

# THE BEATO BOOK 4.0

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

BY RICK BEATO

# THE BEATO BOOK

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This book is dedicated to my Mom and Dad.

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

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

Rick

## **Author's Note**

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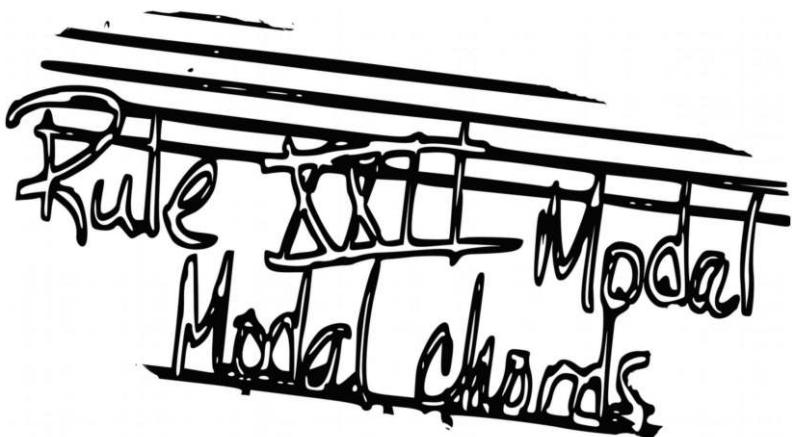
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# CHAPTER 1

## THEORY AND HARMONY



## Chapter 1: Theory and Harmony

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

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

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

There are twelve intervals in the space of an octave.

### Interval Names and Symbols

	Unison	m2	M2	m3	M3	P4	A4/d 5	P5	m6	M6	m7	M7	P8
½ 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*

½ steps    0    1    2    3    4    5    6    7    8    9    10    11

Unison    m2    M2    m3    M3    P4    A4 / d5    P5    m6    M6    m7    M7

#### Perfect

1st Unison

4th Fourths

5th Fifths

8th Octave

Augmented

Diminished

Major

Minor

#### Imperfect

2nds Seconds

7ths Sevenths

3rds Thirds

6ths Sixths

Perfect Intervals: Octave, Unison, Fifth, Fourth

become augmented when enlarged by a half step  
become diminished when reduced by a half step

Imperfect Intervals: Second, Seventh, Third, Sixth

- 1) Major Intervals

become augmented when enlarged by a half step  
become minor when reduced by a half step
- 2) Minor Intervals

become major when enlarged by a half step  
become diminished when reduced by a half step

### Naming Intervals

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

**Ex. 2**

C to F

letter names			
C	D	E	F
1	2	3	4

a fourth = generic classification

4 letters spanned

**Ex. 3**

F to Ab

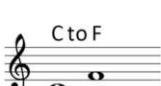
letter names		
F	G	A
1	2	3

a third = generic classification

3 letters spanned

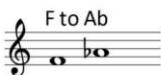
Once the generic classification has been determined, a more precise description (e.g., perfect, major, minor, diminished or augmented) can be made, based on the number of steps between the two pitches.

*Ex. 4*



C    C#    D    D#    E    F      5 half steps = P4 perfect fourth  
v    v    v    v    v  
1    2    3    4    5  
½ steps spanned

*Ex. 5*



F    F#    G    Ab      3 half steps = m3 minor third  
v    v    v  
1    2    3  
½ steps spanned

*Ex. 6*

Here are some more examples of intervals:

(D=Doubly)



### **Enharmonic Intervals**

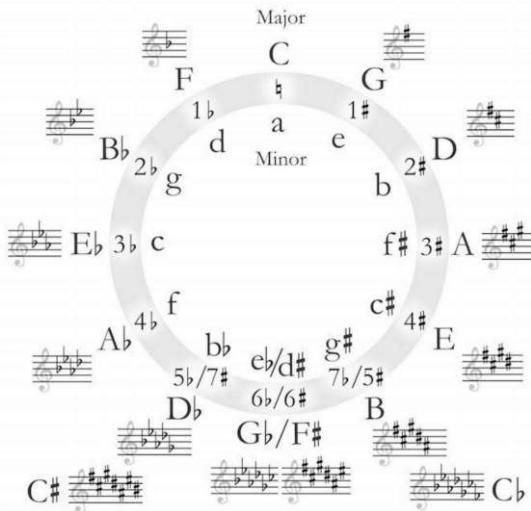
Interval types that contain an equivalent number of half steps but have different names (e.g., Augmented Second and Minor Third) are **enharmonically equivalent**. In other words, they are aurally identical but theoretically different.

### **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**

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). The interval between C and E is labeled "m3" (minor third). The interval between E and G is labeled "M3" (major third).

= C major = 1 3 5

*Ex. 10*

A musical staff in G clef. It shows a C minor triad (C, D, G). The interval between C and D is labeled "M3" (major third). The interval between D and G is labeled "m3" (minor third).

= C minor = 1 b3 5

*Ex. 11*

A musical staff in G clef. It shows a C diminished triad (C, B, A). The interval between C and B is labeled "m3" (minor third). The interval between B and A is labeled "m3" (minor third).

= C dim = 1 b3 b5

*Ex. 12*

A musical staff in G clef. It shows a C augmented triad (C, E, G#). The interval between C and E is labeled "M3" (major third). The interval between E and G# is labeled "M3" (major third).

= C aug = 1 3 #5

## Building Diatonic Seventh Chords

Seventh Chords are composed of three thirds stacked vertically.

### **Ex. 13**

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

	C <sub>MA7</sub>	D-7	E <sub>b</sub> <sup>MA7</sup>	F <sup>7</sup>	G7	A-7 <sup>b5</sup>	B-7 <sup>b5</sup>
C mel. minor							
Roman Numeral	i <sup>MA7</sup>	ii <sup>7</sup>	bIII <sup>1+MA7</sup>	IV <sup>7</sup>	V <sup>7</sup>	vi <sup>7b5</sup>	vii <sup>7b5</sup>

	C <sub>MA7</sub>	D-7 <sup>b5</sup>	E <sub>b</sub> <sup>MA7</sup>	F-7	G7	A <sub>b</sub> <sub>MA7</sub>	B <sup>07</sup>
Charm. minor							
Roman Numeral	i <sup>MA7</sup>	ii <sup>7b5</sup>	bIII <sup>1+MA7</sup>	iv <sup>7</sup>	V <sup>7</sup>	bVI <sup>Ma7</sup>	vii <sup>07</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*

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

Seventh	C <sub>MA7</sub>	D-7	E-7	F <sub>MA7</sub>	G7	A-7	B-7 <sup>b5</sup>
R.N.	I <sub>MA7</sub>	ii <sup>7</sup>	iii <sup>7</sup>	IV <sup>MA7</sup>	V <sup>7</sup>	vi <sup>7</sup>	vii <sup>7-7b5</sup>

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 <sup>o</sup>	III	iV	v	VI	VII	
	Aeolian	Locrian	Ionian	Dorian	Phrygian	Lydian	Mixolydian	

	C-7	D-7 <sup>b5</sup>	E♭ <sub>MA7</sub>	F-7	G-7	A♭ <sub>MA7</sub>	B♭7	
Seventh								
R.N.	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 <sup>o</sup>
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.							
	—	—	—	—	—	v <sup>o</sup> Locrian 2 <sup>st</sup>	vii <sup>o</sup> Altered Dominant
	—	—	III+	IV Mixolydian #11 (Lydian b7)	V Mixolydian b6		
	—	—	Dorian b2	—	—		

Seventh	C <sup>-MA7</sup>	D <sup>-7</sup>	E <sup>b+MA7</sup>	F <sup>7</sup>	G <sup>7</sup>	A <sup>-7<sup>b5</sup></sup>	B <sup>-7<sup>b5</sup></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>7<sup>b5</sup></sup>	vii <sup>i<sup>-7<sup>b5</sup></sup></sup>

Triads	maj	=	IV, V
	min	=	i, ii
	dim	=	v <sup>o</sup> , vii <sup>o</sup>
	aug	=	III <sup>+</sup>
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>7<sup>b5</sup></sup>	=	vi <sup>7<sup>b5</sup></sup> , vii <sup>7<sup>b5</sup></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 <sup>-</sup>	ii <sup>o</sup>	Locrian nat. 6	III+ Ionian augmented	iv Dorian #4	V Phrygian Major	VI Lydian #9
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>o7</sup>

Triads	maj	=	V, VI
	min	=	i, iv
	dim	=	ii <sup>o</sup> , vii <sup>o</sup>
	aug	=	III <sup>+</sup>
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>o7</sup>

## Harmonic Major Scale

*Ex. 17*

	<i>Cmaj</i>	<i>D°</i>	<i>E-</i>	<i>F-</i>	<i>Gmaj</i>	<i>A♭+</i>	<i>B°</i>
Triads							
R.N.	I Harmonic Major (Ionian b6)	ii <sup>o</sup> Dorian b5	iii Phrygian b4	iv Lydian b3 (Melodic Minor #4)	v Mixolydian b2	VI+ 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>	vi i <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	<i>Cmaj</i>	<i>D<sup>b</sup>maj</i>	<i>E-</i>	<i>F-</i>	<i>Gmaj<sup>b5</sup></i>	<i>A<sup>b</sup>+</i>	<i>B<sup>'sus</sup><sup>2<sup>b5</sup></sup></i>
R.N.	I Major	II Double Harmonic	III Lydian #2 #6	IV Ultraphrygian	V <sup>b5</sup> Hungarian Minor	VI+ Oriental	vii <sup>o</sup> Locrian bb3 bb7
Seventh	<i>Cmaj<sup>7</sup></i>	<i>D<sup>b</sup>maj<sup>7</sup></i>	<i>E-<sup>b7</sup></i>	<i>F-maj<sup>7</sup></i>	<i>G<sup>7<sup>b5</sup></sup></i>	<i>A<sup>b</sup>maj<sup>7</sup></i>	<i>D<sup>b</sup>7/B</i>
R.N.	I <sup>maj7</sup>	II <sup>maj7</sup>	III <sup>bb7</sup>	IV <sup>maj7</sup>	V <sup>b5</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 <sup>o</sup>
	aug	=	VI <sup>*</sup>
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>b5</sup>	=	V <sup>b5</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>Ma</sup>7</b>	=1	3	5	7	<b>C7</b>	=1	3	5	b7
<b>C-7</b>	=1	b3	5	b7	<b>C-7<sup>#5</sup></b>	=1	b3	b5	b7
<b>C<sup>o</sup>7</b>	=1	b3	b5	bb7	<b>C<sup>Ma</sup>7</b>	=1	3	#5	7
<b>C<sup>-Ma</sup>7</b>	=1	b3	5	7	<b>C<sup>+7</sup></b>	=1	3	#5	b7
<b>C<sup>o</sup>Ma7</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...

A musical staff with a treble clef and a key signature of one sharp (F#). The notes C, D, E, F, G, A, and B are shown, each with a vertical stem pointing down. The notes are aligned under the letters C, D, E, F, G, A, and B respectively.

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

A musical staff with a treble clef and a key signature of no sharps or flats. The notes A, B, C, D, E, F, and G are shown, each with a vertical stem pointing down. The notes are aligned under the letters A, B, C, D, E, F, and G respectively.

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...

A musical staff with a treble clef and a key signature of one sharp (F#). The notes C, D, E, F, G, A, and B are shown, each with a vertical stem pointing down. The notes are aligned under the letters C, D, E, F, G, A, and B respectively.

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

A musical staff with a treble clef and a key signature of one flat (B-flat). The notes C, D, Eb, F, G, Ab, and Bb are shown, each with a vertical stem pointing down. The notes are aligned under the letters C, D, Eb, F, G, Ab, and Bb respectively.

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

Diatonic Triads from C Major and C Minor

A musical staff with a treble clef and a key signature of one sharp (F#). The notes C, Dm, Em, F, G, Am, and B° are shown, each with a vertical stem pointing down. The notes are aligned under the letters C, Dm, Em, F, G, Am, and B° respectively. Below the staff, Roman numerals I, ii, iii, IV, V, vi, and vii° are aligned under the chords.

A musical staff with a treble clef and a key signature of one flat (B-flat). The notes Cm, D°, Eb, Fm, Gm, Ab, and Bb are shown, each with a vertical stem pointing down. The notes are aligned under the letters Cm, D°, Eb, Fm, Gm, Ab, and Bb respectively. Below the staff, Roman numerals i, ii°, bIII, iv, v, bVI, and bVII are aligned under the chords.

### 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>   Maj7	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>°7</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>7</sup>		C#° <sup>7</sup> vii° <sup>7</sup> /ii	D#° <sup>7</sup> vii° <sup>7</sup> /iii	E° <sup>7</sup> vii° <sup>7</sup> /IV	F#° <sup>7</sup> vii° <sup>7</sup> /V	G#° <sup>7</sup> vii° <sup>7</sup> /vi	
Parallel Natural Minor	Cm <sup>7</sup> i <sup>7</sup>	D <sup>°7</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>°7</sup> vi <sup>7b5</sup>	B <sup>°7</sup> vii <sup>7b5</sup>
Parallel Harmonic Minor	Cm <sup>Maj7</sup> i <sup>Maj7</sup>	D <sup>°7</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>7</sup> vii° <sup>7</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>   <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>°7</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>°7</sup>		C# <sup>°7</sup> vii <sup>°7</sup> /ii	D# <sup>°7</sup> vii <sup>°7</sup> /iii	E <sup>°7</sup> vii <sup>°7</sup> /IV	F# <sup>°7</sup> vii <sup>°7</sup> /V	G# <sup>°7</sup> vii <sup>°7</sup> /vi	
Parallel Natural Minor	Cm <sup>7</sup> i <sup>7</sup>	D <sup>°7</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>°7</sup> vi <sup>7b5</sup>	
Parallel Harmonic Minor							B <sup>°7</sup> vii <sup>°7</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 / Dbm	III / bii	V/vi
A	F#m / Gbm	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.

m3      m3      dim      m3      M3      min      M3      m3      Maj      M3      M3      Aug

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.

dim      1st inv      2nd inv      min      1st inv      2nd inv      Maj      1st inv      2nd inv

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 triad (C, E, G) followed by a C suspended fourth triad (C, F, G). The label 'C' is above the first chord, and 'Csus⁴' is above the second.

### *Ex. 20b*

A musical staff in G clef. It shows a C major triad (C, E, G) followed by a C suspended second triad (C, D, G). The label 'C' is above the first chord, and 'Csus²' is above the second.

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 triad (C, E, G) followed by a C Lydian triad (C, F#, G). The label 'C' is above the first chord, and 'Clyd Δ' is above the second.

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 triad (C, E, G) followed by a C Sus4b5 triad (C, F, Gb). The label 'C' is above the first chord, and 'Csus⁴b⁵ Δ' is above the second.

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*

The image shows a musical staff with three different inversions of a Csus4 chord. The first inversion, labeled **C<sub>sus4</sub>**, has the root (C) at the bottom, the fourth (F) in the middle, and the fifth (G) at the top. The second inversion, labeled **F<sub>sus2</sub>**, has the root (C) at the bottom, the fourth (F) in the middle, and the fifth (G) suspended above the fourth. The third inversion, labeled **GQ** (Quartal), has the root (C) at the bottom, the fifth (G) in the middle, and the fourth (F) suspended above the fifth.

**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

The image shows a musical staff with a GQ chord. The notes are labeled 1, 4, and b7. The note 1 is the root (G), note 4 is the fourth (D), and b7 is the flattened seventh (B-flat).

Here are some other symbols to know.

*Ex. 25*

The image shows a musical staff with four different chord symbols. From left to right: **GQt** = 1 4 7, **G+4Q** = 1 #4 7, **C<sub>sus4b5</sub>** = 1 4 b5, and **F<sub>phryg</sub>Δ** = 1 b2 5. Each symbol is followed by its note names: GQt (1, 4, 7), G+4Q (1, #4, 7), C<sub>sus4b5</sub> (1, 4, b5), and F<sub>phryg</sub>Δ (1, b2, 5).

## Chord Scales

### Major Scale Modes

Scale Degree	Mode	Relation to Major Scale							Most Common Use
		1	2	3	4	5	6	7	
I, I <sup>maj7</sup>	Ionian	1	2	b3	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°, vii <sup>7bs</sup>	Locrian	1	b2	b3	4	b5	b6	b7	Min <sup>7bs</sup>

### Melodic Minor Modes

Scale Degree	Mode	Relation to Major Scale							Most Common Use
		1	2	b3	4	5	6	7	
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*, 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°, vi <sup>7bs</sup>	Locrian Nat.9	1	2	b3	4	b5	b6	b7	Min <sup>9b6</sup>
vii°, vii <sup>7bs</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>7</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 Petatonic	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
Whole Tone	1	2	3	#4	#5	b7		#4, #5
Major Pentatonic	1	2	3		5	6		no 4 or b7
Minor Pentatonic	1	b3	4		5	b7		#9, no b7
Major Blues	1	2	b3	3	5	6		b3, no b7
Minor Blues	1	b3	4	#4	5	b7		#9, sus4, b5

### Diminished Type

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

### Augmented Type

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

## **Scale Degree Names and Basic Progressions**

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

### **Ex. 26**

In C major

I	ii	iii	IV	V	vi	vii <sup>o</sup>	
Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Leading Tone	

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

### **Ex. 27**

In C Aeolian

i	ii <sup>o</sup>	III	iv	v	VI	VII	
Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Subtonic	

## Basic Progressions

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

1. **Dominant Chords:** chords which contain the 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 = V7 in C

1    2    3    4    5    6    7    1    2    3    4

*Ex. 29*

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

vii<sup>7b5</sup>                              1    2    3    4    5    6    7    1    2    3    4    5    6

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

IV<sup>MA7</sup>                              1    2    3    4    5    6    7    1    2    3

*Ex. 31*

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

ii<sup>7</sup>                                   1    2    3    4    5    6    7    1    2

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

*Ex. 32*

Key of C  
 $C_{MA}7 = I^{MA7}$  in C

1 2 3 4 5 6 7 1 2

*Ex. 33*

Key of C       $E-7 = iii^7$  in C

1 2 3 4 5 6 7 1 2

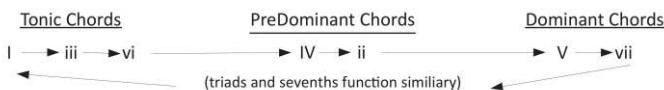
*Ex. 34*

Key of C       $A-7 = vi^7$  in C

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

Here is a clearer chart (major key).

**Ex. 35**



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

**Ex. 36**

Musical staff showing a progression from D-7 to C<sub>MA</sub>7. The chords are labeled:

- D-7 (Pre Dom.)
- G7 (Dom.)
- C<sub>MA</sub>7 (Tonic)

**Ex. 37**

Musical staff showing a progression from E-7 to C<sub>MA</sub>7. The chords are labeled:

- E-7 (Tonic)
- A-7 (Tonic)
- D-7 (Pre Dom.)
- G7 (Dom.)
- C<sub>MA</sub>7 (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		A⁷	B⁷	C⁷	D⁷	E⁷	
	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	<u>V⁷</u>	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**

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

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>		
	vii <sup>o7</sup> ii	vii <sup>o7</sup> iii	vii <sup>o7</sup> VI	vii <sup>o7</sup> V	vii <sup>o7</sup> vi		not a stable enough resolution chord to have a Sec. Dom.

## Cycle of Fifth and Backcycling

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

### **Cycle of Fifths**

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

*Ex. 42*



### **Back Cycling**

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

*Ex. 43*

A musical staff in G clef showing harmonic movement. It starts at C7, followed by a measure with D-7b5 (labeled ii7b5 under the staff), G7 alt. (labeled V7 under the staff), C-7, and finally F7. The measure with G7 alt. is labeled "ii7 alt.".

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**

<b>(Ab)</b>	<b>F-7</b> R.N. vi <sup>7</sup> C.S. F aeolian	<b>Bb-7</b> ii <sup>7</sup> Bb dorian	<b>E<sup>b</sup>7</b> V <sup>7</sup> Eb mixolydian	<b>A<sup>b</sup>ma7</b> I <sup>MA7</sup> Ab ionian
<b>D<sup>b</sup>ma7</b> IV <sup>MA7</sup> Db lydian	<b>(C)</b> <b>D-7</b> ii <sup>7</sup> D dorian	<b>G7</b> V <sup>7</sup> G mixo.	<b>C<sup>ma</sup>7</b> II <sup>MA7</sup> C ionian	<b>X</b>
<b>(E<sub>b</sub>)</b> <b>C-7</b> vi <sup>7</sup> C aeolian	<b>F-7</b> ii <sup>7</sup> F dorian	<b>Bb7</b> V <sup>7</sup> Bb mixolydian	<b>E<sup>b</sup>ma7</b> I <sup>MA7</sup> Eb ionian	
<b>A<sup>b</sup>ma7</b> IV <sup>MA7</sup> Ab lydian	<b>(G)</b> <b>A-7</b> ii <sup>7</sup> A dorian	<b>D7</b> V <sup>7</sup> D mixo.	<b>G<sup>ma</sup>7</b> II <sup>MA7</sup> G ionian	<b>B-7</b> III <sup>7</sup> B phry. <b>E7 alt.</b> V <sup>7</sup> E alt. of your choice
<b>A-7</b> ii <sup>7</sup> A dorian	<b>D7</b> V <sup>7</sup> D mixolydian	<b>G<sup>ma</sup>7</b> II <sup>MA7</sup> G ionian		<b>X</b>
<b>(E)</b> <b>F#-7</b> ii <sup>7</sup> F# dorian	<b>B7</b> V <sup>7</sup> B mixolydian	<b>E<sup>ma</sup>7</b> I <sup>MA7</sup> E ionian	<b>(Ab)</b> <b>C7</b> V <sup>7</sup> C alt. scale	
<b>F-7</b> vi <sup>7</sup> F aeolian	<b>Bb-7</b> ii <sup>7</sup> Bb dorian	<b>E<sup>b</sup>7</b> V <sup>7</sup> Eb mixolydian	<b>A<sup>b</sup>ma7</b> I <sup>MA7</sup> Ab ionian	
<b>D<sup>b</sup>ma7</b> IV <sup>MA7</sup> Db lydian	<b>(B)</b> <b>C#-7</b> II <sup>7</sup> C# dorian	<b>F#7</b> V <sup>7</sup> F# mixo.	<b>(Ab)</b> <b>C-7</b> II <sup>7</sup> C phrygian	<b>B97</b> VII <sup>7</sup> B tonic dim.
<b>Bb-7</b> ii <sup>7</sup> Bb dorian	<b>E<sup>b</sup>7</b> V <sup>7</sup> Eb mixolydian	<b>A<sup>b</sup>ma7</b> I <sup>MA7</sup> Ab ionian	<b>(f)</b> <b>G-7<sup>b5</sup></b> II <sup>7<sup>b5</sup></sup> G loc. <b>16</b>	<b>Calt.</b> V <sup>7 alt.</sup> C phry. major

*Ex. 44b*

The musical score consists of seven staves of chords, each with a circled Roman numeral and a circled circle number above it. The chords are labeled with their names and some have additional markings below them.

- Staff 1:** (d) E-7<sup>b5</sup>, A7<sub>alt</sub>, (Bb) C-7, F7. Below the staff: ii<sup>7(b5)</sup>, V<sup>7</sup>, ii<sup>7</sup>, V<sup>7</sup>. Note: The scales you will provide.
- Staff 2:** (E<sub>b</sub>) F-7, Bb7, Eb<sub>MA7</sub>, (Bb) Ab7. Below the staff: ii<sup>7</sup>, V<sup>7</sup>, |MA7, bII<sup>7</sup> Tritone sub., vi<sup>1</sup>.
- Staff 3:** Bb<sub>MA7</sub>, (d) E-7<sup>b5</sup>, A7<sub>alt</sub>, D-7, (Ab) Bb-7, Eb7. Below the staff: |MA7 (sub. for vi), ii<sup>7(b5)</sup>, V<sup>7</sup>, i<sup>7</sup>, ii<sup>7</sup>, V<sup>7</sup>.
- Staff 4:** (F) A-7, D7, G-7, C7, (g) A-7<sup>b5</sup>, D7<sub>alt</sub>. Below the staff: iii<sup>7</sup>, V<sup>7</sup>, ii<sup>7</sup>, V<sup>7</sup>, ii<sup>7(b5)</sup>, V<sup>7</sup>.
- Staff 5:** (c) G7<sup>#5</sup>, x, C-7, x. Below the staff: V<sup>7</sup>, x, V<sup>7</sup>, x.
- Staff 6:** (Bb) Ab7, x, Bb<sub>MA7</sub>, x. Below the staff: bII<sup>7</sup>, vi<sup>1</sup>, |MA7, x.
- Staff 7:** (d) E-7<sup>b5</sup>, A7<sub>alt</sub>, (c) D-7<sup>b5</sup>, G7<sub>alt</sub>. Below the staff: ii<sup>7(b5)</sup>, V<sup>7</sup>, ii<sup>7(b5)</sup>, V<sup>7</sup>.
- Staff 8:** (Bb) C-7<sup>(b5)</sup>, E7<sub>alt</sub>, Bb<sub>MA7</sub>, x. Below the staff: ii<sup>7(b5)</sup>, V<sup>7</sup>, |MA7, x.

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

## Basic Rules for Chord Substitutions

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

All chord substitutions may be broken down into three categories.

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

### **Ex. 45**

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

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

### **Ex. 46**

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

3. Complete chord replacement.

### **Ex. 47**

$$B^{\text{maj}7} \longrightarrow G_{-\text{maj}7}$$

### **Rule I:**

For basic chords, any modal extension may be added.

### **Ex. 48**

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

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

### **Rule II: Major Chords**

Substitute Major chords own mediant or submediant chord.

### **Ex. 49**

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

### Rule III: Minor Chords

Substitute Relative Major or Dominant Minor

#### *Ex. 50*

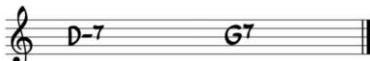
D- <sup>7</sup>	sub.	F <sup>maj7</sup> (relative major)	F <sup>maj7</sup>	= D- <sup>9</sup>
A- <sup>7</sup> (dom. Minor)			A- <sup>7</sup>	= D- <sup>9/11</sup>

### 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 

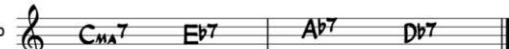
or 

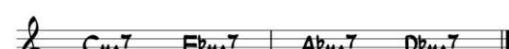
### **Rule V: All Chords**

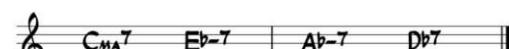
Substitute any chord which has a root a tritone away from the original chord.

#### ***Ex. 53***

orig. 

sub 

or 

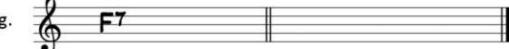
or 

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

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

orig. 

sub 1 

sub 2 

Both should be voiced in higher registers.

### Rule VII: 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*

(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*

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)

MA9      (C♭)      11      (E♭♭)      b13      MA7

Ab°7 chord

**Ex. 59**

$\text{Ab}^{\circ 7}$

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.       $\text{C}_{\text{MA}}^{\text{maj7}}$        $\text{A}^7$       |       $\text{D}^7$        $\text{G}^7$

sub       $\text{C}_{\text{MA}}^{\text{maj7}}$        $\text{A}^7$       |       $\text{D}^7$        $\text{G}^7$

$\text{I}^{\text{maj7}}$        $\text{vi}^7$        $\text{ii}^7$        $\text{V}^7$

$\text{ii}$        $\underline{\text{V}^7}$        $\text{ii}^7$        $\text{V}^7$

**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.       $\text{A}^7$        $\text{A}^{7\#5\#9}$       |       $\text{D}_{\text{MA}}^7$

incorrect

no       $\text{A}^{7\#5\#9}$        $\text{A}^7$       |       $\text{D}_{\text{MA}}^7$

### **Rule XI: Dom7 (V7) Chords**

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

1. a 4<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</sup> In

all other instances use Mixolydian or Mixolydian #11 scales.

### **Rule XII:**

- A) When a Maj or Min chord is followed by a Maj, Min or 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 C major 7 chord (root position) followed by an F major 7 chord (root position). The bottom staff is labeled "sub." and contains a C major 7 chord (root position), followed by a C dominant 7 chord (root position), and then an F major 7 chord (root position).

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

#### ***Ex. 63***

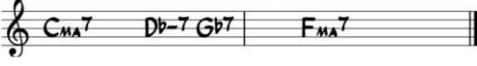
The image shows two musical staves. The top staff is labeled "orig." and contains a C major 7 chord (root position) followed by an F major 7 chord (root position). The bottom staff is labeled "sub." and contains a C major 7 chord (root position), followed by a G minor 7 chord (root position), then a C dominant 7 chord (root position), and finally an F major 7 chord (root position).

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

*Ex. 64*

orig. 

sub 

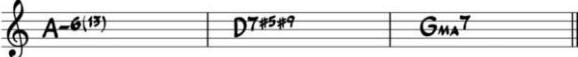
or 

**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. 

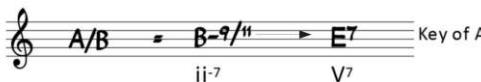
sub 

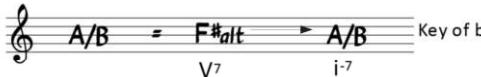
**Rule XV:**

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

#### **Ex. 69**

The first example shows a progression: D-7 | G<sup>7#5#9</sup> | C<sub>MA</sub>7. Below it is the note "G altered scale = Ab melodic minor". The second example shows a progression: D-7 | D<sup>b7#5</sup> | C<sub>MA</sub>7. Below it is the note "Db mixo. #11 scale = Ab melodic minor". Both examples are in common time with a treble clef.

### **Rule XVII:**

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

#### **Ex. 70**

The first example, labeled "orig.", shows a progression: C<sub>MA</sub>7 | D-7 | E-7 | F<sub>MA</sub>7. The second example, labeled "sub.", shows a progression: C<sub>MA</sub>7 | A7 | D-7 | B7 | E-7 | F<sub>MA</sub>7. The third example, labeled "or", shows a progression: C<sub>MA</sub>7 | C<sup>#07</sup> | D-7 | D<sup>#07</sup> | E-7 | F<sub>MA</sub>7. All examples are in common time with a treble clef.

### **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**

The first example, labeled "orig.", shows a progression: C<sub>MA</sub>7 | ∕ | ∕ | ∕. The second example, labeled "sub.", shows a progression: C<sub>MA</sub>7 | D-7 | D<sup>#07</sup> | E-7. Below the staff, Roman numerals indicate harmonic functions: I<sup>maj7</sup>, II<sup>7</sup>, VII<sup>07</sup> over III, and III<sup>7</sup>. All examples are in common time with a treble clef.

### **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 shows five musical staves, each consisting of a treble clef, a key signature of one sharp (F#), and three measures of music. The first staff is labeled "orig." and contains A-7, A7, and D<sub>MA</sub>7. The subsequent staves are labeled "sub. 1", "sub. 2", "sub. 3", and "sub. 4", each showing a different sequence of chords resulting from moving the original progression by min3rds.

Substitution	Chords
sub. 1	C7 E <sup>b</sup> 7 G <sup>b</sup> 7 A7 D <sub>MA</sub> 7
sub. 2	F <sup>#</sup> 7 E <sup>b</sup> 7 C7 A7 D <sub>MA</sub> 7
sub. 3	C7 A7 F <sup>#</sup> 7 E <sup>b</sup> 7 D <sub>MA</sub> 7
sub. 4	F <sup>#</sup> 7 A7 C7 E <sup>b</sup> 7 D <sub>MA</sub> 7

### **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 <sup>maj7</sup> (Ionian) orig.	G <sup>maj7/6/9</sup>
G <sup>maj7</sup> (Lydian) sub.	G <sup>maj7/#11</sup>
Bb- <sup>7</sup> (Dorian) orig.	Bb- <sup>6/9</sup>
Bb- <sup>7</sup> (Aeolian) sub.	Bb- <sup>7/b6</sup>

### **Rule XXIII:**

The cycle of 5<sup>th</sup>'s (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 displays three musical staves, each consisting of five horizontal lines and a central vertical bar dividing the staff into two measures. The first staff is labeled "orig." and shows chords D-7, G7, and C<sub>MA</sub>7. The second staff is labeled "sub. 1" and shows chords E7, A7, D7, G7, and C<sub>MA</sub>7. The third staff is labeled "sub. 2" and shows chords Bb7, Eb7, Ab7, Db7, and C<sub>MA</sub>7. All chords are represented by Roman numerals with a superscript 7, indicating dominant seventh chords. The staff lines are black, and the notes are white with black outlines. The vertical bar is positioned at the end of the first measure of each staff.

### Rule XXIV

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

#### *Ex. 76*

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

### 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>                       $\frac{V^7}{ii}$                       ii<sup>7</sup>                      V<sup>7</sup>



The musical staff shows the progression: I<sup>maj7</sup>, Bb<sub>MA</sub><sup>7</sup>, G<sup>7</sup><sup>#5</sup>, C-7, F<sup>7</sup>. The Bb<sub>MA</sub><sup>7</sup> chord is shown with a bracket under it, indicating it needs to be altered.

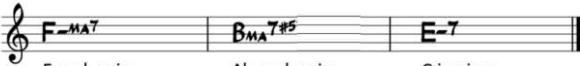
must be altered in some way  
because it's resolving to C-7

### 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.      

              D<sub>MA</sub>7#11    G#-11    D#/B    Bb13    C/F#    B<sub>MA</sub>7#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*

A musical staff with a treble clef. Above the staff, the text "G" is above "F#". To the right, the text "Triad" is above "Bass Note". Below the staff, there is a G chord symbol (two vertical stems with a horizontal bar). To the right, the text "G Triad" is above "#". At the bottom of the staff, there is an F# bass note symbol (one vertical stem with a circle at the top). To the right, the text "# Bass Note" is above "#".

### *Ex. 82b*

A musical staff with a treble clef. Above the staff, the text "A-" is above "G#". To the right, the text "Triad" is above "Bass Note". Below the staff, there is an A- chord symbol (two vertical stems with a horizontal bar). To the right, the text "A- Triad 1<sup>st</sup> inversion" is above "#". At the bottom of the staff, there is a G# bass note symbol (one vertical stem with a circle at the top). To the right, the text "G# Bass Note" is above "#".

The seventh chord over a bass note looks like

this: *Ex. 83*

A musical staff with a treble clef. Above the staff, the text "BbMA7b5" is above "A". Below the staff, there is a BbMA7b5 chord symbol (two vertical stems with a horizontal bar). To the right, the text "BbMA7b5" is above "#". At the bottom of the staff, there is an A bass note symbol (one vertical stem with a circle at the top). To the right, the text "A Bass Note" is above "#".

