-11-10-13-11-11-10-13-13-14, sl. (over Cm9), P 13-12-11-13-13-14, sl. (over B<sub>b</sub>maj7), H 12-10-13-12-11-10-9-12-12-10.

A musical score for guitar featuring a treble clef staff and a six-string guitar neck diagram below it. The score consists of eight measures of music. Chords indicated above the staff include Cm7, F7#5, B♭maj7, G7b9, Cm7b5, F7#5, B♭maj7, and Gm7. Fingerings are shown as 'P' (palm) and 'H' (hammer-on). The guitar neck diagram shows fret numbers and specific fingering patterns (e.g., 13-11-10-13, 10-13, 13-11-12, etc.) corresponding to the chords.

The image shows a musical score for guitar. The top part contains eight measures of music with chords: Cm7, F7#5, B<sub>b</sub> maj7, G7b9, Cm7, F7b9, Dm7, and G7b9. Each measure has a dynamic marking 'p' (piano) above it. The bottom part shows a bass line with three-octave notes and fingerings: T11-12, A12, B11; T11-10, A10, B12; T10, A13-12, B13-12-10; T11-10, A13-12, B13-12-10; T10, A13-11-10, B11-10; T13, A13, B11-10; T12-10, A12, B10; T10-9, A12, B12.

Musical score and tablature for guitar, showing a blues-style progression:

**Chords:** Cm7, F7alt, Dm7, G7alt, Cm9, F7, Dm7, G7alt

**Handings:** H, P, sl.

**Tablature:**

T	10	10	12	10	10	8	10	10	10	9
A	13	10-11		12-13-11-12-10-9-12		8-10-8	7-10	8	12-10-11	8
B					10	10				9

Musical score for guitar showing chords and fingerings:

Chords: C7alt, F7alt, B<sub>b</sub>maj9, G7alt, Cm7, F7, B<sub>b</sub>maj7

Fingerings (T-A-B):

- C7alt: T11, A11, B13
- F7alt: T9, A9, B13
- B<sub>b</sub>maj9: T11, A11, B13
- G7alt: T13-11, A10-12, B8
- Cm7: T11, A11, B13
- F7: T10, A10, B13
- B<sub>b</sub>maj7: T12, A12, B13

## Turnarounds Over Four Measures

**Ex. 172a**

**Fmaj7**

**D7alt**

**Gm7**

**C7alt**

**Fmaj7**

**P**

**b)**

**Fmaj7**

**D7alt**

**Gm7**

**C7alt**

**H**

**sl.**

**P**

**sl.**

**Fmaj7**

**c)**

**Fmaj7**

**p**

**D7alt**

**H**

**Gm7**

**P**

**P**

Musical score for C7alt and Fmaj7 chords. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with note heads and stems.

**C7alt**

**Fmaj7**

sl.

H H H

T A B 8 5 7 4 6 7 6 4 3

*d)* Amaj7      F#7alt      Bm7

Fretboard diagrams below show fingerings for each chord:

T	H	H	H	H	H	10-11	8-10	H	sl.	P	P	sl.	H	10-11	7-9	10-12	9-10	12-13	9-10	11-12				
A	11-12	9	11-12	9	11-12	9	10-12	10-12	11-9	8-11-10-8-7	9-7	9-7	8-7	10	7	6-9	10	7-9	10	7	9-10	12-13	9-10	11-12
B	11-12	9	11-12	9	11-12	9	10-12	10-12	11-9	8-11-10-8-7	9-7	9-7	8-7	10	7	6-9	10	7-9	10	7	9-10	12-13	9-10	11-12

The image shows a musical score for a six-string guitar. The top staff is in E7alt chord (E, G#, B, D#, F#, A) with a dynamic of **p**. The melody consists of eighth-note pairs and sixteenth-note patterns. The bottom staff shows the corresponding fingerings for the guitar strings (T, A, B). The first measure starts at the 9th fret of the A string. The second measure starts at the 12th fret of the T string. The third measure starts at the 11th fret of the A string. The fourth measure starts at the 10th fret of the T string. The fifth measure starts at the 9th fret of the A string. The sixth measure starts at the 12th fret of the T string. The seventh measure starts at the 10th fret of the A string. The eighth measure starts at the 11th fret of the T string. The ninth measure starts at the 10th fret of the A string. The tenth measure starts at the 8th fret of the T string. The eleventh measure starts at the 8th fret of the A string. The twelfth measure starts at the 11th fret of the T string. The thirteenth measure starts at the 10th fret of the A string. The fourteenth measure starts at the 8th fret of the T string. The fifteenth measure starts at the 7th fret of the A string.

Musical score for guitar, measures 12-14. The top staff shows a melodic line with fingerings (H, P) and dynamic markings (F7b9, B♭maj7). The bottom staff shows the corresponding tablature with fingerings (H, P, P) and string numbers (12, 14, 11, 12, 11, 13, 11, 14, 10, 12, 10, 13).

**f)**

**B<sub>b</sub>maj7**

**G7**♭**9**

**Cm7**

**T** 8 7 10 10 9 8 7 6 8 7 5 4 6 5 3

**A**

**B** 10 6 5 8 7 10 9 8 8

**F7**9****

**B**♭**maj7**

**g)**

**B**♭**maj7**

**G7**9****

**Cm7**

**F7**9****

**h)**

**B**♭**maj7**

**G7**9****

**Cm7**

**F7**9****

## 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)*

*b)*

*c)*

*d)*

*e)*

## 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*

A musical staff in G major (one sharp) illustrates a cycle of fifths progression. The progression consists of the following chords: F#7, B7, E7, A7, D7, G7, C7, and F7. The F7 chord is circled and labeled "intersecting chord". The progression starts at the beginning of the staff and ends at the end of the staff, with a repeat sign indicating it can be repeated.

*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**

The first staff starts with D7 (4, 7), G7 (7, 5, 4, 7), C7 (5, 8, 7, 5), F7 (8, 6, 5, 8), B<sub>b</sub>7 (5, 8, 8, 6, 5, 8), Eb7 (6, 9, 8, 6, 9), Ab7 (6, 9, 8, 6, 9), and Db7 (6, 9, 8, 6, 9). The second staff starts with F#7 (8, 6, 9, 8, 6, 9), B7 (6, 9, 7, 6, 9, 10, 8), E7 (6, 9, 7, 6, 9, 10, 8), A7 (7, 10, 8, 7, 8, 10), D7 (7, 10, 8, 7, 8, 10), G7 (9, 10, 8, 7, 8, 11), C7 (9, 10, 8, 7, 8, 11), and F7 (8, 11, 10, 9, 12). The third staff starts with B<sub>b</sub>7 (8, 11, 10, 9, 11), Eb7 (10, 8, 11, 10, 9), Ab7 (10, 8, 11, 10, 9), Db7 (11, 9, 12, 10, 9), F#7 (8, 11, 11, 9, 8, 11), B7 (9, 12, 11, 10, 9, 12), E7 (11, 12, 10, 9, 12), and A7 (12, 11, 10, 9, 12).

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

a)

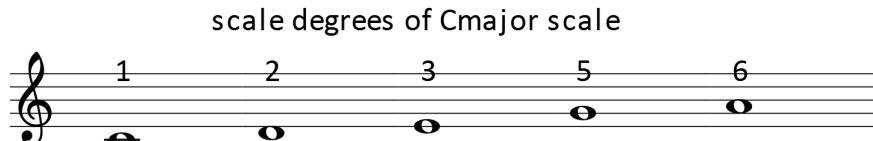
b)

c)

## Pentatonic Scales

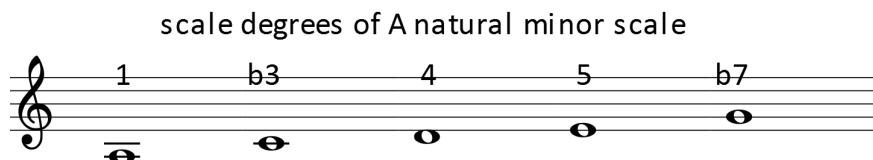
A pentatonic scale is simply a scale consisting of five notes. The two most common pentatonic scales are:

C major pentatonic:



and

A minor pentatonic:



The following chart is of pentatonic scale usage over major<sup>7</sup>, min<sup>7</sup>, and Dom<sup>7</sup> chords. They should also be grouped into progressions and used over chord changes.

*Ex. 178a*

$D-7$	$G7$	$C_{maj}7$
F maj pent.	B maj pent.	G maj pent.

*Ex. 178b*

$D-7$	$G7$	$C_{maj}7$
C maj pent.	Dd maj pent.	G maj pent.

*Ex. 178c*

D-7                    G7                    Cmaj7

Bb maj pent.      G maj pent.      C maj pent.

*Ex. 178d*

D-7                    G7                    Cmaj7

G maj pent.

Pentatonic Usage over a ii V<sup>7</sup> I<sup>maj7</sup> progression

*Ex. 179*

D-7                    G7alt

C Maj. Pent. - - - - - Db Maj. Pent. - - - - -

Cmaj7                    Cmaj7

D Maj Pent. - - - - -

## Pentatonic Scales Over Maj<sup>(7)</sup> Chords

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

## Pentatonic Scales Over Min<sup>(7)</sup> Chords

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

## Pentatonic Scales Over Dom<sup>7th</sup> Chords

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

## Or In Relation to One Pentatonic

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

The first staff shows the notes A, B, C, E, F on a treble clef staff. The second staff shows the notes A, B, C, E, F# on a treble clef staff, with the note F# circled.

### Ex. 180b

A Minor Pentatonic      A Minor b5 Pentatonic

1 b3 4 5 b7      1 b3 4 (b5) b7

The first staff shows the notes C, D, E, G, A on a treble clef staff. The second staff shows the notes C, D, E, G, A# on a treble clef staff, with the note A# circled.

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

The first staff shows the notes B, D, E, G, A on a treble clef staff. The second staff shows the notes B, C, D, F, G on a treble clef staff.

### Ex. 181b

Bb Augmented Major Pentatonic      G Dorian b2 Pentatonic

1 3 #4 #5 7      1 b2 4 5 b7

The first staff shows the notes Bb, D, E, F#, G on a treble clef staff. The second staff shows the notes Bb, C, D, F, G on a treble clef staff.

## Triadic Superimposition

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

### **Ex. 182a**

Harmonic superimposition.

The image shows three vertical stacks of notes representing chords:

- Csus4 Triad:** Notes 3 (A), 11 (C), b7 (F#). Bass note: 8 (B).
- A Triad:** Notes 9 (C#), 13 (#11), #11 (E). Bass note: 8 (B).
- G Triad:** Notes 7 (B), 5 (D), 5 (D). Bass note: 8 (B).

Below each stack are labels: D-<sup>11</sup>, G<sup>13(#11)</sup>, and C<sub>maj</sub><sup>9</sup>.

### **Ex. 182b**

Melodic superimposition.

The image shows a single melodic line across three chords:

- D7:** Notes 11 (B), b7 (F#), 3 (A), 11 (C).
- G7:** Notes 9 (C#), 13 (#11), #11 (E), 9 (C#).
- CMaj7:** Notes 7 (B), 5 (D), 5 (D).

Below the line are labels: Csus4, A Triad, and G Triad.

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  $\text{maj}^7$ ,  $\text{min}^7$  and  $\text{dom}^7$ , 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- <sup>7</sup>	Bb <sup>7</sup>	Eb <sup>maj7</sup>
①	Ab triad	E triad	Csus <sup>4</sup>
②	F-	Bsus <sup>4</sup>	Dsus <sup>4</sup>
③	Absus <sup>4</sup> (aeolian)	G Triad	F triad

The Ab<sup>sus4</sup> triad used on the Fm<sup>7</sup> 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 ( $\text{Maj}^7$ )

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

## Triadic Superimposition Chart (Min<sup>7(b5)</sup>)

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
C- <sup>7(b5)</sup>	C-	Root	1	b3	5	Minor (all)
	C <sup>sus4</sup>	Root	1	4	#5	Minor (all except Locrian type)
	Db+	m2↑	b9	11	13	Dorian b2 (Dom <sup>7</sup> function)
	Db <sup>lyd</sup>	m2↑	b9	5	b6	Phrygian
	D-	M2↑	9	11	13	Dorian
	D <sup>+</sup>	M2↑	9	#11	b7	Dorian #4 (Dom <sup>7</sup> also)
	D <sup>o</sup>	M2↑	9	11	b6	Aeolian
	D <sup>sus4</sup>	M2↑	9	5	13	Dorian
	D <sup>loc</sup>	M2↑	9	5	b6	Aeolian
	Eb	m3↑	b3	5	b7	Minor (all without b5)
	Eb-	m3↑	b3	b5	b7	Locrian (all), Dorian #4
	Eb <sup>o</sup>	m3↑	b3	b5	13	Locrian nat.6, Dorian #4
	Eb <sup>+</sup>	m3↑	b3	5	7	Melodic + Harmonic Minor
	Eb <sup>sus4</sup>	m3↑	b3	b6	b7	Aeolian
	Eb <sup>lyd</sup>	m3↑	b3	13	b7	Dorian
	F	P4↑	11	13	1	Dorian
	F-	P4↑	11	b6	1	Aeolian, Phrygian
	F <sup>+</sup>	P4↑	11	13	b9	Dorian b2
	F <sup>o</sup>	P4↑	11	b6	7	Harmonic Minor
	F <sup>sus4</sup>	P4↑	11	b7	1	Minor (all without 7)
	F# <sup>o</sup>	+4↓	#4	13	1	Dorian #4, Locrian nat.6
	F# <sup>+</sup>	+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 <sup>o</sup>	P4↓ P5↑	5	b7	b9	Phrygian
	G <sup>+</sup>	P4↓ P5↑	5	7	b3	Melodic + Harmonic Minor
	G <sup>sus4</sup>	P4↓ P5↑	5	1	9	Dorian, Aeolian
	An	M3↓ m6↑	b6	1	b3	Aeolian, (Phrygian)
	Ab-	M3↓ m6↑	b6	7	b3	Harmonic Minor
	Ab <sup>sus4</sup>	M3↓ m6↑	b6	b9	b3	Phrygian, Locrian
	Ab <sup>lyd</sup>	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°		m3↓ M6↑	13	1	b3	Dorian
A <sup>+</sup>		m3↓ M6↑	13	b9	11	Dorian b2
A <sup>loc</sup>		m3↓ M6↑	13	9	b3	Dorian (#4)
Bb		M2↓ m7↑	b7	9	11	Dorian, Aeolian
Bb <sup>sus4</sup>		M2↓ m7↑	b7	b3	11	Dorian, Phrygian, Aeolian

## Triadic Superimposition Chart (Dom<sup>7</sup>)

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal Sound (scale derivation)
C <sup>7</sup>	C-	Root	1	3	5	Mixolydian
	C-	Root	1	#9	5	Dom.Dim.
	C <sup>o</sup>	Root	1	#9	#11	Dom.Dim., Alt.Dom.
	C <sup>+</sup>	Root	1	3	#5	Whole Tone, Alt.Dom.
	C <sup>sus4</sup>	Root	1	4	5	Mixolydian
	C <sup>lyd</sup>	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 <sup>o</sup>	m2↑	b9	3	5	Dom.Dim.
	Db <sup>+</sup>	m2↑	b9	11	6	Dorian b2
	Db <sup>sus4</sup>	m2↑	b9	#11	#5	Alt.Dom.
	Db <sup>lyd</sup>	m2↑	b9	5	#5	Phrygian Major
	Db <sup>loc</sup>	m2↑	b9	#11	5	Dom.Dim.
	D	M2↑	9	#11	6	Mixolydian #11
	D-	M2↑	9	11	6	Mixolydian
	D <sup>o</sup>	M2↑	9	11	#5	Mixolydian b6
	D <sup>+</sup>	M2↑	9	#11	b7	Mixolydian #11, Whole Tone
	D <sup>sus4</sup>	M2↑	9	5	13	Mixolydian
	Eb	m3↑	#9	5	b7	Dom.Dim.
	Eb-	m3↑	#9	#11	b7	Dom.Dim., Alt.Dom.
	Eb <sup>o</sup>	m3↑	#9	#11	13	Dom.Dim.
	Eb <sup>sus4</sup>	m3↑	#9	#5	b7	Alt.Dom.
	E <sup>o</sup>	M3↑	3	5	b7	Mixolydian (#11)
	E <sup>+</sup>	M3↑	3	#5	1	Whole Tone, Alt.Dom.
	E <sup>loc</sup>	M3↑	3	13	b7	Mixolydian (#11)
	F	P4↑	11	6	1	Mixolydian
	F-	P4↑	11	#5	1	Phrygian major
	F <sup>+</sup>	P4↑	11	6	b9	Dorian b2 (Dom <sup>7</sup> function)
	F <sup>sus4</sup>	P4↑	11	b7	1	Mixolydian
	F#	+4↓	#11	b7	b9	Alt.Dom., Dom.Dim.
	F# <sup>o</sup>	+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# <sup>+</sup>	+4↓↑	#11	b7	9		Mixolydian #11
F# <sup>sus4</sup>	+4↓↑	#11	(7)	b9		Upper Extension
G-	P4↓ P5↑	5	b7	9		Mixolydian
G <sup>o</sup>	P4↓ P5↑	5	b7	b9		Dom.Dim., Phrygian Major
Ab	M3↓ m6↑	#5	1	#9		Alt.Dom.
Ab <sup>+</sup>	M3↓ m6↑	#5	1	3		Whole Tone, Alt.Dom.
Ab <sup>sus4</sup>	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 <sup>o</sup>	m3↓ M6↑	13	1	#9		Dom.Dim.
A <sup>+</sup>	m3↓ M6↑	13	b9	11		Dorian b2 (Dom <sup>7</sup> function)
A <sup>sus4</sup>	m3↓ M6↑	13	9	3		Mixolydian
A <sup>lyd</sup>	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 <sup>o</sup>	M2↓ m7↑	b7	b9	3		Dom.Dim., Alt.Dom.
Bb <sup>+</sup>	M2↓ m7↑	b7	b9	#11		Dom.Dim., Alt.Dom.
Bb <sup>lyd</sup>	M2↓ m7↑	b7	3	11		Mixolydian
Bb <sup>loc</sup>	M2↓ m7↑	b7	#9	3		Dom.Dim., Alt.Dom.

## Triadic Improvisation

**Ex. 183a**

**G7(b9)**

T A B      G D<sub>b</sub> E<sub>b</sub> E      G D<sub>b</sub> E B<sub>b</sub>      G

**Ex. 183b**

**G7(b9)**

T A B      E B<sub>b</sub> D<sub>b</sub> G      E B<sub>b</sub> G D<sub>b</sub>      E B<sub>b</sub> G D<sub>b</sub>

**Ex. 183c**

**G7alt**

T A B      D<sub>b</sub> E<sub>b</sub> Absus4 Ebadd9      Ebsus4 Absus4      sl.