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**

$$\begin{array}{c} D_\Delta \\ \hline Eb_\Delta \\ \hline \end{array}$$

D  
Eb

**Ex. 84b**

$$\begin{array}{c} F\#_\Delta \\ \hline E_\Delta \\ \hline \end{array}$$

F#  
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**

$$\begin{array}{c} A-\Delta \text{ or } A-7 \\ \hline E_\Delta \quad E_\Delta \\ \hline \end{array}$$

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*

Musical example 86 consists of three measures of music. The key signature is G major (one sharp). The first measure shows a bass line with notes A<sub>Δ</sub> and G(Δ). The second measure shows a bass line with notes B<sub>Δ</sub> and G(Δ). The third measure shows a bass line with notes D<sub>b</sub>Δ and G(Δ). The bass line is composed of eighth-note pairs.

## 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>Db</u> <u>C</u>	<u>Db</u> <sup>maj7</sup> <u>7</u> phrygian	b9, 11, b6	Phrygian Phrygian Major	<u>MajΔ</u> <u>Maj7</u>
<u>Db-</u> <u>c</u>	<u>Db</u> <sup>-maj7</sup> <u>7</u> altered dominant	b9, 3, #5	Phrygian Major Altered Dominant	<u>MinΔ</u> <u>Maj7</u>
<u>Db°</u> <u>C</u>	<u>Db</u> <sup>omaj7</sup> <u>7</u> dominant diminished	b9, 3, 5	Phrygian Major Dominant Diminished	<u>DimΔ</u> <u>Maj7</u>
<u>Db+</u> <u>C</u>	<u>Db</u> <sup>maj7#5</sup> <u>7</u> dorian b2	b9, 11, 6	Dorian b2 Locrian nat 6	<u>AugΔ</u> <u>Maj7</u>
<u>Db</u> <sup>sus4</sup> <u>C</u>	<u>Db</u> <sup>maj7sus4</sup> <u>7</u> locrian or altered dom.	b9, b5, b6	Locrian Altered Dominant	<u>sus4Δ</u> <u>Maj7</u>
<u>Db</u> <sup>lyd</sup> <u>C</u>	<u>Db</u> <sup>lydmaj7</sup> <u>7</u> phrygian	b9, 5, b6	Phrygian Phrygian Major	<u>Lyd.Δ</u> <u>Maj7</u>
<u>Db</u> <sup>loc.</sup> <u>C</u>	C Dom.Dim	b9, #11, 5		<u>Loc.Δ</u> <u>Maj7</u>
<u>D</u> <u>C</u>	<u>D</u> <sup>7</sup> <u>b7</u>	9, #11, 13	Lydian (Augmented) Mixolydian #11 Dorian #9 Tonic Diminished	<u>MajΔ</u> <u>b7</u>
<u>D-</u> <u>C</u>	<u>D</u> <sup>-7</sup> <u>b7</u>	9, 11, 13	Ionian Dorian Mixolydian Melodic Minor Ionian Augmented Tonic Diminished	<u>MinΔ</u> <u>b7</u>
<u>D°</u> <u>C</u>	<u>D</u> <sup>-7b5</sup> <u>b7</u>	9, 11, b6	Aeolian Mixolydian b6 Locrian nat 2 Harmonic Minor Tonic Diminished	<u>DimΔ</u> <u>b7</u>
<u>D+</u> <u>C</u>	<u>C</u> <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
$\frac{D^{\text{sus}4}}{C}$	C <sup>6/9 no 3rd</sup>	9, 5, 13	Ionian Dorian Lydian Mixolydian Melodic Minor Mixolydian #11 Dorian #4 Pentatonic (Major)	$\frac{\text{sus}4\Delta}{b7}$
$\frac{D^{\text{lyd}}}{C}$	C <sup>6/9/#11 no 3rd</sup>	9, #5, 13	Lydian Augmented Ionian Augmented	$\frac{\text{Lyd}\Delta}{b7}$
$\frac{D^{\text{loc.}}}{C}$	$\frac{Ab^{\text{maj}7/b5}}{3^{\text{rd}}}$	9, 5, b6		$\frac{\text{Maj}b5}{3^{\text{rd}}}$
$\frac{Eb}{C}$	C <sup>7</sup>	b3, 5, b7	All minor scales without <sup>maj7</sup>	$\frac{\text{Maj}\Delta}{6}$
$\frac{Eb^-}{C}$	C <sup>-7b5</sup>	b3, b5, b7	Locrian Locrian nat 2 Locrian nat 6	$\frac{\text{Min}\Delta}{6}$
$\frac{Eb^o}{C}$	C <sup>o7</sup> Dim <sup>7</sup>	b3, b5, bb7	Tonic Diminished (Altered Dom. bb7)	Dim <sup>7</sup>
$\frac{Eb^+}{C}$	C <sup>-maj7</sup> Min <sup>maj7</sup>	b3, 5, 7	Melodic Minor Harmonic Minor	Min <sup>maj7</sup>
$\frac{Eb^{\text{sus}4}}{C}$	C <sup>-7b6</sup> aeolian	b3, b6, b7	Aeolian Altered Dominant	Min <sup>7/b6/(#5)</sup>
$\frac{Eb^{\text{lyd}}}{C}$	C <sup>-13</sup> dorian	b3, 6, b7	Dorian Type Melodic Minor	Min <sup>13</sup>
$\frac{Eb^{\text{loc.}}}{C}$	C <sup>o/b13</sup>	b3, #5, 13	Tonic Diminished	Dim <sup>b13</sup>
$\frac{E}{C}$	C <sup>maj7/#5</sup> Aug <sup>maj7</sup>	3, #5, 7	Lydian Augmented	Maj <sup>7/#5</sup>
$\frac{E^-}{C}$	C <sup>maj7</sup> Maj <sup>7</sup>	3, 5, 7	Ionian Lydian Major Pentatonic Major Blues	Maj <sup>7</sup>
$\frac{E^o}{C}$	C <sup>7</sup> Dom <sup>7</sup>	3, 5, b7	Mixolydian Mixolydian #11 Major Pentatonic Major Blues	Dom <sup>7</sup>
$\frac{E^+}{C}$	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
$\underline{\text{E}}^{\text{sus}4}$ $\text{C}$	$\text{C}^{\text{maj}7/6}$	3, 6, 7	Ionian Lydian Lydian Augmented	$\text{Maj}^{13}$
$\underline{\text{E}}^{\text{lyd}}$ $\text{C}$	Twelve tone	3, b7, 7	Chromatic Scale	
$\underline{\text{E}}^{\text{loc.}}$ $\text{C}$	$\text{C}^{13 \text{ (no 5)}}$	3, 6, b7	Mixolydian Mixolydian #11 Dominant Diminished	$\text{Dom}^{13}$
$\underline{\text{F}}$ $\text{C}$	$\underline{\text{F}}$ $5^{\text{th}}$	3, 5, 7	Major Type	$\underline{\text{Maj}\Delta}$ $\text{P5}$
$\underline{\text{F-}}$ $\text{C}$	$\underline{\text{F-}}$ $5^{\text{th}}$	Dom Tonic	b3, 5	$\underline{\text{Min}\Delta}$ $\text{P5}$
$\underline{\text{F}^{\circ}}$ $\text{C}$	$\text{C}^{\text{maj}7/\#5/\text{sus}4}$	4, #5, 7	Aeolian Harmonic Minor	$\underline{\text{Dim}\Delta}$ $\text{P5}$
$\underline{\text{F}^+}$ $\text{C}$	$\text{C}^{\text{dor/b2}}$	4, 6, b9	Dorian b2 Phrygian Phrygian Major	$\underline{\text{Aug}\Delta}$ $\text{P5}$
$\underline{\text{F}}^{\text{sus}4}$ $\text{C}$	CQ	4, b7	Dorian Mixolydian	Quartal
$\underline{\text{F}}^{\text{lyd}}$ $\text{C}$	CQ+	4, 7	Ionian	Q. Aug
$\underline{\text{F}}^{\text{loc.}}$ $\text{C}$	$\text{C}^{\text{loc}}$	4, b5	Locrian	
$\underline{\text{F}^{\#}}$ $\text{C}$	$\text{C}^{7/b9/b5}$	b5, b7, b9	Dominant Diminished Altered Dominant	$\text{Dom}^{b9/b5}$
$\underline{\text{F}^{\#-}}$ $\text{C}$	$\text{C}^{13/b9/b5}$	b9, 13, b5	Dominant Diminished	$\text{Dom}^{13/b9/b5}$
$\underline{\text{F}^{\#^{\circ}}}$ $\text{C}$	$\text{C}^{\circ}$	1, b3, b5	Tonic Diminished	$\text{Dim}\Delta$
$\underline{\text{F}^{\#^*}}$ $\text{C}$	$\text{C}^{9/b5}$	b5, b7, 9	Whole Tone	$\text{Dom}^{9b5}$
$\underline{\text{F}^{\#}}^{\text{sus}4}$ $\text{C}$	Twelve tone	b5, 7, b9	Chromatic Scale	
$\underline{\text{F}^{\#}}^{\text{lyd}}$ $\text{C}$	$\text{C}^{7/b9/b5}$	b5, 1, b9	Dominant Diminished Altered Dominant	$\text{Dom}^{7/b9/b5}$
$\underline{\text{F}^{\#}}^{\text{loc.}}$ $\text{C}$	$\text{C}^{\text{maj}7/\#11}$	b5, 7, 1	Lydian Lydian Augmented	$\text{Maj}^{7/\#11}$

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>0maj7/b13</sup>	b13, 7, b3	Tonic Diminished	Dim <sup>maj7/b13</sup>
<u>Ab°</u> <u>C</u>	C <sup>0maj7/9/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>9</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<sup>o</sup></u> <u>C</u>	C <sup>7b9</sup>	b7, b9, 3	Dominant Diminished	Dom <sup>7/b9</sup>
<u>Bb<sup>+</sup></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>omaj7</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<sup>+</sup></u> <u>C</u>	C <sup>maj7/9/sus4</sup>	7, 9, 11	Harmonic Minor	DimΔ b9
<u>B<sup>+</sup></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**

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

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**

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

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

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

### **Ex. 89**

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

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

$\frac{Db}{C}$  for

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

$$\begin{array}{lcl} \frac{Db}{C} & = & \text{C phrygian} \\ & & \text{C phrygian major} \end{array}$$

## 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 image shows two musical staves side-by-side. The top staff is labeled "Tune Up" and the bottom staff is labeled "Countdown". Both staves are in G major (one sharp) and common time. The "Tune Up" staff has a four-bar progression: ii<sup>7</sup> (D-7), V<sup>7</sup> (G7), I<sup>maj7</sup> (C<sub>MA</sub>7), and I<sup>maj7</sup> (C<sub>MA</sub>7). The "Countdown" staff shows a more complex progression: D-7, Eb<sup>7</sup>, Ab<sub>MA</sub><sup>7</sup>, B7, E<sub>MA</sub><sup>7</sup>, G7, and C<sub>MA</sub><sup>7</sup>. Below the staves, Roman numerals indicate the chords: 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 line with arrows above the staffs is labeled "Depart" on the left and "Return" on the right, indicating a harmonic journey from the "Tune Up" progression to the "Countdown" progression.

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

The musical score for Ex. 92a consists of three staves of chords in common time (indicated by a '4').

- Staff 1 (orig.):** F7 | z. | z. | z.
- Staff 2:** Bb7 | z. | F7 | D7<sub>alt</sub>
- Staff 3:** G-7 | C7 | F7 | D7<sub>alt</sub> | G-7 | C7

#### Ex. 92b

The musical score for Ex. 92b consists of four staves of chords in common time (indicated by a '4'). Above each staff, the harmonic analysis is provided.

- Staff 1 (sub.):** I<sup>7</sup> | <sup>d</sup><sub>ii<sup>7b5</sup></sub> | V<sup>7alt</sup> | <sup>Bb</sup><sub>ii<sup>7</sup></sub> | <sup>V<sup>7</sup></sup><sub>ii<sup>7</sup></sub> | ii<sup>7</sup> | V<sup>7</sup>
- Staff 2:** F<sub>ma</sub>7 | E-7<sub>b5</sub> | A7<sub>alt</sub> | D-7 | G7 | C-7 | F7
- Staff 3:** I<sup>7</sup> | <sup>Ab</sup><sub>ii<sup>7</sup></sub> | V<sup>7</sup> | <sup>G</sup><sub>ii<sup>7</sup></sub> | <sup>G<sub>b</sub></sup><sub>ii<sup>7</sup></sub> | V<sup>7</sup>
- Staff 4:** Bb7 | Bb-7 | E<sup>b</sup>7 | A-7 | D7 | Ab-7 | Db7
- Staff 5:** <sup>F</sup><sub>ii<sup>7</sup></sub> | V<sup>7</sup> | I<sup>7</sup> | <sup>V<sup>7</sup></sup><sub>ii<sup>7</sup></sub> | ii<sup>7</sup> | V<sup>7</sup>
- Staff 6:** G-7 | C7 | F7 | D7<sub>alt</sub> | G-7 | C7

## 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 in 4/4 time. It features three staves, each with four measures. 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 in 4/4 time. It features three staves, each with four measures. 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, then an F7 chord, a D7alt chord, a G-7 chord, and finally a C7 chord.

##### 1. Basic Bebop Blues

- B⁹⁷ in bar 2 is  $\frac{\text{vii}⁹⁷}{\text{ii}}$  going to the ii⁷ 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 – V⁷ – 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>                    I⁰maj⁷                    I⁹maj⁷

G-7                    C7                    E/F = F⁰MAJ⁷                    F⁹MAJ⁷

*F Blues (2)*

F<sup>7</sup>                    B♭<sup>7</sup>                    B<sup>7</sup>                    C-7                    F<sup>7</sup>                    F#-7                    B<sup>7</sup>

B♭<sup>7</sup>                    B♭-7                    E♭<sup>7</sup>                    F<sup>7</sup>/A                    D<sup>7</sup>alt

G-7                    C7                    D♭-7                    G♭<sup>7</sup>                    F<sup>7</sup>                    A♭<sup>7</sup>                    D<sup>7</sup>                    G<sup>7</sup>

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 part 2

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

**Rule XXX: Dom⁷ chords**

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

*Ex. 94a*

Eb-⁷(b⁵)                    F⁹Maj⁷ or F⁷ (F⁷/C)

F mixolydian = Bb maj

Eb mix#11 = Bb melodic min

F ionian = }  
D aeolian = }

A alt. dom = Bb melodic min

D phrygian = Bb maj

A⁷alt                    D-⁷

*Ex. 94b*

The image contains five horizontal musical staves, each consisting of five lines and four spaces. The first staff shows a progression from A<sup>7</sup>alt to B<sub>b</sub>ma<sup>7</sup>. The second staff shows E<sup>b</sup>7(b5) to B<sub>b</sub>ma<sup>7</sup>. The third staff shows A<sup>7</sup>alt to F<sub>ma</sub><sup>7</sup> or F<sup>7</sup>. The fourth staff shows E<sup>b</sup>7 to A-<sup>7</sup>. The fifth staff shows A<sup>7</sup>alt to A-<sup>7</sup>.

The main reason that these progressions work is because of the strong resolution tendencies of the Db, Bb and Eb (b7<sup>th</sup>, 5<sup>th</sup> and root) of the Eb<sup>7</sup>

*Ex. 95a*

A musical staff in G clef, 4/4 time, with a key signature of one flat. It shows a progression from Eb<sup>7</sup> to F<sup>maj7</sup> (F<sup>7</sup>) to bVII<sup>7</sup> to I<sup>maj7</sup> (I<sup>7</sup>). The notes are represented by Roman numerals with superscripts indicating the 7th, 5th, and root positions.

*Ex. 95b*

A musical staff in G clef, 4/4 time, with a key signature of one flat. It shows a progression from Eb<sup>7</sup> to Bb<sup>maj7</sup> to IV<sup>7</sup> to I<sup>maj7</sup>. The notes are represented by Roman numerals with superscripts indicating the 9th, 7th, 5th, and root positions.

*Ex. 95c*

A musical staff in G clef, 4/4 time, with a key signature of one flat. It shows a progression from Eb<sup>7</sup> to A-<sup>7</sup> (or the 9<sup>th</sup> of Eb<sup>7</sup> to 5<sup>th</sup> of A-<sup>7</sup>) to II<sup>7</sup> to V<sup>7</sup>. The notes are represented by Roman numerals with superscripts indicating the 9th, 7th, 5th, and root positions. The Roman numerals are circled with 'R' below them.

*F Blues* (3)

The first line shows chords F#7, B7, E7, A7, D7, G7, C7, F7. The second line shows Bb7, E7alt, F7, A7(b5), D7alt. The third line shows G7, C7, A7alt, D7alt, G7alt, C7alt.

3. The third Blues begins on the  $B\flat 7$  chord employing a cycle of 5<sup>ths</sup> substitution (Rule XXIII) and is intersecting with the  $Bb7$  chord in bar 5.

-  $E7^{alt}$  is used in bar 6 as a tritone substitution for  $Bb7^{(b5)}$

- the turnaround  $A7^{alt} D7^{alt} G7^{alt} C7^{alt}$  is a  $III7 VI7 II7 V7$  Dom<sup>7</sup> cycle substitution for the usual  $I7 VI7 ii7 V7$  progression.

Rule XXXI

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

*Ex. 96*

The left side shows chords Cmaj7, A7, D7, G7. The right side shows chords C7, A7, D7, G7. Below the chords are Roman numerals: I<sup>maj7</sup>, VI<sup>7</sup>, ii<sup>7</sup>, V<sup>7</sup> on the left; I<sup>7</sup>, VI<sup>7</sup>, II<sup>7</sup>, V<sup>7</sup> on the right.

Rule XXXI cont.

Ex. 97

1<sup>maj7</sup>      vi<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>  
                 ↓ becomes ↓  
 E-7      A7      D-7      G7  
 iii<sup>7</sup>      VI<sup>7</sup>      ii<sup>7</sup>      V<sup>7</sup>  
                 ↓ becomes ↓  
 E7alt      A7alt      D7alt      G7alt  
 III<sup>7</sup>      VI<sup>7</sup>      II<sup>7</sup>      V<sup>7</sup>

F Blues (4)

F<sup>maj7</sup>      E-7<sup>b5</sup>      A7alt      D-7      G7      C-7      F7  
 Bb7      Bb7      Eb7      A7      D7      Ab7      Db7  
 G-7      C7      F7      Db7      Ab7      Eb7

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

The following turnaround is common in modern jazz.

Ex. 98

F7      D<sup>b7</sup>      A<sup>b7</sup>      E<sup>b7</sup>  
 I<sup>7</sup>      bVI<sup>7</sup>      bIII<sup>7</sup>      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 four horizontal lines of music. The top line starts with F<sup>7</sup>, followed by E<sup>b7</sup>, D-7<sup>b5</sup>, G<sup>7alt</sup>, C-7, E<sup>b7</sup>, A<sup>bma7</sup>, and B<sup>7</sup>. The second line starts with B<sup>b7</sup>, followed by E<sup>b7</sup>, A-7, D<sup>7</sup>, B<sup>b7</sup>, and E<sup>b7alt</sup>. The third line starts with A<sup>b7</sup>, followed by D<sup>b7</sup>, F/C, D<sup>b7</sup>/C, A<sup>bsus4</sup>/C, and C<sup>7alt</sup>. The bottom line is mostly blank.

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

*Ex. 99*

A single line of music in G clef and 4/4 time. It shows a sequence of chords: F<sup>7</sup>, E<sup>b7</sup>, D-7<sup>b5</sup>, G<sup>7alt</sup>, and C-7.

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 G<sup>7alt</sup> 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 single line of music in G clef and 4/4 time. Below the staff, Roman numerals indicate harmonic analysis: I, II, II, II, I. The chords shown are C-7, E<sup>b7</sup>, A<sup>bma7</sup>, B<sup>7</sup>, and B<sup>b7</sup>.

*Ex. 101*

A single line of music in G clef and 4/4 time. It shows a sequence of chords: F/C, D<sup>b7</sup>/C, A<sup>bsus4</sup>/C, and C<sup>7alt</sup>.

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

*F Blues* (6)

The musical score consists of three measures of music in common time (indicated by the '4' in the top right corner). The first measure contains the chord  $F_{sus^4}$ . The second measure contains the chord  $A^{\text{add6}}/F$ . The third measure contains the chords  $E/F$  and  $G\flat/F$ .

The next section starts with a measure containing the chord  $A\flat_{sus^4}/F$ , followed by  $F_{sus^4}$  and  $F^{\#}_{MA} 7\sharp 5$ .

The final section starts with a measure containing the chord  $G-7\flat 6$ , followed by  $B\flat/B$ ,  $F/C$ ,  $D\flat/C$ ,  $A\flat/C$ , and  $B\flat/C$ .

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

*Ex. 102*

The musical score shows a single measure of music in common time. It consists of four chords:  $F/C$ ,  $D\flat/C$ ,  $A\flat/C$ , and  $B\flat/C$ .

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

### Rhythm Changes

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

#### Ex. 103

A

Musical staff A shows a harmonic progression in G major (G7alt-C7-F7-D7-G7alt-C7-F7). The chords are written below the staff.

Musical staff B shows a harmonic progression in G major (F7-Bb7-Eb7-E7-Bb/F-C7-F7).

A

Musical staff C shows a harmonic progression in G major (Bb7-G7alt-C7-F7-D7-G7alt-C7-F7).

Musical staff D shows a harmonic progression in G major (F7-Bb7-Eb7-E7-Bb/F-C7-F7-Bb7).

B

Musical staff E shows a harmonic progression in G major (A7-D7)-(D7-G7)-.

Musical staff F shows a harmonic progression in G major (G7-C7)-(C7-F7)-.

A

Musical staff G shows a harmonic progression in G major (Bb7-G7alt-C7-F7-D7-G7alt-C7-F7).

Musical staff H shows a harmonic progression in G major (F7-Bb7-Eb7-E7-Bb/F-C7-F7-Bb7-C7-F7).

As you probably have noticed, the I<sup>major</sup> VII<sup>i</sup> ii<sup>i</sup> V<sup>7</sup> and iii VI<sup>i</sup> ii<sup>i</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	B♭ <sub>MA</sub> 7	G7	C-7	F7	B♭ <sub>MA</sub> 7 (D-7)
(1)	B♭ <sub>MA</sub> 7	B <sup>7</sup>	C-7	C <sup>#7</sup>	B♭ <sub>MA</sub> 7 (D-7)
(2)	D-7	G7	C-7	F7	B♭ <sub>MA</sub> 7 (D-7)
(3)	B♭ <sub>MA</sub> 7	D <sup>b7</sup>	G <sup>b7</sup>	B <sup>7</sup>	B♭ <sub>MA</sub> 7 (D-7)
(4)	B♭ <sub>MA</sub> 7	G <sup>b7</sup>	D <sup>b7</sup>	E <sup>b7</sup>	B♭ <sub>MA</sub> 7 (D-7)
(5)	B♭ <sub>MA</sub> 7	G <sup>b7</sup>	D <sup>b7</sup>	A <sup>b7</sup>	B♭ <sub>MA</sub> 7 (D-7)
(6)	D <sup>7(alt)</sup>	G <sup>7(alt)</sup>	C <sup>7(alt)</sup>	F <sup>7(alt)</sup>	B♭ <sub>MA</sub> 7 (D-7)
(7)	B♭ <sub>MA</sub> 7	D <sup>b7</sup>	C7	B <sup>7</sup>	B♭ <sub>MA</sub> 7 (D-7)
(8)	D-7 <sup>#5</sup>	B <sub>MA</sub> 7 <sup>#5</sup>	FQ/G	F <sub>MA</sub> <sup>#5</sup>	B♭ <sub>MA</sub> 7 (D-7)
(9)	B <sub>MA</sub> 7	D <sup>b</sup> /G	E <sub>MA</sub> 7	A <sub>MA</sub> 7 <sup>#5</sup>	B♭ <sub>MA</sub> 7 (D-7)
(10)	B♭ <sub>MA</sub> 7	B <sup>b</sup> /A <sup>b</sup>	E <sup>b</sup> /G	G <sup>b7</sup>	B <sup>b</sup> /F
(11)	B <sup>b</sup> /A	A <sup>b7<b>bb</b></sup>	FQ/G	D/F	B <sup>b</sup> /F
(12)	B <sup>b</sup> /F	B/F	B <sup>b</sup> /F	A/F	B <sup>b</sup> /F
(13)	B <sup>b</sup> /F	G <sup>b</sup> /F	D <sup>b</sup> <sub>SUS</sub> <sup>4</sup> /F	F <sup>7alt</sup>	B <sup>b</sup> /F
(14)	B <sup>b</sup> /F	D <sup>b</sup> /F	G <sup>b</sup> /F	B/F	B <sup>b</sup> /F
(15)	B <sup>b</sup> /F	G <sup>b</sup> /F	D <sup>b</sup> /F	E <sup>b</sup> /F	B <sup>b</sup> /F
(16)	B <sup>b</sup>	G/B <sup>b</sup>	G-/B <sup>b</sup>	F/B <sup>b</sup>	B <sup>b</sup> /F
(17)	B <sup>b</sup>	B/B <sup>b</sup>	G <sup>b</sup> /B <sup>b</sup>	A <sup>b</sup> /B <sup>b</sup>	B <sup>b</sup> /F
(18)	CQ/D	AQ/B	F <sup>#</sup> Q/G <sup>#</sup>	E <sup>b</sup> Q/F	B <sup>b</sup> /F
(19)	CQ/D	F <sup>#</sup> /G	E <sup>b</sup> <sub>SUS</sub> <sup>4</sup> /C	D <sup>b</sup> <sub>SUS</sub> <sup>2</sup> /F	B <sup>b</sup> /F
(20)	B <sup>b</sup> /F	G/F	A/F	E/F	B <sup>b</sup> /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**

**B<sub>b</sub>/F      D<sub>b</sub>/F      G<sub>b</sub>/F      B/F**

m3      V      → I(V)      → I(V)

D<sub>b</sub> → G<sub>b</sub> = V I  
G<sub>b</sub> → B = V I  
strong cadence of upper triads

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

#### **Ex. 106a**

**B<sub>b</sub>      C<sup>#</sup>/G      A/C      B/F**

↓            ↓            ↓            ↓  
Bb          G<sup>7/b5/b9</sup>       C<sup>13/b9</sup>       F<sup>7/b5/b9</sup>  
I            VI<sup>7</sup>            II<sup>7</sup>            V<sup>7</sup>

#### **Ex. 106b**

**B<sub>b</sub>/F      D<sub>b</sub>/F      G<sub>b</sub>/F      B/F**

↓            ↓            ↓            ↓  
Bb          D<sub>b</sub> 1st inver.       G<sub>b</sub><sup>maj7</sup>       F<sup>7/b5/b9</sup>  
I            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. It shows a four-measure cycle: D7, a blank measure (x), G7, and another blank measure (x). This is followed by another four-measure cycle: C7, a blank measure (x), F7, and a blank measure (x).

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. It shows a four-measure cycle: A-7, D7, D-7, G7. This is followed by another four-measure cycle: G-7, C7, C-7, F7.

also

#### Ex. 108b

A musical staff in G clef. It shows a four-measure cycle: A-7, A-7, D7, G7. This is followed by another four-measure cycle: G-7, C7, C7, F7.

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*

D<sup>7</sup><sub>alt</sub> | x | G<sup>7</sup> | D-7 | G<sup>7</sup><sub>alt</sub>

C<sup>7(b5)</sup> | G-7 | C<sup>7</sup><sub>alt</sub> | F<sup>7(b5)</sup> | F<sup>7</sup><sub>alt</sub>(#5/#9)

Using Tritone Substitutions

*Ex. 110*

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

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>

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>

tritone away from C

finishes in correct spot

Any of these chords will also work.

*Ex. 112*

Chords	Mixolydian	Mixolydian #11	Altered Dominant
D <sup>7</sup>	D <sup>7b5</sup>	D <sup>7/#5/b5/#9/b9</sup>	
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</u> <sup>7</sup>	<u>G</u> <sup>7b5</sup>	<u>G</u> <sup>7/#5/b5/#9/b9</sup>
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**

The musical score consists of two staves, each with four measures. The top staff uses a bass clef and shows the following chords: Aflat/D, Bflat/sus4/D, E/G, and Aadd9/G. The bottom staff also uses a bass clef and shows the following chords: Fsharp/C, Ab/sus4/C, Cmaj7/F, and Fsharp/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)      (A<sup>b</sup><sub>MA</sub>7<sup>#5</sup>)

D<sup>b</sup>/C      G<sup>7sus4</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)      (G<sup>7</sup>)      (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><sup>o</sup>/E<sup>b</sup>      G/C<sup>#</sup>

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

C-7<sup>b6</sup>      A-11      F<sup>#</sup><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)      (D<sup>7alt</sup>)      (G<sub>MA</sub>7)      (B-7)      (E<sup>7</sup>)

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

(F<sup>#</sup>-7)      (B<sup>7</sup>)      (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<sup>#</sup>-7)      (F<sup>#</sup>7)      (C-7)      (B<sup>o</sup>7)

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>)      (C<sup>7alt</sup>)

### Reharmonization No.2

sub       $B_{\text{MA}}7^{\#5}$        $A7^{\text{alt}}$        $E_{\text{MA}}9$        $F_{\text{sus}}4/A$

original

The score displays a complex harmonic progression across 12 measures, divided into two systems. The first system begins with a bass line and includes chords like  $E_{\text{MA}}7$ ,  $F_{\text{MA}}7$ ,  $G_{\text{MA}}7$ ,  $D_{\text{MA}}7$ ,  $B_{\text{MA}}7$ ,  $A_{\text{MA}}7$ ,  $C_{\text{MA}}7$ ,  $E_{\text{MA}}9$ ,  $F_{\text{sus}}4/A$ ,  $F_{\text{add9}}$ ,  $D_{\text{7#9}}$ ,  $G_{\text{-7}}$ ,  $G_{\text{-7/C}}$ ,  $E_{\text{bMA7b5}}$ ,  $A_{\text{b13b5}}$ ,  $F_{\text{#MA7#5}}$ ,  $F_{\text{7sus4}}$ ,  $A_{\text{b7b5}}$ ,  $B_{\text{MA7#5}}$ ,  $E_{\text{-9/11}}$ ,  $C_{\text{#MA7b5}}$ ,  $D_{\text{-11b5}}$ ,  $A_{\text{b-MA7}}$ ,  $E_{\text{-7b5}}$ ,  $A_{\text{7alt}}$ ,  $D_{\text{-7b5}}$ ,  $G_{\text{7alt}}$ ,  $F_{\text{#MA7#11}}$ ,  $F/F\#$ ,  $B_{\text{b/F}}$ ,  $B/F$ ,  $A/F$ ,  $EQ/F\#$ , and  $C_{\text{-7b5}}$ . The second system continues with  $F_{\text{7b9}}$ ,  $B_{\text{bMA7}}$ ,  $F_{\text{7b9}}$ , and  $B_{\text{bMA7}}$ .

## 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> <u>Db</u>	<u>C</u> <u>D</u>	<u>C</u> <u>Eb</u>	<u>C</u> <u>E</u>	<u>C</u> <u>F</u>	<u>C</u> <u>F#</u>	<u>C</u> <u>G</u>	<u>C</u> <u>Ab</u>	<u>C</u> <u>A</u>	<u>C</u> <u>Bb</u>	<u>C</u> <u>B</u>	
<u>C-</u> <u>Db</u>	<u>C-</u> <u>D</u>	<u>C-</u> <u>Eb</u>	<u>C-</u> <u>E</u>	<u>C-</u> <u>F</u>	<u>C-</u> <u>F#</u>	<u>C-</u> <u>G</u>	<u>C-</u> <u>Ab</u>	<u>C-</u> <u>A</u>	<u>C-</u> <u>Bb</u>	<u>C-</u> <u>B</u>	
<u>C°</u> <u>Db</u>	<u>C°</u> <u>D</u>	<u>C°</u> <u>Eb</u>	<u>C°</u> <u>E</u>	<u>C°</u> <u>F</u>	<u>C°</u> <u>F#</u>	<u>C°</u> <u>G</u>	<u>C°</u> <u>Ab</u>	<u>C°</u> <u>A</u>	<u>C°</u> <u>Bb</u>	<u>C°</u> <u>B</u>	
<u>C<sup>+</sup></u> <u>Db</u>	<u>C<sup>+</sup></u> <u>D</u>	<u>C<sup>+</sup></u> <u>Eb</u>	<u>C<sup>+</sup></u> <u>E</u>	<u>C<sup>+</sup></u> <u>F</u>	<u>C<sup>+</sup></u> <u>F#</u>	<u>C<sup>+</sup></u> <u>G</u>	<u>C<sup>+</sup></u> <u>Ab</u>	<u>C<sup>+</sup></u> <u>A</u>	<u>C<sup>+</sup></u> <u>Bb</u>	<u>C<sup>+</sup></u> <u>B</u>	
<u>C<sup>sus4</sup></u> <u>Db</u>	<u>C<sup>sus4</sup></u> <u>D</u>	<u>C<sup>sus4</sup></u> <u>Eb</u>	<u>C<sup>sus4</sup></u> <u>E</u>	<u>C<sup>sus4</sup></u> <u>F</u>	<u>C<sup>sus4</sup></u> <u>F#</u>	<u>C<sup>sus4</sup></u> <u>G</u>	<u>C<sup>sus4</sup></u> <u>Ab</u>	<u>C<sup>sus4</sup></u> <u>A</u>	<u>C<sup>sus4</sup></u> <u>Bb</u>	<u>C<sup>sus4</sup></u> <u>B</u>	
<u>C<sup>lyd</sup></u> <u>Db</u>	<u>C<sup>lyd</sup></u> <u>D</u>	<u>C<sup>lyd</sup></u> <u>Eb</u>	<u>C<sup>lyd</sup></u> <u>E</u>	<u>C<sup>lyd</sup></u> <u>F</u>	<u>C<sup>lyd</sup></u> <u>F#</u>	<u>C<sup>lyd</sup></u> <u>G</u>	<u>C<sup>lyd</sup></u> <u>Ab</u>	<u>C<sup>lyd</sup></u> <u>A</u>	<u>C<sup>lyd</sup></u> <u>Bb</u>	<u>C<sup>lyd</sup></u> <u>B</u>	
<u>C<sup>loc</sup></u> <u>Db</u>	<u>C<sup>loc</sup></u> <u>D</u>	<u>C<sup>loc</sup></u> <u>Eb</u>	<u>C<sup>loc</sup></u> <u>E</u>	<u>C<sup>loc</sup></u> <u>F</u>	<u>C<sup>loc</sup></u> <u>F#</u>	<u>C<sup>loc</sup></u> <u>G</u>	<u>C<sup>loc</sup></u> <u>Ab</u>	<u>C<sup>loc</sup></u> <u>A</u>	<u>C<sup>loc</sup></u> <u>Bb</u>	<u>C<sup>loc</sup></u> <u>B</u>	

Db <sup>maj7</sup>	<u>C</u> <u>Db</u>	<u>F</u> <u>Db</u>	<u>Ab</u> <u>Db</u>	<u>C-</u> <u>Db</u>	<u>F-</u> <u>Db</u>	<u>C°</u> <u>Db</u>	<u>C<sup>+</sup></u> <u>Db</u>	<u>C<sup>sus4</sup></u> <u>Db</u>	<u>C<sup>lyd</sup></u> <u>Db</u>	<u>C<sup>loc</sup></u> <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>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</u>			

<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>07</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	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>07</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#	F# <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>sus4</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				

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

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

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

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

## Modal Harmony and Theory

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

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

Ex. 116

a. = G dorian

b. = C alt. dom.

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

Ex. 117

 ♭6 = modal disclaimer  
quality min<sup>7</sup>  
 modal tonic

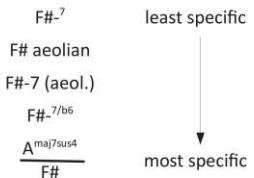
3. For comping purposes voicing families should be learned horizontally on the fingerboard.

Ex. 118

Each note of the voicing moves up the scale diatonically.

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

### Ex. 119

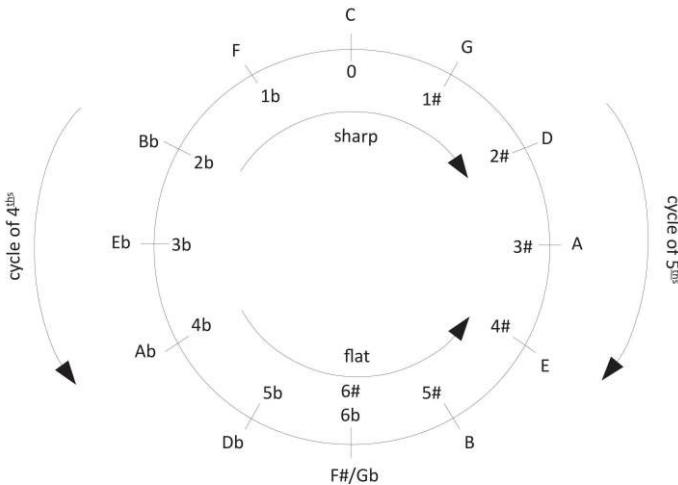


## Sharp and Flat Direction Modal Modulation

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

Modal modulations can be used in place of more common modulation devices such as secondary 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:**

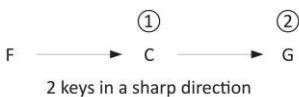
Moving modal center counterclockwise or adding flats to naturals.

## Upward Modulation

**Ex. 121a**

**B<sup>b</sup>/A = A Phrygian**

$$G_{sus}^4/E = E_{Aeolian}$$



2 keys in a sharp direction

*Ex. 121b*

**GQ/A** = A Aeolian

D<sub>lyd</sub> = D Lydian

A musical staff with two clefs: a treble clef on the top line and a bass clef on the bottom line. The first measure shows a C major chord (C-E-G) with a key signature of one sharp. The second measure shows an A major chord (A-C#-E) with a key signature of three sharps. An arrow labeled "upward" points from the C major chord to the A major chord.



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.

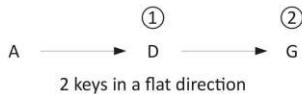
**Ex. 122**



### Downward Modulations

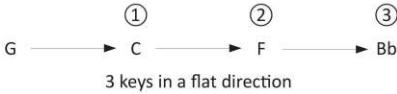
*Ex. 123a*

**E**Q**/F**#**** = F**#** Aeolian      **C**Lyd**<sup>add9</sup>** = C Lydian



*Ex. 123b*

**A-**b**3** = A Dorian      **E**b**/D** = D Phrygian

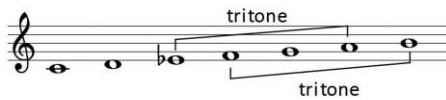


Before we go on, I want to remind you that these resolution tendencies are dependent on clear modal voicings.

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.       $C-\sharp A^9$  = C mel. min.

①

F mel. min. → C mel. min.

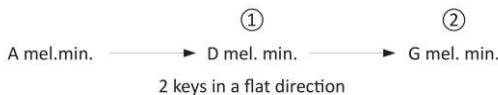
1 key in a sharp direction

**Flat Direction (Melodic Minor)**

*Ex. 126*

B dor. b2

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



Harmonic minor modal resolution is similarly ambiguous.

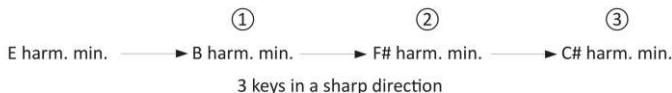
### **Sharp Direction (Harmonic Minor)**

Ex. 127

B phry. maj.

A lyd. #9

A musical diagram illustrating a melodic line. It consists of two staves. The top staff is in G clef, has a key signature of one sharp, and shows notes on the 5th and 6th strings. The bottom staff is in F clef, has a key signature of one sharp, and shows notes on the 4th and 5th strings. An upward arrow between the two staves indicates the direction of the melody. Above the top staff, the text "(E harm. min.)" is written in parentheses. Above the bottom staff, the text "(C# harm. min.)" is written in parentheses.

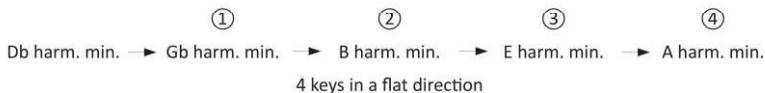


### **Flat Direction (Harmonic Minor)**

Ex. 128

A lyd. #9

### A harm. min.



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

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

## **Voice Leading**

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

**Ex. 130**

The chart shows a sequence of seven guitar chords with fingerings and voicings. Above each chord is its name and key signature:  
B-7<sup>b5</sup>, B<sup>b</sup>-6, G**Q/A**, A**b13**, G-7, G**bMaj7/6**, and F**Maj7**. The chords are arranged horizontally, illustrating the movement of voices between them. Below each name is a treble clef staff with a 8/8 time signature. Below each staff is a guitar neck diagram with fingerings (X for muted strings) and voicings.

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 score Ex. 132a. The score consists of two measures. The first measure starts with a rest followed by a eighth note. The melody consists of eighth notes with the following pitch sequence: b6, 5, 4, 3. Above the notes, the label "(Phry. maj.)" is written. The second measure begins with a eighth note followed by a sixteenth note. The melody continues with eighth notes having the following pitch sequence: b9, (5), 3, 6. The score concludes with a fermata over the final note. The chords are labeled  $G7\#9$  and  $C_{MA}7$ .

*Ex. 132b*

Musical score Ex. 132b. The score consists of two measures. The first measure starts with a eighth note followed by a sixteenth note. The melody consists of eighth notes with the following pitch sequence: #9, 3, #5, R, #9. The second measure begins with a eighth note followed by a sixteenth note. The melody continues with eighth notes having the following pitch sequence: b9, (6), #11, 5, 9. The score concludes with a fermata over the final note. The chords are labeled  $G7_{alt}$  and  $C_{MA}7$ .

Harmonic resolution

*Ex. 133*

Musical score Ex. 133. It contains two parts, (a.) and (b.).  
Part (a.) shows a harmonic resolution from  $G7\#5\#9$  to  $C_6^{\#}$ . The bassoon part (Bassoon) has a sustained note on the third line of the bass staff. The piano part (Piano) has a sustained note on the second line of the treble staff.  
Part (b.) shows a harmonic resolution from  $G9\#5$  to  $C_{MA}7\#11\#5$ . The bassoon part (Bassoon) has a sustained note on the third line of the bass staff. The piano part (Piano) has a sustained note on the second line of the treble staff.

Resolution by skip is also effective when approached correctly.

*Ex. 134*

Musical example 134 consists of three measures of music in 4/4 time. The first measure shows a D-7 chord with notes 11, 9, 3, and 11. The second measure shows a G7#5 chord with notes 3, #5, and (9). The third measure shows a CMA7 chord with notes 7, 9, and 5. The bass line consists of eighth-note patterns that skip between different notes, illustrating harmonic resolution by skip.

Harmonic resolution by skip

*Ex. 135*

Musical example 135 consists of two measures of music in 4/4 time. The first measure shows a G7alt chord with notes 11, 9, 3, and 11. The second measure shows a CMA7 chord with notes 7, 9, and 5. The bass line consists of eighth-note patterns that skip between different notes, 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 musical staff in G clef (treble) shows the notes of the C Ionian scale: C, D, E, F, G, A, B. Below each note is its corresponding interval from the previous note: Major 2nd (M2), Major 2nd (M2), minor 2nd (m2), Major 2nd (M2), Major 2nd (M2), Major 2nd (M2), minor 2nd (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.

C Phrygian

M2 b M2 b m2 M2 M2 M2 b m2

A musical staff in F clef (bass) shows the notes of the C Phrygian scale: C, B, A, G, F, E, D. Above each note is its corresponding interval from the previous note: Major 2nd (M2), b (flat), Major 2nd (M2), b (flat), minor 2nd (m2), Major 2nd (M2), Major 2nd (M2), b (flat), minor 2nd (m2).

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 b M2 M2 M2 m2 M2

A musical staff in G clef (treble) shows the notes of the C Dorian scale: C, D, E, F, G, A, B. Below each note is its corresponding interval from the previous note: Major 2nd (M2), minor 2nd (m2), b (flat), Major 2nd (M2), Major 2nd (M2), Major 2nd (M2), minor 2nd (m2), Major 2nd (M2).

C Dorian

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

C Double Harmonic Major

m2 b A2 m2 M2 m2 A2 m2

A musical staff in G clef (treble) shows the notes of the C Double Harmonic Major scale: C, B, A, G, F, E, D. Above each note is its corresponding interval from the previous note: minor 2nd (m2), b (flat), A2 (double sharp), minor 2nd (m2), Major 2nd (M2), minor 2nd (m2), A2 (double sharp), minor 2nd (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).

The image displays seven musical staves, each representing a mode of C Major. The modes are arranged in pairs, separated by a vertical line. The pairs are: C Lydian and C Locrian; C Ionian and C Phrygian; C Mixolydian and C Aeolian; and C Dorian and C Dorian (the last one is a duplicate entry). Each staff has a treble clef and a bass clef. The notes are represented by dots on the staff, with some having small horizontal lines above or below them. Above each staff, the mode name is written in capital letters. Below each staff, the mode name is repeated in a smaller font.

C Lydian

C Locrian

C Ionian

C Phrygian

C Mixolydian

C Aeolian

C Dorian

C Dorian

Bright → Dark

Lydian	Ionian	Mixolydian	Dorian
Locrian	Phrygian	Aeolian	Dorian

Dark → Bright

### **Melodic Minor: Mirror Modal Equivalents**

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

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

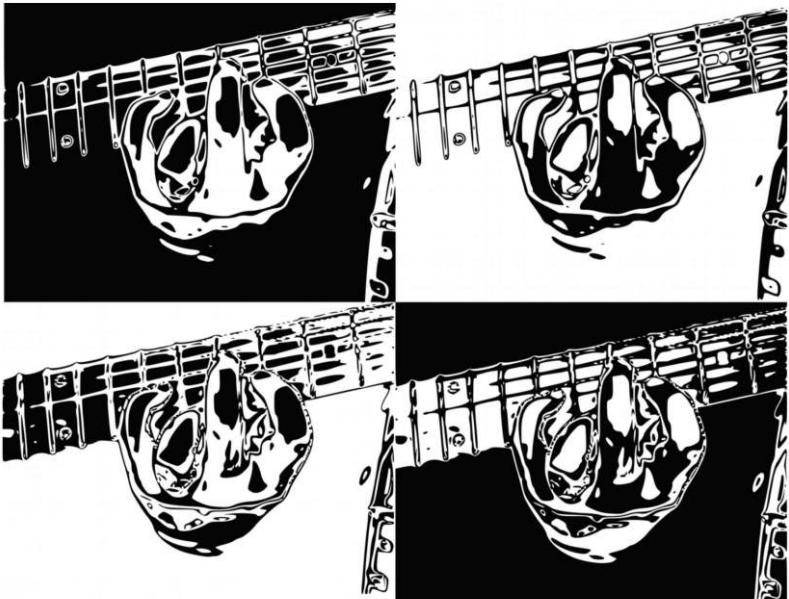
### **Harmonic Minor and Harmonic Major: Mirror Modal Equivalents**

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

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

# CHAPTER 2

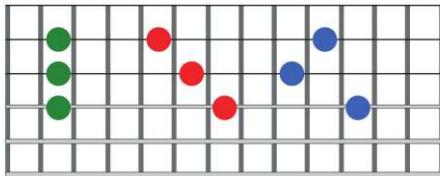
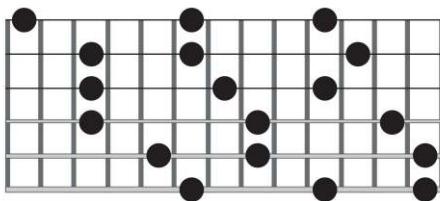
## CHORD FORMS



## Chapter 2: Chord Forms

### Triad (and Suspension) Chord Forms

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



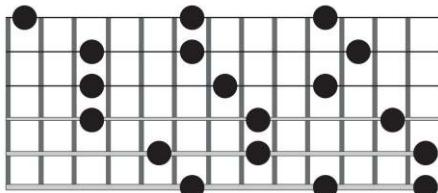
● : Root position

○ : 1. Inversion

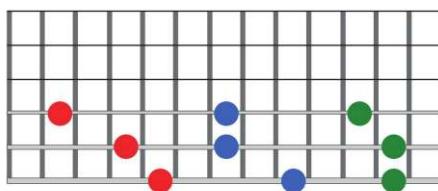
● : 2. Inversion

### Major Triads

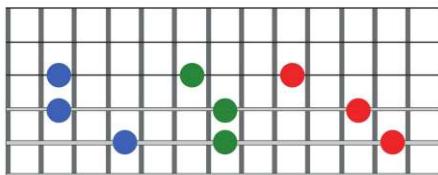
Major Triads



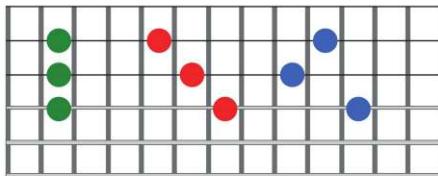
stringset E-A-D



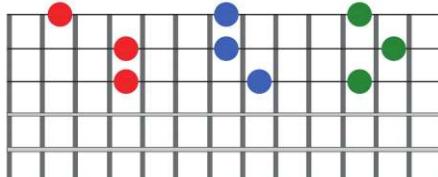
stringset A-D-G



stringset D-G-B

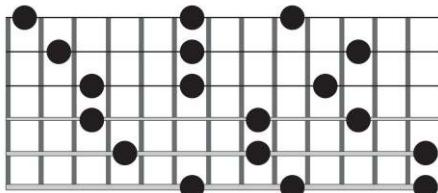


stringset G-B-E

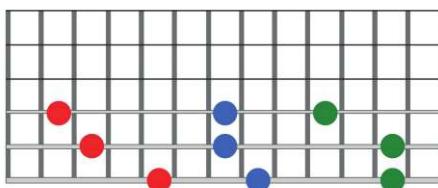


### Minor Triads

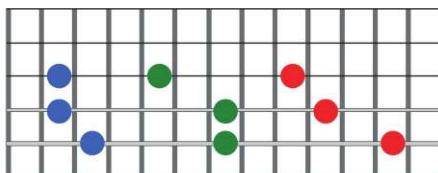
Minor Triads



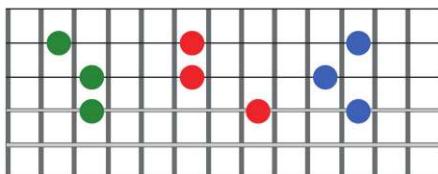
stringset E-A-D



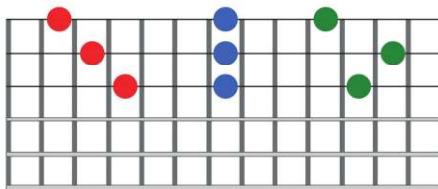
stringset A-D-G



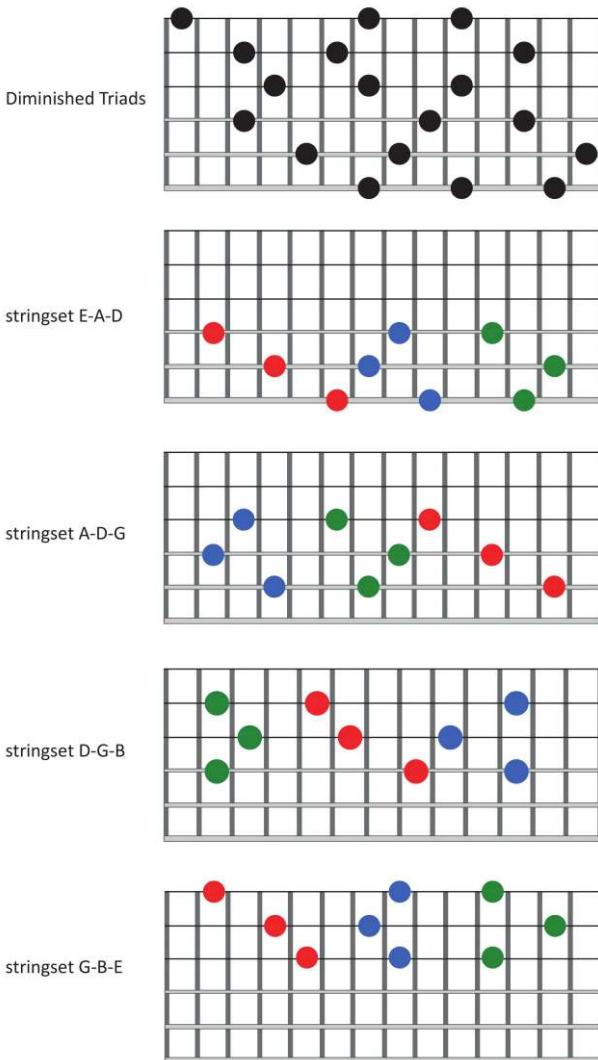
stringset D-G-B



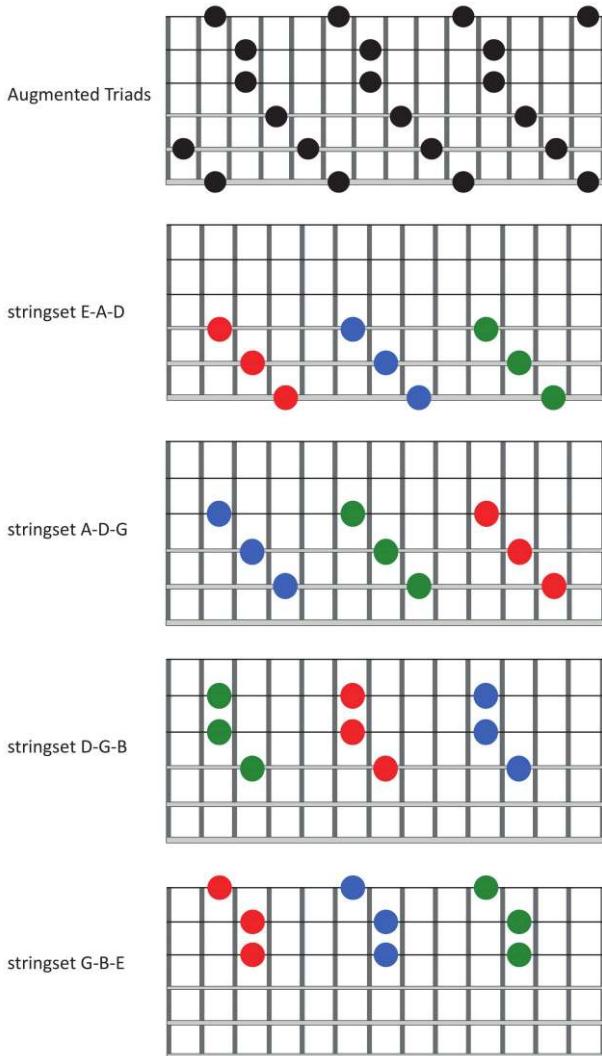
stringset G-B-E



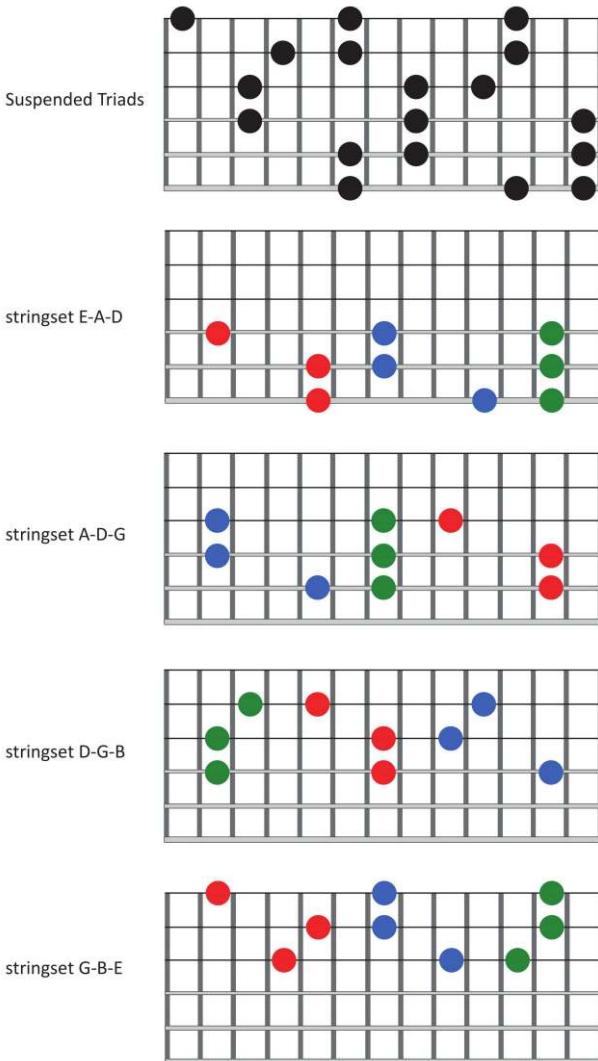
### Diminished Triads



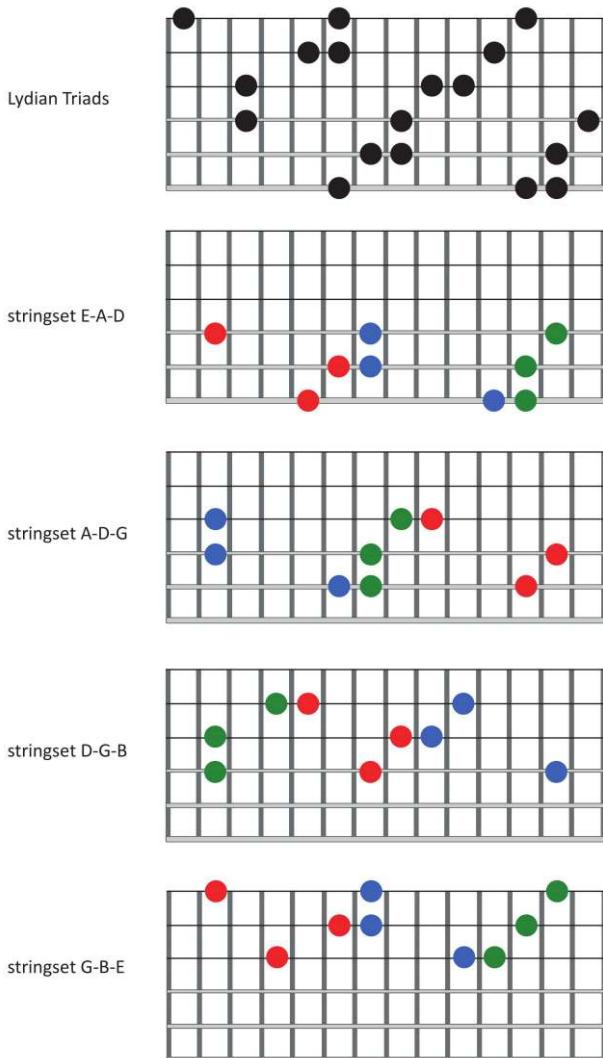
### Augmented Triads



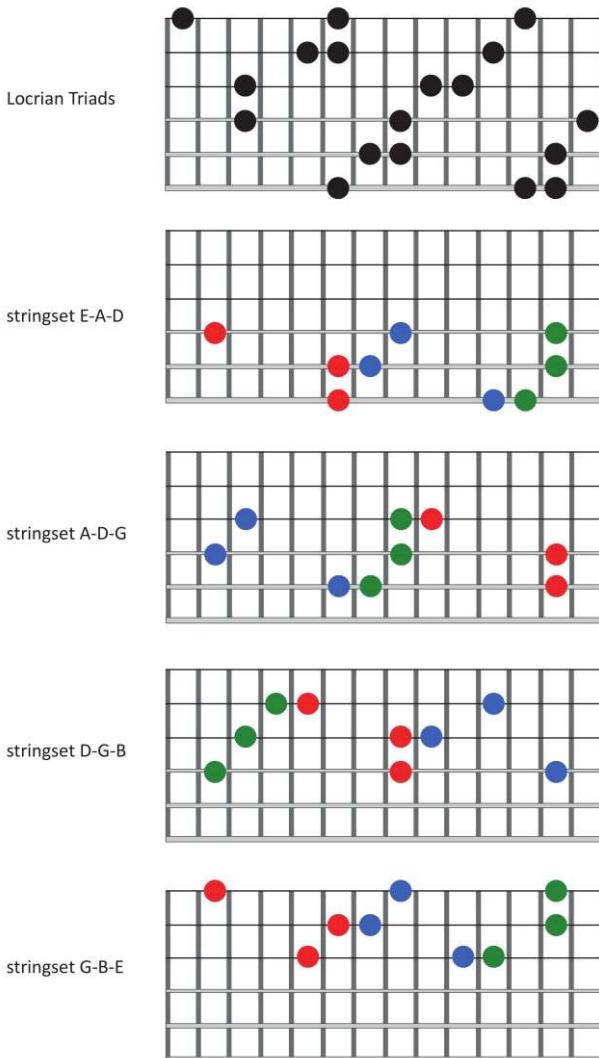
### Suspended Triads



### Lydian Triads



### Locrian Triads

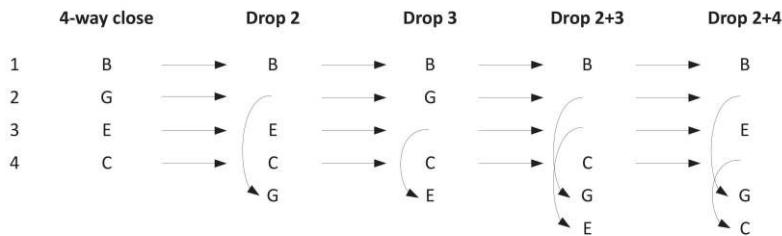


## Drop Voicings

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.

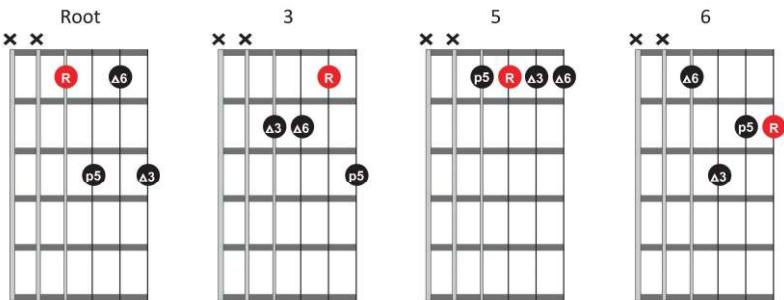
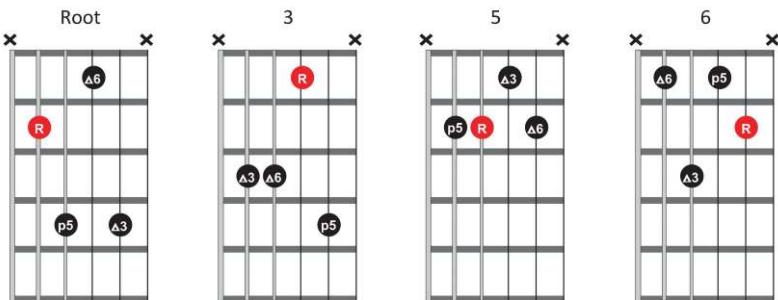
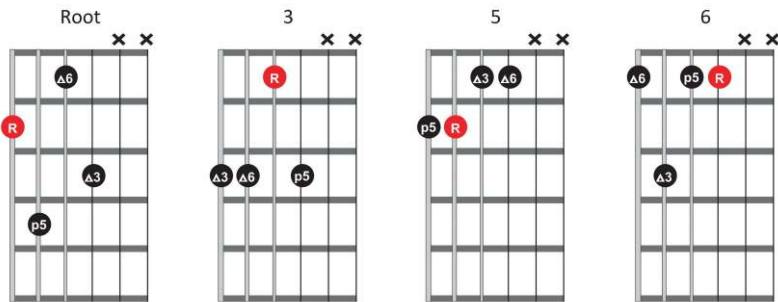
### Voicings of Cmaj<sup>7</sup>

Ex. 136

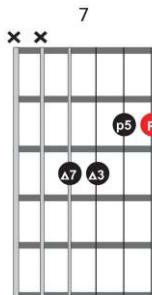
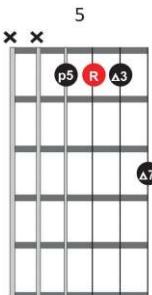
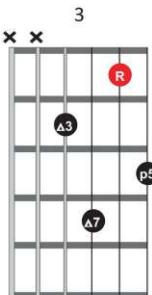
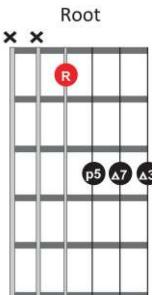
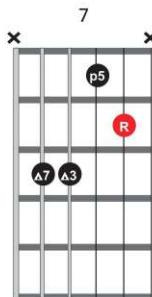
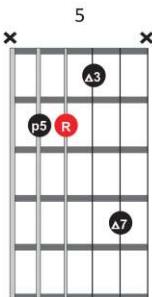
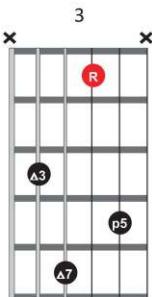
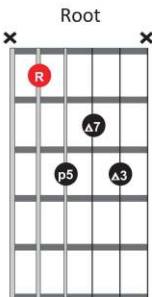
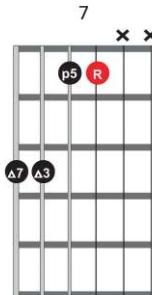
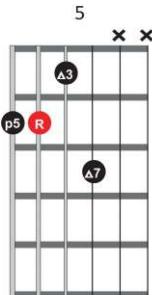
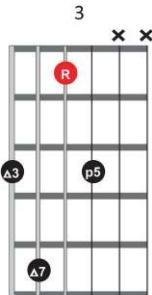
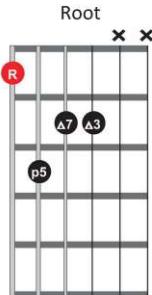


## Drop 2

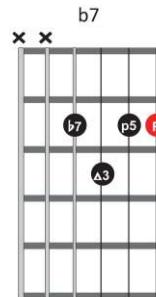
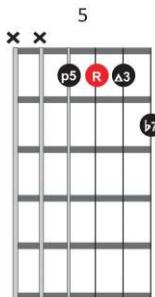
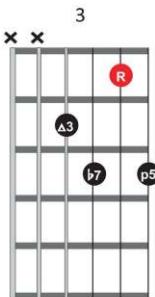
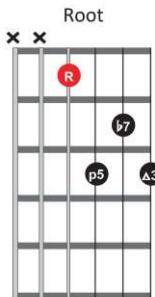
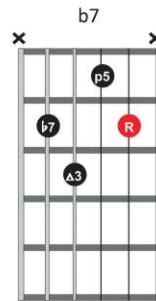
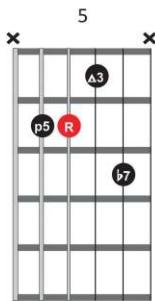
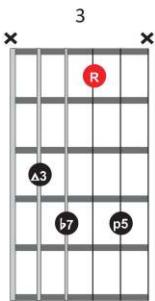
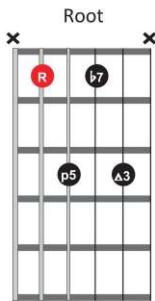
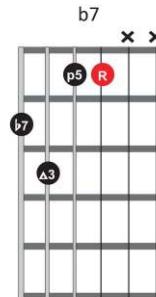
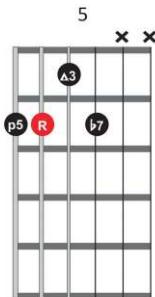
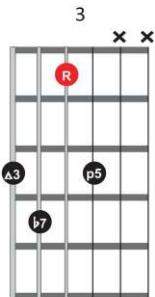
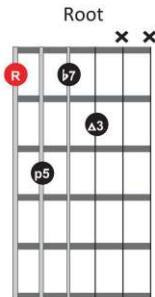
*Maj<sup>6</sup>*