**Ex. 183d**

**G7alt**

T A B      Absus4 Absus4 Bbsus4 Ebsus4      sl.

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

**G7alt**

T A B      Abm D<sub>b</sub> E<sub>b</sub> Dbadd9 Eb<sup>sus4</sup> Eb<sup>+</sup> Eb<sup>sus4</sup> Dbadd9      sl.

## 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*

### *Ex. 184b Harmonic usage*

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

## Seventh Chord Superimposition Chart (Maj<sup>7</sup>)

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

## Seventh Chord Superimposition Chart (Min<sup>7(b5)(#7)</sup>)

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
			1	b3	5	6	
C- <sup>7(b5)(#7)</sup>	C- <sup>6</sup>	Root	1	b3	5	6	Dorian Types
	C- <sup>maj7</sup>	Root	1	b3	5	7	Melodic + Harmonic Minor
	C- <sup>7b5</sup>	Root	1	b3	b5	b7	Locrian Types
	C- <sup>7/sus4</sup>	Root	1	4	5	b7	Dorian, Aeolian, Phrygian
	C- <sup>maj7/#5</sup>	Root	1	b3	#5	7	Harmonic Minor
	C- <sup>7/#5</sup>	Root	1	b3	#5	b7	Aeolian, Phrygian
	Db <sup>maj7</sup>	m2↑	b2	11	b6	1	Phrygian
	Db <sup>maj7/b5</sup>	m2↑	b2	11	5	1	Phrygian
	Db <sup>maj7/#5</sup>	m2↑	b2	11	6	1	Dorian b2
	Db <sup>maj7/sus4</sup>	m2↑	b2	b5	b6	1	Locrian
	Db <sup>lyd/maj7</sup>	m2↑	b2	5	b6	1	Phrygian
	D- <sup>7</sup>	M2↑	9	11	6	1	Dorian
	D- <sup>7/b5</sup>	M2↑	9	11	b6	1	Aeolian
	D <sup>7/#5</sup>	M2↑	9	b5	b7	1	Locrian
	D <sup>7/b5</sup>	M2↑	9	b5	b6	1	Locrian nat.2
	Eb <sup>MA6</sup>	m3↑	b3	5	b7	1	Dorian, Aeolian, Phrygian
	Eb <sup>maj7</sup>	m3↑	b3	5	b7	9	Dorian, Aeolian
	Eb <sup>7</sup>	m3↑	b3	5	b7	b2	Phrygian
	Eb <sup>-7</sup>	m3↑	b3	b5	b7	b2	Locrian
	Eb <sup>maj7/b5</sup>	m3↑	b3	5	6	9	Dorian
	Eb <sup>maj7/#5</sup>	m3↑	b3	5	7	9	Melodic + Harmonic Minor
	Eb <sup>lyd/maj7</sup>	m3↑	b3	6	b7	9	Dorian
	F <sup>MA6</sup>	P4↑	11	6	1	9	Dorian, Melodic Minor
	F- <sup>7</sup>	P4↑	11	b6	1	b3	Aeolian, Phrygian
	F- <sup>6</sup>	P4↑	11	b6	1	9	Aeolian
	F- <sup>7/sus4</sup>	P4↑	11	b7	1	b3	Dorian, Aeolian, Phrygian
	F <sup>lyd/dom7</sup>	P4↑	11	7	1	b3	Melodic + Harmonic Minor
	F# <sup>MA6</sup>	+4↓	b5	b7	b2	b3	Locrian
	F# <sup>maj7</sup>	+4↓	b5	b7	b2	11	Locrian
	F# <sup>maj7/b5</sup>	+4↓	b5	b7	1	11	Locrian
	F# <sup>maj7/#5</sup>	+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# <sup>lyd/maj7</sup>	+4↓	b5	1	b2	11		Locrian
G <sup>7</sup>	P4↓ P5↑	5	7	2	11		Melodic + Harmonic Minor
G- <sup>7</sup>	P4↓ P5↑	5	b7	2	11		Dorian, Aeolian
G- <sup>7b5</sup>	P4↓ P5↑	5	b7	b2	11		Phrygian, Dorian b2
G <sup>7/b5</sup>	P4↓ P5↑	5	7	2	11		Melodic + Harmonic Minor
Ab <sup>NA6</sup>	M3↓ m6↑	b6	1	b3	11		Aeolian, Phrygian
Ab <sup>maj7</sup>	M3↓ m6↑	b6	1	b3	5		Aeolian, Phrygian
Ab <sup>7</sup>	M3↓ m6↑	b6	1	b3	b5		Locrian
Ab <sup>7/b5</sup>	M3↓ m6↑	b6	1	2	b5		Locrian nat. 2
Ab <sup>maj7/sus4</sup>	M3↓ m6↑	b6	b2	b3	5		Phrygian
Ab <sup>lyd/maj7</sup>	M3↓ m6↑	b6	2	b3	5		Aeolian
Ab <sup>lyd/dom7</sup>	M3↓ m6↑	b6	2	b3	b5		Dorian #4
A- <sup>7/b5</sup>	m3↓ M6↑	6	1	b3	5		Dorian
A <sup>7/sus4/b5</sup>	m3↓ M6↑	6	2	b3	5		Dorian
Bb <sup>MA6</sup>	M2↓ m7↑	b7	2	11	5		Dorian, Aeolian
Bb <sup>maj7</sup>	M2↓ m7↑	b7	2	11	6		Dorian
Bb <sup>7</sup>	M2↓ m7↑	b7	b2	11	b6		Phrygian
Bb <sup>6</sup>	M2↓ m7↑	b7	b2	11	5		Phrygian
Bb <sup>7/#5</sup>	M2↓ m7↑	b7	2	b5	b6		Locrian nat. 2
Bb <sup>maj7/sus4</sup>	M2↓ m7↑	b7	b3	11	6		Dorian
Bb <sup>7/sus4</sup>	M2↓ m7↑	b7	b3	11	b6		Aeolian, Phrygian
B <sup>7/#5</sup>	m2↓ M7↑	7	b3	5	6		Melodic Minor

## Seventh Chord Superimposition Chart (Dom<sup>7</sup>)

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
			1	3	5	6	
C <sup>7</sup>	C <sup>6</sup>	Root	1	3	5	6	Mixolydian
	C <sup>7</sup>	Root	1	3	5	b7	Mixolydian
	C <sup>+7</sup>	Root	1	3	#5	b7	Whole Tone, Alt. Dom.
	C <sup>7/b5</sup>	Root	1	3	b5	b7	Whole Tone, Alt. Dom., Mix.#11
	C <sup>7/sus4</sup>	Root	1	4	5	b7	Mixolydian
	C <sup>lyd/b7</sup>	Root	1	#4	5	b7	Mixolydian #11
	Db <sup>6</sup>	m2↑	b9	11	#5	b7	Phrygian Major
	Db <sup>maj7</sup>	m2↑	b9	11	#5	1	Phrygian Major
	Db <sup>-6</sup>	m2↑	b9	3	#5	b7	Alt. Dom., Phrygian Major
	Db <sup>-maj7</sup>	m2↑	b9	3	#5	1	Alt. Dom., Phrygian Major
	Db <sup>o7</sup>	m2↑	b9	3	5	b7	Dom. Dim.
	Db <sup>omaj7</sup>	m2↑	b9	3	5	1	Dom. Dim.
	Db <sup>maj7/b5</sup>	m2↑	b9	11	5	1	Phrygian Major
	Db <sup>maj7/sus4</sup>	m2↑	b9	b5	#5	1	Alt. Dom.,
	Db <sup>lyd/maj7</sup>	m2↑	b9	5	#5	1	Phrygian Major
	Db <sup>-maj7/#5</sup>	m2↑	b9	3	13	1	Dom. Dim.
	D <sup>7</sup>	M2↑	9	#11	13	1	Mixolydian #11
	D <sup>-7</sup>	M2↑	9	11	13	1	Mixolydian
	D <sup>7/#5</sup>	M2↑	9	#11	13	1	Mixolydian #11
	D <sup>7/b5</sup>	M2↑	9	#11	#5	1	Whole Tone
D <sup>7</sup>	D <sup>7/sus4</sup>	M2↑	9	5	13	1	Mixolydian
	Eb <sup>7</sup>	m3↑	#9	5	b7	b9	Dom. Dim.
	Eb <sup>-7</sup>	m3↑	#9	#11	b7	b9	Dom. Dim., Alt. Dom.,
	Eb <sup>-6</sup>	m3↑	#9	#11	b7	1	Dom. Dim., Alt. Dom.,
	Eb <sup>-7/b5</sup>	m3↑	#9	#11	13	b9	Dom. Dim.
	Eb <sup>7/b5</sup>	m3↑	#9	5	13	b9	Dom. Dim.
	Eb <sup>7/sus4</sup>	m3↑	#9	#5	b7	b9	Alt. Dom.
	Eb <sup>lyd/b7</sup>	m3↑	#9	13	b7	b9	Dom. Dim.
	E <sup>-7b5</sup>	M3↑	3	5	b7	9	Mixolydian
	E <sup>o7</sup>	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 <sup>omaj7</sup>	M3↑	3	5	b7	#9	Dom. Dim
	E <sup>maj7/#5</sup>	M3↑	3	#5	1	#9	Alt. Dom.
	E <sup>maj7/b5</sup>	M3↑	3	#5	b7	#9	Alt. Dom.
	E <sup>7b5</sup>	M3↑	3	#5	b7	9	Whole Tone
	E <sup>-maj7/#5</sup>	M3↑	3	5	1	#9	Dom. Dim
	F <sup>maj7/sus4</sup>	P4↑	11	b7	1	3	Mixolydian
	F# <sup>6</sup>	+4↓	#11	b7	b9	#9	Dom. Dim, Alt. Dom.
	F# <sup>7</sup>	+4↓	#11	b7	b9	3	Dom. Dim, Alt. Dom.
	F# <sup>-7</sup>	+4↓	#11	13	b9	#9	Dom. Dim
	F# <sup>-6</sup>	+4↓	#11	13	b9	#9	Dom. Dim
	F# <sup>-7b5</sup>	+4↓	#11	13	1	3	Dom. Dim
	F# <sup>7#5</sup>	+4↓	#11	b7	4	3	Mix. #11, Whole Tone
	F# <sup>7b5</sup>	+4↓	#11	b7	1	3	Mix. #11, Whole Tone
	F# <sup>lydb7</sup>	+4↓	#11	1	b9	3	Dom. Dim, Alt. Dom.
	G <sup>-7</sup>	P4↓ P5↑	5	b7	9	11	Mixolydian
	G <sup>-6</sup>	P4↓ P5↑	5	b7	9	3	Mixolydian
	G <sup>-maj7</sup>	P4↓ P5↑	5	b7	9	#11	Mixolydian #11
	G <sup>-7b5</sup>	P4↓ P5↑	5	b7	b9	11	Phrygian Major
	G <sup>o7</sup>	P4↓ P5↑	5	b7	b9	3	Dom. Dim
	G <sup>omaj7</sup>	P4↓ P5↑	5	b7	b9	#11	Dom. Dim
	G <sup>maj7/sus4</sup>	P4↓ P5↑	5	1	9	#11	Mixolydian #11
	G <sup>7sus4</sup>	P4↓ P5↑	5	1	9	11	Mixolydian
	G <sup>-maj7/#5</sup>	P4↓ P5↑	5	b7	#9	#11	Dom. Dim
	Ab <sup>7</sup>	M3↓ m6↑	#5	1	#9	#11	Alt. Dom.
	Ab <sup>7#5</sup>	M3↓ m6↑	#5	1	3	#11	Whole Tone
	Ab <sup>7sus4</sup>	M3↓ m6↑	#5	b9	#9	#11	Alt. Dom.
	A <sup>6</sup>	m3↓ M6↑	13	b9	3	#11	Dom. Dim
	A <sup>7</sup>	m3↓ M6↑	13	b9	3	5	Dom. Dim
	A <sup>-7</sup>	m3↓ M6↑	13	1	3	5	Mixolydian
	A <sup>-6</sup>	m3↓ M6↑	13	1	3	#11	Mixolydian #11
	A <sup>-7b5</sup>	m3↓ M6↑	13	1	#9	5	Dom. Dim
	A <sup>7sus4</sup>	m3↓ M6↑	13	9	3	5	Mixolydian
	A <sup>lyd/b7</sup>	m3↓ M6↑	13	#9	3	5	Dom. Dim
	Bb <sup>6</sup>	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 <sup>maj7</sup>	M2↓ m7↑	b7	9	11	13	Mixolydian
	Bb- <sup>7</sup>	M2↓ m7↑	b7	b9	11	#5	Phrygian Major
	Bb- <sup>6</sup>	M2↓ m7↑	b7	b9	11	5	Phrygian Major
	Bb- <sup>7b5</sup>	M2↓ m7↑	b7	b9	3	#5	Alt. Dom.
	Bb <sup>o7</sup>	M2↓ m7↑	b7	b9	3	5	Dom. Dim
	Bb <sup>omaj7</sup>	M2↓ m7↑	b7	b9	3	13	Dom. Dim
	Bb <sup>maj7/#5</sup>	M2↓ m7↑	b7	9	#11	13	Mixolydian #11
	Bb <sup>7/#5</sup>	M2↓ m7↑	b7	9	#11	#5	Whole Tone
	Bb <sup>maj7/b5</sup>	M2↓ m7↑	b7	9	3	13	Mixolydian
	Bb <sup>7b5</sup>	M2↓ m7↑	b7	9	3	#5	Whole Tone
	Bb <sup>lyd/maj7</sup>	M2↓ m7↑	b7	3	11	13	Mixolydian
	Bb- <sup>maj7/#5</sup>	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 <sup>o7</sup>	Root	1	#9	b5	13	Dom. Dim
	Eb <sup>o7</sup>	m3↑	#9	b5	13	1	Dom. Dim
	F# <sup>o7</sup>	+4↓	b5	13	1	#9	Dom. Dim
	A <sup>o7</sup>	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      1      3      #11      5      1      3      4      5

**Cadd9**      **Cadd#11**      **Csus4(3)**

T      A      B      3      5      1      3      #11      5      1      3      4      5

T      A      B      3      2      4      5      1      3      2      3      5

T      A      B      3      2      3      5

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

## Hybrid Arpeggio Chart (Maj<sup>7</sup>)

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

## Hybrid Arpeggio Chart (Minor<sup>7</sup>)

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

## Hybrid Arpeggio Chart (Min<sup>7b5</sup>)

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

## Hybrid Arpeggio Chart (Dom<sup>7</sup>)

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

## Playing Over Unusual Resolutions

### ① Dim7 chords resolving down by $\frac{1}{2}$ 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

**B<sup>0</sup>7** (tonic dim.)

**Bb<sub>m</sub>7** (dorian)

#### Ex. 186a

$\frac{1}{2}$  step resolutions

**B<sup>0</sup>7** (Tonic Dim.)      1      Maj9      b3      11      b13

**Bb-7** (Dorian)      (b<sup>0</sup>)      •      (b<sup>3</sup>)      (b<sup>5</sup>)      (b<sup>7</sup>)      5      b7

1      9      9      b3      11      11      5      b7

Weak      (Ok. But Not As Strong)

#### Ex. 186b

whole step resolution

**B<sup>0</sup>7**      b5      Maj7      b13      bb7      Maj9

**Bb-7**      11      5      5      b7      11

11      5      5      1      Weak      11

*Ex. 186c*

Bdim7 1/2 step resolution

Musical example 186c shows a Bdim7 chord followed by a 1/2 step resolution. The top staff features a melodic line with grace notes labeled 'H' and 'P'. The bottom staff shows a bass line with notes 9, 6, 7, 8, 6, 9, 7, 10, 11. A slur is shown above the bass line from note 10 to 11.

*Ex. 186d*

Bdim7 Whole step resolution

Musical example 186d shows a Bdim7 chord followed by a whole step resolution. The top staff features a melodic line with grace notes labeled 'H', 'b3', and '9'. The bottom staff shows a bass line with notes 3, 6, 4, 3, 5, 4, 3, 5, (5), 6, 6, 5, 8, 8. A slur is shown above the bass line from note 5 to 8.

## 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♭7** (mixolydian #11)



**Fmaj7** (ionian, lydian)



### Ex. 187a

½ step resolutions

Weak

### Ex. 187b

whole step resolutions

**Ex. 187c**

E<sub>b</sub>7

Fmaj7

**Ex. 187d**

E<sub>b</sub>7

Fmaj7

You will find the whole step resolutions are not as strong as half-step ones. The harmonic tendencies of E<sub>b</sub><sup>7</sup> to F<sup>maj7</sup> are the same for the chords.

**Ex. 188**

1	E <sub>b</sub> <sup>7</sup>	→	F <sup>MAJ7</sup>
2	A <sup>7ALT</sup>	→	Dm <sup>7</sup>
3	A <sup>7ALT</sup>	→	B <sup>bmaj7</sup>
4	E <sub>b</sub> <sup>7</sup>	→	B <sup>bmaj7</sup>
5	A <sup>7ALT</sup>	→	F <sup>MAJ7</sup> or F <sup>7</sup>
6	E <sub>b</sub> <sup>7</sup>	→	A <sub>m</sub> <sup>7</sup>
7	A <sup>7ALT</sup>	→	A <sub>m</sub> <sup>7</sup>

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

## Other Resolutions To Know

1. Third related chords (similar types)

### Ex. 189

C <sup>maj7</sup>	→	Eb <sup>maj7</sup>
F-7	→	D-7
E <sup>maj7</sup>	→	Ab <sup>maj7</sup>
B-7	→	G-7

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

### Ex. 190a

A musical staff in 4/4 time. The first measure contains a D-7 chord and a G7 chord. The second measure contains a D-flat-7 chord and a G-flat7 chord. The staff ends with a double bar line.

### Ex. 190b

A musical staff in 4/4 time. The first measure contains an E-7 chord and an A7 chord. The second measure contains an F-7 chord and a B-flat7 chord. The staff ends with a double bar line.

3. i<sup>7</sup>      vi<sup>7b5</sup>      ii<sup>7b5</sup>      V<sup>7alt</sup>

### Ex. 191

A musical staff in 4/4 time. The first measure contains an A-7 chord. The second measure contains an F-sharp-7b5 chord and a B-7b5 chord. The third measure contains an E7alt chord. The staff ends with a double bar line.

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*

The musical example consists of two staves. The top staff is a treble clef staff with a 4/4 time signature. It contains a melody composed of eighth-note patterns. Horizontal bars are placed above certain notes, each labeled with a capital letter 'H'. The bottom staff is a guitar tab staff with three strings labeled A, B, and T from top to bottom. It shows fingerings for the strings and horizontal bars labeled 'H' that correspond to the notes in the melody above. The tab shows various chords and fingerings, such as 5-7, 5-8, 5-7, 7, 5, 5-7, 7, 8, 5-7, 4-5-7, and 4-5-4-7.

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

The musical example consists of two staves. The top staff is a treble clef staff with a 4/4 time signature. It contains a melody with eighth-note patterns. Horizontal bars are placed above certain notes, each labeled with a capital letter 'H' or 'P'. The bottom staff is a guitar tab staff with three strings labeled A, B, and T from top to bottom. It shows fingerings for the strings and horizontal bars labeled 'H' and 'P' that correspond to the notes in the melody above. The tab shows various chords and fingerings, such as 4, 7-4, 5, 5-3, 7-5-8, and 7-8. Brackets below the staff indicate '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**

Musical example 194a consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 5, 4, 5, 7, 8, 5, 7, 4, 5, 3, 5, and 4.

**Ex. 194b**

Musical example 194b consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 4, 5, 7, 6, 7, 8, 7, 6, 7, 9, 10, 11, 12, 12, 11, and 14.

**Ex. 194c**

Musical example 194c consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 5, 6, 7, 7, 5, 4, 5, 7, 8, 6, 7, 5, 6, 7, 8, 7, 10, 8, 6, and 5, 7.

**Ex. 194d**

Musical example 194d consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 8, 5, 7, 8, 5, 7, 8, 7, 8, 5, 7, 5, and 8.

**Ex. 194e**

Musical example 194e consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 3, 5, 3, 6, 3, 5, 8, 5, 6, 8, 8, 6, and 8.

**Ex. 194f**

Musical example 194f consists of two staves. The top staff shows a series of sixteenth-note patterns with various slurs and grace notes. The bottom staff is a guitar tab with the strings labeled T (top), A, and B. Fingerings are indicated above the strings, and slurs are shown below them. The tab includes numerical fingerings such as 5, 7, 4, 6, 7, 4, 5, 7, 4, 6, 7, 8, 5, 6, 7, 9, 10, 7, 8, 10, 9, 11, 12, 9, and 10.

*Ex. 194g*

A musical score for guitar, labeled "Ex. 194g". The top part shows a treble clef staff with sixteenth-note patterns. The bottom part shows a standard six-string guitar tablature with fingerings (7, 9, 8, 10, 7, 7; 8, 7, 9, 7, 10; 7, 9, 8, 6; 9). A bracket under the first measure indicates a repeating pattern.

TABLATURE FINGERINGS:

T	7	8	10	7	7
A	9				
B		7	9	10	

BRACKET UNDER MEASURE 1 INDICATES REPEATING PATTERN.

### Major Scale Impressions

**Ex. 195a**

C

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

**Ex. 195b**

B<sub>b</sub>

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

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

**Ex. 195c**

A<sub>b</sub>

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

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

*Ex. 195d*

F H P P P P

H P P P P

T A B

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

*Ex. 195e*

*Ex. 195f*

**B**

T 7 6 9 6 7 6 7 9 | 9 9 7 9 8 9 9 9 | 8 9 8 9 7 9 6 7 | 9 6 7

*Ex. 195g*

**A**

H H H H sl.

T  
A  
B 7 6 7 9 6 9 7 6 7 9 10 9 7 11 9 9 11 12 12 14 16

H P P H sl.  
sl.

T  
A  
B 12 14 12 10 14 11 13 14 11 14 12 12 9 11 7 7 5

*Ex. 195h*

Musical notation for Ex. 195h in D-flat major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-1, A-1, B-2; 4-2-1, 3-1; 1-4-2-1, 3-1-4; 4-2-1, 3-1-4.

*Ex. 195i*

Musical notation for Ex. 195i in E-flat major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-11-10, A-12-10, B-13-11; 12-10; 13-12, 10-8; 7-5; 6-5, 8-6; 8-6.

*Ex. 195j*

Musical notation for Ex. 195j in C major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-15, A-13-15-12-15, B-15-13-12-13; 15-13-12-15-12-13; 12-15-13-15-12-15-14.

*Ex. 195k*

Musical notation for Ex. 195k in G major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-2, A-4, B-5; 2-4-5-3-5; 5-2-4-5-5.

*Ex. 195l*

Musical notation for Ex. 195l in C major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-2-5-4-3-5-6, A-4-6-5-7-8, B-7-8-10-7-9-10; 7-10-9-10-12.

Musical notation for Ex. 195l continued in C major. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows a bass line with fingerings: T-9-12-10-12-13, A-13-12-14-15, B-12-14-15-12-14-16-17.

*Ex. 195m*

E

Musical score for Ex. 195m. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings (3) and a tablature below. The tablature shows notes on the A and B strings.

A	7	8	9	9	6	7	8	9	10	9	9	11	12	13	14	16	14
B	7			9		7			9	11	11	13	13	14	14		

*Ex. 195n*

G<sup>b</sup>

Musical score for Ex. 195n. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings (P) and a tablature below. The tablature shows notes on the A and B strings.

A	11	9	8	8	11	9	8	10	8	11	9	11	10	8	11	9	11	10
B	9			11		11			11			11						

*Ex. 195o*

A<sup>b</sup>

Musical score for Ex. 195o. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings and a tablature below. The tablature shows notes on the A and B strings.

A	3	6	4	3	6	5	3	5	3	6	5	3	6	4	3	6	4	8	6	3
B	4			6	4	3	6	5	6	5	6	5	6	4	5	6	4	8	6	3

*Ex. 195p*

F

Musical score for Ex. 195p. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings and a tablature below. The tablature shows notes on the A and B strings.

A	12	15	13	12	15	14	12	14	12	15	14	13	15	12	13	15	13
B	13				15												

*Ex. 195q*

C

Musical score for Ex. 195q. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings and a tablature below. The tablature shows notes on the A and B strings.

A	12	14	12	14	12	12	13	13	15	12	15	12	12	13		
B	14	15	15	12	12	14	14	15		15	12	12	14			

*Ex. 195r*

F<sup>#</sup>

Musical score for Ex. 195r. The top staff shows a treble clef with sixteenth-note patterns. The bottom staff shows a bass clef with fingerings (H) and a tablature below. The tablature shows notes on the A and B strings.

A	8	9	11	10	11	8	9	11	8	11	8	10	9	10	9	10	11
B																	

*Ex. 195s*

The image shows a musical score for electric bass. The top staff is in E♭ major with a common time signature. It features a melodic line with various notes and rests, some with grace notes. Above the notes are dynamic markings: 'H' (Heavy) and 'P' (Piano). The bottom staff is a guitar neck diagram with three strings labeled T (Top), A (Middle), and B (Bottom). Fret numbers are indicated above the strings, and horizontal lines connect specific frets on adjacent strings to show fingering techniques like slurs and hammer-ons/pull-offs.

**Ex. 195t**

The image shows a musical score for guitar. The top part is a staff with a treble clef, a key signature of one sharp (F#), and a common time signature. It features a melodic line with grace notes indicated by 'H' above the main notes. The bottom part is a tablature for a six-string guitar, showing the fingerings for the grace notes. The strings are labeled from top to bottom as E, B, G, D, A, and E. The tablature shows the following fingerings: 7, 6, 7-9, 6-7, 6, 7-9; 6-8, 6-8, 9; 6-8, 7; 8-9, 7-9, 7-9, 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**

This can also be used over:

F7#11, 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**

Treble clef, 4/4 time.

Fingerings below tablature: H, H, H, H, H, H.

**Ex. 197b**

**A Lydian**

Treble clef, 4/4 time.

Fingerings below tablature: 3, H, 3, H, 3, P, 3, P.

**Ex. 197c**

**G Dorian**

Treble clef, 4/4 time.

Fingerings below tablature: 3, P, 3, 3, 3, P, 3, P.

**Ex. 197d**

**C Phrygian**

Treble clef, 4/4 time.

Fingerings below tablature: H, H, H, H, P, H, H.

**Ex. 197e**

**B♭ Mixolydian**

Treble clef, 4/4 time.

Fingerings below tablature: H, H, H, P, sl., sl.

Ex. 197f

*Ex. 197g*

A Locrian

Sheet music for A Locrian mode. The top staff shows a treble clef staff with various notes and slurs. The bottom staff shows a guitar neck with fingerings: T 7, A 5, B 6; 5-7, 7-5; 7-8, 8-7; 5-10-8-6; 5-5; 8-4, 5-5; 8-4, 5-7; 5-5; 8-6, 8-5, 6-5.

*Ex. 197h*

A fretboard diagram for the A Ionian mode. The neck has 12 frets, with the 12th fret being the nut. The strings are labeled T (top) and B (bottom). Fingerings are indicated above the strings: the first measure shows a 9th position shape; the second measure shows a 12th position shape with a 9th interval between the 12th and 1st strings; the third measure shows a 10th position shape with a 9th interval between the 12th and 3rd strings; the fourth measure shows a 12th position shape with a 9th interval between the 12th and 3rd strings; the fifth measure shows a 10th position shape with a 9th interval between the 12th and 3rd strings; the sixth measure shows a 11th position shape with a 9th interval between the 12th and 4th strings; the seventh measure shows a 9th position shape with a 9th interval between the 12th and 5th strings.

**Ex. 197i**

*Ex. 197j*

**Ex. 197k**

**D Mixolydian**

Musical notation for Ex. 197k in D Mixolydian mode. The treble clef staff features sixteenth-note patterns with hammer-ons (H) and pull-offs (P). The guitar tab below shows the corresponding fingerings and string numbers (T, A, B) for each note.

**Ex. 197l**

**D Dorian**

Musical notation for Ex. 197l in D Dorian mode. The treble clef staff features sixteenth-note patterns with pull-offs (P). The guitar tab below shows the corresponding fingerings and string numbers (T, A, B) for each note.

**Ex. 197m**

**G Phrygian**

Musical notation for Ex. 197m in G Phrygian mode. The treble clef staff features sixteenth-note patterns with hammer-ons (H) and pull-offs (P). The guitar tab below shows the corresponding fingerings and string numbers (T, A, B) for each note.

**Ex. 197n**

**E Aeolian**

Musical notation for Ex. 197n in E Aeolian mode. The treble clef staff features sixteenth-note patterns with hammer-ons (H). The guitar tab below shows the corresponding fingerings and string numbers (T, A, B) for each note.

**Ex. 197o**

**A Dorian**

Musical notation for Ex. 197o in A Dorian mode. The treble clef staff features sixteenth-note patterns with hammer-ons (H) and pull-offs (P). The guitar tab below shows the corresponding fingerings and string numbers (T, A, B) for each note.

*Ex. 197p*

**E Mixolydian**

T A B

11-14 12 11-12 11-14 15 12-14 15 12-15 14-11-13 12-14 15 14-17-14 13-14-15

*Ex. 197q*

**F♯ Phrygian**

T A B

2-3 2-4 2 3-2 2-4 4 4-5 4-5 5 2-3 2-4 5 4-6

T A B

7-8 7 8-10 8 11-12 8-10 10-10 9-10 12-10 9

### Modal Lines (Melodic Minor)

**Ex. 198a**

**D Melodic Minor**

Treble staff: Eighth-note patterns with 'H' and 'P' markings.

Bass staff: Fingerings: 5-7-8-6-7-6-5, 9-10-9-5, 8-7-6.

**Ex. 198b**

**F Lydian Augmented**

Treble staff: Sixteenth-note patterns with 'H', 'P', and 'sl.' markings.

Bass staff: Fingerings: 7-8-9-6-9-10-7, 9-7-10-9-7-10, 9-7-6-7-9-6-7-9-10, 10-9-8-7-6-5-4-3-2-1.

Treble staff: Eighth-note patterns with 'P' markings.

Bass staff: Fingerings: 9-12-10-10-12-10-9, 10-9-12-10-9-10, 9-12.

**Ex. 198c**

**A Dorian b2**

Treble staff: Eighth-note patterns with 'H' markings.

Bass staff: Fingerings: 5-6-5-9-7-9, 7-9, 6-10-8-6-5-8-5-7, 7.

**Ex. 198d**

**E Mixolydian #11**

Treble staff: Eighth-note patterns with 'H', 'P', and '3' markings.

Bass staff: Fingerings: 12-12-14-11-11, 12-11-12-11-13, 14-12.

*Ex. 198e*

**B Locrian ♮ 2**

Musical example 198e shows a melodic line in B Locrian ♮ 2 mode. The top staff is a treble clef staff with a melodic line consisting of eighth and sixteenth notes. Grace notes are indicated by small dots before some notes. Slurs are used to group notes. The bottom staff is a guitar tab with three strings labeled T (top), A (middle), and B (bottom). Fingerings are indicated below the tab: H at the beginning, H over the 9th and 10th frets, P over the 12th and 9th frets, and sl. (slur) over the 10th and 12th frets. String numbers 9, 10, 12, 10, 12, 12, 14 are also present.

*Ex. 198f*

**C♯ Altered Dominant**

Musical example 198f shows a melodic line in C♯ Altered Dominant mode. The top staff is a treble clef staff with a melodic line consisting of eighth and sixteenth notes. Grace notes are indicated by small dots before some notes. Slurs are used to group notes. The bottom staff is a guitar tab with three strings labeled T (top), A (middle), and B (bottom). Fingerings are indicated below the tab: H at the beginning, H over the 9th and 12th frets, P over the 12th and 9th frets, sl. over the 12th and 13th frets, and P over the 9th and 10th frets. String numbers 9, 10, 9, 12, 11, 12, 11, 9, 12, 9, 12, 11, 9, 10, 7, 12, 13, 9, 12, 10, 9, 12 are present.

Musical example 198g shows a melodic line in E♭ Melodic Minor mode. The top staff is a treble clef staff with a melodic line consisting of eighth and sixteenth notes. Grace notes are indicated by small dots before some notes. Slurs are used to group notes. The bottom staff is a guitar tab with three strings labeled T (top), A (middle), and B (bottom). Fingerings are indicated below the tab: sl. over the 10th and 9th frets, and P over the 12th and 11th frets. String numbers 10, 10, 9, 12, 11, 12, 8, 12, 8, 10, 9 are present.

*Ex. 198g*

**E♭ Melodic Minor**

Musical example 198h shows a melodic line in C Lydian Augmented mode. The top staff is a treble clef staff with a melodic line consisting of eighth and sixteenth notes. Grace notes are indicated by small dots before some notes. Slurs are used to group notes. The bottom staff is a guitar tab with three strings labeled T (top), A (middle), and B (bottom). Fingerings are indicated below the tab: H over the 10th and 6th frets, P over the 8th and 7th frets, P over the 9th and 6th frets, and H over the 8th and 6th frets. String numbers 10, 6, 7, 8, 7, 8, 9, 6, 8 are present.

*Ex. 198h*

**C Lydian Augmented**

Musical example 198h shows a melodic line in C Lydian Augmented mode. The top staff is a treble clef staff with a melodic line consisting of eighth and sixteenth notes. Grace notes are indicated by small dots before some notes. Slurs are used to group notes. The bottom staff is a guitar tab with three strings labeled T (top), A (middle), and B (bottom). Fingerings are indicated below the tab: H over the 7th and 8th frets, P over the 9th and 7th frets, sl. over the 10th and 9th frets, and H over the 6th and 7th frets. String numbers 7, 8, 10, 7, 9, 9, 7, 10, 9, 6, 7, 9, 6, 7, 8 are present.

*Ex. 198i*

**G Altered Dominant**

**T** A B  
**A** 15-12-13-12-10-11 | 13-11-10-11 | 13-10-8-9 | 8-11-10-8-6 | 11-10-8-6  
**B** 15-12-13-12-10-11 | 13-11-10-11 | 13-10-8-9 | 8-11-10-8-6 | 11-10-8-6

*Ex. 198j*

**F Dorian b2**

**T** A B  
**A** 1-2 | 1-3-5 | 3-4 | 3 | 5-7 | 6-7 | 6-8 | 10 | 8-10 | 6 | 7-6 | 6  
**B** 1-2 | 1-3-5 | 3-4 | 3 | 5-7 | 6-7 | 6-8 | 10 | 8-10 | 6 | 7-6 | 6

*Ex. 198k*

**E♭ Mixolydian #11**

**T** A B  
**A** 11-10-13-10-11 | 10-11 | 13-10 | 10-11-13-10 | 12 | 13 | 11  
**B** 11-10-13-10-11 | 10-11 | 13-10 | 10-11-13-10 | 12 | 13 | 11

*Ex. 198l*

**F♯ Locrian b2**

**T** A B  
**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**

**T** A B  
**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**

*H* *sl.*

T 11-12 9-11 11-12  
A 12-9 11-11  
B 10-9 7

*Ex. 198o*

**A♭ Lydian Augmented**

*p* *p* *sl.*

T 8-10 12-8  
A 11-9 8-10  
B 12-10  
T 11-9 8-10  
A 10-9 10-8  
B 12-11  
T 10-9 8-7  
A 7-8  
B 8-4

*Ex. 198p*

**G Altered Dominant**

*H* *sl.* *H* *H* *H* *H* *H* *sl.*

T 3-4 2-4 1-2  
A 2-4 4-2 1-1  
B 1-2  
T 2-4 4-2 1-1  
A 4-2 2-4 1-1  
B 1-2  
T 3-4 5-6 3-5  
A 6-9 6-7  
B 3-5  
T 3-4 6-9 6-7 9-6  
A 6-7 8-9 6  
B 8-9 6

*Ex. 198q*

**C Mixolydian #11**

*H* *H* *H* *H* *P* *P*

T 7-10 7-8  
A 8-10 7-8  
B 8-10  
T 10-6 8-10 6-8  
A 7-10 8-10 7-10  
B 7-10  
T 8-7 10-9 9-10  
A 10-8 9-10 7-9  
B 8-9

# Blues Sounds

**Ex. 199a**

**A7**

**Ex. 199b**

**G7**

**Ex. 199c**

**F7**

**Ex. 199d**
**Ex. 199e**

**B7**

*Ex. 199f*

C7 H

T A B

5 7 8 7 8 10 8 9 11 8 11 10 8 10 8 8 9 10

6 7 8 7 8 6 9 6 7 6 8 6 6 8 6 4 5

*Ex. 199g*

E♭7

T A B

*Ex. 199h*

B♭7

T A B

*Ex. 199i*

A7

T A B

*Ex. 199j*

D♭7

T A B

A musical score for guitar, featuring a staff with a treble clef and a tablature staff below it. The score consists of two measures. Measure 1 starts with a quarter note followed by eighth-note pairs (B, A), (G, F#), (E, D), (C, B), (A, G), (F, E). Measure 2 starts with a quarter note followed by eighth-note pairs (D, C), (B, A), (G, F#), (E, D), (C, B), (A, G). The tablature staff shows fingerings: measure 1 uses 3, 3, 3, 3, 3, 3; measure 2 uses 3, 3, 3, 3, 3, 3. Dynamic markings 'p' (piano) are placed above the first note of each measure and above the first note of measure 2. Measure 3 begins with a dynamic 'p' over a single note.