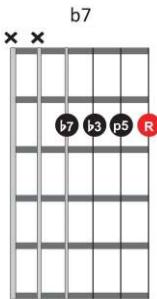
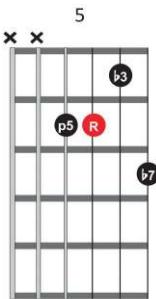
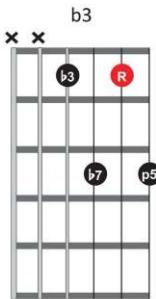
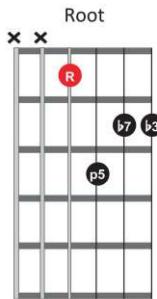
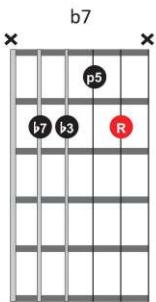
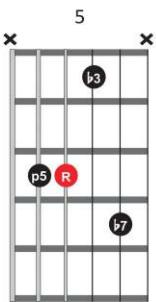
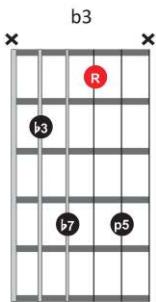
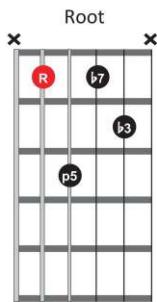
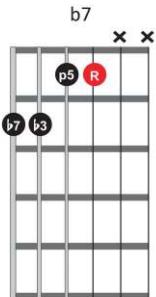
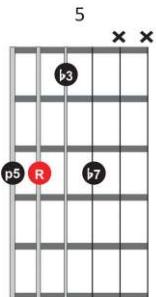
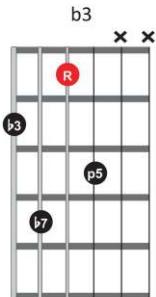
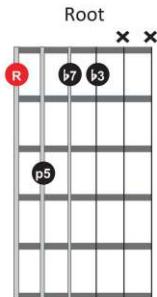
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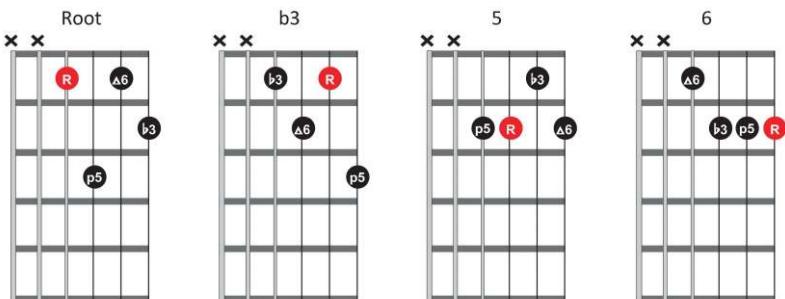
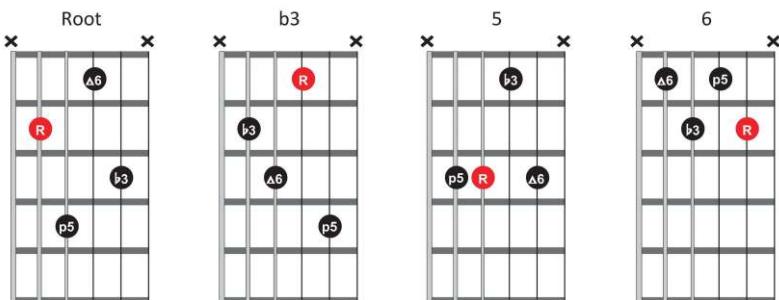
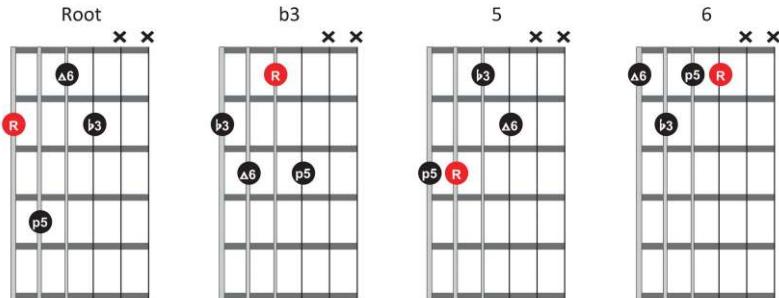
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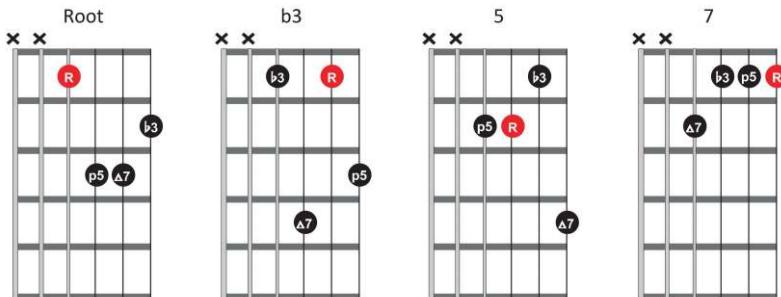
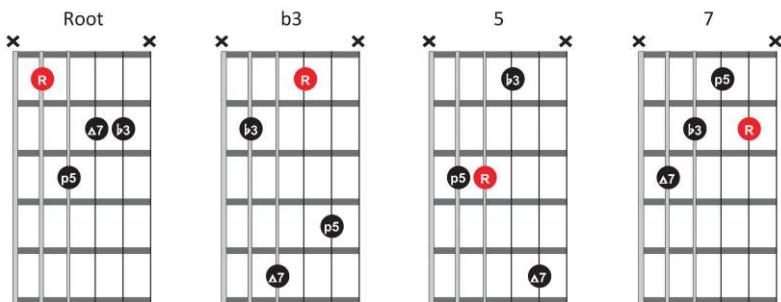
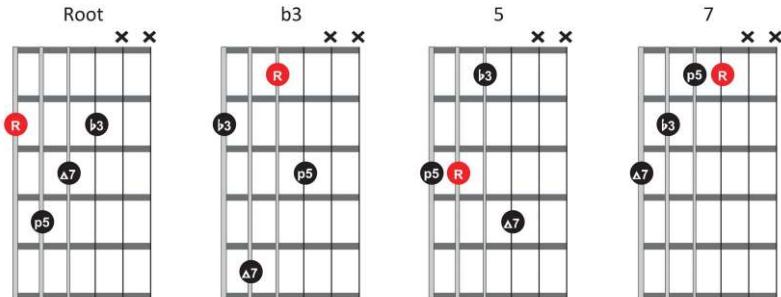
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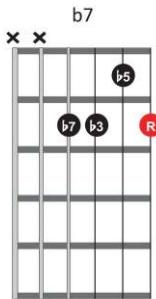
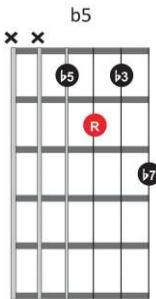
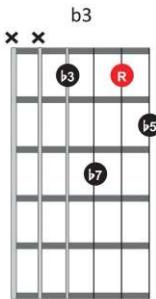
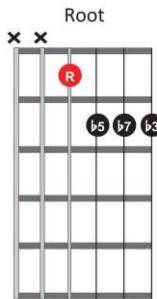
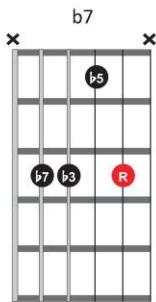
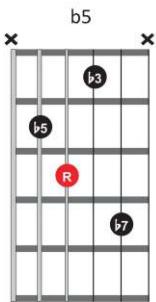
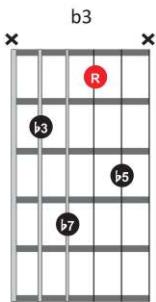
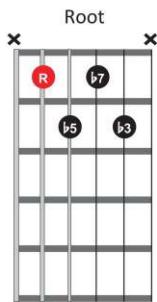
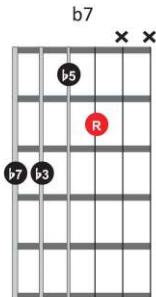
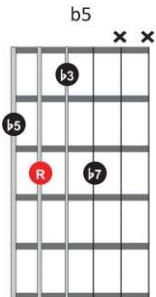
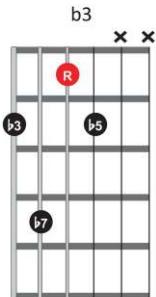
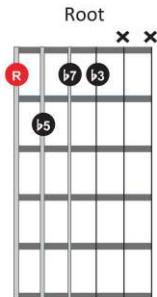
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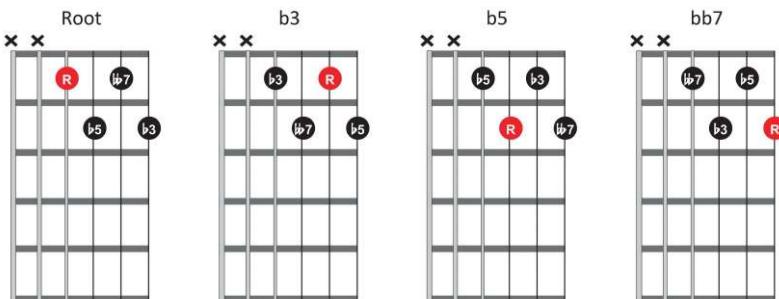
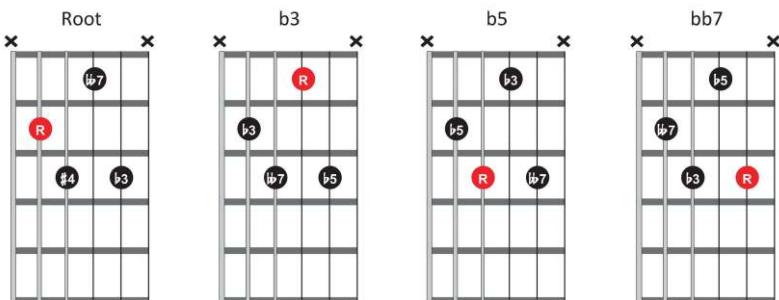
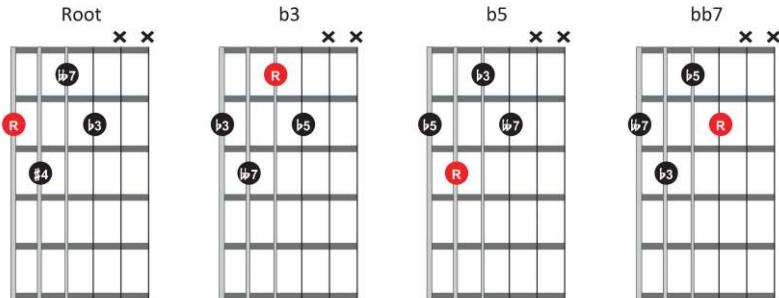
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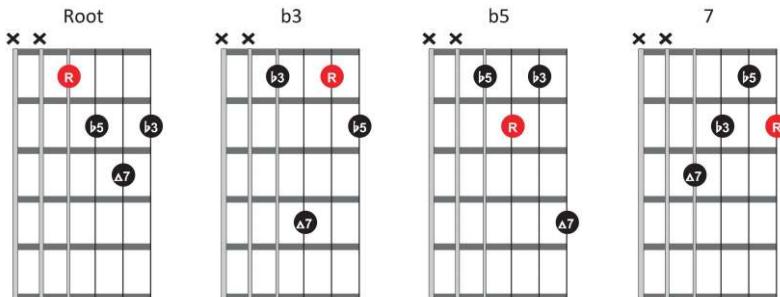
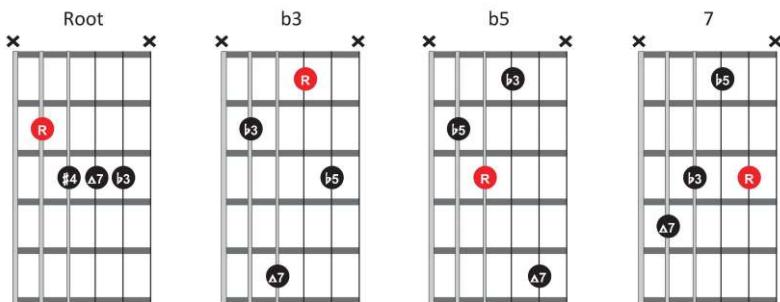
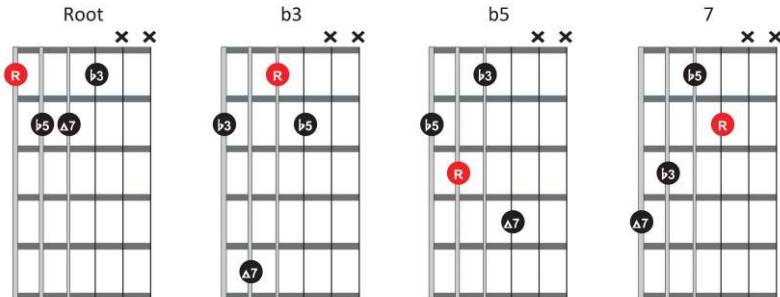
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*Dim<sup>7</sup>*

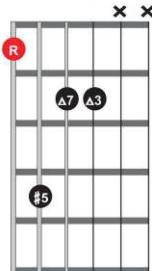


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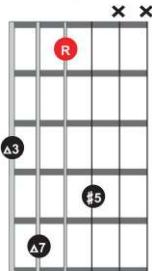


*Aug<sup>major</sup>*

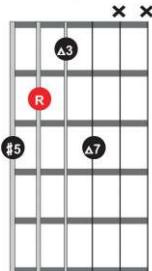
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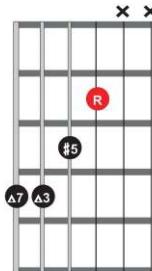
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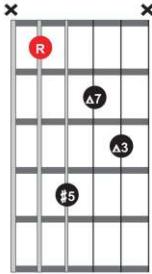
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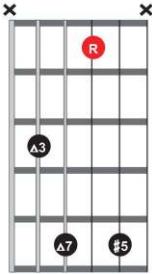
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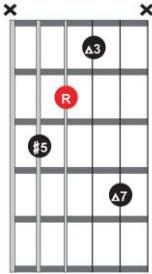
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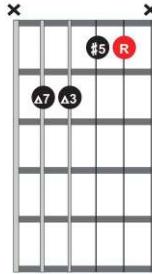
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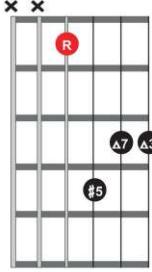
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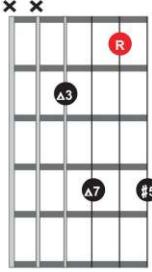
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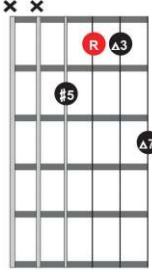
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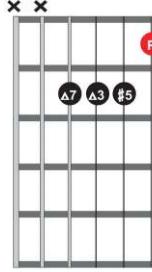
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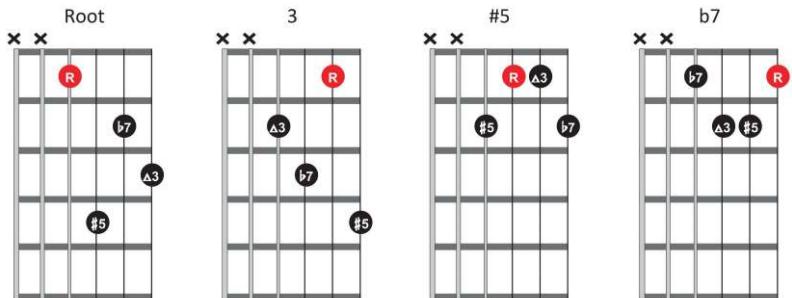
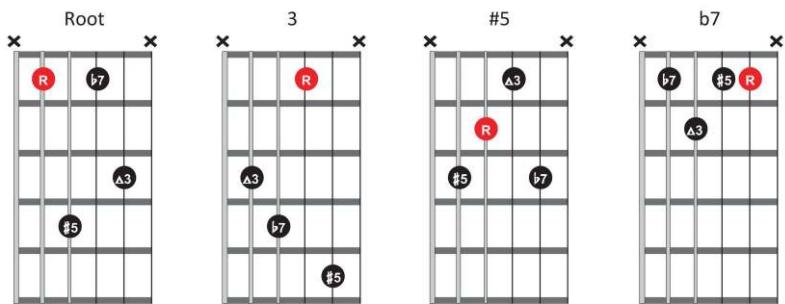
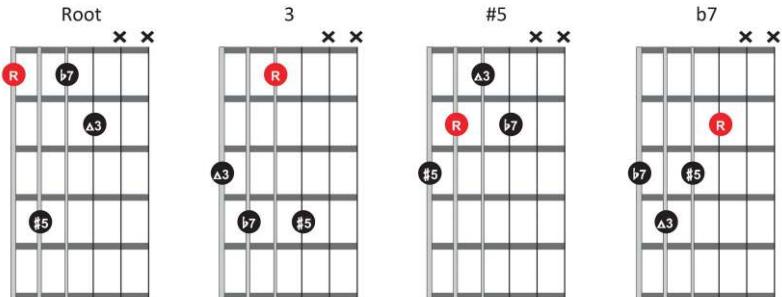
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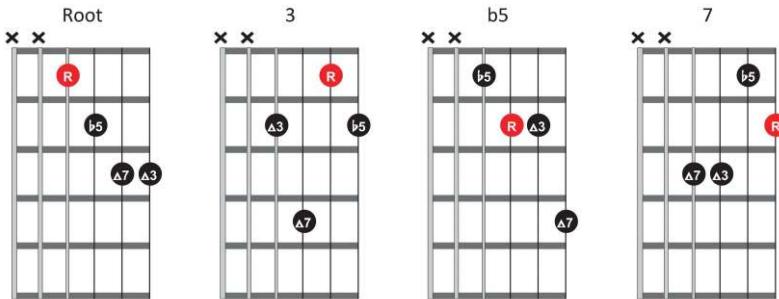
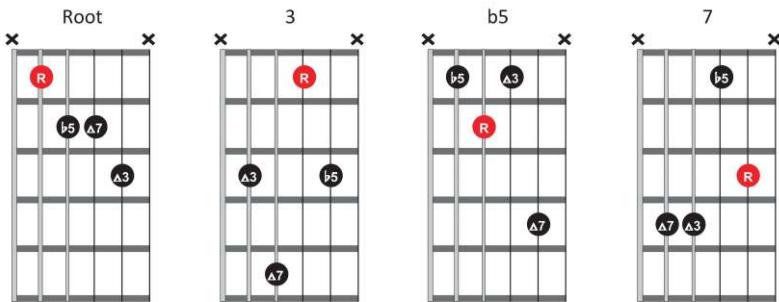
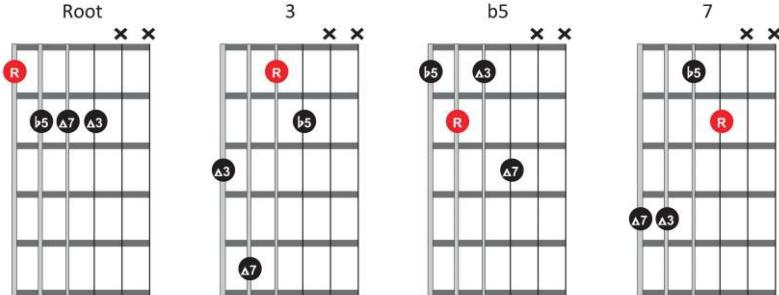
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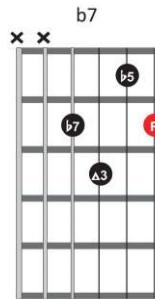
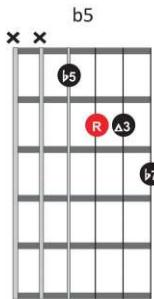
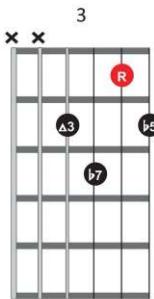
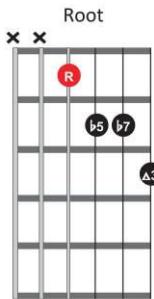
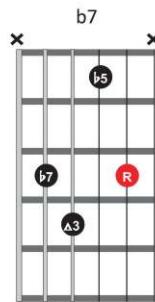
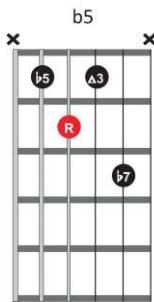
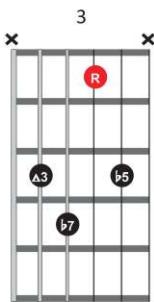
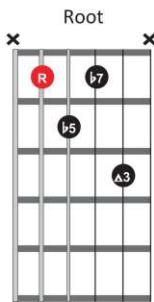
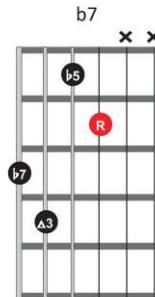
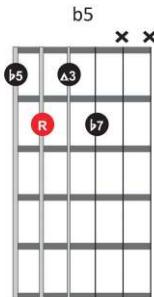
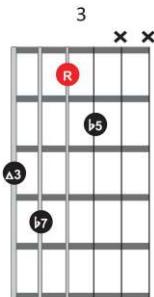
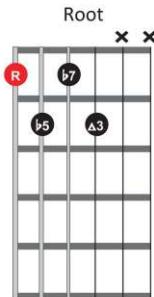
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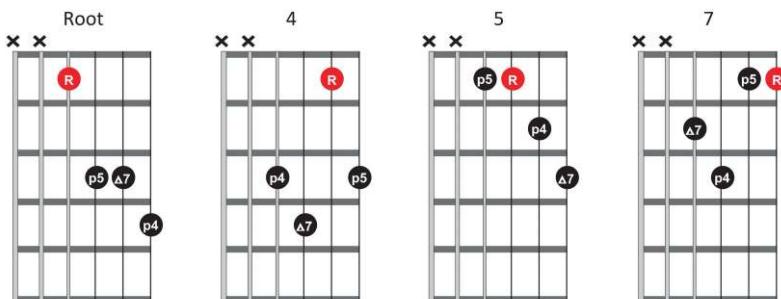
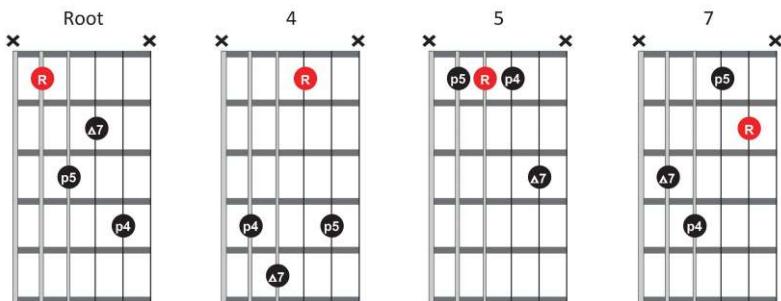
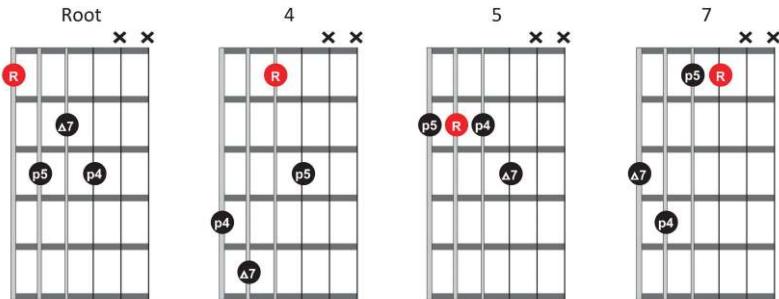
*Maj*<sup>7b5</sup>



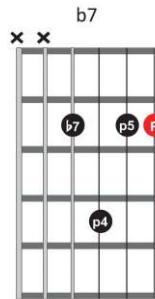
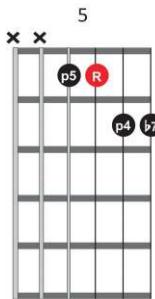
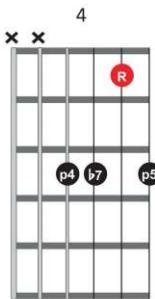
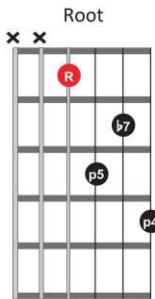
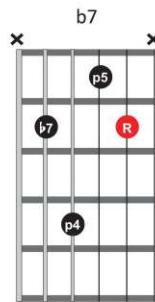
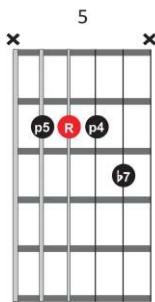
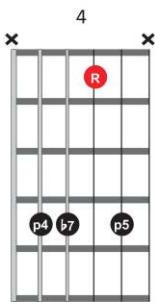
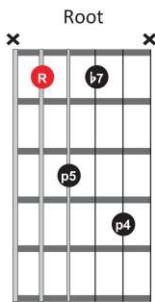
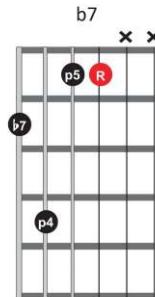
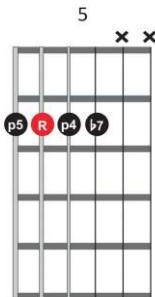
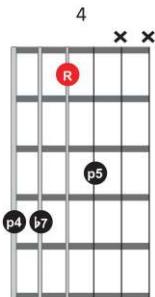
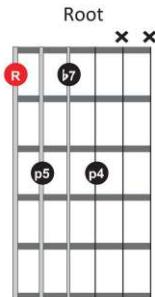
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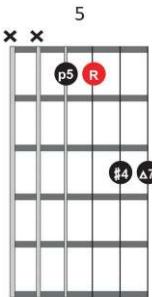
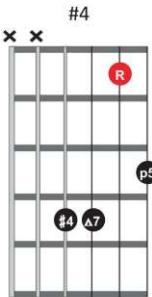
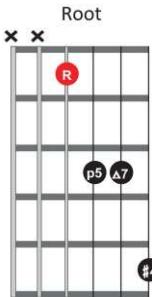
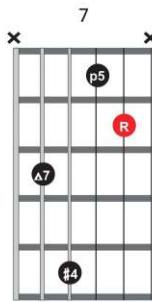
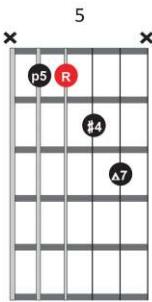
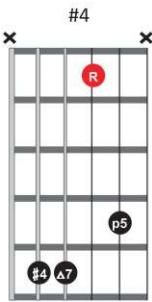
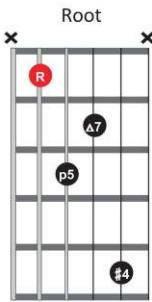
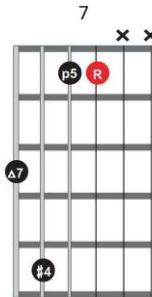
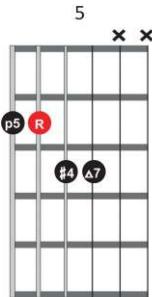
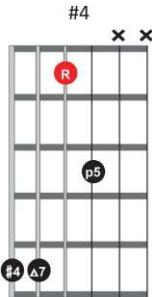
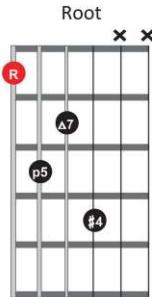
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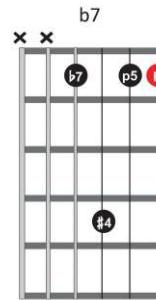
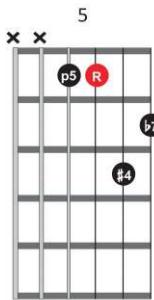
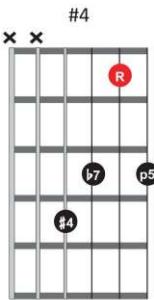
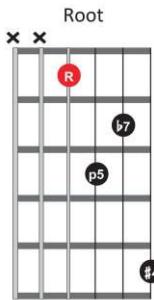
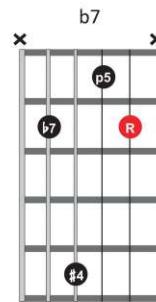
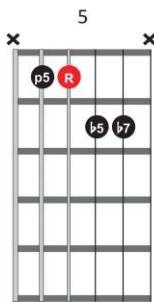
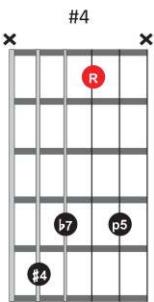
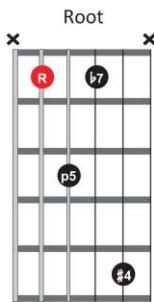
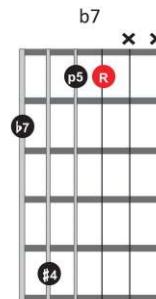
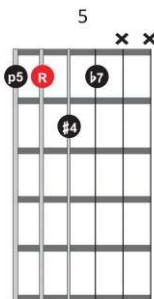
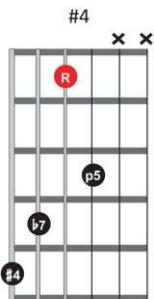
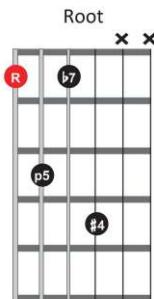
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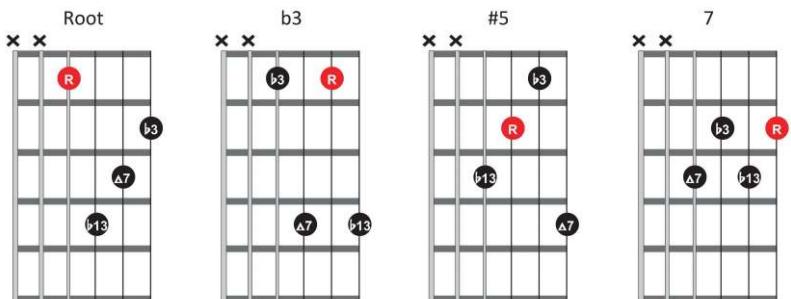
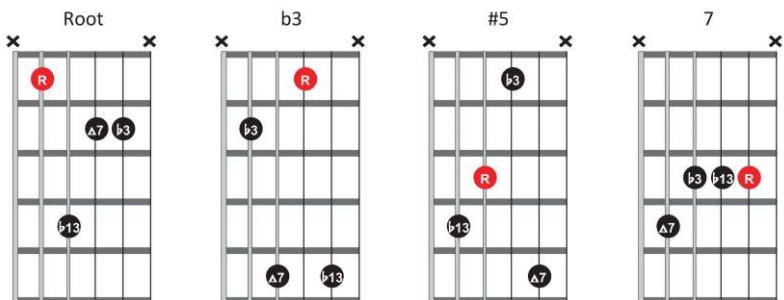
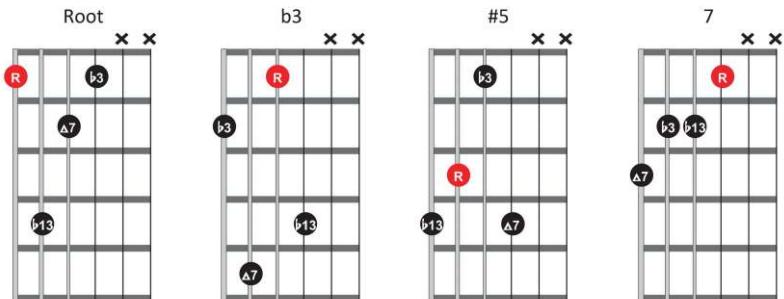
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*Lydian* Dom7

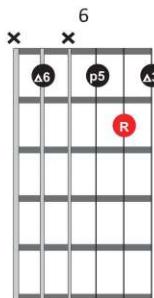
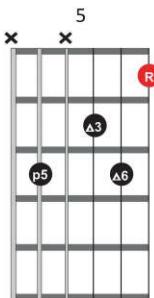
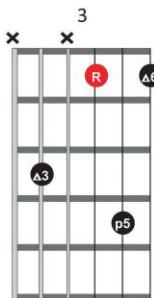
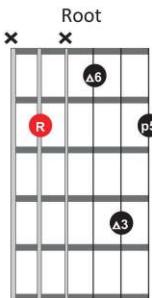
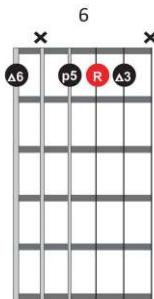
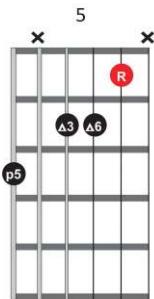
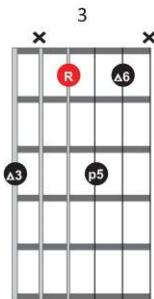
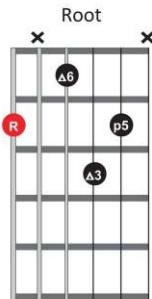


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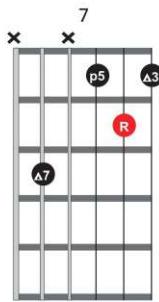
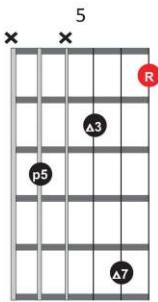
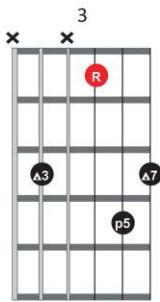
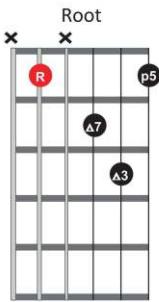
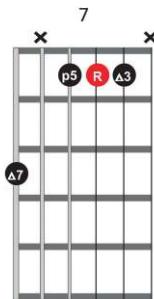
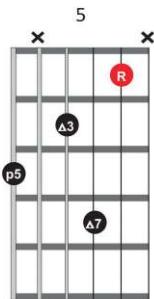
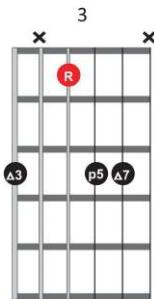
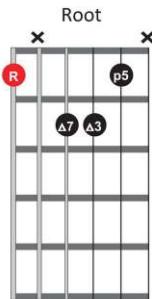