## Diminished Sounds

### Ex. 200a

**D<sup>b</sup>dim7**

sl. p p p

T A B

Repeat down an octave

### Ex. 200b

**F13(b9)**

p H p H p H sl. H p H

T A B

Repeat down an octave

### Ex. 200c

**Bdim7**

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

T A B

### Ex. 200d

**G<sup>b</sup>7(b9)**

T A B

### Ex. 200e

**E<sup>b</sup>dim7**

H H H sl. sl. P sl.

T A B

**Ex. 200f**

**E7(b9)**

TABULATURE (BASS STAFF):

```

T 12-13-10-11-9-9-6-4-5
A 14-12-10-9-6-5-2-3-4
B 8-10-6-8-10-9-7-10-13

```

**Ex. 200g**

**Gdim7**

TABULATURE (BASS STAFF):

```

T 11-10-11-12-11-12
A 12-9-10-9-10-11
B 8-9-10-9-10-11

```

**Ex. 200h**

**Bbdim7**

TABULATURE (BASS STAFF):

```

T 8-10-7-8-9-10-7-9
A 10-7-8-9-10-7-9
B 11-8-10-7-11-8-10-9

```

**Ex. 200i**

**E7(#9)**

TABULATURE (BASS STAFF):

```

T 9-10-12-8-9-11-8-9-12-10-9-12-11-12
A 11-12-10-8-9-11-8-9-12-11-10-9-12
B

```

**Ex. 200j**

**Bbdim7**

TABULATURE (BASS STAFF):

```

T 5-6-5-5-8-9-8-6-5-8-7-5-8-7-6-8
A 6-5-5-5-8-9-8-6-5-8-7-5-8-7-6-8
B

```

P H H  
P H 9-11 8-11 10-8 sl.  
sl. sl.

*Ex. 200k*

A $\flat$ 7( $\flat$ 9)

sl. sl.

*Ex. 200l*

E $\flat$ dim7

*Ex. 200m*

F13( $\sharp$ 9)

*Ex. 200n*

Bdim7

*Ex. 200o*

A13( $\flat$ 9)

*Ex. 200p*

Cdim7 *sl.*

The musical score consists of two staves. The top staff is a treble clef staff with sixteenth-note patterns. The bottom staff is a bass staff with two lines labeled 'A' and 'B'. Fingerings are indicated above the bass staff: 'sl.' at the beginning, 'H' over a note at the third measure, 'sl.' over a note at the fifth measure, and 'P' over a note at the eighth measure. Measure numbers 1 through 8 are shown above the treble staff.

*Ex. 200q*

G7(b9)

The musical score consists of two staves. The top staff is a treble clef staff with sixteenth-note patterns. The bottom staff is a bass staff with two lines labeled 'A' and 'B'. Fingerings are indicated above the bass staff: 'P' at the beginning, 'P' at the second measure, 'sl.' over a note at the third measure, 'H' over a note at the fourth measure, 'H' over a note at the fifth measure, 'sl.' over a note at the sixth measure, 'P' over a note at the seventh measure, and 'sl.' over a note at the eighth measure. Measure numbers 1 through 8 are shown above the treble staff.

### Whole Tone Lines

***Ex. 201a***

**D7(#5)**

Treble staff: Whole-tone patterns (H) and P (Pentatonic) are indicated above the notes.

Bass staff: Fingerings below the strings show whole-tone sequences: T (7-9), A (6), B (7-9), H (9-7), A (9-7), B (7-9), H (10-7), A (5), B (6-8), H (6), A (6), B (7-6).

***Ex. 201b***

**B7(b5)**

Treble staff: Slurs (sl.) and Whole-tone patterns (H) and P (Pentatonic) are indicated above the notes.

Bass staff: Fingerings below the strings show whole-tone sequences: T (7-9), A (8), B (10-11), H (6-8), A (9-10), B (12-13), H (10-11), A (12-13), B (13-14).

***Ex. 201c***

**C7(#5)**

Treble staff: Whole-tone patterns (H) and P (Pentatonic) are indicated above the notes.

Bass staff: Fingerings below the strings show whole-tone sequences: T (10-12), A (9-11), B (11-12), H (9-11), A (11-12), B (12-13), H (12-13), A (12-13), B (13-14).

***Ex. 201d***

**F7(b5)**

Treble staff: Whole-tone patterns (H) and P (Pentatonic) are indicated above the notes.

Bass staff: Fingerings below the strings show whole-tone sequences: T (1-3-5), A (2-4), B (5-2-3), H (5-7-9), A (6-8), B (6-8), H (4-6-8), A (5-7-9), B (6-7), H (9-5-7-9), A (6-8-10), B (8).

***Ex. 201e***

**F#7(#5)**

Treble staff: Whole-tone patterns (H) and P (Pentatonic) are indicated above the notes.

Bass staff: Fingerings below the strings show whole-tone sequences: T (13-17-15), A (14-18-16), B (16-17), H (15-19-17), A (18-17), B (17-21-19), H (19-18-22), A (20-21).

*Ex. 201f*

C $\sharp$ 7(b5)

The musical score consists of two staves. The top staff is a treble clef staff with sixteenth-note patterns and grace notes. The bottom staff is a standard six-string guitar staff with fingerings (e.g., 9, 8, 7, 6, 6, 7; 6, 7, 9, 10, 11, 9; 10, 11, 8, 4, 5, 3, 1) and slurs. Measure numbers 1 through 6 are indicated above the staff.

### Modal Mixture

Modal Mixture is the combination of one or more modal scales over a given chord change.

*Ex. 202*

**B♭maj7**

**a)**

[ Pentatonic ] [ Ionian ] [ Lydian ] [ Lydian Augmented ]

**B♭maj7**

**b)**

**c)**

**d)**

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**

**Target Notes**

### Dominant Sounds

**Ex. 204**

[ F Pent. ] [ Mix. ] [ Mix. #11 ] [ Dom. Dim. ] [ Alt. Dom. ] [ Tonic Dim. ]

**F7**

**Target Notes**

### 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**

**Esus<sup>4</sup>/<sub>3</sub>**

**Ex. 205b**

**Esus<sup>4</sup>/<sub>3</sub>**

**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<sup>maj7</sup>, E<sup>sus4</sup>, F#-7/9, A/G#, A<sup>maj7</sup>, B<sup>7sus4</sup>, A/B, C#-7b6, D#-7b5, A-<sup>maj7</sup>, B<sup>7/sus4/b9</sup>, C<sup>maj7#5</sup>, D<sup>7b5</sup>, E<sup>7sus4</sup>, F#-9b5, G#<sup>7alt</sup>

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**

**R**      **b7**      **13**      **5**      **5**

**Ab13**

**Ex. 207b**

**Bbm6**

**Am7**

**#9**      **b9**      **R**      **b7**      **3**

**C7alt**

**Fmaj7**

This example is over a standard progression

**Ex. 208**

**E<sup>ø</sup>**    **A7alt**    **Cm7**    **F7**

**Fm7**    Variation    **B♭7**    **E♭maj7**

**A♭7**    **B♭maj7**    **E<sup>ø</sup>**    **A7alt**    **Dm7**

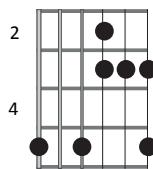
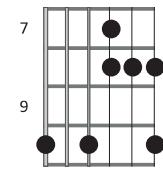
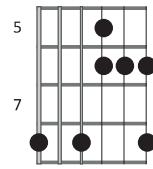
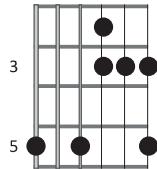
**B<sup>ø</sup>**    **B♭m6**    **Am7**    **D7alt**    Variation    **Gm7**    **C7alt**    Variation

**A<sup>ø</sup>**    **D7alt**    **G7(#9)**

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**

The musical score consists of four measures of guitar tablature. The first measure shows an E chord. The second measure shows a B<sub>b</sub>add9 chord. The third measure shows a Cm<sup>7</sup>/G chord. The fourth measure shows a G<sub>b</sub>7#5 chord. Below the tablature is a staff with notes corresponding to the chords above. The staff has four measures: 5-8-7, 8-11-10, 10-13-12, and 9-11-12-11-9.



## Outside Playing Over One Chord

Here are a few examples of outside playing approaches on one chord. You provide the analysis.

### **Ex. 210a**

**Gm7**

T 12 13 11 10 11 9 10 8  
A 12 12 12 11 11 12 10 8 8 10  
B 13 11 12 9 12 11 10 8 10 10

T 7 9 6 6 8 9 5 4 1 3  
A 7 7 9 6 6 8 9 5 4 1  
B 7 9 6 6 8 9 5 4 1 3

### **Ex. 210b**

**Dm7**

T 5 6 7 5 6 6 7 8 5 6 5 6 8 9 10 9 10 9 10 13 11 11 9 11  
A 6 7 5 6 6 7 8 5 6 5 6 8 9 10 9 10 9 10 13 11 11 9 11  
B 6 8 9 10 11 10 12 10 11 10 12 10 11 10 12 11 11 10 11

T 9 11 9 11 9 11 10 11 10 12 10 11 10 12 11 12  
A 9 11 9 11 9 11 10 11 10 12 10 11 10 12 11 12  
B 9 11 9 11 9 11 10 11 10 12 10 11 10 12 11 12

### **Ex. 210c**

**F7**

T 10 13 11 13 11 11 8 10 8 11 9 9 7 6 7 6 7 9 8 6 6 8 8 6 5  
A 10 13 11 13 11 11 8 10 8 11 9 9 7 6 7 6 7 9 8 6 6 8 8 6 5  
B 13 11 11 8 10 8 11 9 9 7 6 7 6 7 9 8 6 6 8 8 6 5

### **Ex. 210d**

**A♭maj7**

T 9 10 9 9 10 7 10 7 7 9 6 7 8 8 7 9 10 11 12 11 10 8 7 6 8 7  
A 9 10 9 9 10 7 10 7 7 9 6 7 8 8 7 9 10 11 12 11 10 8 7 6 8 7  
B 9 10 9 9 10 7 10 7 7 9 6 7 8 8 7 9 10 11 12 11 10 8 7 6 8 7

**Ex. 210e**

Fmaj7

Musical score for Ex. 210e in Fmaj7. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.), grace notes (H), and dynamic markings (P). The tablature shows fingerings (e.g., 9-10, 8-9, 10-8) and string numbers (A, B, T).

**Ex. 210f**

C7

Musical score for Ex. 210f in C7. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.), grace notes (H), and dynamic markings (P). The tablature shows fingerings (e.g., 3-4, 5-6, 4-5) and string numbers (A, B, T).

Continuation of the musical score for Ex. 210f in C7. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.), grace notes (H), and dynamic markings (P). The tablature shows fingerings (e.g., 6-6, 8-7, 7-4, 4-5) and string numbers (A, B, T).

**Ex. 210g**

A7

Musical score for Ex. 210g in A7. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.), grace notes (H), and dynamic markings (P). The tablature shows fingerings (e.g., 9-10, 11-12, 12-7) and string numbers (A, B, T).

**Ex. 210h**

B♭7alt

Musical score for Ex. 210h in B♭7alt. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.) and dynamic markings (P). The tablature shows fingerings (e.g., 9-11, 9-7) and string numbers (A, B, T).

Continuation of the musical score for Ex. 210h in B♭7alt. The score includes two staves: a treble staff with musical notation and a bass staff with guitar tablature. The notation features slurs (sl.) and dynamic markings (H). The tablature shows fingerings (e.g., 5-6, 9-10, 8-10, 10-8, 10-11, 11-10, 3-2, 2-3) and string numbers (A, B, T).

Hand drumming notation for the first section of the piece. The top staff shows a treble clef, a common time signature, and three measures of rhythm. The first measure consists of a bass drum (H) followed by two snare drums (P). The second measure consists of a bass drum (H) followed by a snare drum (P) and a tom-tom (P). The third measure consists of a bass drum (H) followed by a snare drum (P) and a tom-tom (P). The bottom staff shows a bass clef, a common time signature, and a bass line. The bass line starts at 0, goes down to 1, then up to 3, down to 0, up to 3, down to 1, up to 3, down to 1, and up to 3.

**Ex. 210i**

Emaj7

Emaj7

H P H P H P sl. sl.

T A B

9 11 12-9 9-11-8 8 10-11-10 8 11 8 9 8 11-8 9 11-10 8 7 10-9 7

Ex. 210j

Eb7

The image shows a musical score for guitar. The top part is a standard staff notation with a treble clef, showing a melodic line with various notes and rests. The bottom part is a tablature for a six-string guitar, with each string labeled T, A, and B from top to bottom. The tablature shows fingerings and a rhythmic pattern corresponding to the music above. The first measure starts with a note on the 12th fret of the A string, followed by a note on the 11th fret of the same string. The second measure begins with a note on the 9th fret of the A string. The third measure starts with a note on the 11th fret of the A string. The fourth measure starts with a note on the 13th fret of the A string. The fifth measure starts with a note on the 11th fret of the A string. The sixth measure starts with a note on the 13th fret of the A string. The seventh measure starts with a note on the 11th fret of the A string. The eighth measure starts with a note on the 11th fret of the A string. The ninth measure starts with a note on the 8th fret of the A string. The tenth measure starts with a note on the 8th fret of the A string. The eleventh measure starts with a note on the 8th fret of the A string. The twelfth measure starts with a note on the 10th fret of the A string. The thirteenth measure starts with a note on the 9th fret of the A string. The fourteenth measure starts with a note on the 9th fret of the A string.

### **Ex. 210k**

The image shows a musical score for guitar. The top staff is a standard five-line staff with a treble clef, indicating a key signature of G major (one sharp). The time signature changes between common time (4/4) and 12/8. The melody consists of eighth-note patterns with various slurs and dynamics: *H*, *sl.*, *p*, *H*, *sl.*, *p*, *p*, *p*, *sl.*. The bottom staff is a tablature for a six-string guitar, showing the fingerings and string pairs for each note. The tablature includes vertical bar lines corresponding to the measures in the staff above. The strings are labeled T (top), A, and B (bottom).

G7

1 7 8-10 7-8 10 (10)-8 8-9-12 12-9 10 12 9 13-11 11 12 9 10 8 10 9 10 12 9 10-8

## 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

*Ex. 211b*

B♭m7

The image shows a musical score and its corresponding tablature for a guitar. The score consists of two staves: a treble clef staff with a key signature of one flat (B-flat) and a bass clef staff with a key signature of one flat (B-flat). The first measure shows a B-flat major 7th chord (B-flat, D, F, A-flat) with a bass note on the A string. The second measure shows a G major chord (G, B, D, E, G, B) with a bass note on the D string. The third measure shows a C major chord (C, E, G, A, C, E) with a bass note on the G string. The fourth measure shows an F major chord (F, A, C, D, F, A) with a bass note on the C string. The fifth measure shows a B-flat major 7th chord (B-flat, D, F, A-flat) with a bass note on the G string. The tablature below the staff shows the fingerings: 8-7 on the treble staff, 6-8 on the bass staff, 6-9 on the treble staff, 8-7-6 on the bass staff, and 9 on the treble staff.

Eb7

## A♭maj7

Musical score and tablature for guitar part 2. The score shows a treble clef staff with eighth-note patterns and a bass clef staff with sixteenth-note patterns. The tablature below shows the strings (T, A, B) with corresponding fingerings: 8-7-6-9-8-7-6-8, 5-5-8-7-6-6-5-4, and 8-7-6-3-6-4-3-4.

**Ex. 211c**

D7

The image shows a musical score for guitar. The top staff is in treble clef, and the bottom staff is in bass clef. The key signature is D major (no sharps or flats). The time signature is common time. The first measure shows a D7 chord with a dynamic marking 'p' above it. The second measure shows a transition with a dynamic 'H'. The third measure starts with a dynamic 'sl.' (slur). The fourth measure shows a dynamic 'H'. The fifth measure shows a dynamic 'p'. The bass line is indicated by the letters T, A, and B below the staff, with specific fingerings: T-5, A-4, B-3; T-5, A-2, B-5; 4, 3, 1-2; 5, 2, 3; 4, 3, 2, 6, 5, 4, 3, 5; 2, 5.

Chromaticism is best used when there is a target note, preferably a lower chord member, that falls on a strong beat.

Here are a few examples of common chromatic approach usage.

T = Target  
P.T. = Passing Tone

**Ex. 212a**

**Cmaj7**

**Ex. 212b**

**Cmaj7**      **Dm7**      **G7**

**Cmaj7**

**Ex. 212c**

The B natural is a target note from A# while also functioning as part of a diatonic enclosure idea.

**Dm7**      **G7(b9#9)**      **Cmaj7**

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)

10 9 8 7 10 8 7 9 7 11 10 9 7 10 9 7 10

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.

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

12 11 10 9 13 12 9 10 8 9 7 10 6 9 6 7 9 10 9 8 10 7 9

7 9 8 6 7 10 9 8 7 11 10 8 7 9 7 11 10 9 8 7 7 5 7 4 5

An example of usage on a Dom<sup>7</sup> chord.

**Ex. 215a**

**C7**

T A B

T A B

T A B

**Ex. 215b**

or a Maj<sup>7</sup> chord

**Gmaj7**

T A B

T A B

**Gmaj9**

T A B

## 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**

<b>I</b>	Cm Formula	Dm Min M2↑	E Maj M2↑	F# Maj TT↓
<b>II</b>	C+ Formula	Dm Aug M2↑	Eb+ Min m2↑	F# Aug M2↑
<b>III</b>	C+ Formula	Eb Aug m3↑	F#m Maj m3↑	B° Min P4↑
<b>IV</b>	C° Formula	F° Dim P4↑	Gm Dim M2↑	A Min M2↑
<b>V</b>	C+ Formula	Db+ Aug m2↑	D+ Aug m2↑	Eb+ Aug M6↑
<b>Vi</b>	C <sup>sus4</sup> Formula	Db <sup>sus2</sup> Sus4 m2↑	D Sus2 m2↑	E <sup>lyd</sup> Maj M2↑
<b>VII</b>	C <sup>sus4</sup> Formula	D <sup>lyd</sup> Sus4 M2↑	Bb° Lyd m6↑	B Dim m2↑
<b>VIII</b>	C <sup>sus4</sup> Formula	D+ Sus4 M2↑	G#m Aug TT↓	A 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 <sup>+</sup>	Eb	F#m	B <sup>o</sup>
②	Db <sup>o</sup>	D <sup>+</sup>	F	Abm
③	E	Gm	C <sup>o</sup>	Db <sup>+</sup>
④	Am	D <sup>o</sup>	Eb <sup>+</sup>	F#

On the next page you'll find a few lines that demonstrate this concept.

### Ex. 216a

Group I

Cm7

### Ex. 216b

Group I

Cm7

### Ex. 217

Group III

Group IV transposed

### Ex. 218

Resolution notes become members of other triads and a new row is continued.

Group VI

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

A7

D**Maj7**

#9 5 b7 9 11 b9 13 b5 #5 b7 1 3 #5 b9 #9 #5 3

Cmaj7#5 Ebmmaj7 A7#5 Fsus4

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

Ebm Ab° A+ C Ebm Ab° A+ C

This progression could be used over an Eb-<sup>7</sup> chord because of the beginning chord Eb- or on an F#<sup>7alt</sup> chord because the beginning chord Eb- produces an F#<sup>13</sup> chord and the departure chord to the next measure is a C major triad which produces an F#<sup>7/b5/b9</sup> chord.

*Ex. 221*

*F#7alt*                                   *Bmaj7 ( Min7 )*

*E<sup>b</sup>m*   *A<sup>b</sup>o*   *A<sup>+/-</sup>*   *C*

The musical staff consists of five measures. The first measure contains a bass note labeled *F#13*. The second measure contains three vertical strokes. The third measure contains three vertical strokes. The fourth measure contains three vertical strokes. The fifth measure contains four vertical strokes. The bass line below the staff is labeled *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

#### Fifth based row

#### Sixth based row

### Non-Systematic Row

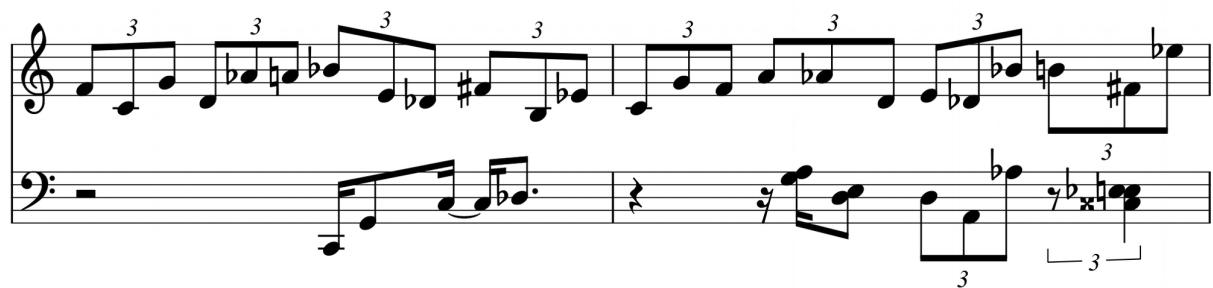
#### Ex. 224

Non-Systematic Rows may use many interval combinations but should avoid any harmonic structures in order to maintain the equality of each note.

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

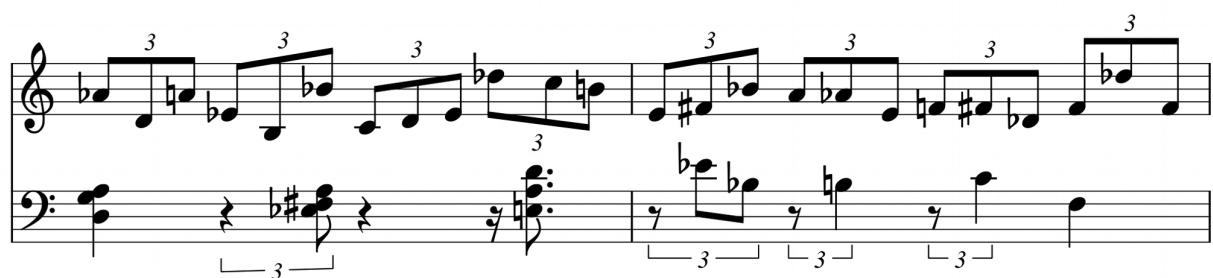
The musical score consists of four staves of music, each in 4/4 time. The top two staves are in treble clef, and the bottom two are in bass clef. The key signature changes frequently throughout the piece. Measure 1 starts with a treble clef staff in A major (no sharps or flats). Measure 2 begins with a bass clef staff in E major (no sharps or flats). Measures 3-4 start with a treble clef staff in D major (one sharp). Measures 5-6 start with a bass clef staff in G major (one sharp). Measures 7-8 start with a treble clef staff in C major (no sharps or flats). Measures 9-10 start with a bass clef staff in F major (one flat). Measures 11-12 start with a treble clef staff in B major (two sharps). Measures 13-14 start with a bass clef staff in E major (no sharps or flats). Measures 15-16 start with a treble clef staff in A major (no sharps or flats). Measures 17-18 start with a bass clef staff in D major (one sharp). Measures 19-20 start with a treble clef staff in G major (one sharp). Measures 21-22 start with a bass clef staff in C major (no sharps or flats). Measures 23-24 start with a treble clef staff in F major (one flat). Measures 25-26 start with a bass clef staff in B major (two sharps). Measures 27-28 start with a treble clef staff in E major (no sharps or flats). Measures 29-30 start with a bass clef staff in A major (no sharps or flats). Measures 31-32 start with a treble clef staff in D major (one sharp). Measures 33-34 start with a bass clef staff in G major (one sharp). Measures 35-36 start with a treble clef staff in C major (no sharps or flats). Measures 37-38 start with a bass clef staff in F major (one flat). Measures 39-40 start with a treble clef staff in B major (two sharps). Measures 41-42 start with a bass clef staff in E major (no sharps or flats). Measures 43-44 start with a treble clef staff in A major (no sharps or flats). Measures 45-46 start with a bass clef staff in D major (one sharp). Measures 47-48 start with a treble clef staff in G major (one sharp). Measures 49-50 start with a bass clef staff in C major (no sharps or flats). Measures 51-52 start with a treble clef staff in F major (one flat). Measures 53-54 start with a bass clef staff in B major (two sharps). Measures 55-56 start with a treble clef staff in E major (no sharps or flats). Measures 57-58 start with a bass clef staff in A major (no sharps or flats). Measures 59-60 start with a treble clef staff in D major (one sharp). Measures 61-62 start with a bass clef staff in G major (one sharp). Measures 63-64 start with a treble clef staff in C major (no sharps or flats). Measures 65-66 start with a bass clef staff in F major (one flat). Measures 67-68 start with a treble clef staff in B major (two sharps). Measures 69-70 start with a bass clef staff in E major (no sharps or flats). Measures 71-72 start with a treble clef staff in A major (no sharps or flats). Measures 73-74 start with a bass clef staff in D major (one sharp). Measures 75-76 start with a treble clef staff in G major (one sharp). Measures 77-78 start with a bass clef staff in C major (no sharps or flats). Measures 79-80 start with a treble clef staff in F major (one flat). Measures 81-82 start with a bass clef staff in B major (two sharps). Measures 83-84 start with a treble clef staff in E major (no sharps or flats). Measures 85-86 start with a bass clef staff in A major (no sharps or flats). Measures 87-88 start with a treble clef staff in D major (one sharp). Measures 89-90 start with a bass clef staff in G major (one sharp). Measures 91-92 start with a treble clef staff in C major (no sharps or flats). Measures 93-94 start with a bass clef staff in F major (one flat). Measures 95-96 start with a treble clef staff in B major (two sharps). Measures 97-98 start with a bass clef staff in E major (no sharps or flats). Measures 99-100 start with a treble clef staff in A major (no sharps or flats).



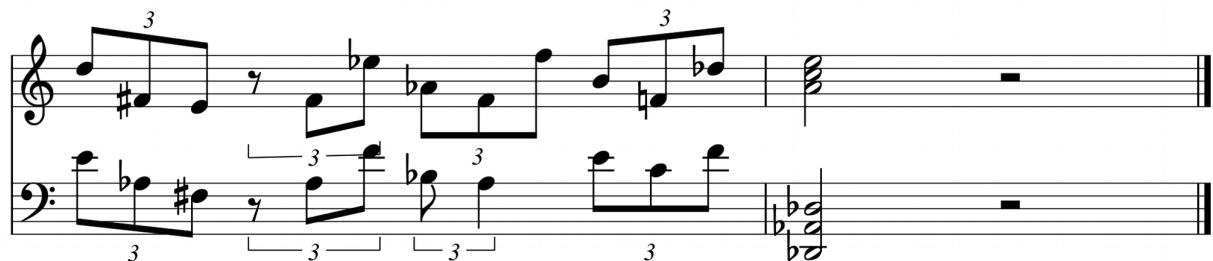
Musical score page 1. Treble and bass staves. Measure 1: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note. Measure 2: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note.



Musical score page 2. Treble and bass staves. Measure 1: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note. Measure 2: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note.



Musical score page 3. Treble and bass staves. Measure 1: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note. Measure 2: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note.

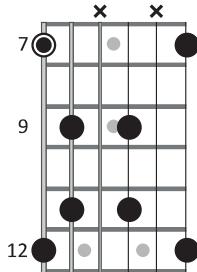


Musical score page 4. Treble and bass staves. Measure 1: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note. Measure 2: Treble staff has eighth-note pairs (3). Bass staff has eighth-note pairs (3), sixteenth-note pairs, and a sixteenth-note followed by a eighth-note.

## 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**

A musical staff in G clef shows a sequence of notes. It starts with a low note, followed by a dotted half note, a sharp, another sharp, a sharp, a sharp, a sharp, a sharp, and a sharp. The staff ends with a double bar line.

These notes form an E<sup>add9</sup> hybrid structure which is derived from these scales: E-ionian, 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

B<sup>b</sup><sub>7</sub><sup>alt</sup>, E<sup>maj7</sup>, A<sup>maj7/#11</sup>, F#m<sup>11</sup>, E/F#, D/C#, E<sup>7sus4</sup>, D<sup>maj7/#11</sup>, C<sup>maj7#5</sup>, Am<sup>maj7</sup>, D<sup>7#11</sup>, etc.

Experiment playing the shapes in different interval combinations as well as combining them together to create longer lines.

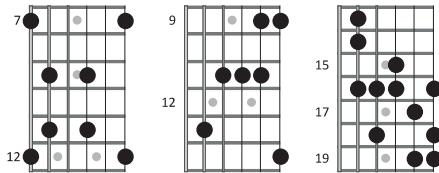
### **Ex. 228**

**Ex. 229**

Combination of two hybrid structures  
Eadd9 and F#add9 over Bb7alt.

*8va*

These are the three hybrid structures involved in this line.



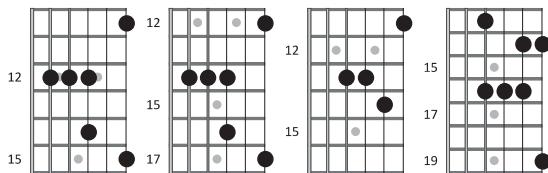
Next is an example of a free line using harmonic shapes.

**Ex. 230**

*8va*

*8va*

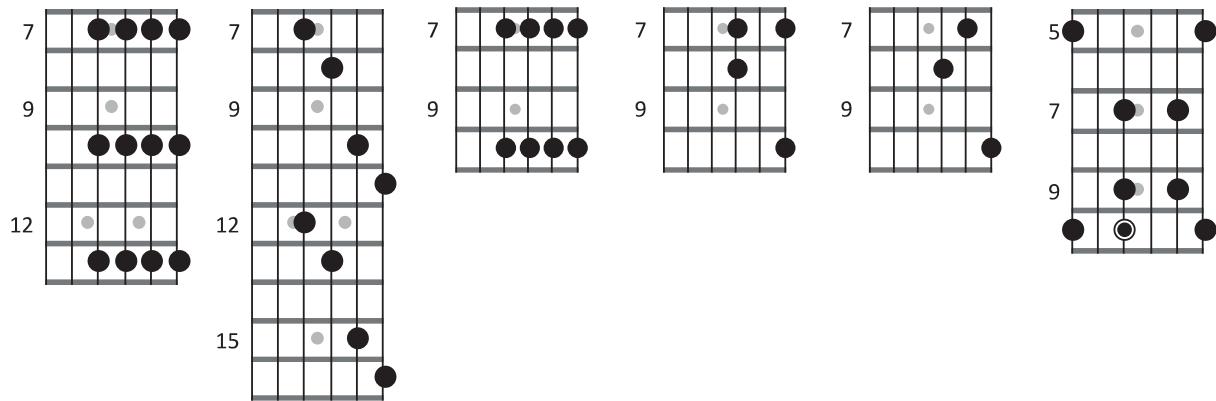
Shapes used:



## Tonic and Dominant Diminished Scale Shapes

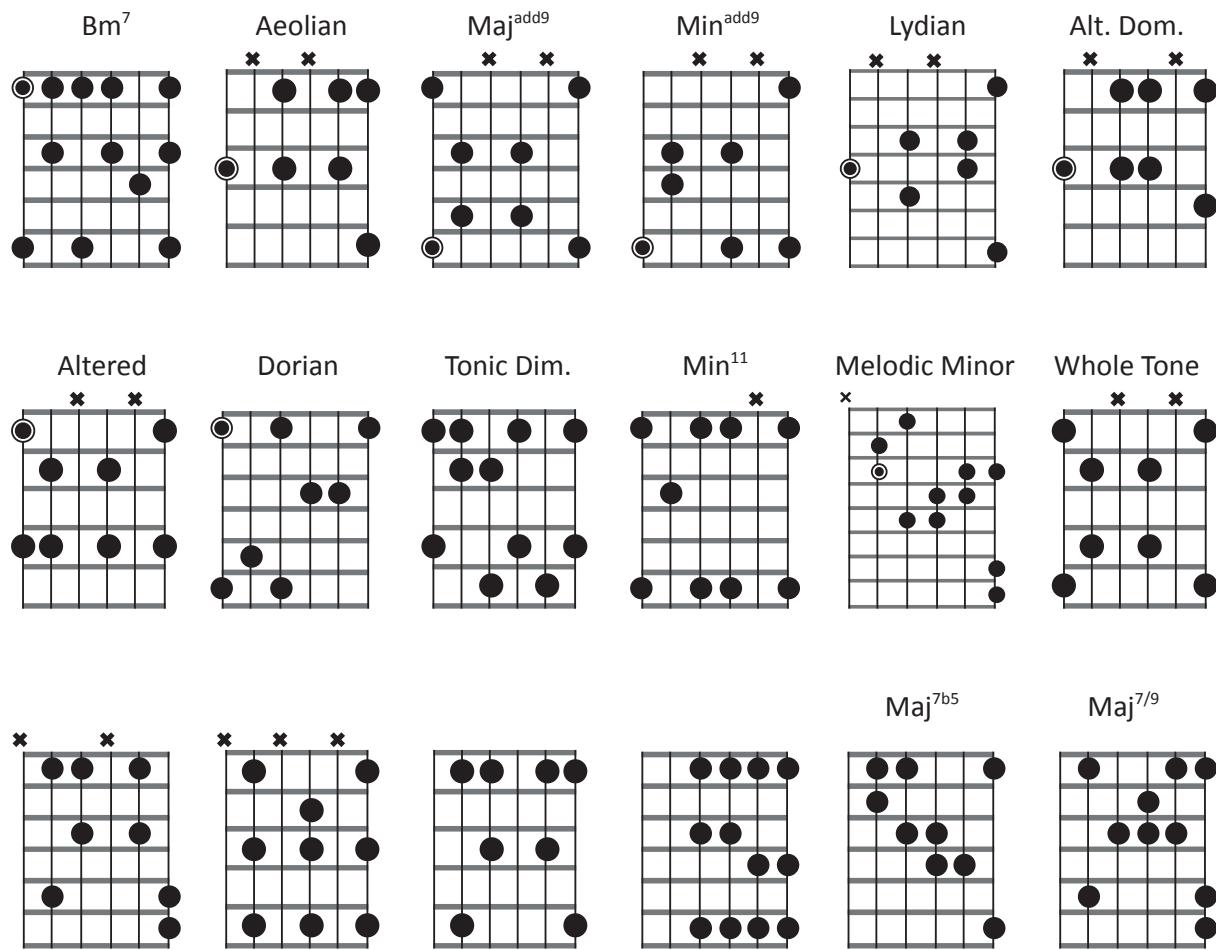
These shapes will work over the chords: F#<sup>o7</sup>, A<sup>o7</sup>, C<sup>o7</sup>, Eb<sup>o7</sup>, F<sup>13b9</sup>, D<sup>13b9</sup>, B<sup>13b9</sup>, Ab<sup>13b9</sup>

### 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 may lead to injury if not approached with caution.

**Ex. 233a**

Ex. 233a musical notation. The top staff is a treble clef staff with a 4/4 time signature. The bottom staff shows the guitar's six strings (T, A, B) with note positions indicated by numbers (e.g., 7, 12, 14). The notation uses 'H' and 'P' markings above the notes.

**Ex. 233b**

Ex. 233b musical notation. The top staff is a treble clef staff with a 4/4 time signature. The bottom staff shows the guitar's six strings (T, A, B) with note positions indicated by numbers (e.g., 1, 6, 4, 9, 7, 12, 10, 15, 8, 11, 16, 11, 14). The notation uses 'H' and 'P' markings above the notes.

**Ex. 233c**

Ex. 233c musical notation. The top staff is a treble clef staff with a 4/4 time signature. The bottom staff shows the guitar's six strings (T, A, B) with note positions indicated by numbers (e.g., 5, 9, 6, 10, 9, 6, 10, 7, 11, 10, 7, 11, 8, 12, 11, 8, 12, 10, 14, 12, 10, 14, 11, 15, 13). The notation uses 'H' markings above the notes.

**Ex. 233d**

*8va*

Ex. 233d musical notation. The top staff is a treble clef staff with a 4/4 time signature. The bottom staff shows the guitar's six strings (T, A, B) with note positions indicated by numbers (e.g., 12, 17, 14, 17, 11, 16, 13, 16, 8, 14, 11, 14, 8, 13, 10, 13, 7, 12, 9). The notation uses 'H' markings above the notes.

**Ex. 233e**

*8va*

Ex. 233e musical notation. The top staff is a treble clef staff with a 4/4 time signature. The bottom staff shows the guitar's six strings (T, A, B) with note positions indicated by numbers (e.g., 12, 18, 12, 15, 18, 12, 19, 12, 15, 19, 12, 18, 12, 15, 18, 12, 18, 12, 15). The notation uses 'H' and 'P' markings above the notes.