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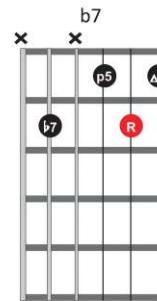
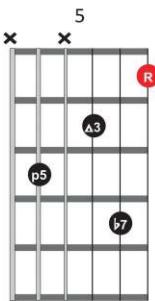
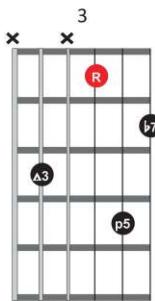
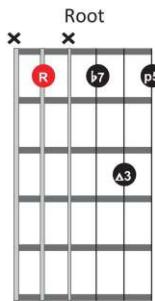
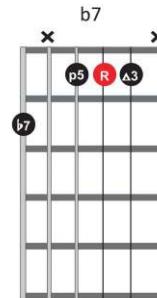
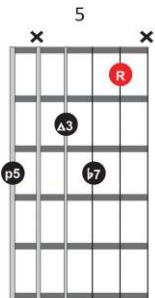
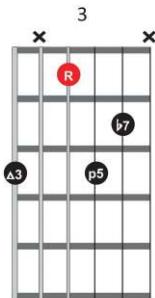
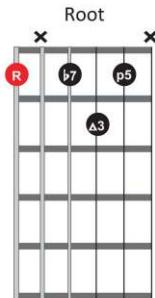
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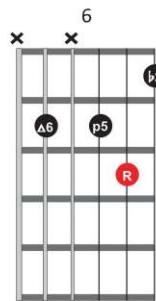
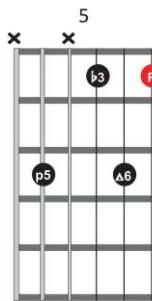
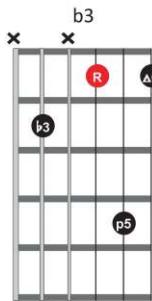
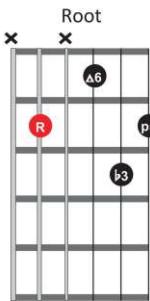
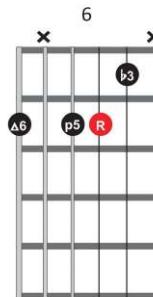
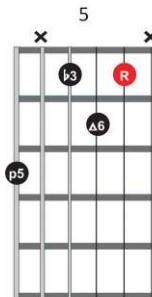
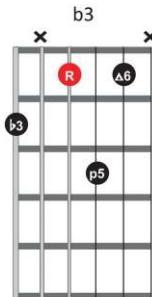
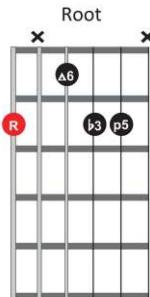
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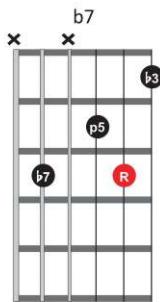
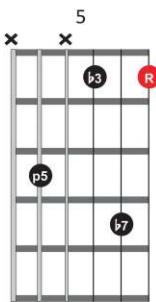
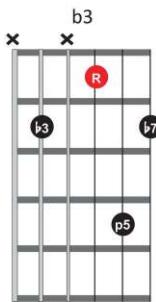
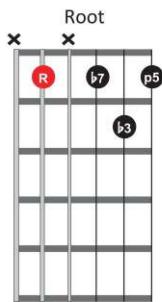
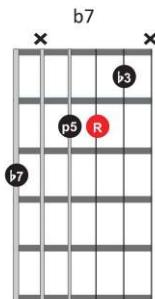
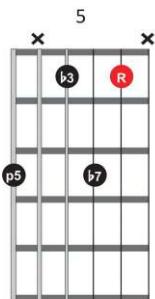
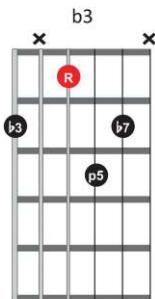
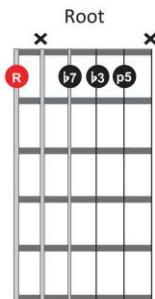
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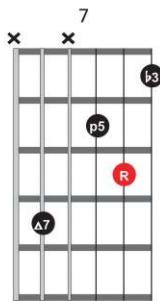
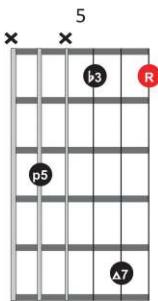
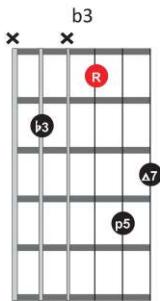
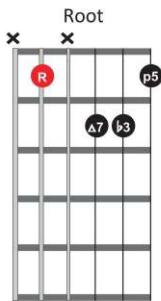
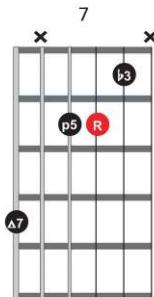
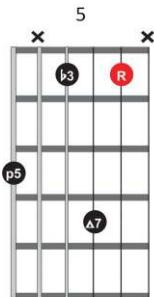
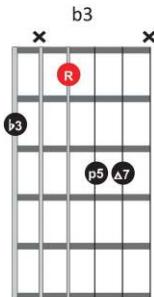
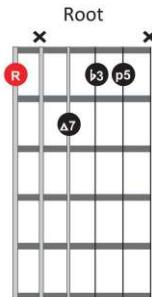
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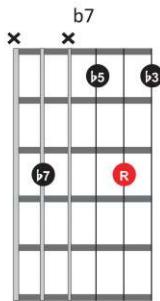
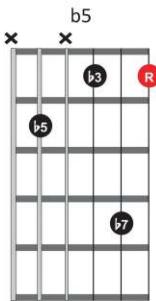
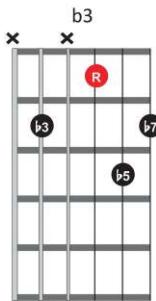
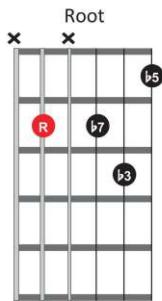
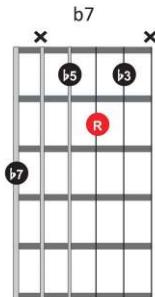
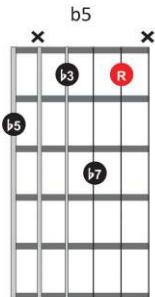
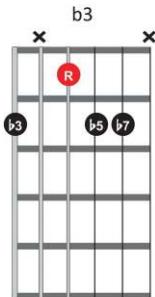
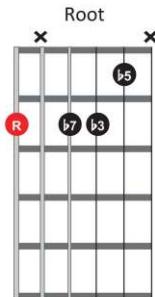
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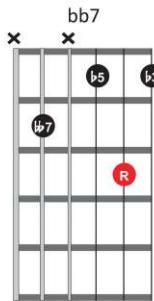
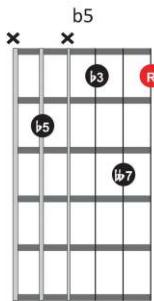
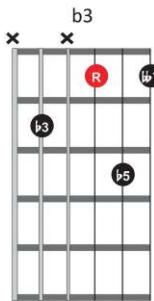
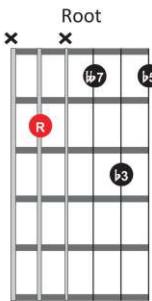
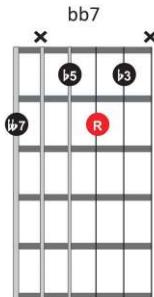
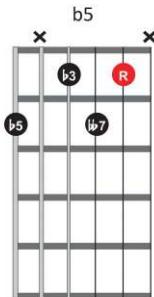
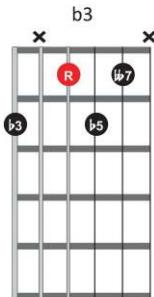
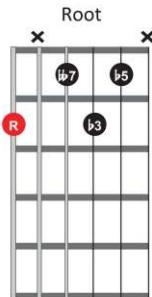
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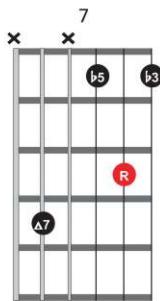
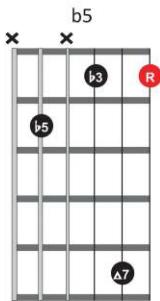
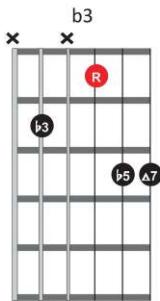
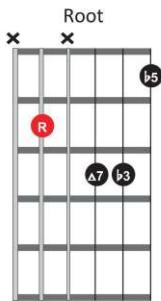
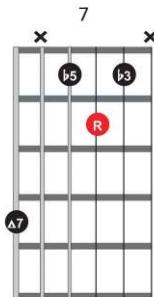
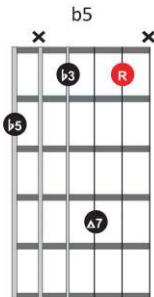
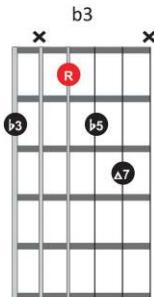
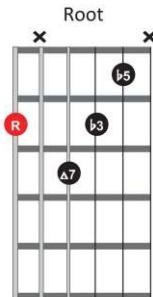
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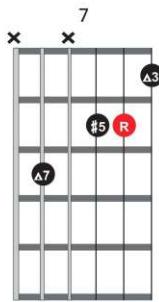
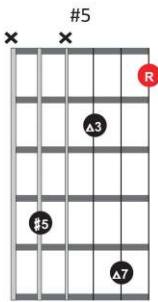
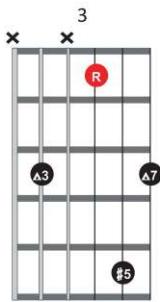
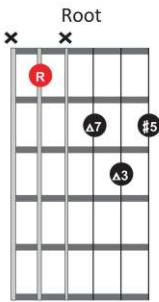
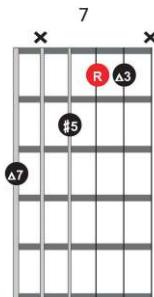
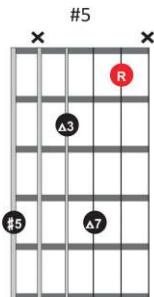
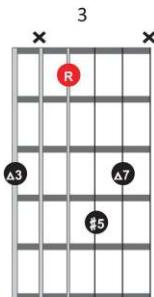
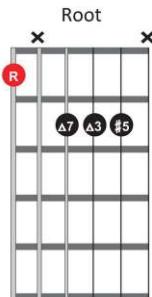
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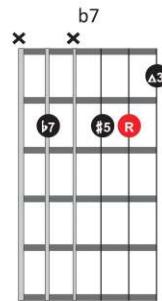
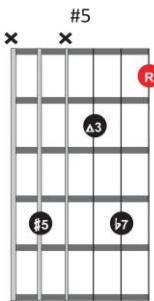
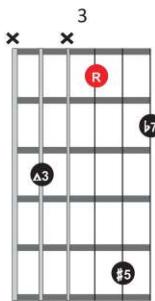
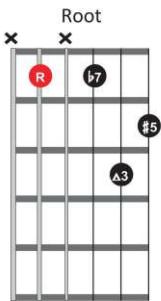
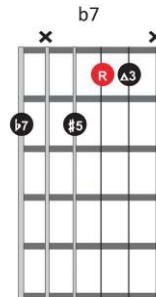
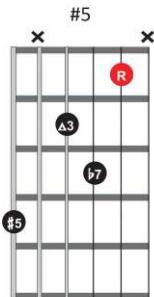
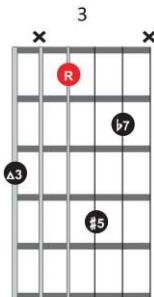
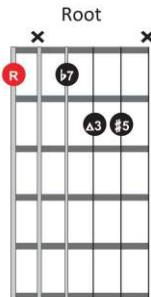
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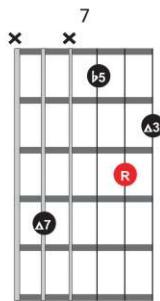
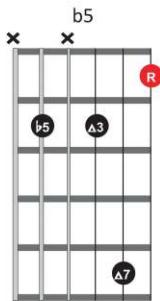
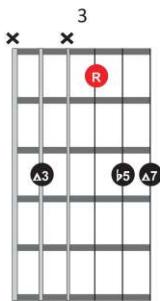
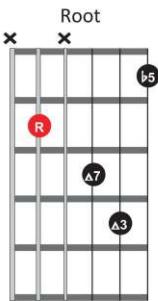
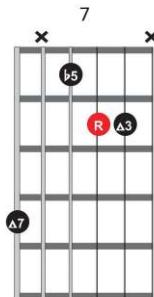
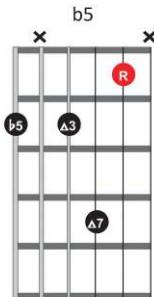
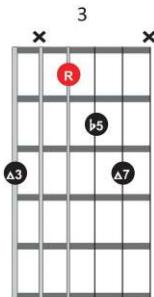
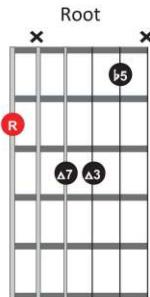
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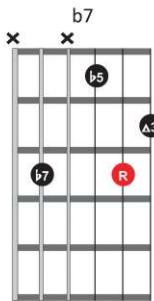
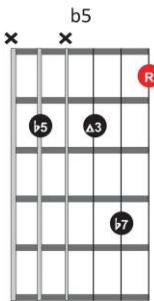
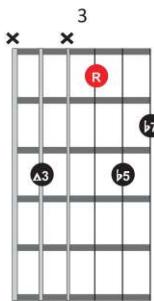
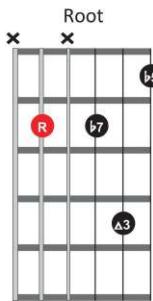
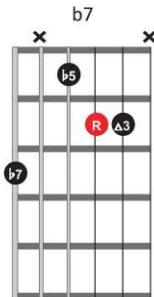
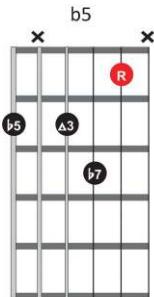
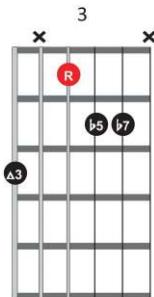
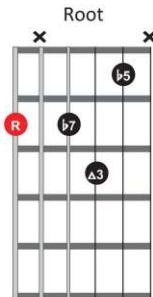
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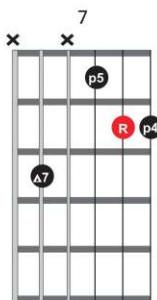
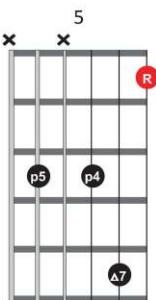
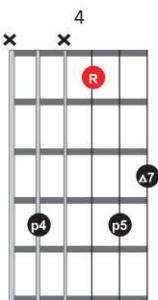
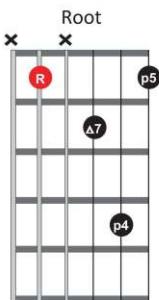
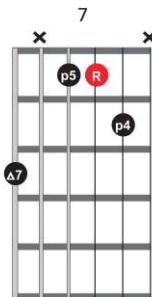
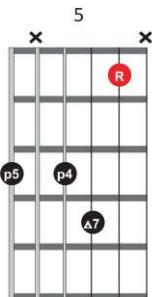
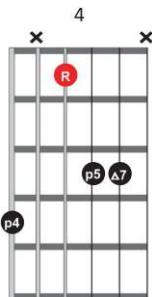
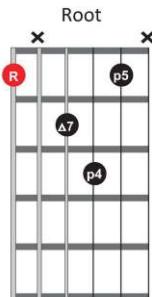
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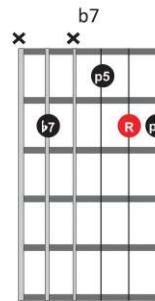
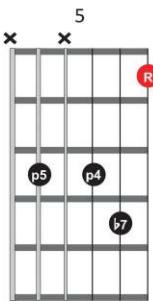
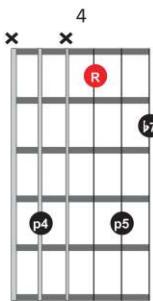
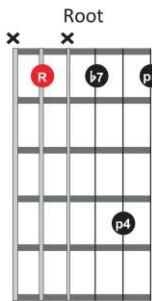
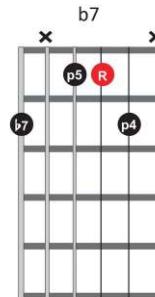
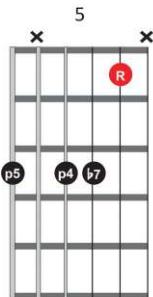
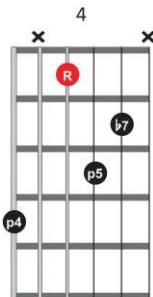
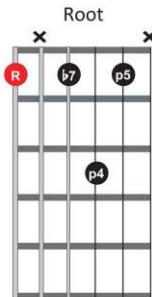
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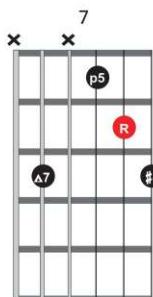
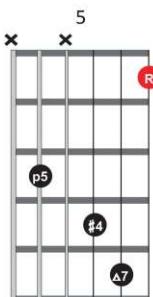
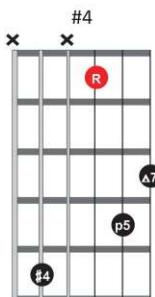
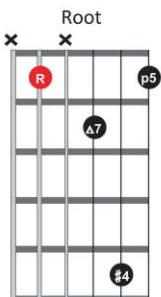
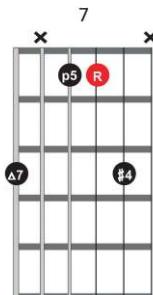
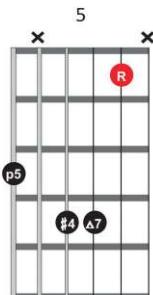
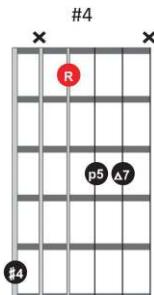
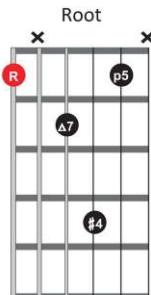
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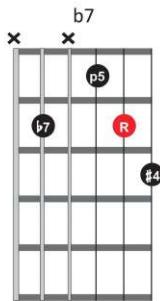
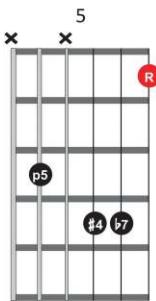
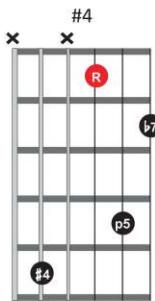
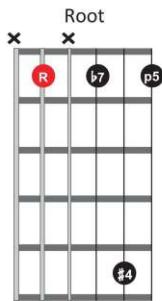
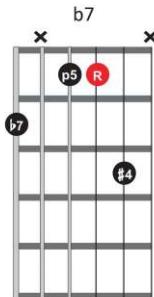
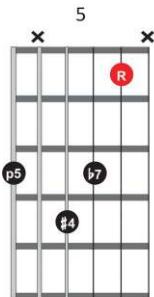
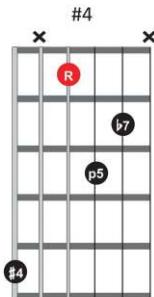
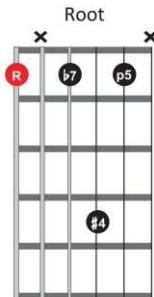
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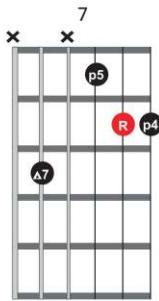
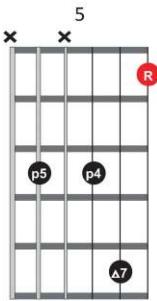
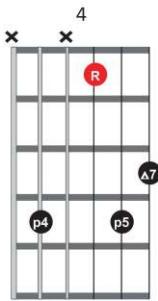
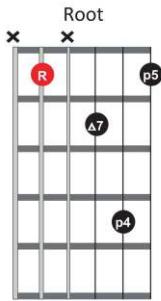
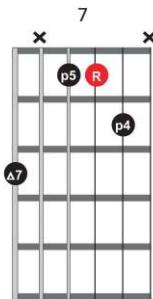
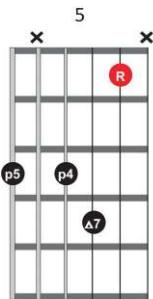
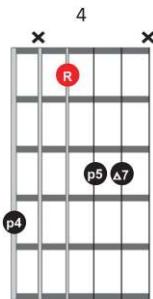
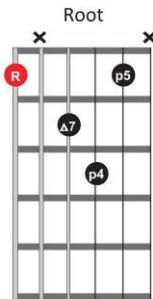
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*Lydian* Dom7

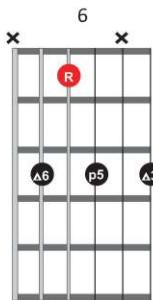
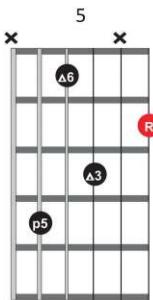
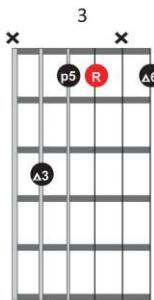
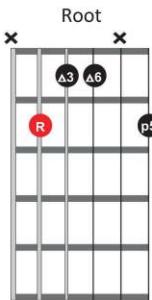
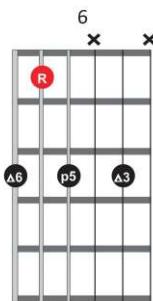
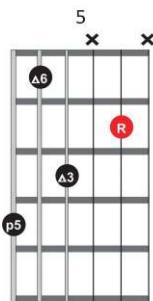
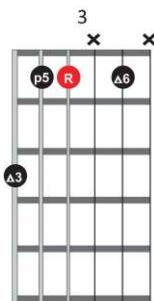
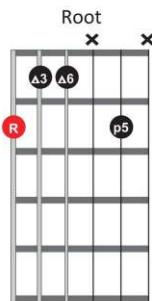


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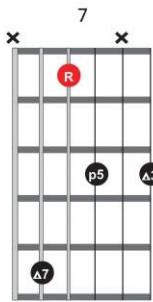
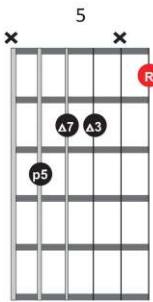
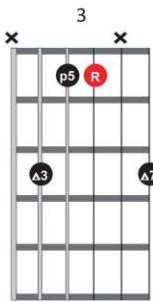
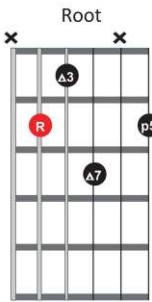
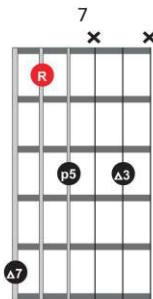
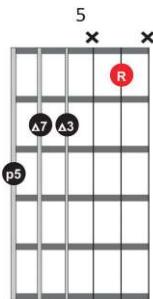
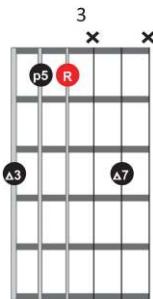
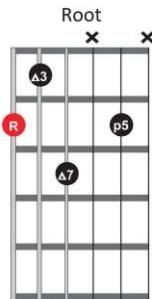


**Drop 2 + 3**

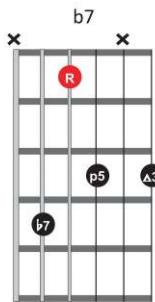
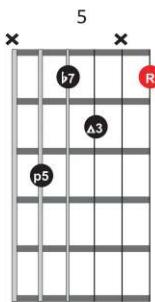
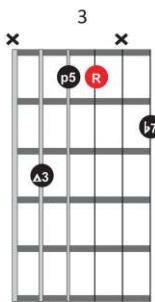
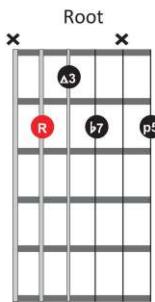
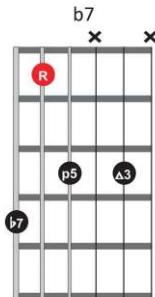
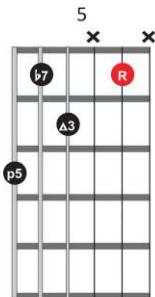
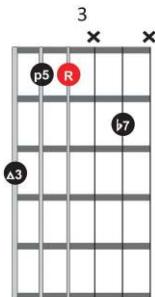
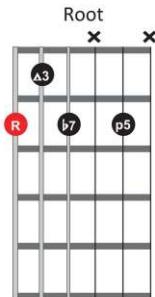
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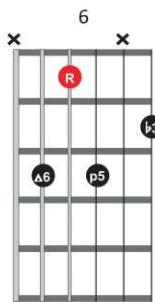
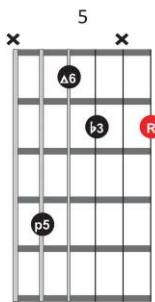
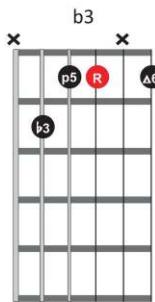
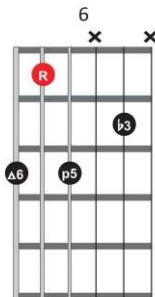
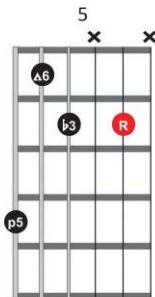
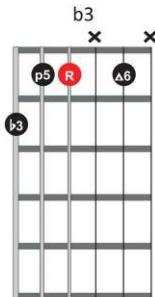
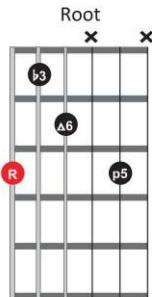
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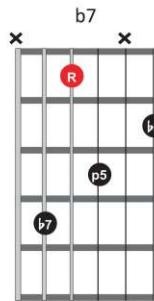
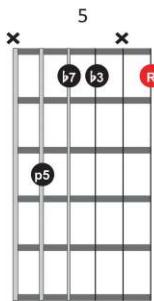
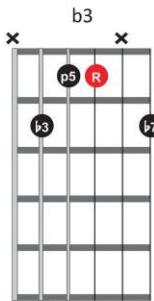
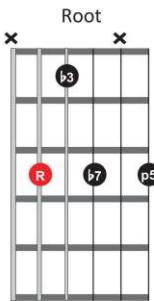
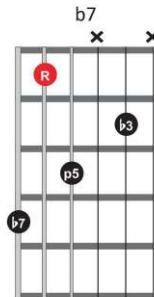
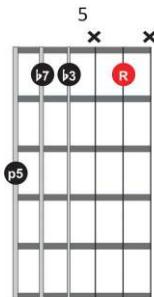
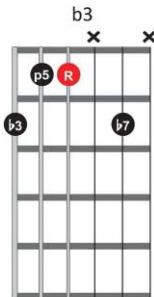
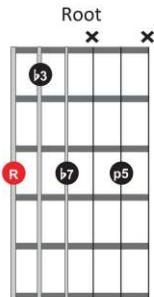
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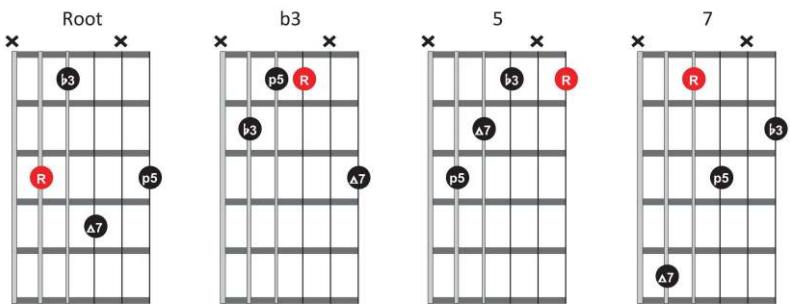
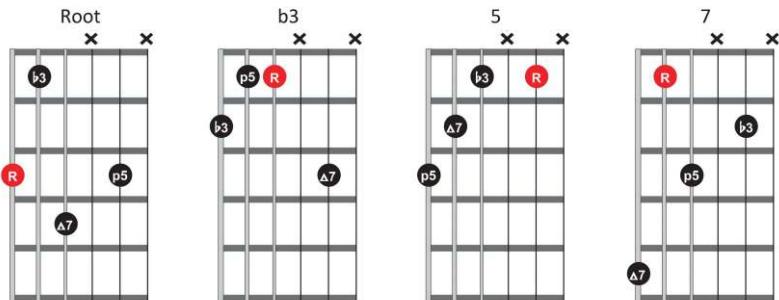
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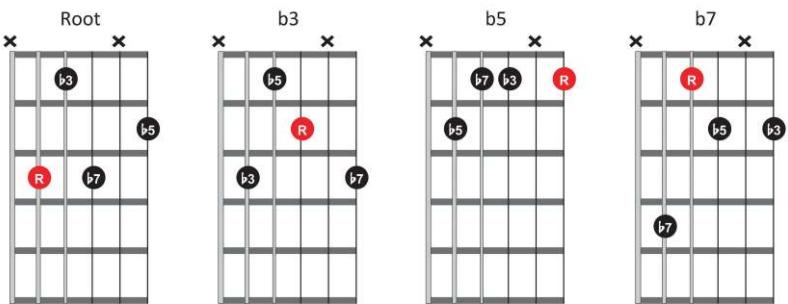
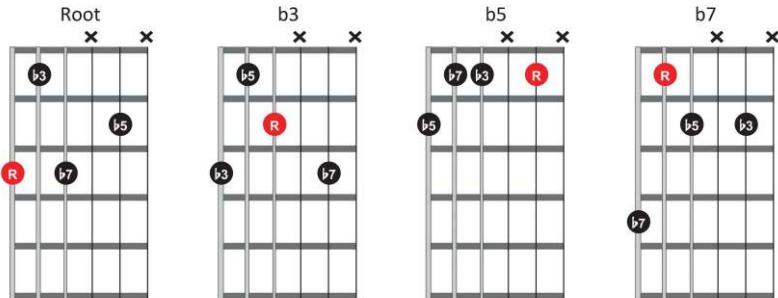
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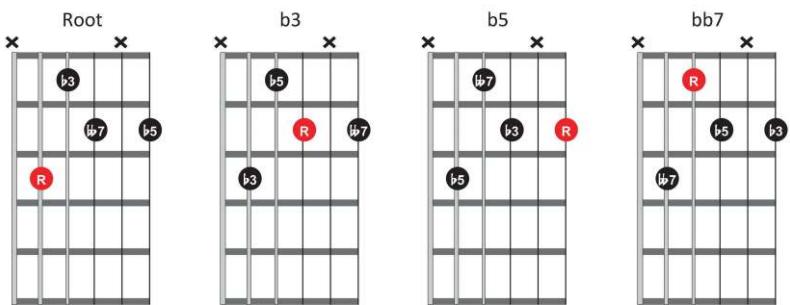
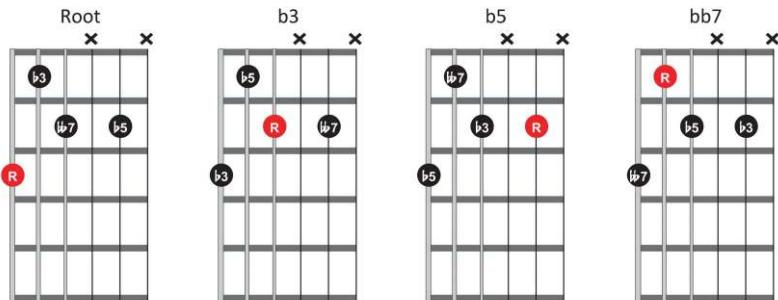
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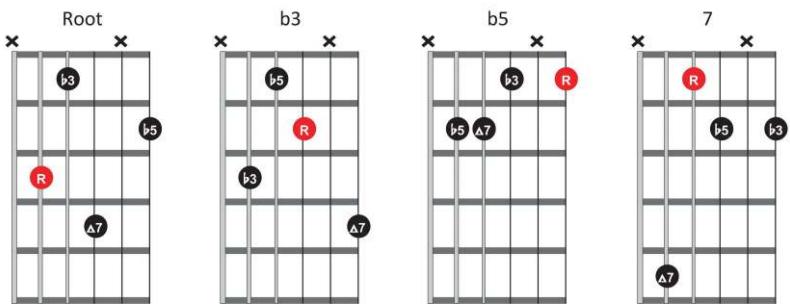
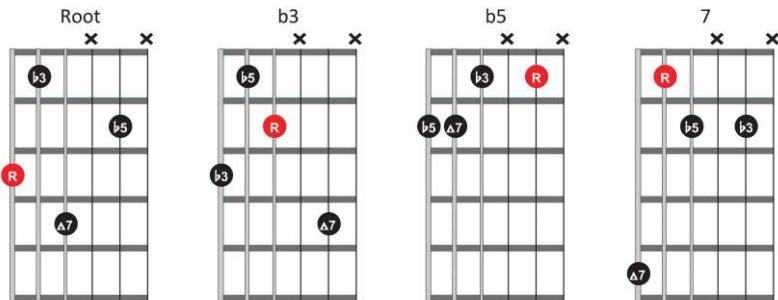
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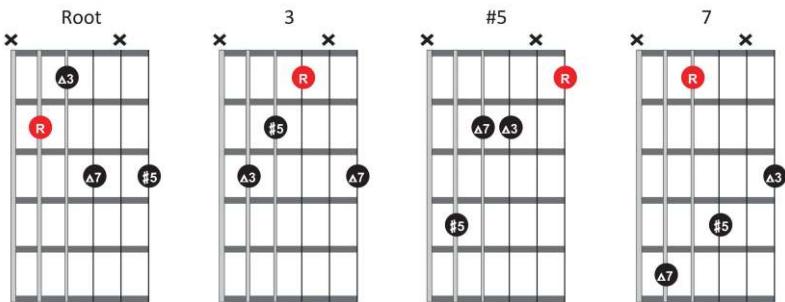
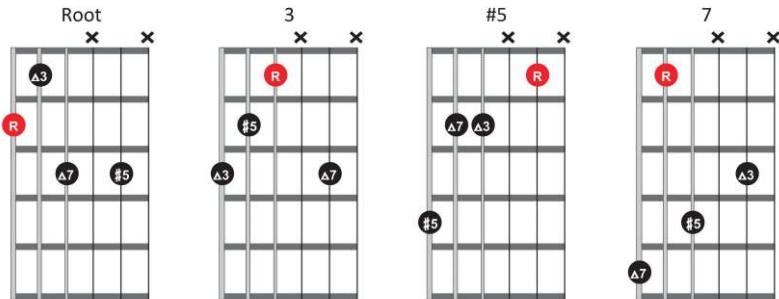
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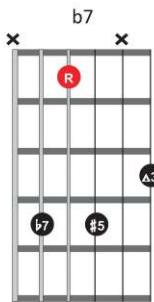
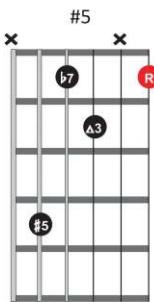
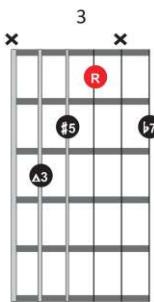
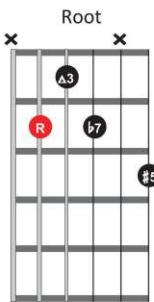
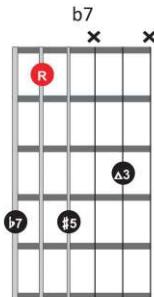
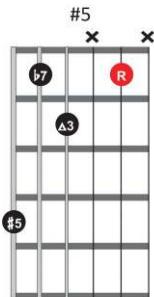
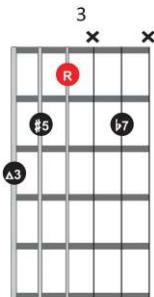
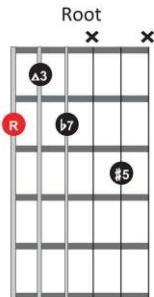
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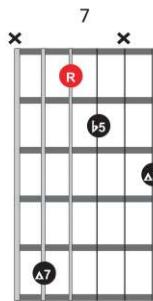
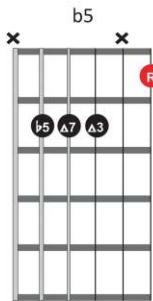
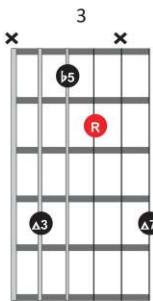
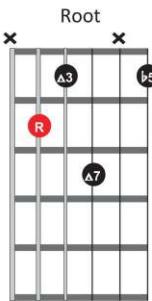
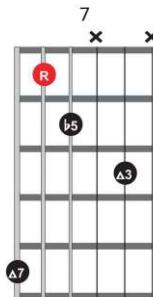
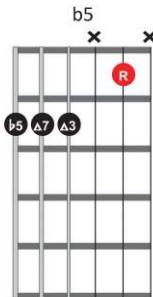
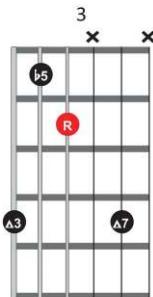
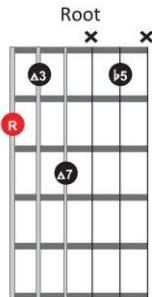
*Aug<sup>maj7</sup>*



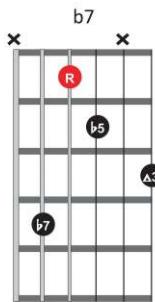
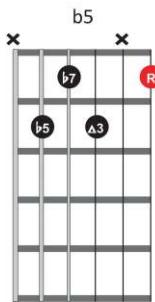
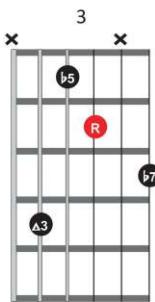
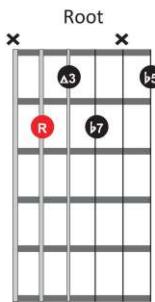
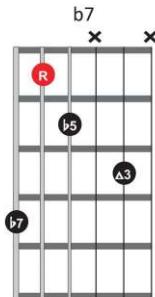
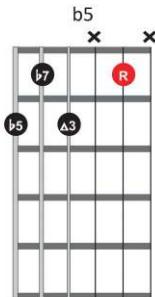
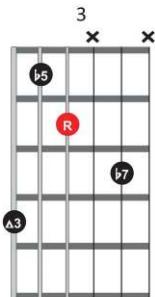
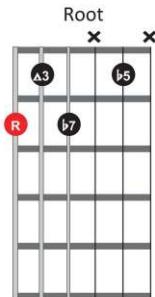
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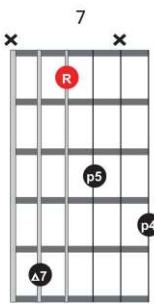
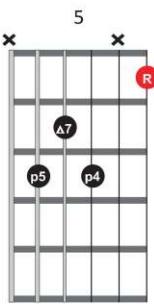
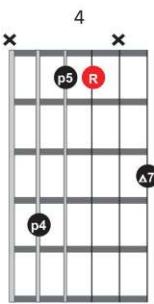
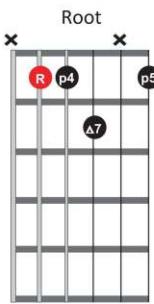
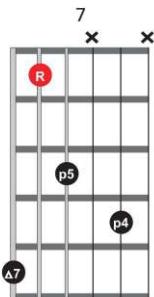
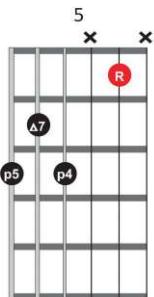
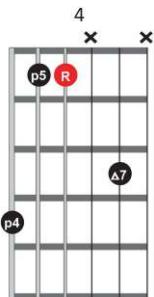
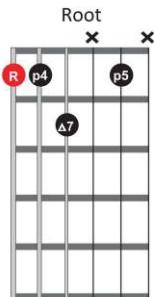
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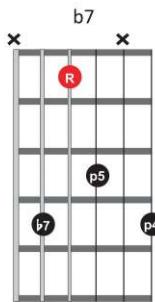
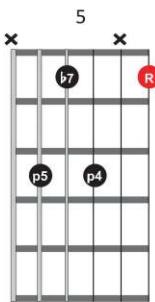
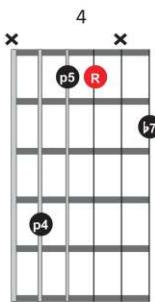
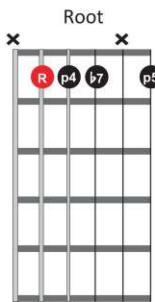
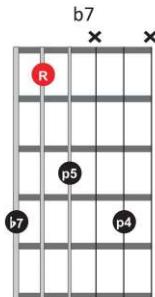
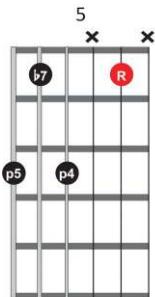
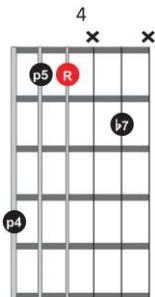
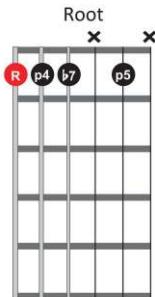
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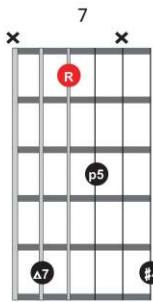
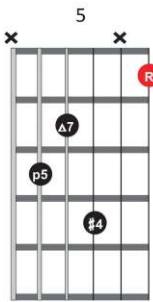
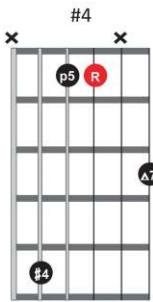
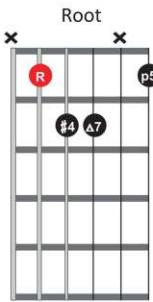
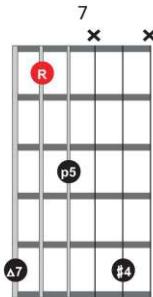
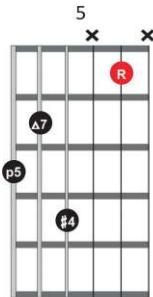
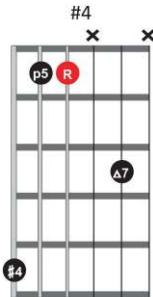
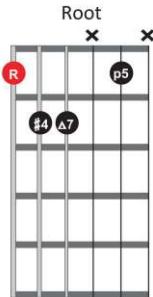
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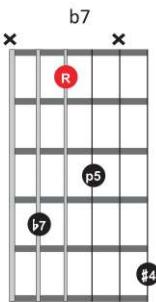
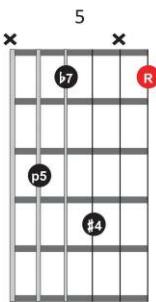
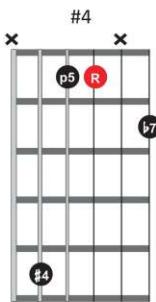
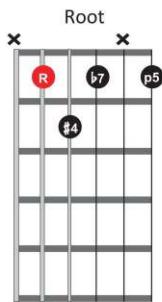
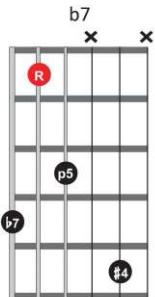
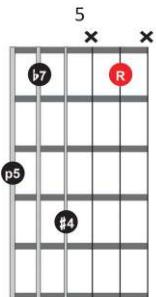
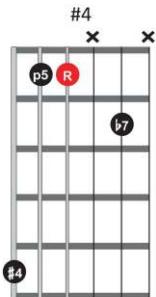
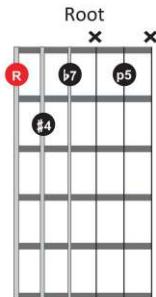
*Dom<sup>7sus4</sup>*



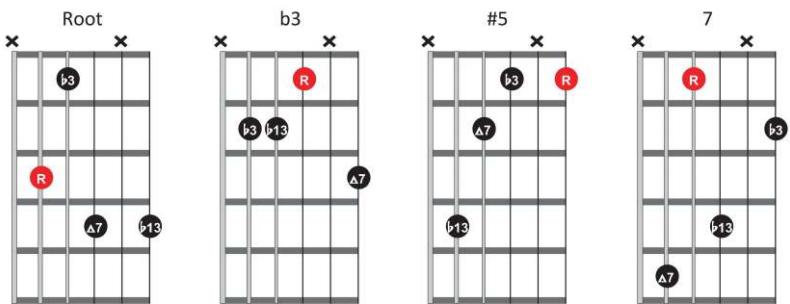
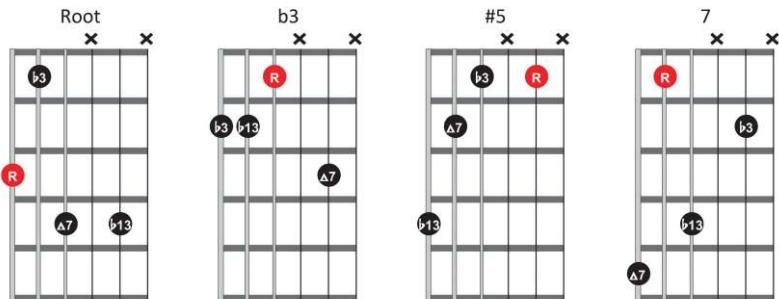
*Lydian*<sup>maj7</sup>



*Lydian* <sup>Dom7</sup>

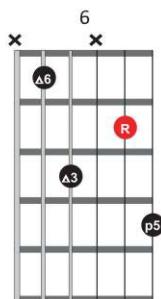
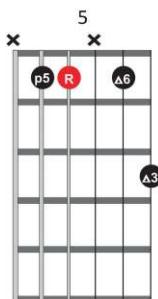
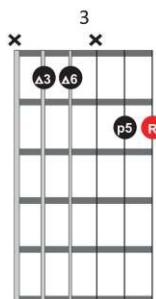
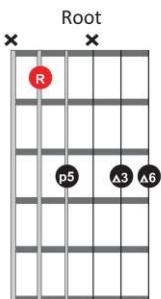
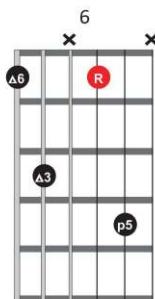
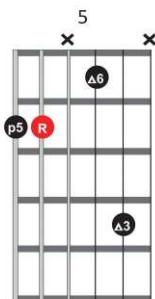
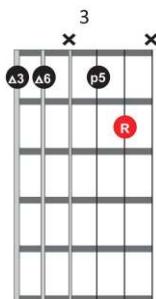
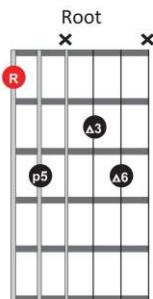


*Dim<sup>maj7b13</sup>*

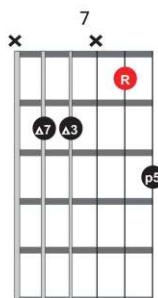
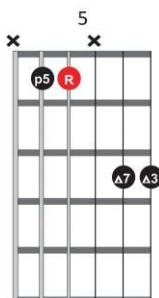
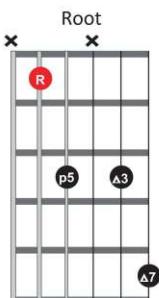
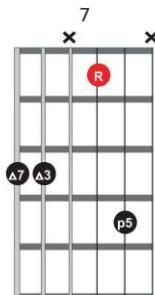
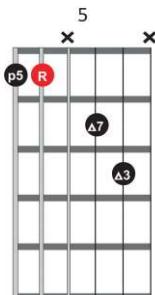
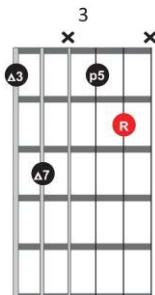
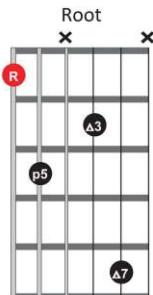


**Drop 2 + 4**

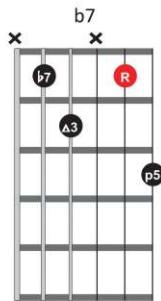
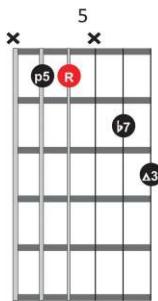
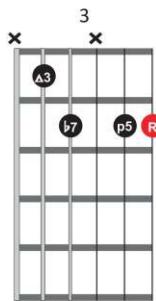
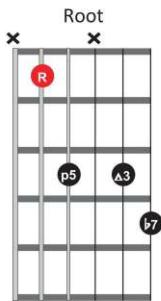
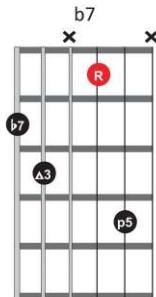
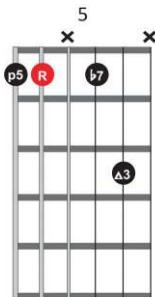
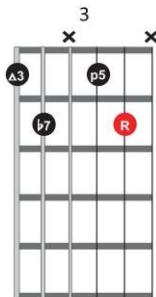
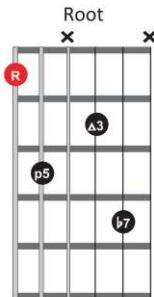
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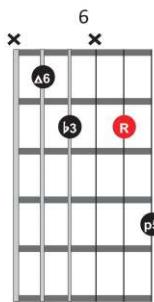
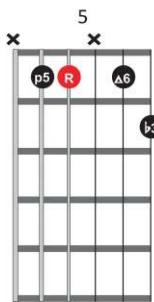
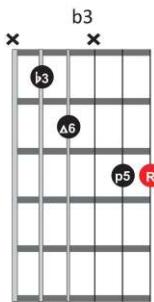
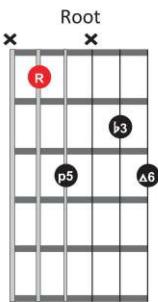
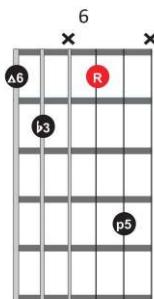
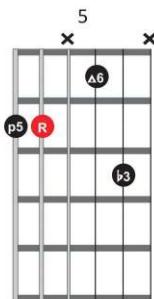
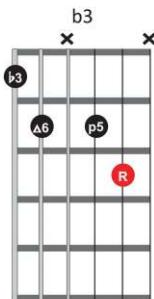
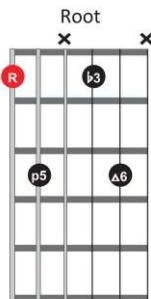
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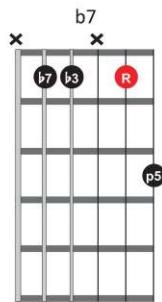
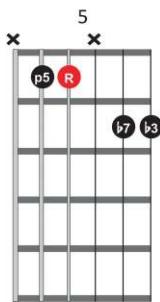
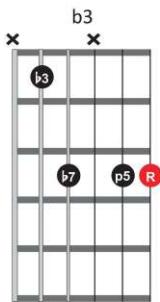
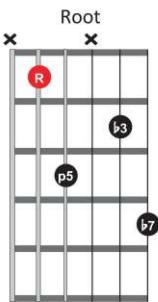
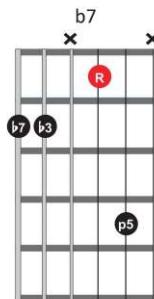
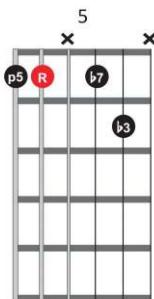
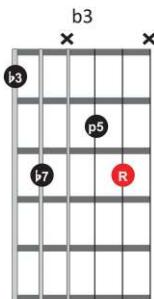
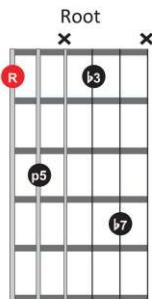
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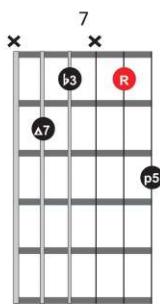
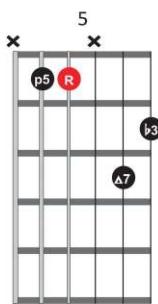
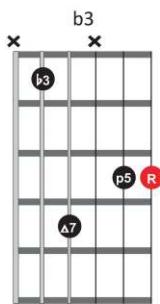
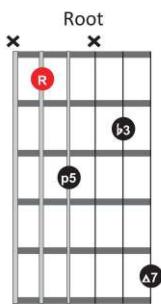
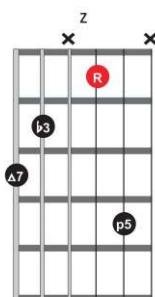
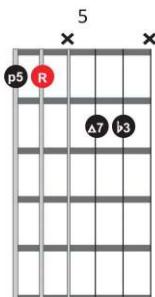
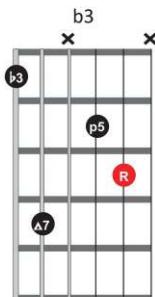
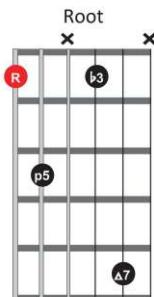
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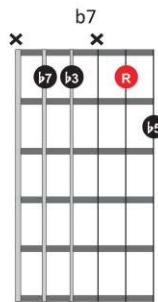
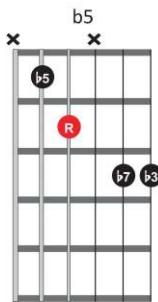
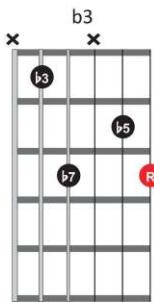
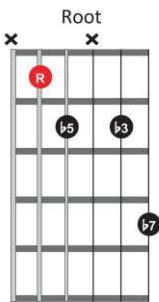
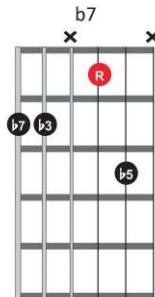
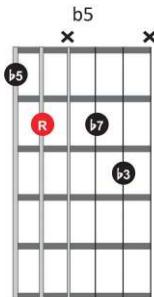
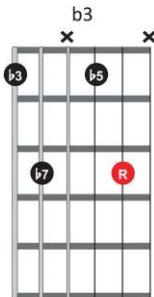
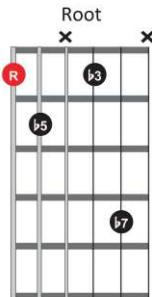
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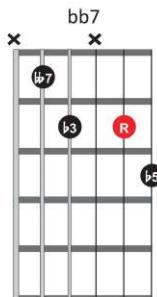
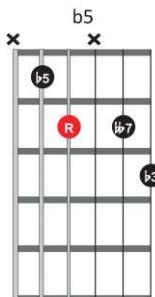
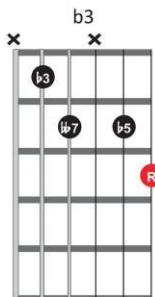
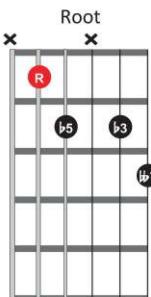
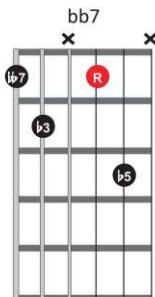
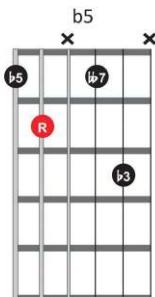
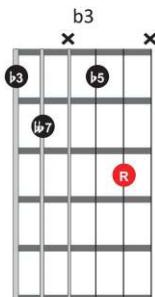
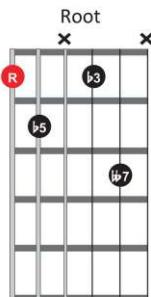
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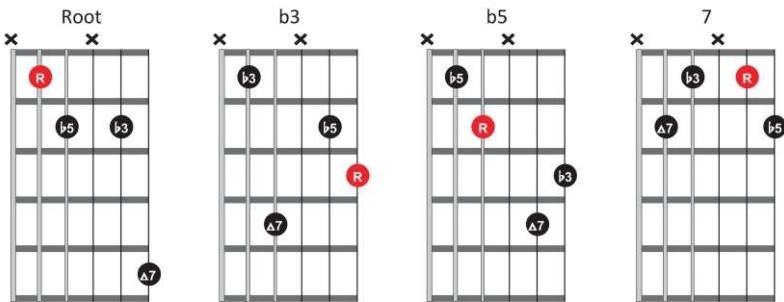
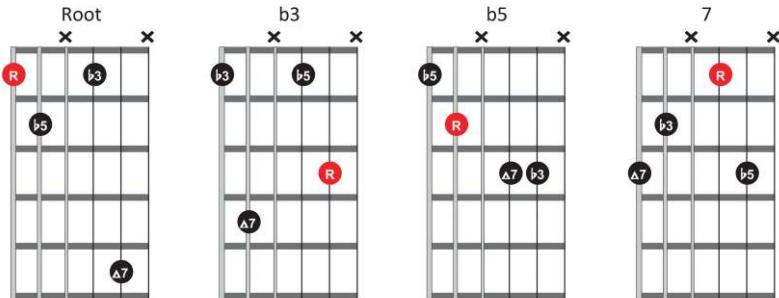
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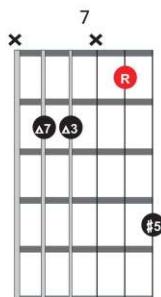
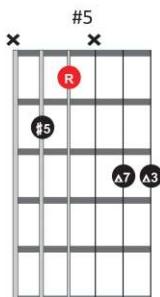
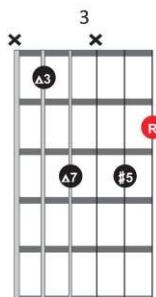
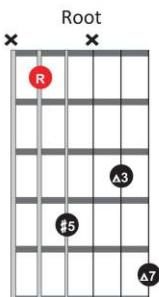
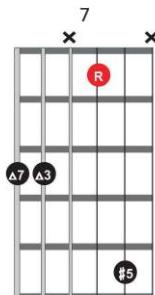
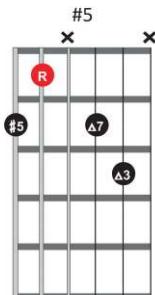
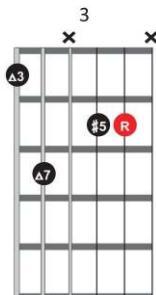
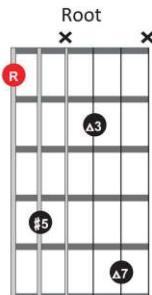
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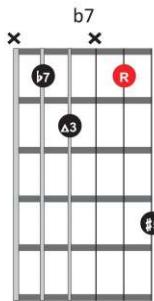
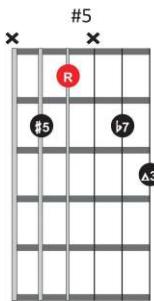
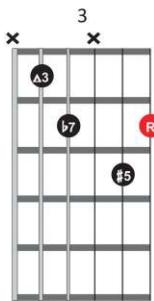
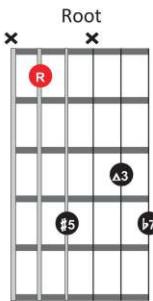
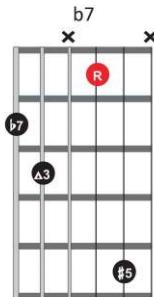
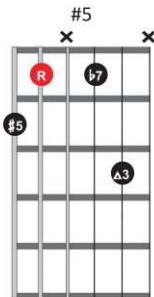
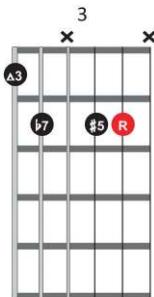
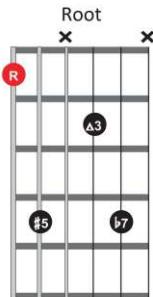
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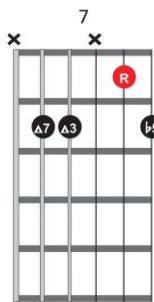
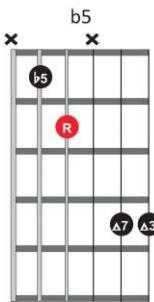
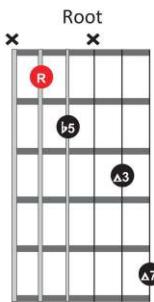
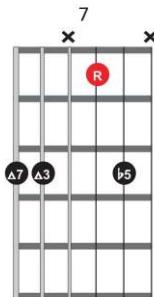
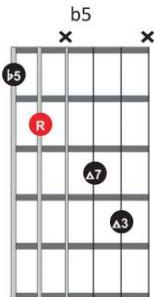
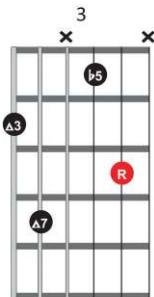
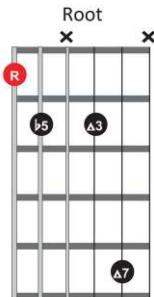
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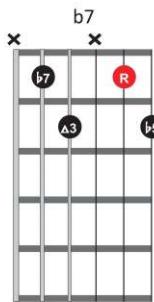
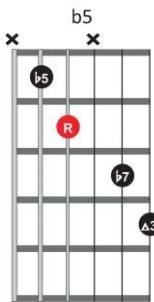
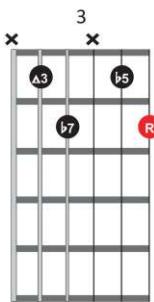
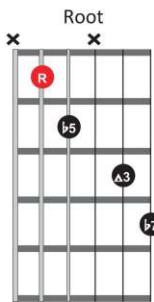
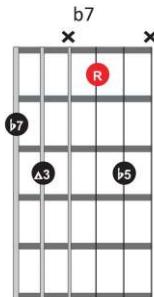
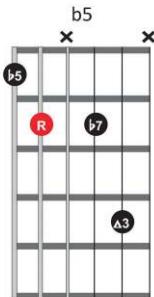
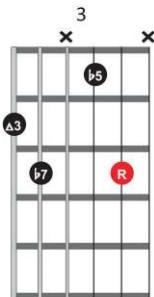
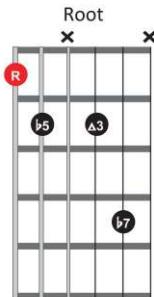
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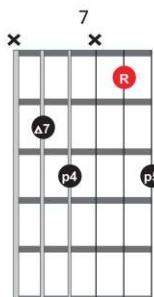
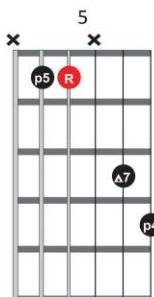
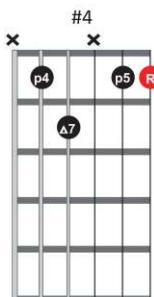
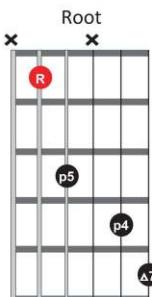
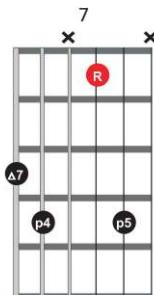
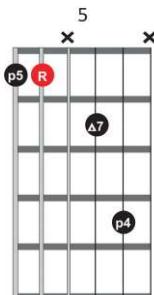
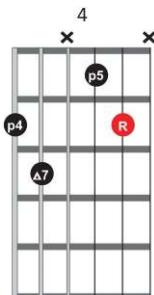
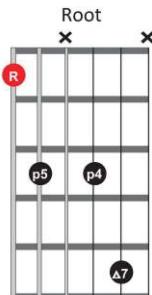
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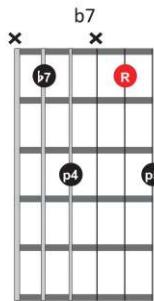
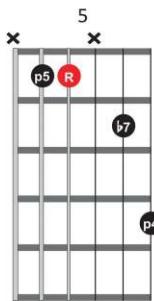
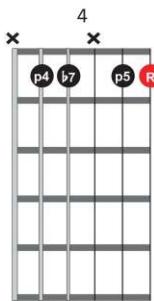
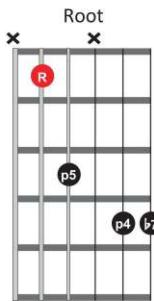
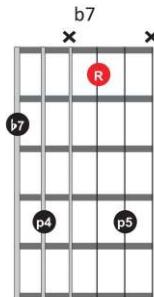
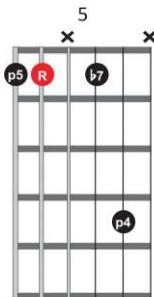
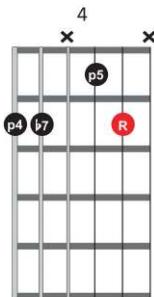
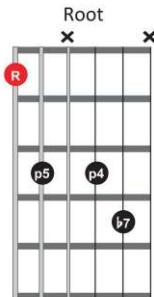
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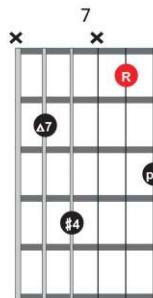
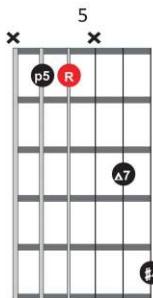
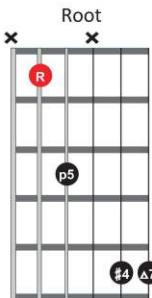
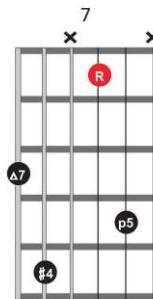
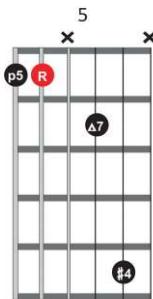
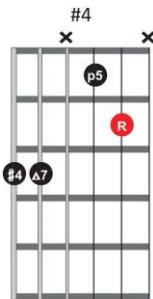
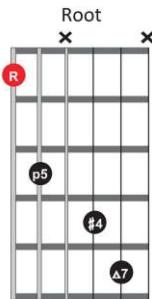
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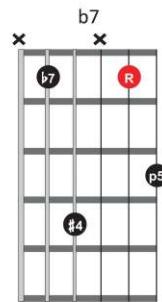
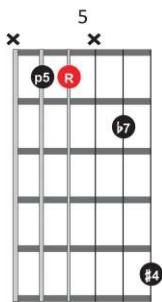
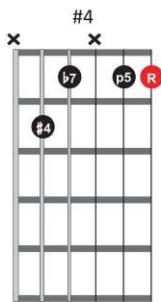
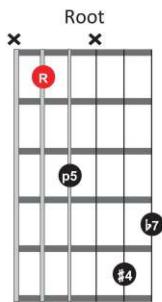
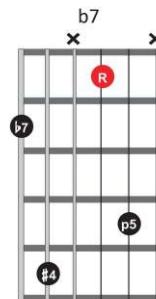
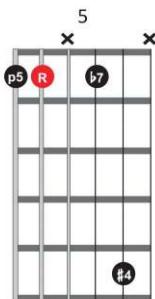
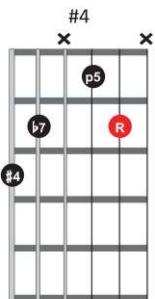
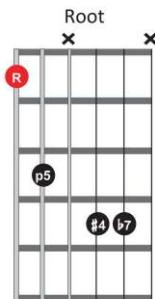
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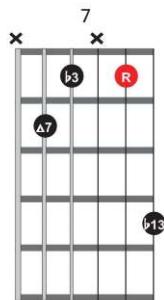
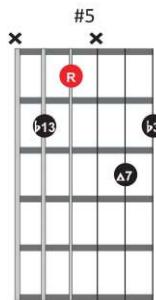
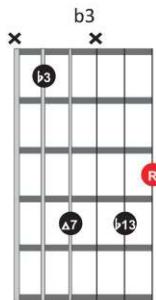
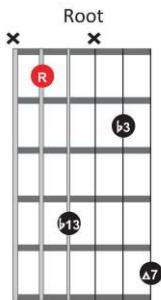
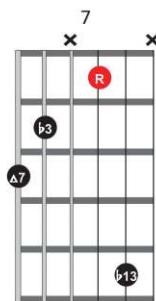
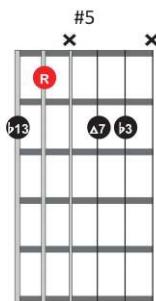
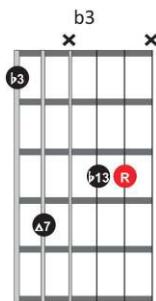
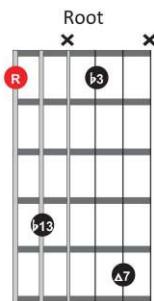
*Lydian*<sup>maj7</sup>



*Lydian* Dom7



*Dim*<sup>maj7b13</sup>

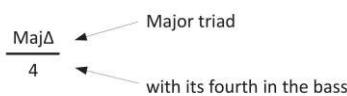


## Triads over Bass Notes

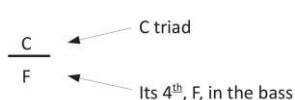
The subsequent chart contains six different forms of major, minor and suspended four triads over bass notes. I have included the bass note-to-triad relationship in addition to the common chord label.