## Modern Linear Examples

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**

T  
A  
B

10 9 10 9 12 12 10 10 10 10

### Ex. 234b

**Gm11**

T  
A  
B

5 5 3 6 6 5 8 8 10 10 9 7 8 10

### Ex. 234c

**C#7alt**

T  
A  
B

5 5 7 7 9 7 10 12 12 12 12 15 9 10 10 12

### Ex. 234d

**Bm7 or A/D**

**C#m7b6**

H  
P

T  
A  
B

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

### Ex. 234e

**Amaj7**

T  
A  
B

5 7 4 5 4 6 7 4 7 4 2 4 7 6 6 9 9

Ex. 234f

Bm7 or E7sus4

Ex. 234g

E7#9

Ex. 234h

F#m7

The image shows a musical score for guitar. The top staff is a treble clef staff with a key signature of one sharp (F#). It features a melodic line with various note heads and stems, some with slurs. Below the treble staff is a bass clef staff with a key signature of one sharp (F#). The bass staff contains vertical bar lines and horizontal beams connecting notes. Below the bass staff is a tablature staff with six horizontal lines representing the strings. The tablature includes numerical values above the lines and letters A, B, and C positioned to the left of the staff. The numbers correspond to specific fret positions: 16, 14, 13, 12, 11, 12, 14, 14, 14, 16, 17, 14, 16, 18, 16, 17, 17, 19.

**Ex. 234i**

**A7alt      D<sub>b</sub>maj7#5      B<sub>b</sub>mmaj7      E<sub>b</sub>7#11**

The image shows a musical score for guitar. The top staff is a treble clef melody with various notes and grace notes, some with slurs and dynamics like 'f' and 'b'. The bottom staff is a bass line with notes labeled 'V' and a harmonic bass line with notes labeled 'A' and 'B' above the strings. Fret numbers are indicated below the strings: 1, 3, 5, 8, 11, 6, 8, 10, 8, 10, 11, 10, 13, 15, 15, 15, 18.

A musical score for guitar featuring a treble clef staff and a tablature staff below it. The treble clef staff shows a melodic line with various notes and slurs. The tablature staff shows the corresponding fingerings and string numbers. The score includes measure numbers 13 through 18.

Melodic line (Treble Clef Staff):

- Measure 13: B (string 1), A (string 2)
- Measure 14: G (string 1), F# (string 2), E (string 3)
- Measure 15: D (string 1), C (string 2), B (string 3)
- Measure 16: G (string 1), F# (string 2), E (string 3)
- Measure 17: D (string 1), C (string 2), B (string 3)
- Measure 18: G (string 1), F# (string 2), E (string 3)
- Measure 19: D (string 1), C (string 2), B (string 3)
- Measure 20: G (string 1), F# (string 2), E (string 3)
- Measure 21: D (string 1), C (string 2), B (string 3)
- Measure 22: G (string 1), F# (string 2), E (string 3)
- Measure 23: D (string 1), C (string 2), B (string 3)
- Measure 24: G (string 1), F# (string 2), E (string 3)
- Measure 25: D (string 1), C (string 2), B (string 3)
- Measure 26: G (string 1), F# (string 2), E (string 3)
- Measure 27: D (string 1), C (string 2), B (string 3)
- Measure 28: G (string 1), F# (string 2), E (string 3)
- Measure 29: D (string 1), C (string 2), B (string 3)
- Measure 30: G (string 1), F# (string 2), E (string 3)
- Measure 31: D (string 1), C (string 2), B (string 3)
- Measure 32: G (string 1), F# (string 2), E (string 3)
- Measure 33: D (string 1), C (string 2), B (string 3)
- Measure 34: G (string 1), F# (string 2), E (string 3)
- Measure 35: D (string 1), C (string 2), B (string 3)
- Measure 36: G (string 1), F# (string 2), E (string 3)
- Measure 37: D (string 1), C (string 2), B (string 3)
- Measure 38: G (string 1), F# (string 2), E (string 3)
- Measure 39: D (string 1), C (string 2), B (string 3)
- Measure 40: G (string 1), F# (string 2), E (string 3)

Tablature (String Staff):

- Measure 13: T 13, A 15
- Measure 14: T 15, A 17
- Measure 15: T 16, A 15
- Measure 16: T 18, A 17
- Measure 17: T 15, A 15
- Measure 18: T 16, A 17
- Measure 19: T 15, A 13
- Measure 20: T 18, A 17
- Measure 21: T 17, A 15
- Measure 22: T 16, A 15
- Measure 23: T 18, A 17
- Measure 24: T 15, A 15
- Measure 25: T 13, A 15
- Measure 26: T 15, A 17
- Measure 27: T 16, A 15
- Measure 28: T 18, A 17
- Measure 29: T 17, A 15
- Measure 30: T 15, A 15
- Measure 31: T 18, A 17
- Measure 32: T 15, A 15
- Measure 33: T 16, A 17
- Measure 34: T 18, A 17
- Measure 35: T 15, A 15
- Measure 36: T 13, A 15
- Measure 37: T 15, A 17
- Measure 38: T 16, A 15
- Measure 39: T 18, A 17
- Measure 40: T 15, A 15

**Ex. 234j**

E7#5

The image shows a musical score for a six-string guitar. The top half contains two staves: a treble clef staff with three measures of music and a bass clef staff with four measures of music. The bottom half is a tablature staff showing the fret positions for each string (T, A, B) across the same time signature. Measure 1: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-12, A-11, B-10. Measure 2: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-9, A-10, B-8. Measure 3: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-9, A-10, B-8. Measure 4: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-7, A-6, B-12. Measure 5: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-8, A-7, B-10. Measure 6: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-6, A-8, B-10. Measure 7: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-7, A-8, B-9. Measure 8: Treble staff has eighth-note triplets on the first, second, and third strings. Bass staff has eighth-note triplets on the fourth, fifth, and sixth strings. Tablature: T-7, A-8, B-10.

The image shows a musical score for a six-string guitar. The top staff features a treble clef and a key signature of one sharp. It contains a melodic line with various note heads and stems, some with diagonal slashes indicating slurs or grace notes. Measures are grouped by vertical bar lines and horizontal measures. The bottom staff is a harmonic bass line, indicated by a bass clef and a key signature of one flat. It consists of square note heads with vertical stems, also grouped by vertical bar lines and horizontal measures. The two staves are aligned vertically, representing the guitar's neck where the melody is played on the upper strings and the harmonic bass on the lower strings.

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  
A  
B

7 9-7-6-7-7-9-7  
0 (0) 7-7-7-7-7-7-7

2. Upper pedal point – the pedal point note occurs at the top of the melodic line.

**Ex. 236**

Pedal Point

T  
A  
B

14-13-14-11-14-14-14-12-14  
11-14-14-14-14-14-12-12

Try these few lines to get a feel for the use of this device.

**Ex. 237a**

Cmaj7                    Dm7                    E<sub>b</sub>dim7                    Em7

T  
A  
B

9-9-12-10-10-10  
10-10-11-11-10-12

**Ex. 237b**

Cmaj7                    *8va*

T  
A  
B

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

**Ex. 237c**

*8va*

Pedal Point              New Pedal              New Pedal              New Pedal

T  
A  
B

12-10-12-12-13-12-15-13-15-12-15-14-13-12-13-13  
12-16-14-16-12-16-16

## A Ionian to A Mixolydian Study

## Instagram (5/25/20)

B VII

The image shows a musical score for guitar. The top staff is a treble clef staff with a 4/4 time signature. It features a melodic line with various grace notes indicated by short vertical strokes and horizontal dashes. Harmonic markings are placed above specific notes: 'H' over the first two notes, 'H' over the next two, 'P' over the fifth note, 'H' over the sixth, and 'H' over the eighth. The bottom staff is a tablature staff with six horizontal lines representing the guitar strings. It shows a sequence of chords and notes, with fingerings indicated by numbers above the strings. The tablature includes the following notes and chords:

T																								
A																								
B																								
	5	7	9	7	7-9-12	9-11	9-11	9	14	9-11	14-9	11-9	11	9	9-11	9-14	12-14	12-14	17-12	P	17-12	14-12-14	12	12-14

## Slower

Quick

**Quick**

The music consists of a treble clef staff and a six-string guitar tablature staff. The treble clef staff shows a melodic line with various note heads and stems. The guitar tablature staff below shows the fingerings for each note: T (top string) and B (bottom string). The tablature includes a measure with two 'H' markings above the strings, followed by a series of notes with fingerings: 12-14, 11-14, 15, 12-14, 15, 15, 14-11, 14-12-14, 11, 14-12, 12, 14. A vertical brace groups the first four pairs of numbers. The final measure shows a vertical brace grouping the last three pairs of numbers. The tablature ends with a vertical brace grouping the last three pairs of numbers.

# C Dorian Study

(Instagram 1/20/20)

Sheet music for C Dorian Study, first section. Treble clef, key signature of one sharp (F#), 4/4 time. The music consists of two staves: a staff for the left hand (piano) and a staff for the right hand (guitar). The guitar staff shows fingerings (T, H, P) and string numbers (T=6, A=5, B=4). The piano staff has two measures of eighth-note patterns.

Sheet music for C Dorian Study, second section. Treble clef, key signature of one sharp (F#), 12/8 time. The guitar staff shows fingerings (P, H) and string numbers (T=6, A=5, B=4). The piano staff has two measures of eighth-note patterns.

**Accelerando**

Sheet music for C Dorian Study, third section. Treble clef, key signature of one sharp (F#), 8/8 time. The guitar staff shows fingerings (H, P) and string numbers (T=6, A=5, B=4). The piano staff has two measures of eighth-note patterns.

Sheet music for C Dorian Study, fourth section. Treble clef, key signature of one sharp (F#), 4/4 time. The guitar staff shows fingerings (H, P) and string numbers (T=6, A=5, B=4). The piano staff has two measures of eighth-note patterns.

**Ritardando**

Sheet music for C Dorian Study, fifth section. Treble clef, key signature of one sharp (F#), 2/4 time. The guitar staff shows fingerings (H, sl.) and string numbers (T=6, A=5, B=4). The piano staff has two measures of eighth-note patterns.

# A Lydian Study

## Instagram (10/3/19)

The sheet music consists of six staves of musical notation for guitar, with tablature below each staff. The notation includes various performance markings such as 'H' (Hammer-on), 'P' (Pull-off), 'sl.' (Slur), and 'Rit.' (Ritardando). The tablature shows fingerings and string numbers (e.g., 1, 2, 3, 4, 5, 6) for each string (T, A, B). The music is divided into measures by vertical bar lines.

## C Mixolydian Study

## Instagram (4/30/20)

## **Slowly Accelerate**

Sheet music for guitar in 4/4 time. The tempo is 100 BPM. The melody consists of eighth and sixteenth notes, with grace notes indicated by 'H' above the main notes. The tablature below shows the fingerings for the guitar strings (A, D, G, B, E, A). The first measure starts with an open A string. Measures 2-4 show a descending scale pattern. Measure 5 begins with a grace note (H) over a B string note, followed by a descending scale. Measure 6 starts with a grace note (H) over a C# string note, followed by a descending scale. Measure 7 starts with a grace note (H) over a D string note, followed by a descending scale.

## A Little Quicker

A Little Quicker

Kit.

Sheet music for guitar. The top staff shows a melodic line with a treble clef, a key signature of one flat, and a time signature of 7/4. The melody consists of eighth and sixteenth notes, with slurs and grace notes. The bottom staff shows a harmonic bass line with a bass clef, a key signature of one flat, and a time signature of 4/4. The bass line uses notes like B, A, and G. The music is annotated with various letters and numbers, such as 'H' above certain notes and 'T', 'A', and 'B' below the bass line, likely indicating specific techniques or fingerings.

# Quick Again

20 17-15 18-15 17 15-18-17 | 13 15 15-14 15 18-13-15

Fast

Rit.

1

**Gracefully**

**Fast** (two eighth notes) **Rit.** (ritardando) **Gracefully**

*let ring* -----

# E Mixolydian Study

Instagram (11/23/19)

Sheet music for E Mixolydian Study, page 1. The music is in 4/4 time. The treble staff features sixteenth-note patterns with grace notes. The bass staff includes fingerings (H, P, T) and string numbers (A, B) corresponding to the tablature below. The tablature shows various note heads and numbers indicating specific fingerings and string selection.

Sheet music for E Mixolydian Study, page 2. The music continues in 4/4 time. The treble staff shows sixteenth-note patterns. The bass staff includes fingerings (H, P, T) and string numbers (A, B), with a tablature below showing note heads and numbers.

Sheet music for E Mixolydian Study, page 3. The music continues in 4/4 time. The treble staff shows sixteenth-note patterns. The bass staff includes fingerings (H, P, T) and string numbers (A, B), with a tablature below showing note heads and numbers.

**Ritardando**

Sheet music for E Mixolydian Study, page 4. The music continues in 4/4 time. The treble staff shows sixteenth-note patterns. The bass staff includes fingerings (P, H, T) and string numbers (A, B), with a tablature below showing note heads and numbers. The section ends with a dynamic instruction "let ring -----" and a slurs indicator "sl."

# D Bebop Dominant Study

Instagram (7/23/19)

D7  $\textcircled{T}$

T P H P P H H H P P P P P

A 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  
B 12 12 10 9-10 12-10-12 12-10 9-10 10 9-7 7-9 10 11-10-9 12-10

H H H P P P P P P H D7

A 12-14 15 12-17 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12-9 12 11-10-9 12 11-10-9 12  
B 9 12 12-10 14 12-14 15 12-17 14-12 15 12-11-12 14-12-10 13-10 12-11 12-10 12 10-12-9 12 11-10-9 12 11-10-9 12

# B Minor Study

Instagram (8/21/19)

Bm11

Guitar sheet music in B minor (Bm11). The music consists of two measures. The first measure starts with an open G string (3rd fret) followed by a sixteenth-note pattern. The second measure continues with a sixteenth-note pattern. Below the staff is a six-string tablature with fingerings: T 5, A 7, B X, 7, 9, 9, 9, 6, 6, 9, 12, 12, 10, 12.

Guitar sheet music in B minor (Bm11). The music consists of three measures. The first measure starts with a sixteenth-note pattern. The second measure starts with a sixteenth-note pattern. The third measure starts with a sixteenth-note pattern. Below the staff is a six-string tablature with fingerings: T 9, A 14, B 16, 14, 15, 17, 12, 12, 14, 12, 17, 22, 17, 17, 19, 19, 16, 14, 14, 16, 12, 14.

Guitar sheet music in B minor (Bm11). The music consists of three measures. The first measure starts with a sixteenth-note pattern. The second measure starts with a sixteenth-note pattern. The third measure starts with a sixteenth-note pattern. Below the staff is a six-string tablature with fingerings: T 14, A 11, B 12, 9, 12, 11, 12, 9, 7, 9, 7, 9, 7, 9, 7, 9, 7, 10, 7.

## D Aeolian Study

## Instagram (5/30/20)

## **Andante**

Musical staff diagram for guitar string 3. The staff begins with a treble clef, a key signature of one flat, and a 3/4 time signature. The first six positions are indicated by vertical arrows pointing up from the bottom line to the top line. The positions are labeled as follows:

T	14
A	12
B	13
	10

The staff continues with a vertical bar line, followed by another section where the first six positions are indicated by vertical arrows pointing up from the bottom line to the top line. The positions are labeled as follows:

	15
	12
	12
	12
	10

### **Slow and Steady**

## **Very Slow**

### Ritardando

## **Andante**

Quick

## **Slow Ritard.**

Steady

Ritard.

### **Sorrowful**

The image shows a musical score for a six-string guitar. The top staff is written in 9/16 time with a treble clef, featuring a melodic line with eighth-note patterns and grace notes. The bottom staff is a tablature, mapping the melodic line onto the fretboard. The tablature uses vertical lines for strings and horizontal dashes for frets. Below the tablature are two sets of numbers representing fingerings: 'A' and 'B'. The first set, 'A', includes pairs like 10-13 and 12-10. The second set, 'B', includes pairs like 13-12, 10-8, and 12-12. The tablature also features various slurs and grace note markings. The score concludes with a measure in 4/4 time.

# C Mixolydian #11 Study

# E Altered Dominant Study

Instagram (1/11/20)

The sheet music consists of six staves of musical notation for guitar, with tablature provided for each staff. The staves are as follows:

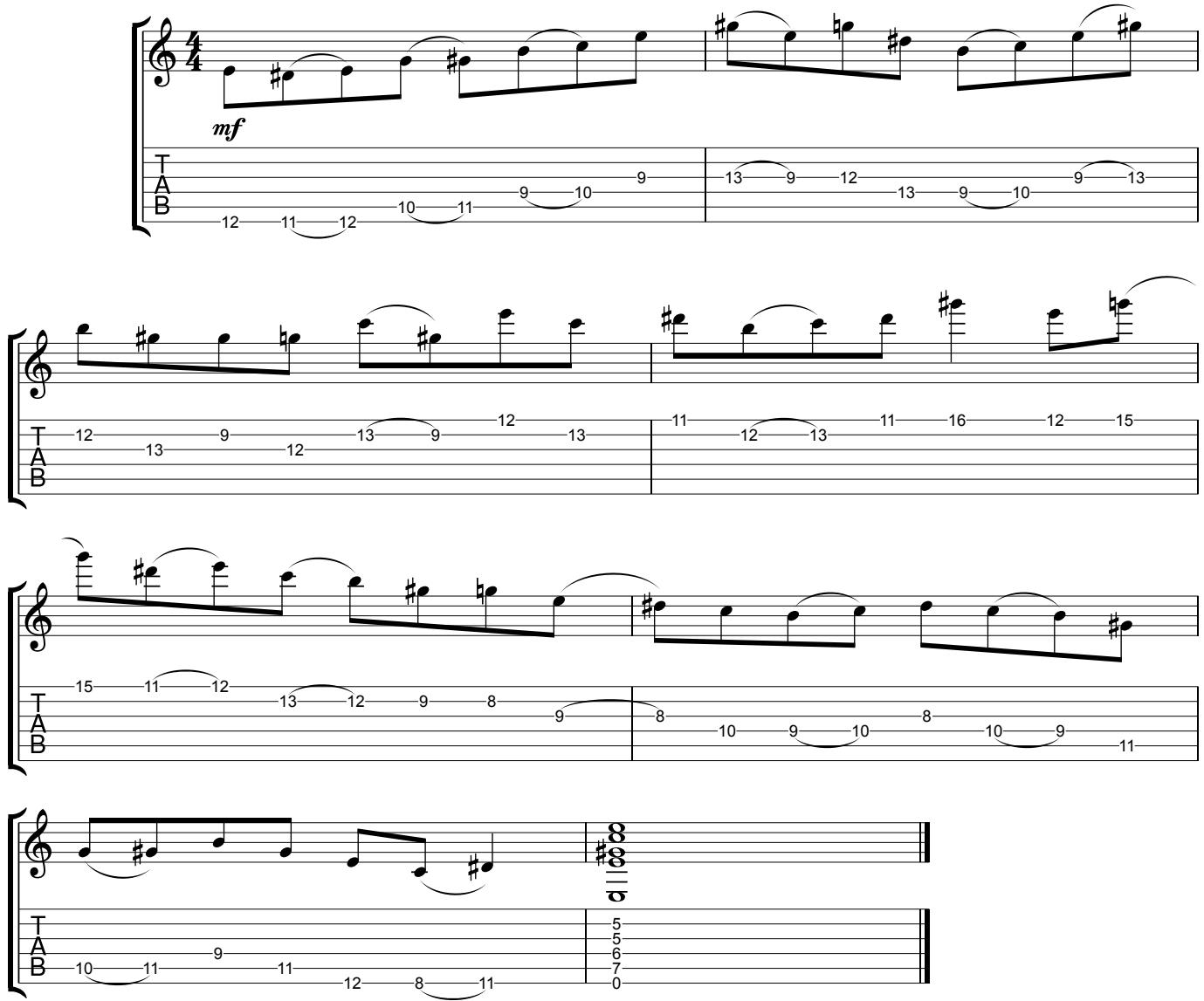
- Staff 1:** Treble clef, 4/4 time. Contains grace notes and slurs. Fingerings: 3, 3, 3.
- Staff 2:** Tablature (T-A-B) showing fingerings: 5, 5, 5, 6, 5-9-10, 6, 9-10, 8-9, 12-13, 8-12-13-10-12-13-15, 10-12-14-12-10, 13, 12, 10-8.
- Staff 3:** Treble clef, 16/16 time. Contains grace notes and slurs. Fingerings: 3, 3, 3, 3.
- Staff 4:** Tablature (T-A-B) showing fingerings: 8-10-13-10-8, 11, 10, 9-10, 8-11-8-9-11, 8-10, 12-10-8, 9-8, 11-9-8, 10-9-10, 8-9, 10, 11-10-8.
- Staff 5:** Treble clef, 4/4 time. Contains grace notes and slurs. Fingerings: H, H, P, P, H, T, T, P, H, H, H, H, H, H, H, H.
- Staff 6:** Tablature (T-A-B) showing fingerings: 7-9-7, 7-5, 5-7, 6-8, 7-8, 8-10, 10-11.
- Staff 7:** Treble clef, 4/4 time. Contains grace notes and slurs. Fingerings: H, H, H, P, P, H, H, H, H, H, H, H, H, H, H.
- Staff 8:** Tablature (T-A-B) showing fingerings: 10-12, 8-13, 8-13-8, 13-8, 12-13-8, 12-9-12, 8, 12-10, 10-12, 8-13, 8-13-15, 15-12-13.
- Staff 9:** Treble clef, 5/4 time. Contains grace notes and slurs. Fingerings: 15, 18, 16-15, P, sl., T, H, H, H, P, P.
- Staff 10:** Tablature (T-A-B) showing fingerings: 15-18, 16-15, 18-17, 17-15-13, 12-15-12-13, 15, 15-12, 14-12-14, 12, 15-13-11, 15-13-12-(12), 6, 8-10, 5-8, 5.