### *Ex. 137*

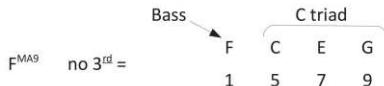
*a)*



*b)*



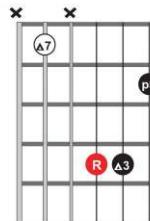
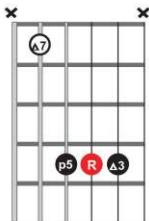
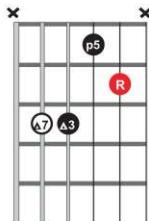
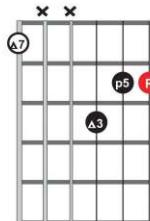
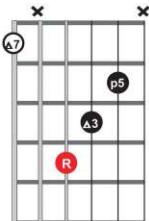
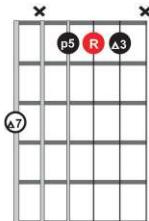
*c)* or



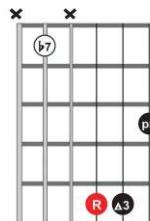
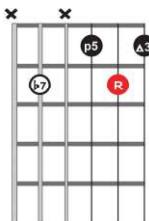
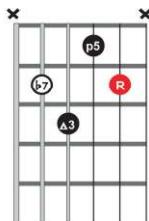
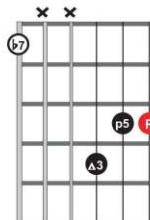
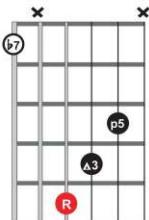
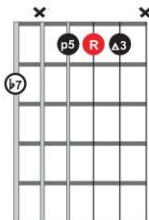
## Major Triads

### Bass Notes

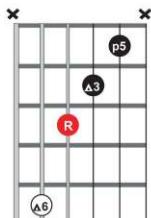
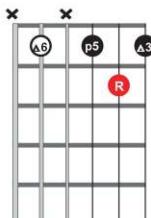
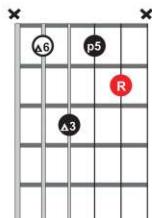
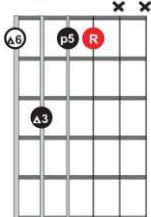
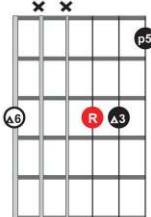
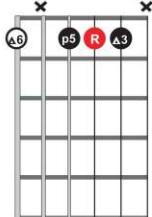
$$\frac{\text{Maj}\Delta}{7} = \text{Phrygian}$$



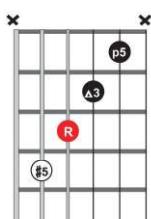
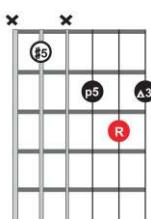
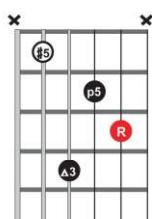
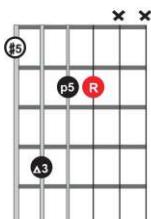
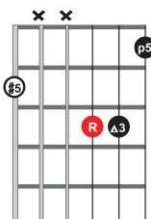
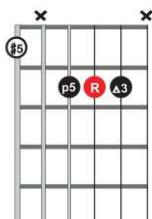
$$\frac{\text{Maj}\Delta}{\text{b7}} = \text{Dom } 2^4$$



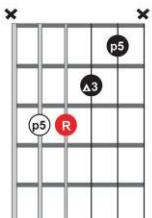
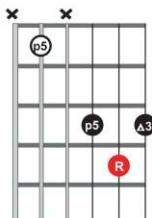
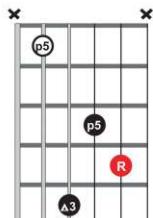
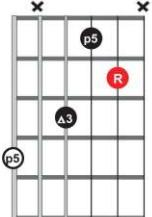
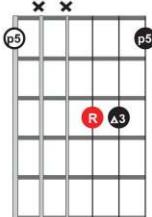
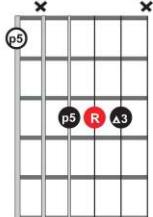
$$\frac{\text{Maj}\Delta}{6} = \text{Min}^7$$



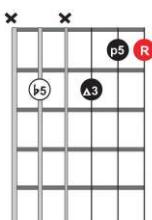
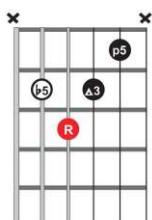
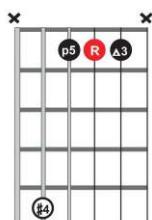
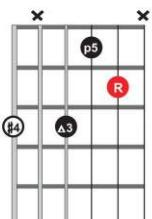
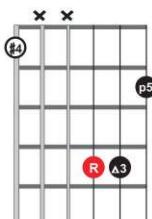
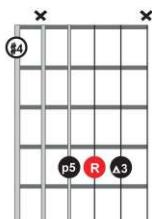
$$\frac{\text{Maj}\Delta}{\#5} = \text{Maj}^{7\#5}$$



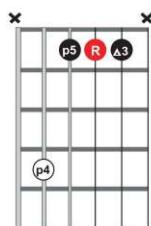
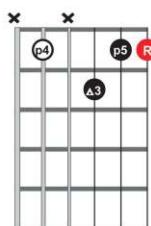
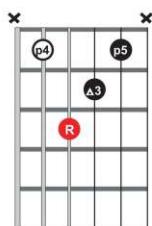
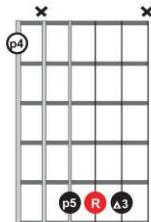
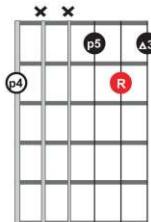
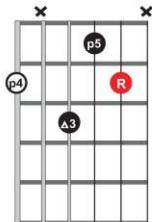
$$\frac{\text{Maj}\Delta}{5} = \text{Maj } 6 \overline{5}$$



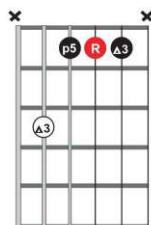
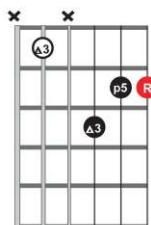
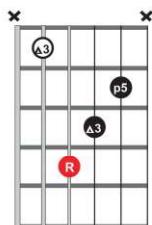
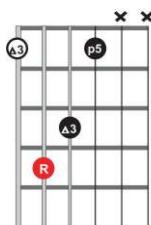
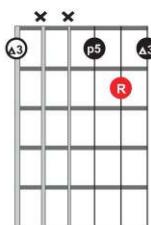
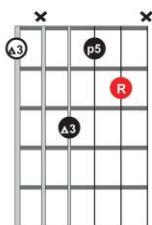
$$\frac{\text{Maj}\Delta}{\#4} = \text{Dom}^{7b9b5}$$



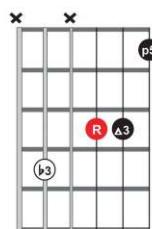
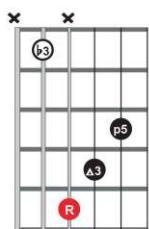
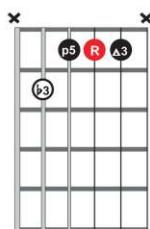
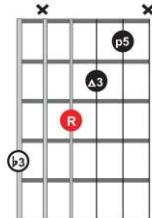
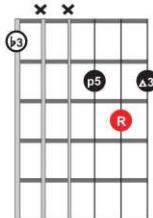
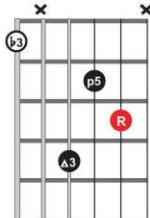
$$\frac{\text{Maj}\Delta}{4} = \text{Maj}^9 \text{ no 3rd}$$



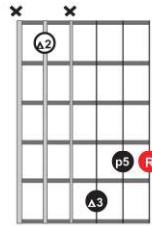
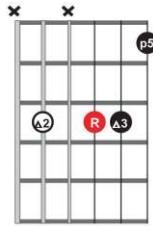
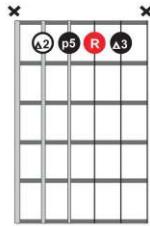
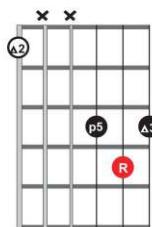
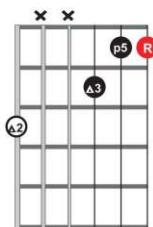
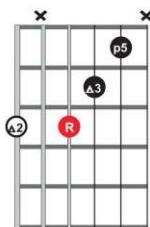
$$\frac{\text{Maj}\Delta}{3} = \text{Maj 6}$$



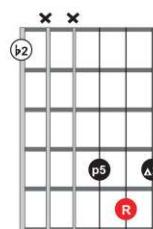
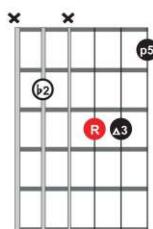
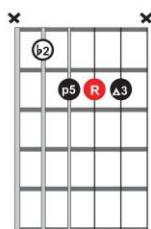
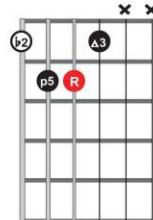
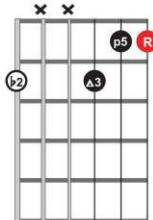
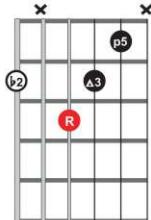
$$\frac{\text{Maj}\Delta}{\text{b3}} = \text{Dom}^{13\text{b9 no7th}}$$



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

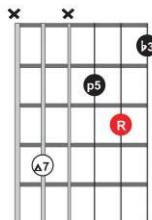
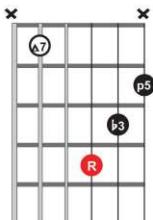
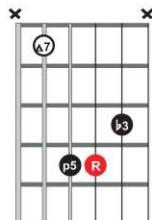
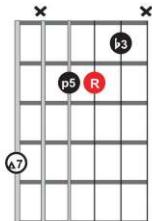
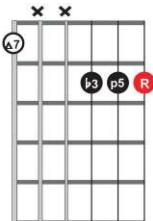
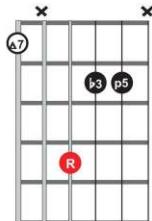


$$\frac{\text{Maj}\Delta}{\text{b9}} = \text{Dim}^{\text{maj7}}$$

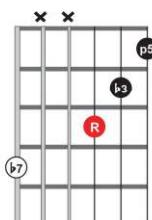
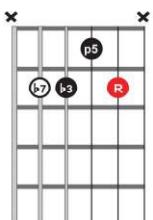
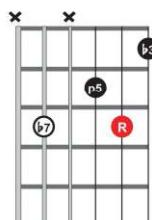
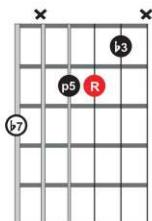
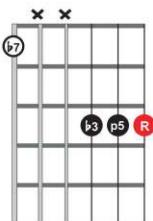
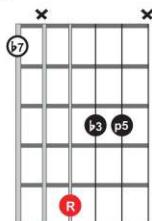


**Minor Triads**  
**Bass Notes**

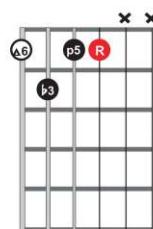
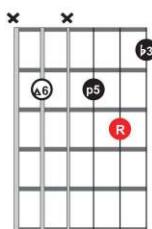
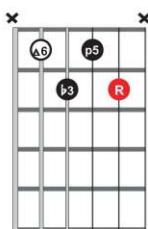
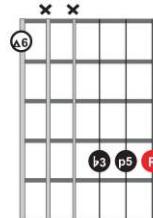
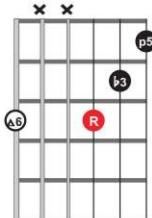
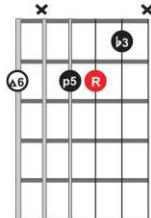
$$\frac{\text{Min}\Delta}{7} = \text{Dom}^{7/\#5/b9\ no7}$$



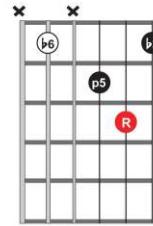
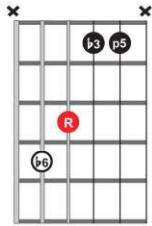
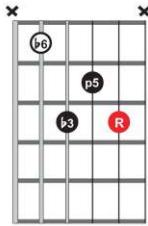
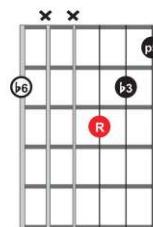
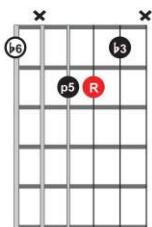
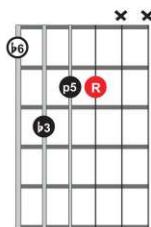
$$\frac{\text{Min}\Delta}{b7} = \frac{\text{Maj}^6}{5^{\text{th}}}$$



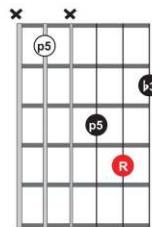
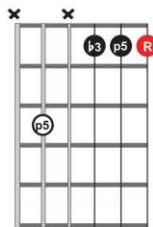
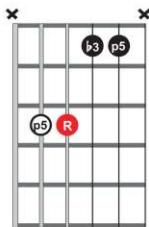
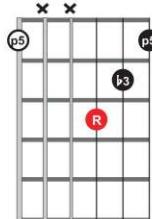
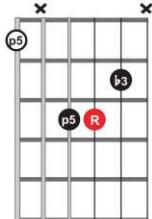
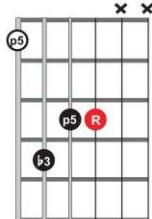
$$\frac{\text{Min}\Delta}{6} = \text{Min}^{\gamma_{b5}}$$



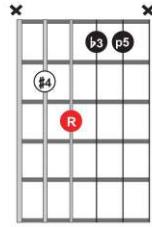
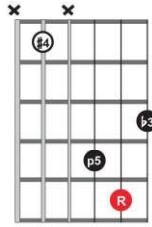
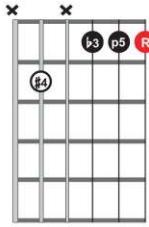
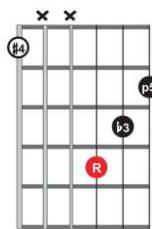
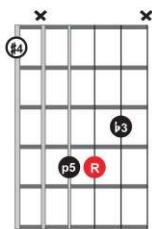
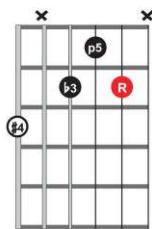
$$\frac{\text{Min}\Delta}{b6} = \text{Maj}^\gamma$$



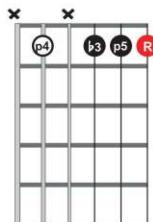
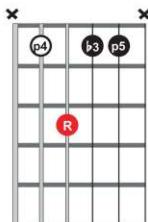
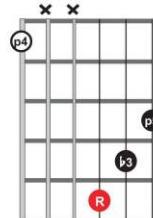
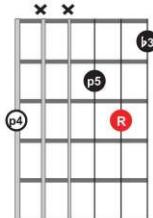
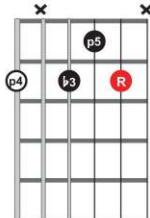
$$\frac{\text{Min}\Delta}{5} = \text{Min } 5$$



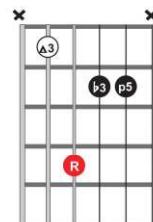
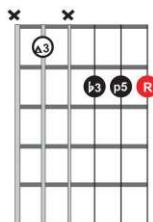
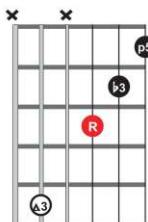
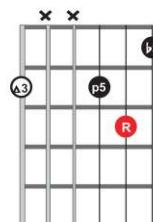
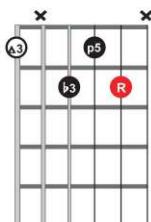
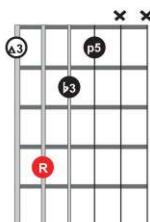
$$\frac{\text{Min}\Delta}{\#4} = \text{Dom}^{13/b9/b5 \text{ no 3rd}}$$



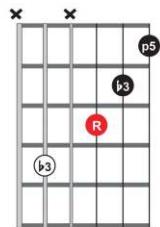
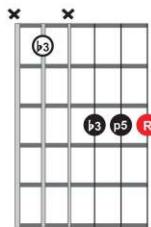
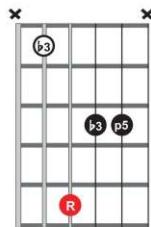
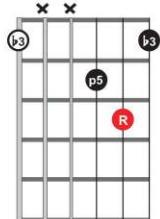
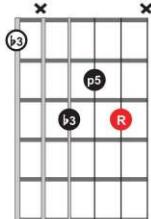
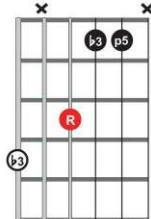
$$\frac{\text{Min}\Delta}{4} = \text{Dom}^9 \text{ no 3rd}$$



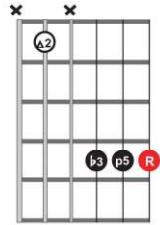
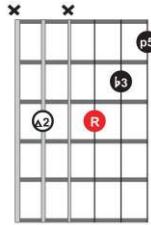
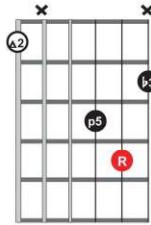
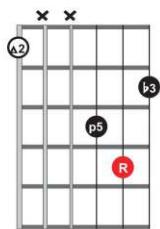
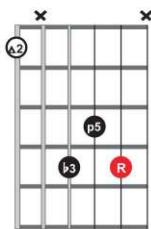
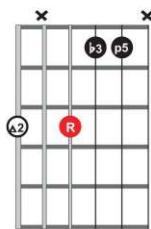
$$\frac{\text{Min}\Delta}{3} = \text{Dim}^{\text{maj7b11}}$$



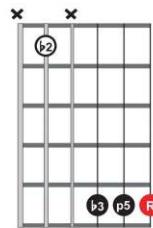
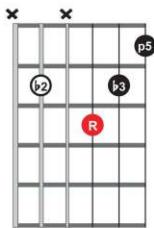
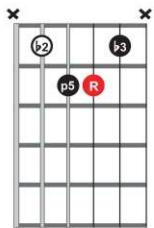
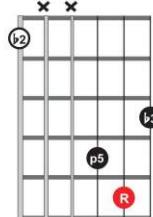
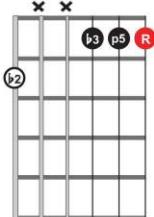
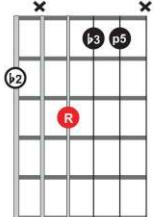
$\frac{\text{Min}\Delta}{\text{b3}} = \text{Min 6}$



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

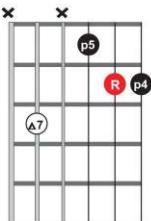
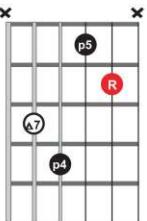
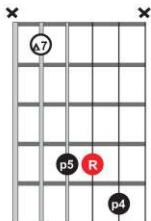
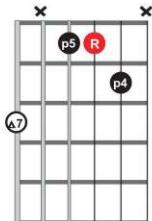
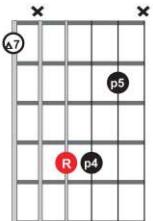
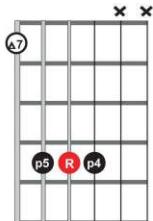


$$\frac{\text{Min}\Delta}{\text{b9}} = \text{Dim}^{\text{maj7}}$$

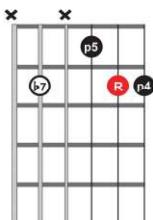
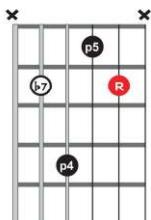
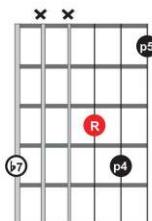
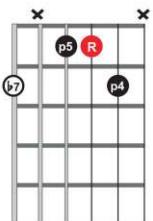
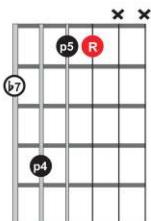


**Sus4 Triads**  
**Bass Notes**

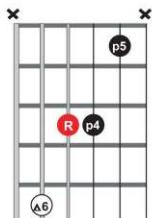
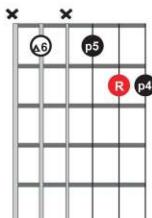
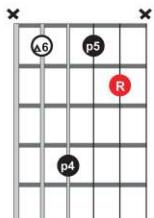
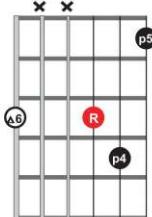
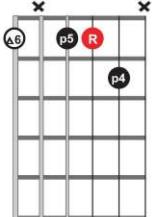
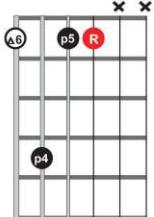
$$\frac{\text{Sus4}\Delta}{7} = \text{Dom}^{7/b9/b5/\#5}$$



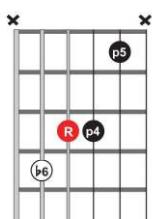
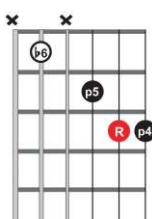
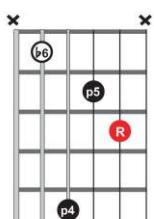
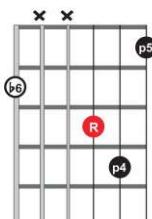
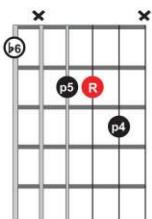
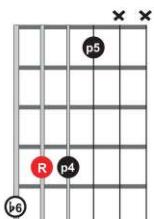
$$\frac{\text{Sus4}\Delta}{b7} = \text{Ma}_6^6$$



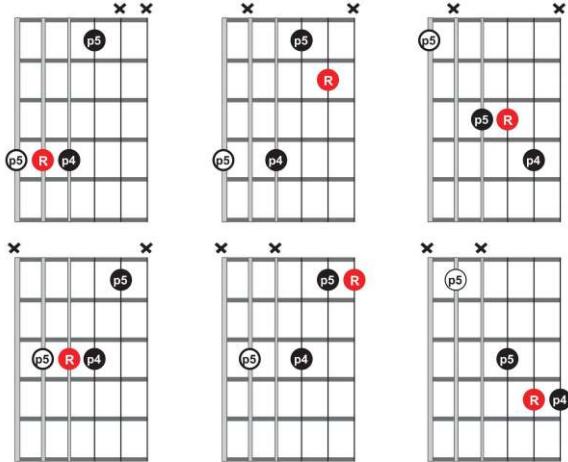
$$\frac{\text{Sus4}\Delta}{6} = \text{Min}^{7\text{b}6}$$



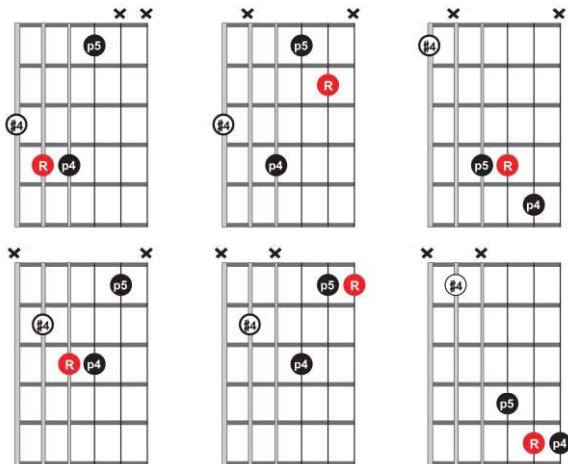
$$\frac{\text{Sus4}\Delta}{\text{b}6} = \text{Maj}^{13}$$



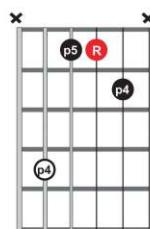
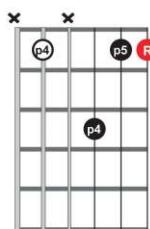
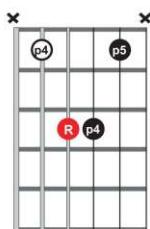
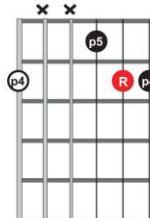
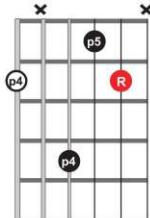
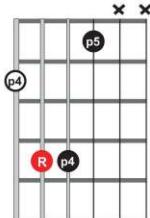
$$\frac{\text{Sus4}\Delta}{5} = \text{Dom}^7\text{sus4}$$



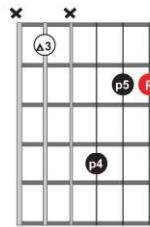
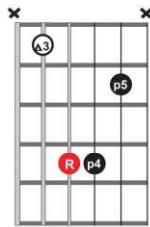
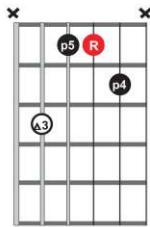
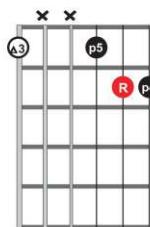
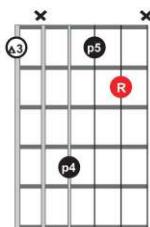
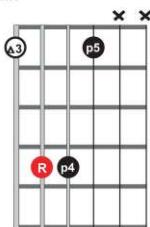
$$\frac{\text{Sus4}\Delta}{\#4} = \text{Twelve Tone}$$



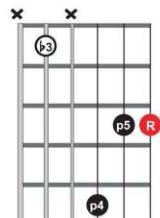
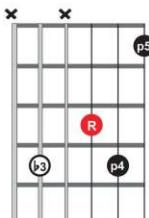
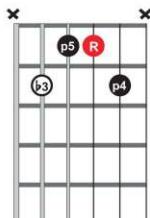
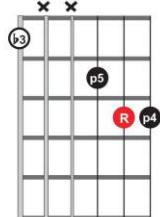
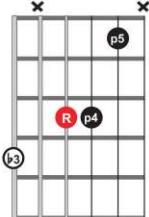
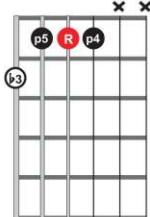
$$\frac{\text{Sus4}\Delta}{4} = \text{Sus2}$$



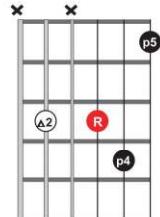
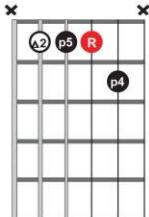
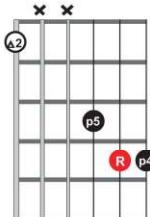
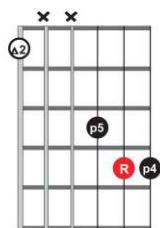
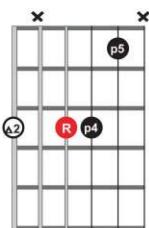
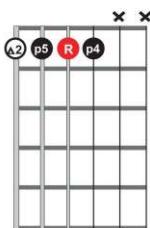
$$\frac{\text{Sus4}\Delta}{3} = \begin{matrix} \text{Dom}^{7/b9/b5/\#9} \\ \text{Min}^{7/b9b6} \end{matrix}$$



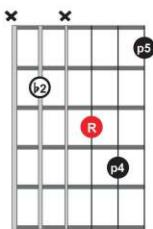
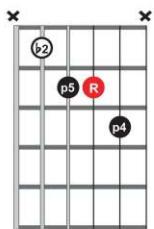
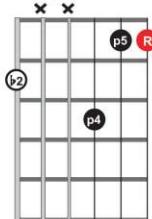
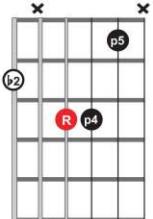
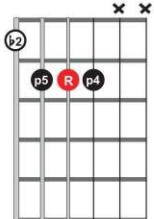
$$\frac{\text{Sus4}\Delta}{\text{b3}} = \text{Maj}^{69}$$



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



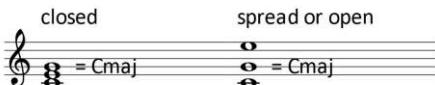
$$\frac{\text{Sus4}\Delta}{\text{b9}} = \text{Maj}^{\gamma_{\text{b5}}}$$



## 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**

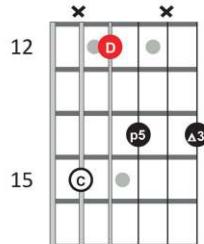
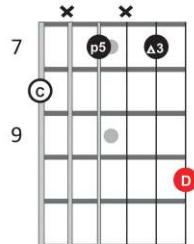
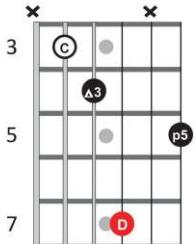
$\frac{E}{C}$	=	Cmaj <sup>7#5</sup>	=	C	E	G#	B
				1	3	#5	7

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:

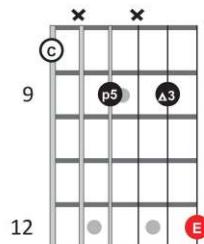
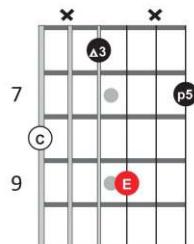
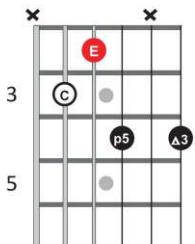
$\frac{E\text{Lyd}}{C}$	=	C	E	A#	B
3½ step intervals					

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

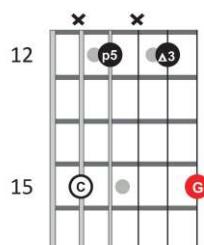
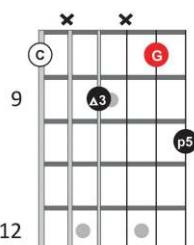
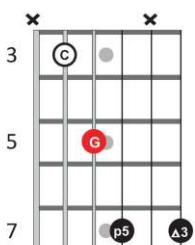
D  
C



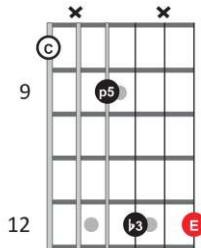
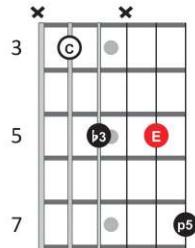
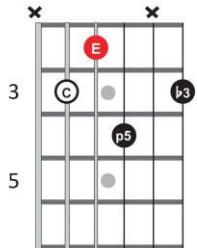
E  
C



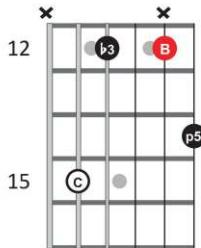
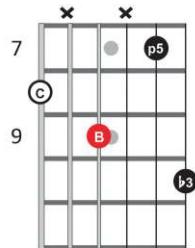
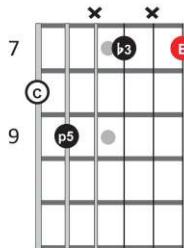
G  
C



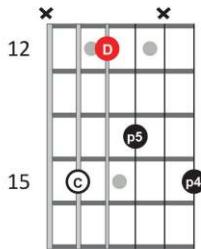
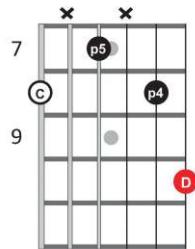
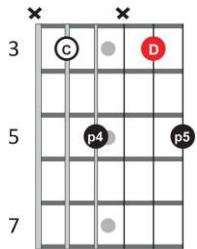
$\frac{E}{C}$



$\frac{B}{C}$

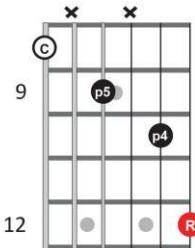
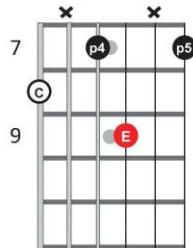
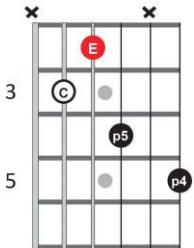


$\frac{D^{\text{sus4}}}{C}$



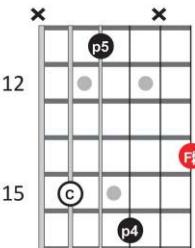
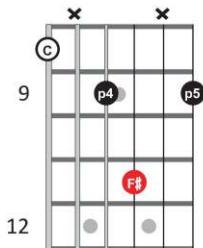
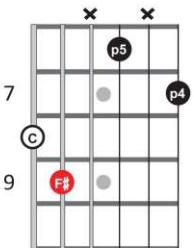
E<sup>sus4</sup>

C



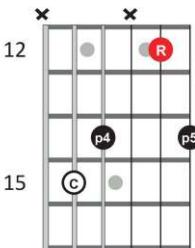
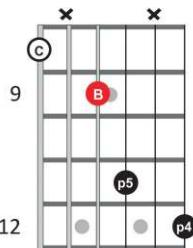
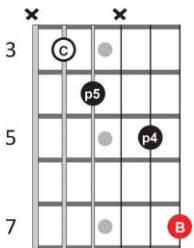
F#<sup>sus4</sup>

C

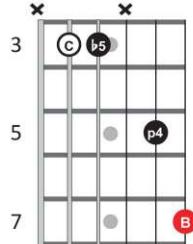
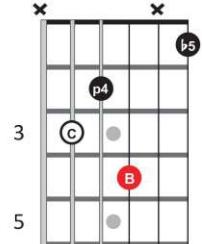
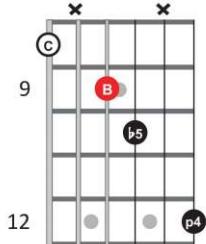


B<sup>sus4</sup>

C

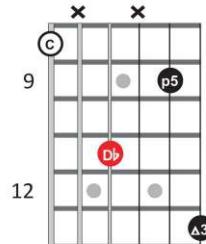
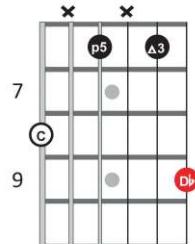
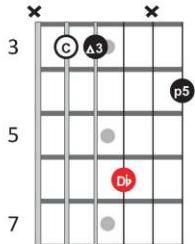


$$\frac{B}{C}$$

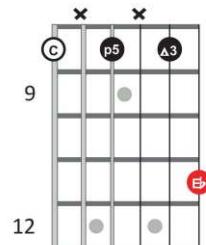
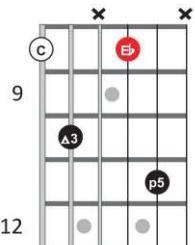
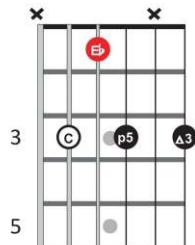