# Whole Tone Study

Instagram (11/1/19)

The sheet music consists of three staves of musical notation. The top staff is a treble clef staff with a key signature of one sharp (F#). It features a series of eighth-note patterns with dynamic markings 'H' (High) and 'P' (Low). The middle staff is a bass clef staff with a key signature of one sharp (F#). It shows a continuous sequence of notes with fingerings such as 11-13-9, 10-11-10, 8-12-10-11-8, 9-10-8, 9-11-7-8, 9-8-9-6-7-5-9-8-6-7-6. The bottom staff is another bass clef staff with a key signature of one sharp (F#). It shows a sequence of notes with fingerings such as 10-9-7-8-7-11-10-8-9-8-8-12-10-12-10-11, 10-8-10-8-8-6-8-6-7-8-6-7-8. The notation includes various slurs and grace notes.

# E Augmented Scale Study



The sheet music consists of four staves of musical notation for a guitar, set in common time (indicated by the '4' in the top left corner). The first staff shows a melodic line with grace notes and slurs, marked 'mf'. The second staff shows a scale pattern with note heads and slurs. The third staff shows another scale pattern with note heads and slurs. The fourth staff shows a final scale pattern with note heads and slurs. Each staff has a tablature below it, indicating fingerings and string numbers. The first staff's tablature shows: T (12), A (11), B (12), 10 (11), 9 (10), 10 (9). The second staff's tablature shows: 13 (9), 12 (13), 13 (12), 9 (13), 12 (13). The third staff's tablature shows: 11 (12), 12 (13), 13 (12), 9 (13), 12 (13). The fourth staff's tablature shows: 15 (11), 12 (13), 13 (12), 9 (13), 8 (9), 9 (8). The final staff's tablature shows: 8 (10), 9 (10), 10 (9), 10 (9), 11 (10).

# Chromatic/Ploytonal Improvisation

Instagram (12/22/19)

# Ultra Mega Arpeggios

Cmaj7

*mf*

T  
A  
B  
8 9 10 7 10 9 10 12 9 10 12 9 10 12 12 13 12 15 12 13

Cmin7

*mf*

T  
A  
B  
8 8 10 6 8 10 12 8 10 8 11 12 8 10 11 13 15 11 13

C7(11)

*mf*

T  
A  
B  
8 8 10 7 8 10 10 8 12, 9, 10 11, 12, 9 10, 11, 12, 13, 11, 15, 12, 13

C9

T  
A  
B  
8 10 7 8 10 9 7 8 6 8 10 6 8 9 8 9 7 8 9

T  
A  
B  
7 8 9 8 7 8 10 7 8 10

Cmin7

T  
A  
B  
8 10 6 8 10 7 8 10 12, 8, 11, 12 10, 11, 13, 11, 15, 11, 13

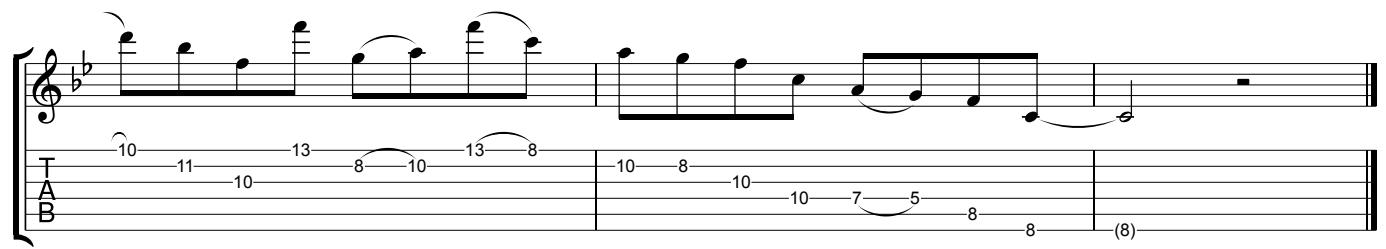
C7

Cmaj7

C13b9

Cmin7 and Bbmaj

Cmin7, Bbmaj and Fadd9



# D Minor Improv

**Dm (add9)**

**G7/D**

**Dm7**6****

**Bbmaj7/13**

**Fmaj7**

**Am7**6****

A7b9

Ritardando

4

15 13 12 15 14 14 12 15 14 12 11 12 13 10 9 12

Musical score and tablature for a Dm9 chord. The score shows a treble clef, a key signature of one sharp (F#), and a time signature of common time. The tablature shows a six-string guitar neck with the strings numbered 1 (thinnest) to 6 (thickest). The strings are muted at the 10th fret. The first three strings play a D major triad (D, F#, A) at the 10th fret. The 4th string plays an m7 (C, E, G) at the 10th fret. The 5th string plays a m9 (B, D, F#, A) at the 10th fret. The 6th string is muted. The tablature includes a T-A-B label and a 10-12-14-10-10-10 pattern below the strings.

# Sunday Morning Warmup

## Instagram (2/2/20)

The image shows a musical score for a six-string guitar. The top staff uses a treble clef and consists of two measures of sixteenth-note patterns. The bottom staff uses a bass clef and lists various harmonic markers: 13-17, 14-17, 14-17, 14-17, 14-17, 10-15, 12-14, 12-14, 12-14, 12-14, 14-15, 14-15, 14-15, and 14-15.

The image shows two staves of sheet music for guitar. The top staff is a treble clef staff with sixteenth-note patterns. The bottom staff is a bass clef staff with eighth-note patterns. Measure 12 starts with a 'T' (Tremolo) over a 'H' (Hammer-on). Measures 13 and 14 also begin with 'H' followed by 'T'. Measure 15 begins with a 'T' over a 'H'. Measures 12-13 are labeled with a bracket under the bass staff. Measures 1012-1013 are labeled with a bracket under the bass staff. The bass staff has labels 'A' and 'B' above it.

A Little Slower

H H

P

15-12 12 14 15 14 15 14 15 15-12 15-12 14 14-11 14-11 13 13-10 13-10 12

T A B

11-14 12 12 15 14 15 14 15 15-12 15-12 14 14-11 14-11 13 13-10 13-10 12

sl.

Tiny bit slower

H

H

P

T A B

13 13 12 15 15 13 15 13 18 13 15 15 15 15 12 15 13 12 15

Ritardando

P

A Little Faster

H

Ritardando

sl.

H

P

T A B

13 13 12 15 15 13 15 13 18 13 15 15 15 15 12 15 13 12 15

# 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:

D.N. = Diatonic Neighbor  
C.N. = Chromatic Neighbor  
I = Inversion

##### Ex. 238

**Cmaj7**      D.N.      **Am7**      D.N.      **Dm7**      D.N.      **G7**      D.N.

T  
A  
B  
3      0      2  
3      0      0  
3      2

##### Ex. 239

2. Roots followed by chromatic neighbor.

**Cmaj7**      C.N.      **Am7**      C.N.      **Dm7**      C.N.      **G7**      C.N.

T  
A  
B  
3      0      4  
6      0      0  
4      3      2

##### Ex. 240

3. Ascending or descending inverted movement.

**Bmaj7**      **D7/A**      **Gmaj7**      **B7/F**      **E♭maj7**

T  
A  
B  
2      2      0      0  
3      3      1      1  
1

##### Ex. 241

4. Doubling the root on chromatic basslines.

**B♭maj7**      **Bdim7**      **Cm7**      **C♯dim7**      **Dm7**

T  
A  
B  
6      6      7      7  
8      8      9      9  
10

**One Chord per Bar:**

- 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♭maj7**                      **F7♭9**                      **B♭7**

- Four chords a P5<sup>th</sup> descending apart.

**Ex. 243**

N.T.                      D7                      N.T.                      Gmaj7                      N.T.                      Cmaj7

**Am7**                      **D7**                      **Gmaj7**                      **Cmaj7**

On minor chords, neighbor tones fall on the 4<sup>th</sup> beat on Maj & Dom they fall on the 3<sup>rd</sup>.

**Ex. 244**

B. Scalar descending (use appropriate modes)

N.T.                      D7                      Gmaj7                      Cmaj7

**Am7**                      **D7**                      **Gmaj7**                      **Cmaj7**

Note: there are no passing tones in Ex. 244 because there are five scale tones between chords.

**Ex. 245**

3. Chromatic

N.C.T.                      N.C.T.                      N.C.T.                      N.C.T.                      N.C.T.

**A7**                      **Am7**                      **D7**                      **Gmaj7**

N.C.T. = Neighboring (Chromatic) Tones

Also Try:

*Ex. 246a*

A7

Am7

T  
A  
B

0 7 6 4 0

This musical example shows a guitar staff with a treble clef and a key signature of one sharp. The first measure, labeled 'A7', contains notes on the 5th, 4th, and 2nd strings. The second measure, labeled 'Am7', contains a note on the 5th string. Below the staff is a tablature with three horizontal lines labeled T, A, and B from top to bottom. The tablature shows a 0 on the first string, a 7 on the 5th string, a 6 on the 4th string, a 4 on the 2nd string, and a 0 on the 1st string.

*Ex. 246b*

A7

Am7

T  
A  
B

0 3 4 2 0

This musical example shows a guitar staff with a treble clef and a key signature of one sharp. The first measure, labeled 'A7', contains notes on the 5th, 4th, and 2nd strings. The second measure, labeled 'Am7', contains a note on the 5th string. Below the staff is a tablature with three horizontal lines labeled T, A, and B from top to bottom. The tablature shows a 0 on the first string, a 3 on the 5th string, a 4 on the 4th string, a 2 on the 2nd string, and a 0 on the 1st string.

*Ex. 246c*

A7

Am7

T  
A  
B

0 4 7 6 0

This musical example shows a guitar staff with a treble clef and a key signature of one sharp. The first measure, labeled 'A7', contains notes on the 5th, 4th, and 2nd strings. The second measure, labeled 'Am7', contains a note on the 5th string. Below the staff is a tablature with three horizontal lines labeled T, A, and B from top to bottom. The tablature shows a 0 on the first string, a 4 on the 5th string, a 7 on the 4th string, a 6 on the 2nd string, and a 0 on the 1st string.

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 A<sup>7</sup> at the beginning of the second measure.

#### Ex. 247a

A 4/4 time musical example. The first bar starts with an A7 chord (root position). The second bar begins with an Am7 chord (root position). Fingerings are indicated above the strings: 3 for the 3rd string, 3 for the 2nd string, 5th for the 1st string, N.T. for the 3rd string, and Am7 for the 1st string. The tablature below shows the strings T, A, B from top to bottom. Fret numbers are given for each string: 0, 7, 0, 4 for the first bar; 4, 8, 7 for the second bar. The Am7 chord is shown with an open 5th string.

#### Ex. 247b

A 4/4 time musical example. The first bar starts with an A7 chord (root position). The second bar begins with an Am7 chord (root position). Fingerings are indicated above the strings: N.T. for the 3rd string, 5th for the 1st string, and Am7 for the 1st string. The tablature below shows the strings T, A, B from top to bottom. Fret numbers are given for each string: 0, 4, 4, 3 for the first bar; 2, 0, 4, 2 for the second bar. The Am7 chord is shown with an open 5th string.

The second example used the F# (13<sup>th</sup>) on the A<sup>7</sup> for the sake of variety.

#### Ex. 248

A 4/4 time musical example. The first bar starts with an E7 chord (root position). The second bar begins with an Amaj7 chord (root position). Fingerings are indicated above the strings: tritone sub (Bb7) for the 3rd string, and Amaj7 for the 1st string. The tablature below shows the strings T, A, B from top to bottom. Fret numbers are given for each string: 7, 4, 5 for the first bar; 6, 7, 7, 6 for the second bar. The Amaj7 chord is shown with an open 5th string.

## 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 of music in common time (indicated by a '4'). The first staff starts with an 'F7' chord. A horizontal dashed line labeled 'F Pedal' extends from the bottom of the staff across all four measures. The second staff begins with a 'B♭7' chord at measure 5, followed by 'F7', 'A-7', and 'D7'. The third staff continues with 'G-7', 'C7', 'F7', 'D7', 'G-7', and 'C7'. Below the second staff, a dashed line labeled 'Pedal Cont.' connects to the 'F7' in the third staff, with the word 'Walk' written at the end of the line.

### Dominant Pedals

#### Ex. 250

The musical score consists of one staff of music in common time (indicated by a '4'). It features a sequence of chords: 'A-7', 'D7' (labeled '(Dominant Note)' with an arrow), 'GMaj7', and 'GMaj7'. A horizontal dashed line labeled 'D Pedal' extends from the bottom of the staff across all four measures.

## Rhythm Changes

### Ex. 251

Musical score for Ex. 251 featuring two staves of rhythm changes. The top staff shows chords B♭Maj7, G7, C-7, F7, D-7, G7, C-7, and F7. The bottom staff shows chords F-7, B♭7, E♭Maj7, Eo7, B♭/F, G7, C-7, and F7. Pedal markings are indicated by dashed horizontal lines under the staves. The first pedal starts at the beginning of the first measure and extends to the end of the eighth measure. The second pedal starts at the beginning of the fifth measure and extends to the end of the eighth measure. An arrow points to the start of the Eo7 chord in the bottom staff with the label "↑ Break for the Eo7 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

Musical score for Ex. 252 featuring a single staff of rhythm changes. The staff shows chords B♭Maj7, G7, C-7, F7, D-7, G7, C-7, and F7. The bass line consists of sustained notes with slurs connecting them. The first note is a half note on the fourth line, followed by a quarter note on the second line, another half note on the fourth line, and a quarter note on the second line. The second note is a half note on the fourth line, followed by a quarter note on the second line, another half note on the fourth line, and a quarter note on the second line. This pattern repeats for each measure.

**Ex. 253a**

B<sub>b</sub>maj7      G7alt      Cm7      F7      Dm7      G7alt      Cm7      F7

Fm7      B<sub>b</sub>7      E<sub>b</sub>maj7      Edim7      B<sub>b</sub>/F      G7alt      Cm7      F7

B<sub>b</sub>maj7      Bdim7      Cm7      C<sub>#</sub>dim7      Dm7      G7alt      Cm7      F7

B<sub>b</sub>7      E<sub>b</sub>maj7      Edim7      B<sub>b</sub>/F      Cm7      F7      B<sub>b</sub>maj7

Am7      D7      G7      Dm7      G7

C7      Gm7      C7      F7

B<sub>b</sub>maj7      B<sub>b</sub>/A<sub>b</sub>      E<sub>b</sub>/G      G<sub>b</sub>dim7      B<sub>b</sub>/F      E<sub>b</sub>maj7      Dm7      Cm7

B♭7                    E♭maj7            Edim7            B♭maj7            Cm7    F7            B♭maj7            Cm7    F7

The musical score consists of two staves. The top staff is a standard five-line staff with a treble clef, showing a sequence of chords: B♭7, E♭maj7, Edim7, B♭maj7, Cm7, F7, B♭maj7, and Cm7. The bottom staff is a six-string guitar neck diagram with the strings labeled T (top), A, and B (bottom). Below the neck are three sets of horizontal lines representing frets. Fingerings are indicated above the strings: for the first chord, fingers 1, 3, 0, and 1 are shown; for the second, 1, 0, -1, and 2; for the third, 3, 3, 3, and 3; for the fourth, 1, 2, 3, and -1. The guitar neck has a vertical line at the 12th fret.

## Ex. 253b

B<sub>b</sub>maj7      G7alt      Cm7      F7

Dm7      G7alt      Cm7      F7      Fm7      B<sub>b</sub>7      E<sub>b</sub>maj7      Edim7

B<sub>b</sub>/F      G7alt      Cm7      F7      B<sub>b</sub>maj7      Bdim7      Cm7      C<sub>#</sub>dim7

Dm7      G7alt      Cm7      F7      B<sub>b</sub>7      E<sub>b</sub>maj7      Edim7

B<sub>b</sub>/F      Cm7      F7      B<sub>b</sub>maj7      Am7      D7

G7      Dm7      G7      C7      Gm7      C7

F7      B<sub>b</sub>maj7      B<sub>b</sub>/A<sub>b</sub>      E<sub>b</sub>/G      G<sub>b</sub>dim7

B<sub>b</sub>/F      E<sub>b</sub>maj7      Dm7      Cm7      B<sub>b</sub>7      E<sub>b</sub>maj7      Edim7

B♭maj7      Cm7      F7      B♭maj7      Cm7      F7

T 3 3 3 | 1 2 3 | 1

A 3 3 3 | 1 2 3 | 1

B 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<sub>b</sub>maj7      G7alt      Cm7      F7alt      Dm7      G7<sub>b</sub>9      Cm7

*Ex. 254b*

B<sub>b</sub>maj7      G7alt      Cm7      F7      Dm7      G7alt      Cm7

*Ex. 254c*

Or combination

B<sub>b</sub>maj7      A<sub>b</sub>7<sup>#</sup>5      G7alt      D<sub>b</sub>m9      Cm7      F7

Dm7      A<sub>b</sub>7<sup>#</sup>9      G7alt      C<sup>#</sup>m7      Cm7      F7      B<sub>b</sub>7

In the last example the patterns were alternated by measure.

## Bassline Comping Variations

### Ex. 255a

Rhythm Pattern No.1

Musical notation for Rhythm Pattern No.1 in 4/4 time. The pattern consists of four measures. Each measure starts with a note (T), followed by a pair of eighth notes (T C). The third measure ends with a note (T) and a pair of eighth notes (C T). The fourth measure ends with a note (T), followed by a pair of eighth notes (T C), and concludes with a triplet bracket over the last two pairs of eighth notes (T C T T). The notes are on a single staff with a treble clef.

T= Thumb

C= Chord

Practice on one chord before moving on to progressions.

### Ex. 255b

Rhythm Pattern No.2

Musical notation for Rhythm Pattern No.2 in 4/4 time. The pattern consists of five measures. Each measure starts with a note (T), followed by a pair of eighth notes (C T). The second measure starts with a note (T), followed by a pair of eighth notes (C T). The third measure starts with a note (T), followed by a pair of eighth notes (C T). The fourth measure starts with a note (T), followed by a pair of eighth notes (C T). The fifth measure starts with a note (T), followed by a pair of eighth notes (C T).

### Ex. 255c

Rhythm Pattern No.3

Musical notation for Rhythm Pattern No.3 in 4/4 time. The pattern consists of seven measures. Each measure starts with a note (T), followed by a pair of eighth notes (C T). The first measure has a 'click' above the first note. The second measure has a 'click' above the first note. The third measure has a 'click' above the first note. The fourth measure has a 'click' above the first note. The fifth measure has a 'click' above the first note. The sixth measure has a 'click' above the first note. The seventh measure has a 'click' above the first note.

## 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 image displays eight staves of musical notation, each consisting of five horizontal lines. The notation is primarily composed of eighth notes and sixteenth notes, with occasional quarter notes and rests. The patterns are designed to be played by a single hand, likely the left hand, on a piano or similar keyboard instrument. The rhythms are varied, featuring both steady and more complex, swing-oriented patterns. Some staves include measure lines and bar lines to indicate the structure of the 32-bar form. The first staff includes a bracket under the last three measures labeled '3'.

## **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.

## Solo No. 1

**Fm7**

**B♭m7**

**E♭alt**

**A♭maj7**

**D♭maj7**

**Dm7**

**G7b9**

**Cmaj7**

**Cm7**

**Fm7**

**B♭9**

**E♭maj7**

**A♭maj7**

**Am7**

**D7alt**

**Gmaj7**

**Bm7**

**E7alt**

**Am7**

**D7alt** H H H H H H H H H H H H H H H H P

**Gmaj7** sl. H H H H H H H H H H H H H H H H P

**F#m7**

**B7b9**

**Emaj7**

**C7alt**

**Fm7** sl.

**Bbm7** sl. H T sl. P

**Eb7b9**

**Abmaj7** sl. P

**Dbmaj7**

**Dbm7** H

**Cm7**

**Bdim7** sl. H

**B♭m7**

**E7alt**

**A♭maj7**

**Gm7♭5**

**C7alt**

**Fm7**

**Solo No. 2**

**E<sup>ø</sup>**      **A13(b9)**      **Cm7**

Treble Staff Fingerings: H, P, H, H, P, sl., P.

Bass Staff Fingerings: 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)**

Treble Staff Fingerings: H, H, H, P.

Bass Staff Fingerings: 11, 14, 10, 14, 12, 10, 13, 11; 12, 10, 11, 10, 13; 12, 9, 11, 9, 11, 9, 12, 11, 9, 9, 8, 11, 8, 9.

**Ebmaj7**      **Ab7(b5)**      **Bbmaj7**

Treble Staff Fingerings: H, sl., P.

Bass Staff Fingerings: 10, 8, 10, 12, 10, 8, 8, 10, 8, 11; 8, 9, 8, 7, 6, 7, 6, 8, 7, 7, 10, 8, 7, 8, 7, 10.

**E<sup>ø</sup>**      **A7(#5)**      **Dm7**      **Dm7/C**      **B<sup>ø</sup>**      **Bbm6**      **Am7**      **D7(b9)**

Treble Staff Fingerings: H, P, H, P, H, sl., P, sl.

Bass Staff Fingerings: 7, 10, 7, 7, 10, 10, 10, 11; 9, 10, 8, 10, 10, 7, 9, 6, 9, 7, 8, 6, 5, 8, 7, 5, 5, 4, 7, 12.

**Gm7**      **C7(b9)**      **A<sup>ø</sup>**      **D7(b9)**

Treble Staff Fingerings: H, sl., H, P, H, sl., P.

Bass Staff Fingerings: 10, 12, 13, 10, 9, 12, 11, 10, 11, 10, 9, 13, 11, 10, 12, 11, 13, 13, 10, 14, 11, 12, 11.

**G7(#5)**

**Cm7**

**A♭7(b5)**

**A/B♭**

**B♭maj7**

**E<sup>∅</sup>**

**A7(#5)**

**D<sup>∅</sup>**

**G13(b9)**

**C<sup>∅</sup>**

**F7(#5)**

**B♭maj7**

**Solo No. 3**

**Gmaj7**      **B♭7**      **E♭maj7**      **A♭maj7**

TAB: A 9-8-7, B 10-9-8-10-11-10-8-7-8, 8-10-10-8, 11-8-10-11-8-10-7

**Am7**      **D7alt**      **Gmaj7**      **Dm7**      **G7**

TAB: A (7)-10-9-7-8, B 10-8-8-9-8-11-10-(10)-9-7-14-15-13-12-10-12-10

**Cm7**      **F7**      **B♭maj7**      **E♭maj7**

TAB: A 11-12-13-12-10, B 13-10-13-12-12-13-11-10-11-12-10-13

**Am7**      **D13(♭9)**      **Gmaj7**      **Am7**      **D7♭9**

TAB: A (10)-9-12-12-10-12-9-10, B 11-12-13-11-10-11-10-12-9-8-10-9-8-10-9-8-10-9-7

**Gmaj7**      **B7**      **E♭maj7**

TAB: A 7-10-9-7-9-10-7, B 8-10-11-10-9-8-9-9-8-8-8-6-8-5-6-5-8-8

**A♭maj7**

**Am7**

**D7**

**Gmaj7**

**Dm7**

**G7**

**Cmaj7**

**Am7**

**D7b9**

**Bm7**

**B♭dim7**

**Am7**

**D7**

**Gmaj7**

**E7alt**

**Am7**

**D7b9**

**Gmaj7**

## Blues

**C7**      **C7alt**      **F7**      **F<sup>#</sup>dim7**

T A B T A B

13 14 12 14 | 13 10 11 10 9 9 8 11 | 10 10 9 8 10 12 9 | 13 12 11 10 10 9 8 7 |

**Gm7**      **C7alt**      **F7**

T A B T A B

10 12 13 12 15 14 13 10 13 10 11 12 10 8 7 | 10 9 12 8 10 8 7 |

**F7**      **F<sup>#</sup>dim7**      **C7**      **A7alt**

T A B T A B

6 9 10 8 11 10 9 7 8 10 9 12 11 14 12 13 11 13 13 11 14 11 13 |

**Dm7**      **G7alt**      **C7**      **A7alt**

T A B T A B

10 12 13 14 15 12 14 15 11 13 13 13 14 13 16 15 14 12 11 14 14 |

**Dm7**      **G7alt**      **C7**      **F7**      **F<sup>#</sup>dim7**

T A B T A B

12 15 12 13 12 14 15 13 12 13 14 12 13 (13) 14 15 12 13 12 14 13 |

**Gm7**      **C7alt**      **F7(#11)**

T A B T A B

12 15 13 12 12 11 12 10 9 11 11 9 9 6 5 8 5 7 10 7 8 10 11 8 10 11 13 11 |

**C7**

Treble staff: P, H, H, H, H, sl., P, P, H, H.

Bass staff: A, B. Fingerings: 15-11-13-15, 12-13-15, 12-13-15, 12-13-15, 11-12-14, 15-12-14-13-12, 15-12-13-14, 14, 13-11-10-12.

**A7alt**

Treble staff: sl., H, P, P, P, H, P, P, H, P, P, H, P, H, P.

Bass staff: 11, 10-12, sl., 11-6, 8-6, 8-6, 8-6, 8-6, 8-6, 8-6, 8-6, 8-10, 9-12, 9-11-8-9, 9-12, 11-12-8, 10-10.

**G7alt**

Treble staff: sl., P, P, H, P, H, H, sl., P, H, sl.

Bass staff: 9, sl., 14-9, 11-13, 13-11, 11, 8-6, 9-4-9, 7-10, 10, 9, 8-7, 9-6, 6-5, 8-6, 6-5, 8.

**Dm7**

Treble staff: p, p.

Bass staff: 8-5-6, 9-6-8, 8-6-6-6-8-6-6, 8, 5.

**G7alt**

Treble staff: p, p.

Bass staff: 8-6-6-6-8-6-6, 8, 7.

**C7**

Treble staff: p.

Bass staff: 5.

### Rhythm Changes

**A**

B<sub>b</sub>maj7      G7alt      Cm7      G7alt      Dm7      G7alt      Cm7      F7alt

T 12-13-14      A 13-12-15      B 12-13-15

T 13-12-11-10      A 12-13-15-14      B 12-13-14-13

T 12-10-13-11-10-9      A 13-12-11-10-9-8      B 12-13-11-10-9-8

T 12-13-12-11-10-9-8-7      A 13-12-11-10-9-8-7-6      B 12-13-11-10-9-8-7-6

Fm7      B<sub>b</sub>7      Ebmaj7      Edim7      B<sub>b</sub>/F      G7alt      Cm7      F7

T 13-11-13-12-11-10-9      A 12-13-12-11-10-9-8      B 12-13-12-11-10-9-8

T 10-13-12-11-10-9-8-7      A 11-13-12-11-10-9-8-7-6      B 11-13-12-11-10-9-8-7-6

**A**

B<sub>b</sub>maj7      G7<sub>b</sub>9      Cm7      F7      Dm7      G7alt      Cm7      F7alt

T 11-10-13-12-11-10-9      A 12-13-12-11-10-9-8      B 12-13-12-11-10-9-8

T 10-13-12-11-10-9-8-7      A 11-12-10-9-8-7-6      B 11-12-10-9-8-7-6

Fm7      B<sub>b</sub>7(<sub>b</sub>5)      Ebmaj7      Edim7      B<sub>b</sub>/F      Cm7      F7      B<sub>b</sub>maj7

T 10-11-13-12-11-10-9      A 13-12-11-10-9-8-7      B 13-12-11-10-9-8-7

T 12-13-12-11-10-9-8-7      A 13-12-11-10-9-8-7-6      B 13-12-11-10-9-8-7-6

T 10-13-12-11-10-9-8-7      A 11-12-10-9-8-7-6      B 11-12-10-9-8-7-6

**B**

Am7      Am7      D7alt      G7      Dm7      C7alt

T 12-14-13-11-10-9-8-7-6      A 15-14-12-10-11-10-9-8-7-6      B 15-14-12-10-11-10-9-8-7-6

T 12-13-12-15-14-13-12-11-10-9-8-7-6      A 15-14-12-13-12-15-14-13-12-11-10-9-8-7-6      B 15-14-12-13-12-15-14-13-12-11-10-9-8-7-6

T 10-12-11-10-9-8-7-6-5-4-3-2-1      A 12-10-11-10-9-8-7-6-5-4-3-2-1      B 12-10-11-10-9-8-7-6-5-4-3-2-1

C7                    Gm7    D7    Gm7    C7                    Cm7                    F7alt

T  
A      7-10    8    7-8    7-10  
B      7-10    8    7-8    7-10  
T  
A      10-11    11-10    12-10-9  
B      12-13    13-12-10-9  
T  
A      11-12-13-10-9-10-11-12-13  
B      10-13-12-11-10-13-12-11-13

**A**

B♭maj7    G7alt    Cm7    F7alt    Dm7    G7    Cm7    F7

T  
A      12-10    9    10-11  
B      12-10-12    9-10-11  
T  
A      12-13-12-10-11-10-8  
B      10-13-13-12-10-11  
T  
A      10-13-13-9-9-10  
B      13-12-10-11-10-9  
T  
A      11-11-11-9-14-13-12-11-13  
B      11-11-11-10-13-12-11-13

Fm7    B♭7    E♭maj7    Edim7    B♭/F    Cm7    F7    B♭maj7

T  
A      13-10-12-11-10-12  
B      13-11-10-12-13-10-11-13  
T  
A      9-12  
B      10-11-12  
T  
A      10-13-11-10-11-10  
B      11-12-10-11-10-11  
T  
A      10  
B      13

**Modern Approach To Rhythm Changes**

**A**

Bbmaj7      G7alt      Cm7      F7alt      Bbmaj7      G7alt      Cm7      Bmaj

Fingerings for left hand: 18-15, 15-17-13, 14-11, 13-10, 11-13-10, 12, 11-13, 13-15, 12-15, 13-15, 13, 11-13-15, 14, 11-13-15, 14, 16, 16-13, 14.

Fm7      Bb7      Ebmaj7      Edim7      Dm7      G7(b9)      Cm7      G7alt

Fingerings for left hand: 13-15, 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.

Bb      G7(b9)      Cm7      F7      Bbmaj7      G7(b9)      Cm7      F7

Fingerings for left hand: 10-11-10-9, 10, 11-11, 9, 13-14-11, 12, 12-13-10, 12, 12-9, 9, 10-11, 12, 12-14.

Fm7      Bb7      Ebmaj7      Edim7      Bbmaj7      Cm7      F7      Bbmaj7

Fingerings for left hand: 11-13, 13-8, 8-7, 8-8, 8-7, 8-9, 8-6, 9-11-8, 9-8-6, 8, 9-7-6.

**B**

D7      G7

Fingerings for left hand: 14, 14-10, 13-12, 12-14, 17-14, 16, 17-16-15-17, 14-16, 14-14, 14-12-14, 14-12, 12-14, 14-12-11.

**C7**

P P sl. sl. sl.

A 10-12-8-10-7-9  
B 10-8-10-7-10-8-6

**Bmaj7** **G7(b9)** **Cm7** **F7** **Dm7** **G7(b9)** **Cm7** **F7**

sl. P P P

A 6-7-8-7-6-5-4  
B 7-6-5-4-3-6-5-3-2-2-5-4-3-2-4-1

**Bb7** **Ebmaj7** **Ebm7** **Bbmaj7** **F7alt** **Bbmaj7**

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

A 6-9-10-8-9-11-12-13-15-12-16-15-14-13-10-11-10-9-7-8-6-8-7-5-8-8

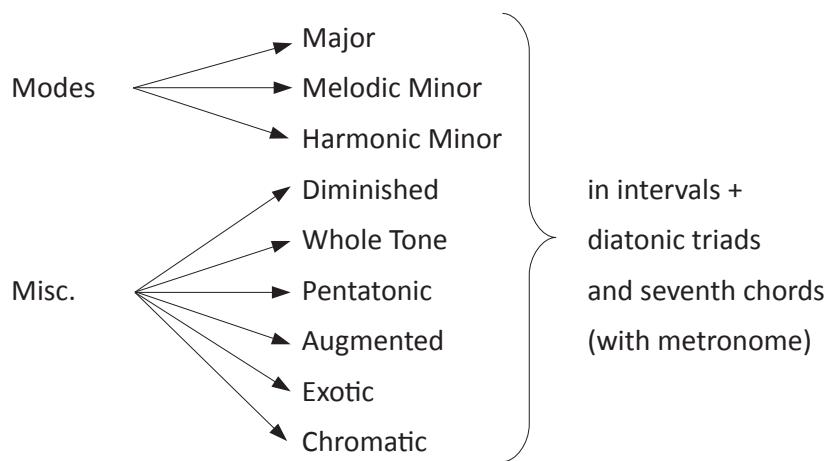
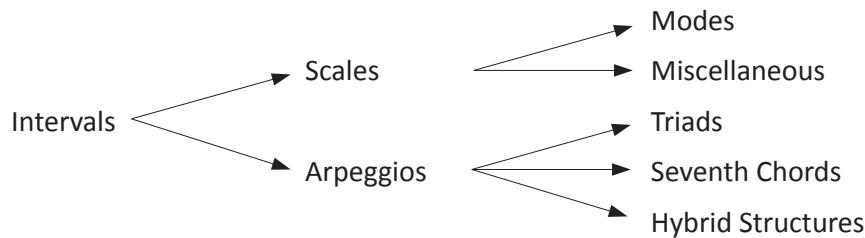
## Practicing

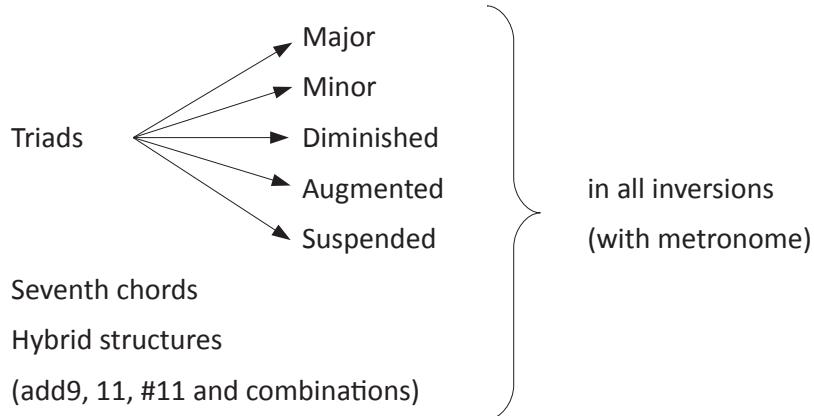
Here are some important points for practicing:

- 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%
<hr/> <hr/> 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<sup>7/#5</sup>)
- 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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