**Minor Type Spread Triads**  
**Bass Notes (C)**

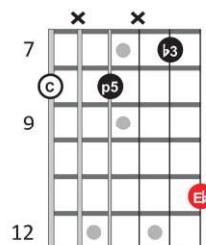
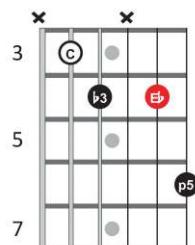
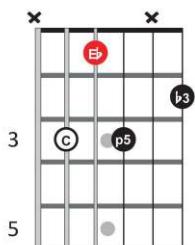
$\frac{D_b}{C}$



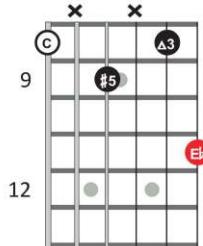
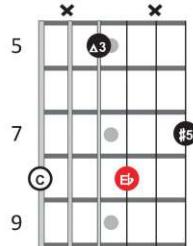
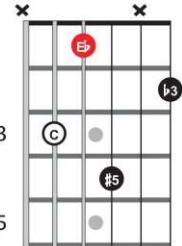
$\frac{E_b}{C}$



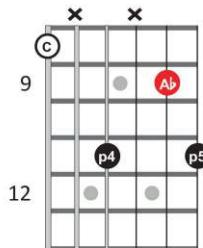
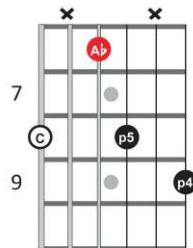
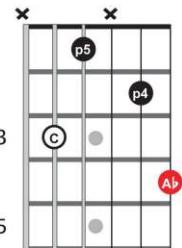
$\frac{E_b^-}{C}$



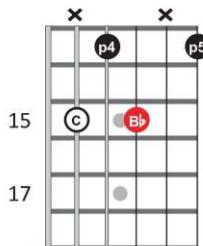
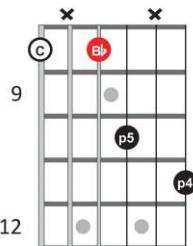
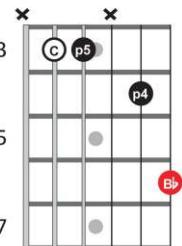
$E_{b+}$   
C



$A_{b\,sus4}$   
C

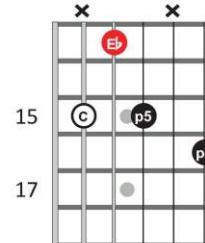
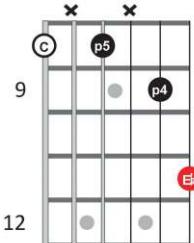
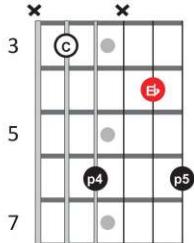


$B_{b\,sus4}$   
C



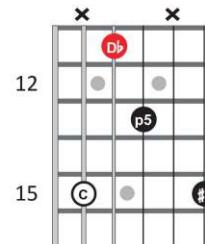
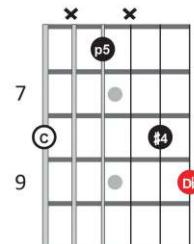
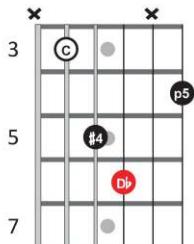
$E_b^{sus4}$

C



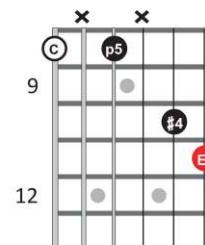
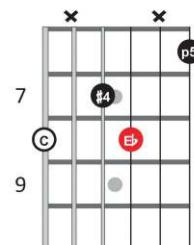
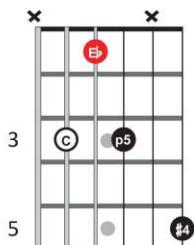
$D_b^{lyd}$

C

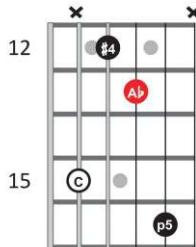
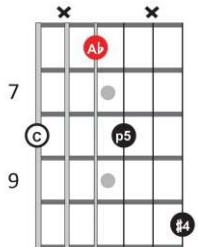
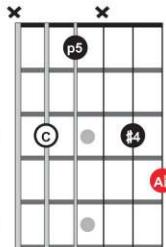


$E_b^{lyd}$

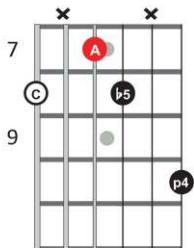
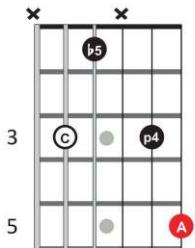
C



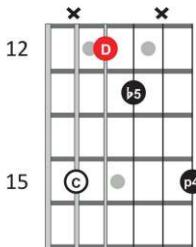
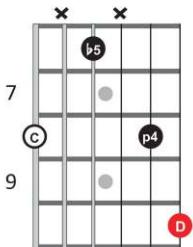
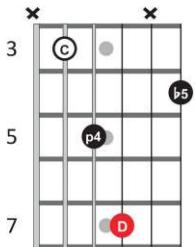
$\text{Ab}^{\text{lyd}}$   
C



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

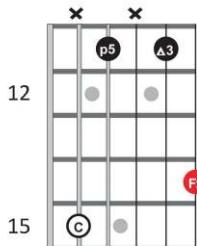
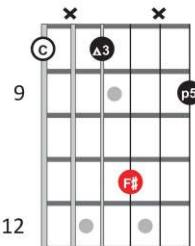
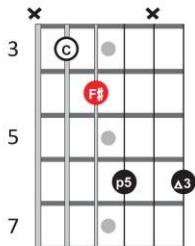


$\text{D}^{\text{loc}}$   
C

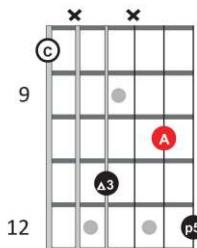
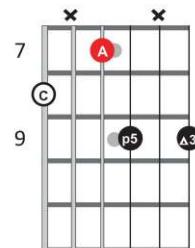
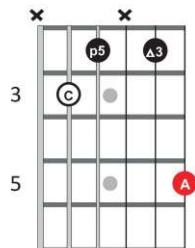


Dom<sup>7</sup> Type Spread Triads  
Bass Notes (C)

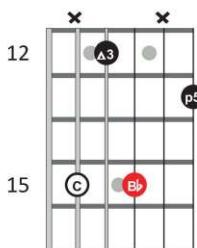
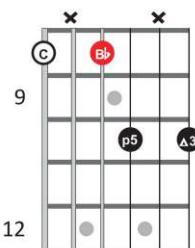
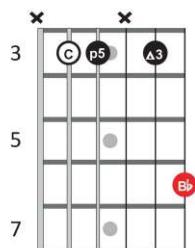
F#  
 C



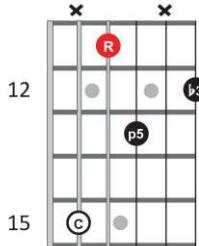
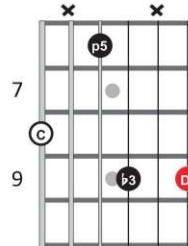
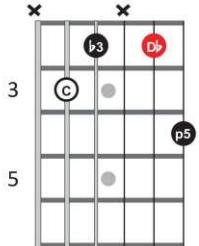
A  
 C



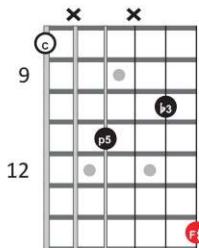
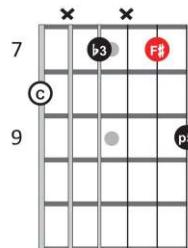
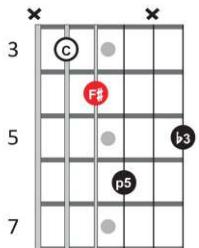
Bb  
 C



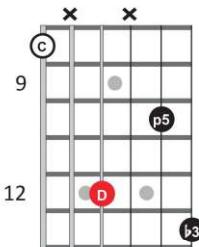
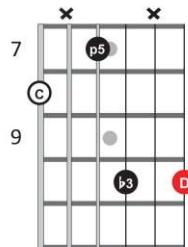
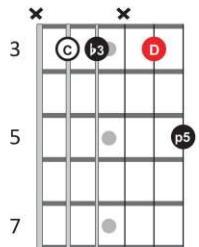
$\text{Db-}$   
C



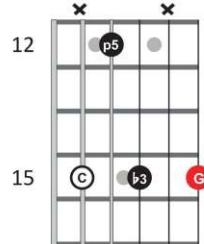
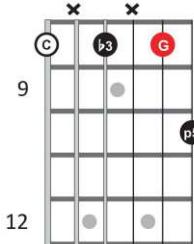
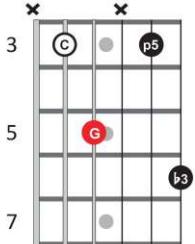
$\text{F\#-}$   
C



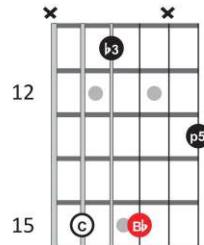
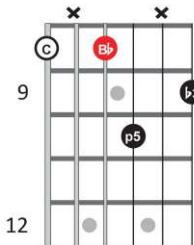
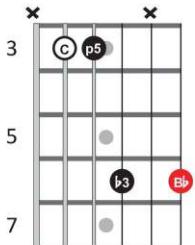
$\text{D-}$   
C



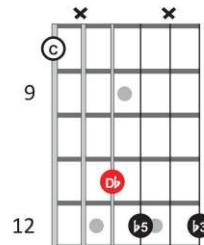
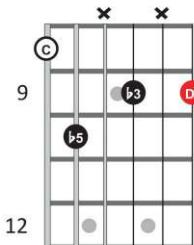
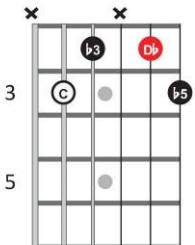
$\frac{G-}{C}$



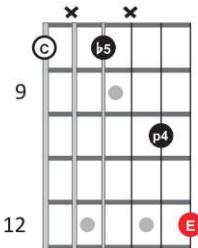
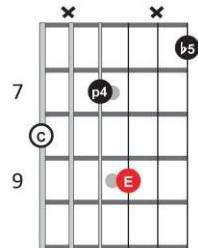
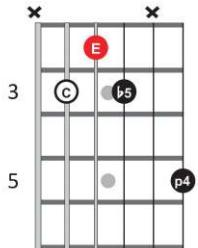
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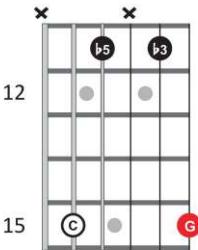
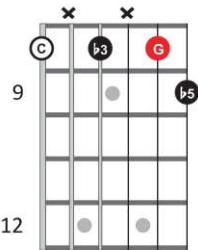
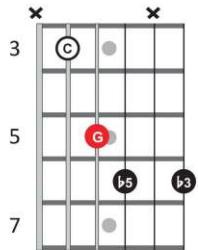
$\frac{Db^o}{C}$



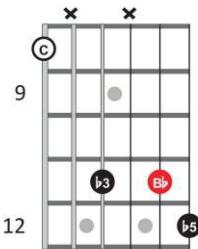
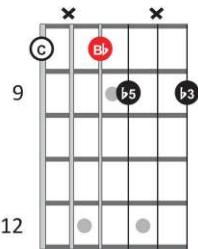
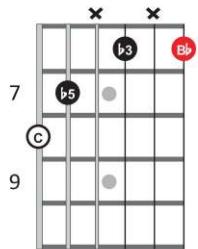
$E^\circ$   
C



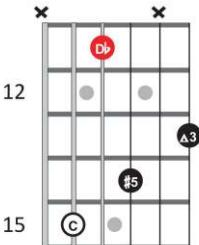
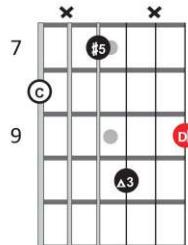
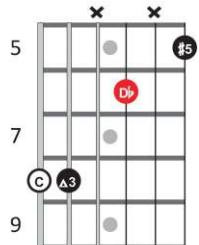
$G^\circ$   
C



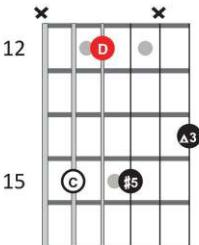
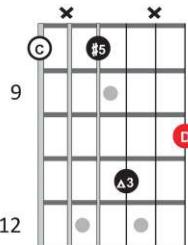
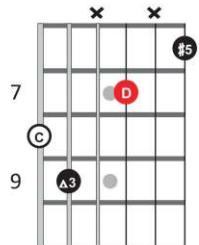
$Bb^\circ$   
C



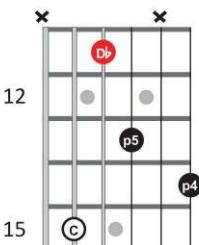
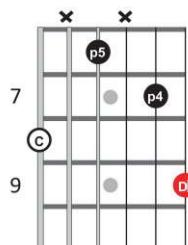
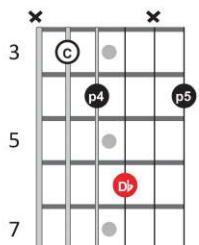
$\frac{D\flat+}{C}$



$\frac{D+}{C}$

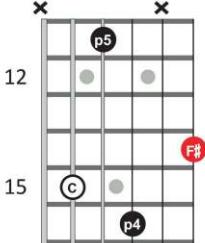
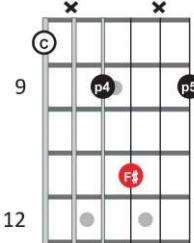
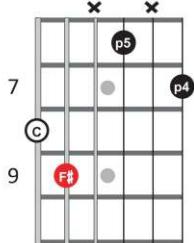


$\frac{D\flat^{sus4}}{C}$



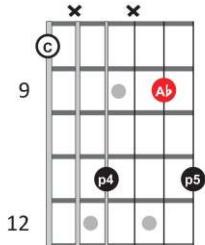
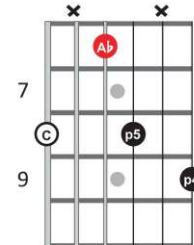
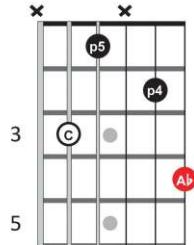
F#<sup>sus4</sup>

C



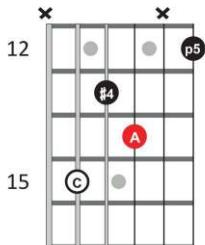
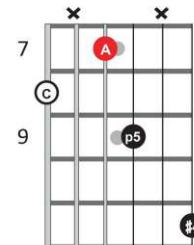
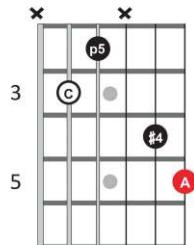
Ab<sup>sus4</sup>

C

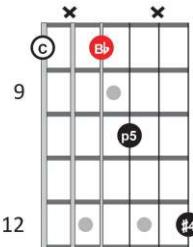
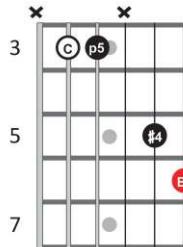
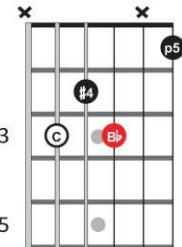


A<sup>lyd</sup>

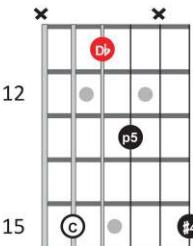
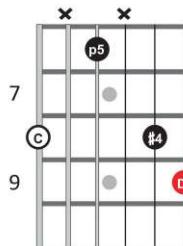
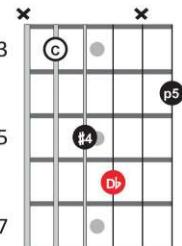
C



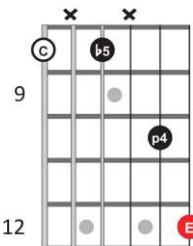
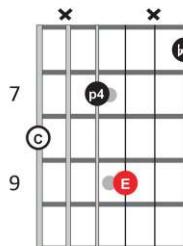
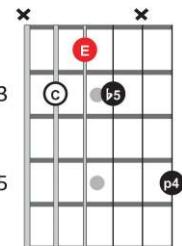
$\text{Bb}^{\text{lyd}}$   
C



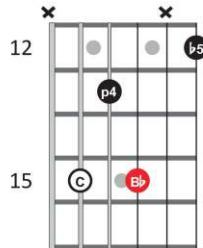
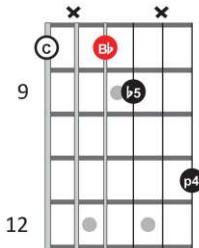
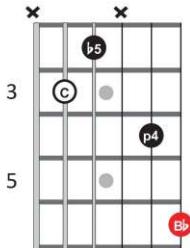
$\text{Db}^{\text{lyd}}$   
C



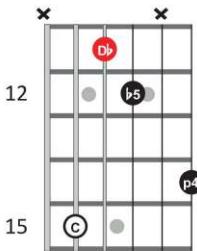
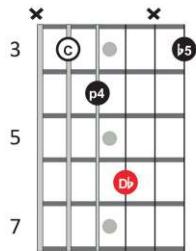
$\text{E}^{\text{loc}}$   
C



$Bb^{loc}$   
C



$D\flat^{loc}$   
C

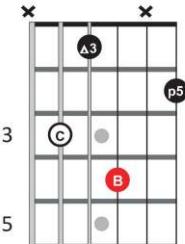
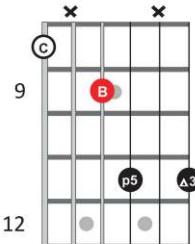
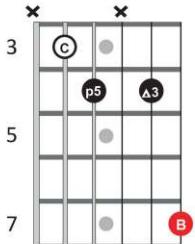


**Diminished Type Spread Triads**  
**Bass Notes (C)**

**B**  


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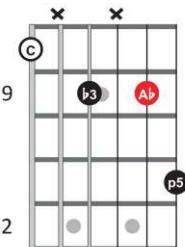
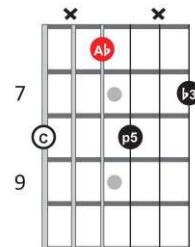
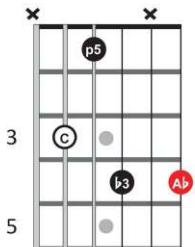
**C**



**Ab-**  


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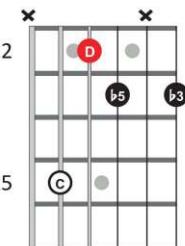
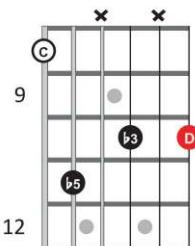
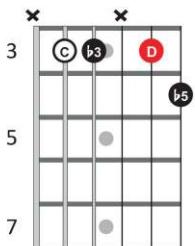
**C**



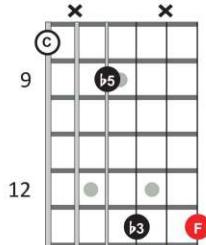
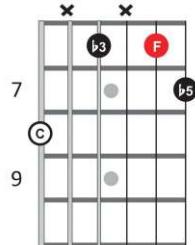
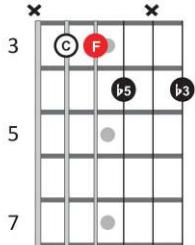
**D°**  


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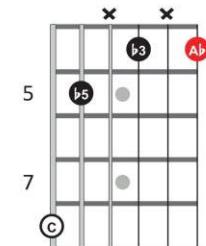
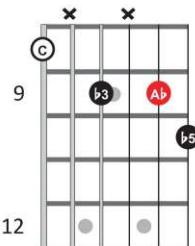
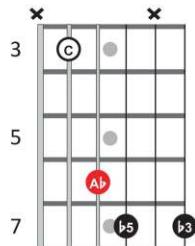
**C**



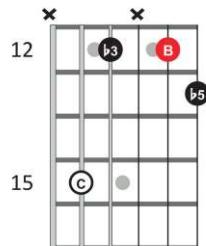
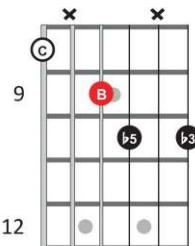
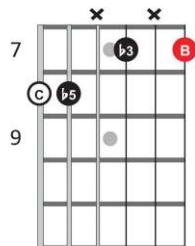
$\frac{F^\circ}{C}$



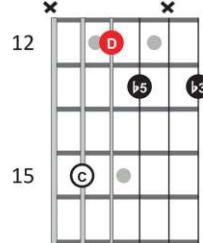
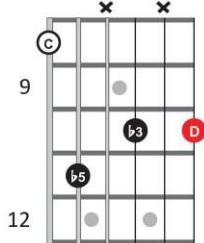
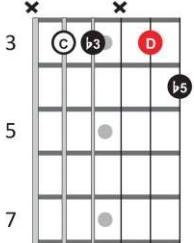
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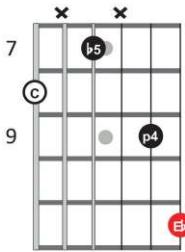
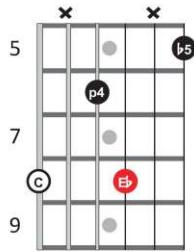
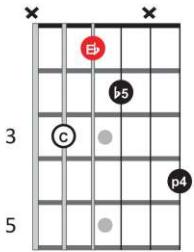
$\frac{B^\circ}{C}$



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

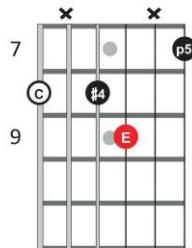
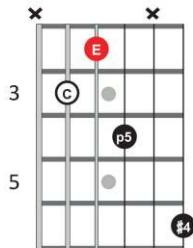


$\frac{Eb^{loc}}{C}$

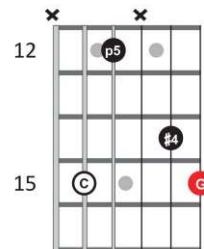
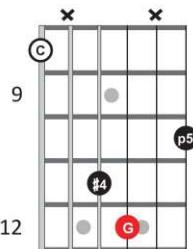
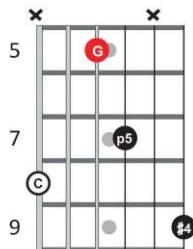


**Twelve Tone Type Spread Triads**  
**Bass Notes (C)**

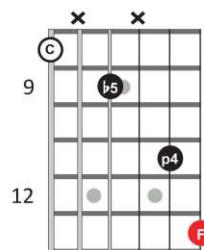
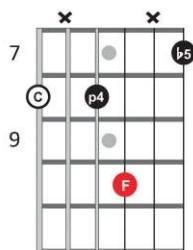
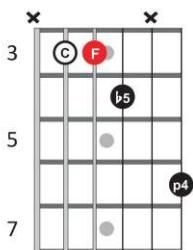
$E^{\text{lyd}}$   
 $\text{C}$



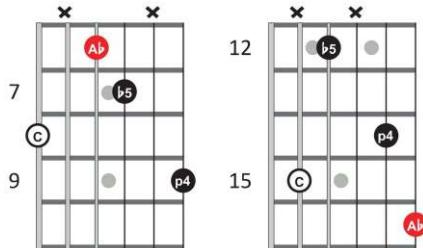
$G^{\text{lyd}}$   
 $\text{C}$



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



$\frac{\text{Ab}^{\text{loc}}}{\text{C}}$



## 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

A musical staff in C major (G clef) showing three-part quartal voicings. The chords are labeled above the staff: CQ<sup>#</sup>, DQ, EQ, F<sup>+4</sup>Q, GQ, AQ, and BQ. The staff consists of four measures, each containing two stacked eighth-note chords. The first measure shows CQ<sup>#</sup> (C-E-G) and G<sup>#</sup> (G-B-D). The second measure shows DQ (D-F-A) and A (A-C-E). The third measure shows EQ (E-G-B) and B (B-D-F). The fourth measure shows F<sup>+4</sup>Q (F-A-C) and G (G-B-D).

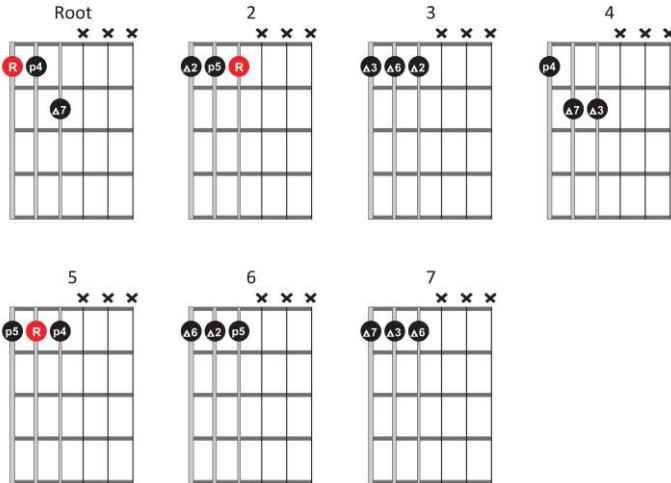
#### Ex. 141

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

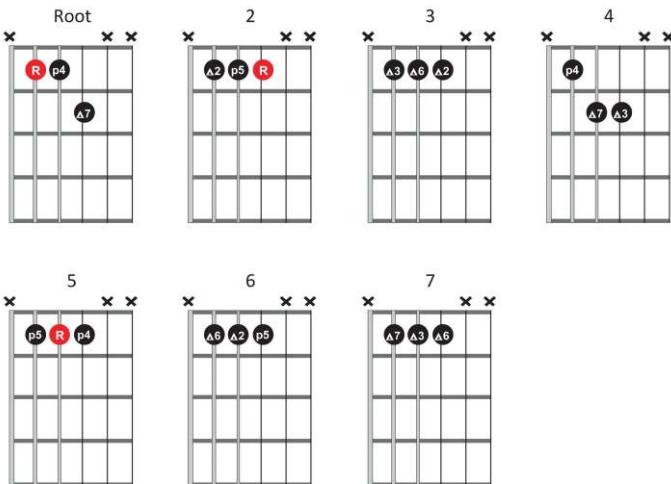
Four, Five, and Six-Part Quartal Voicings have not been specifically labeled.

### 3part-Quartal Voicings – Major Scale

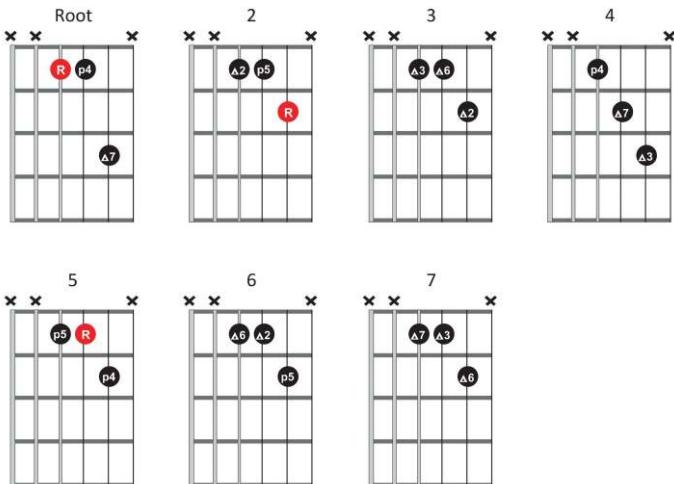
#### Stringset E-A-D



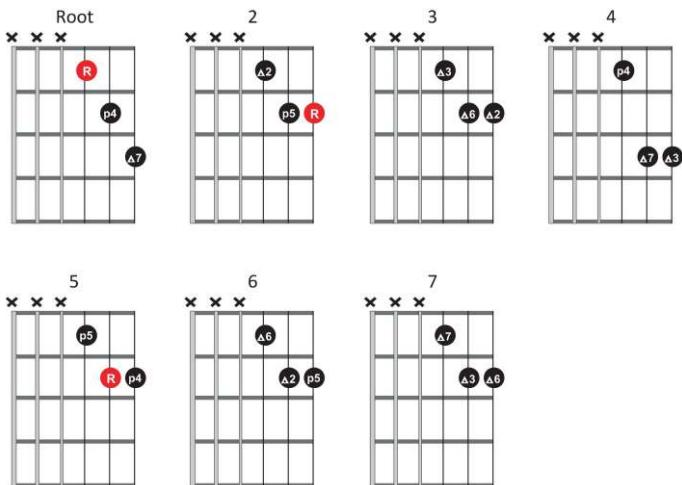
#### Stringset A-D-G



**Stringset D-G-B**

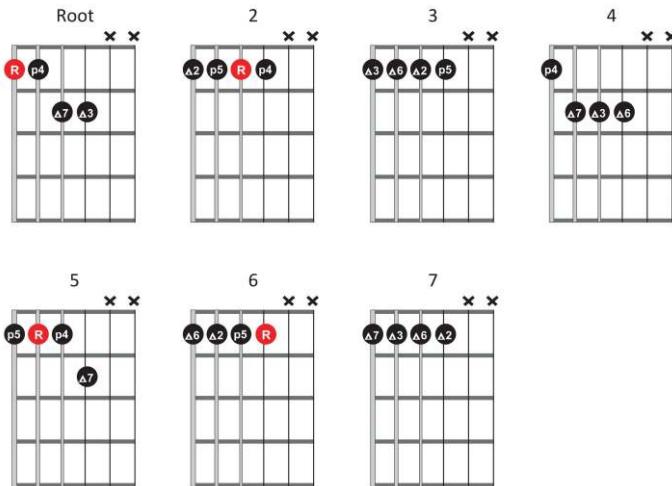


**Stringset G-B-E**

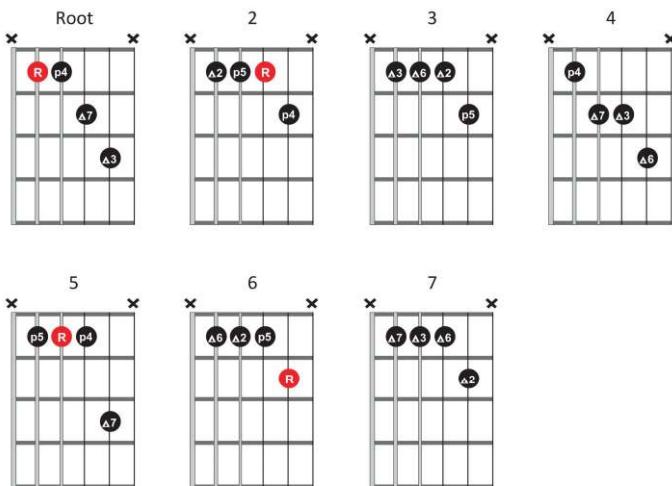


### 4part-Quartal Voicings – Major Scale

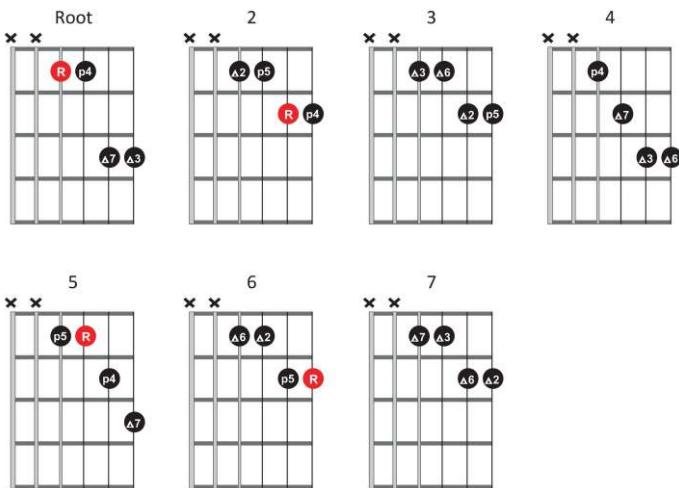
#### Stringset E-A-D-G



#### Stringset A-D-G-B



Stringset D-G-B-E



### 5part-Quartal Voicings – Major Scale

Stringset E-A-D-G-B

The diagrams show the following voicings:

- Root:** R (red), p4 (black), p5 (black), A7 (black), A3 (black), A6 (black)
- 2:** A2 (black), p5 (black), R (red), p4 (black), A2 (black), A7 (black)
- 3:** A3 (black), A6 (black), A2 (black), p5 (black), R (red)
- 4:** p4 (black), A7 (black), A3 (black), A6 (black), A2 (black)
- 5:** p5 (black), R (red), p4 (black), A7 (black), A3 (black), A6 (black)
- 6:** A6 (black), A2 (black), p5 (black), R (red), p4 (black), A7 (black)
- 7:** A7 (black), A3 (black), A6 (black), A2 (black), p5 (black)

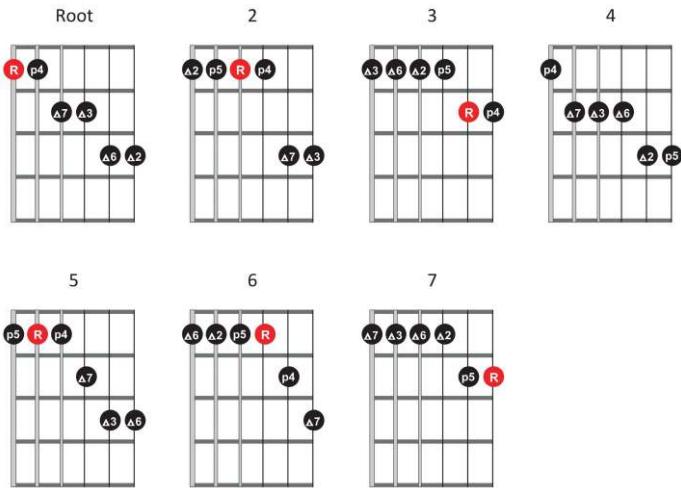
Stringset A-D-G-B-E

The diagrams show the following voicings:

- Root:** R (red), p4 (black), p5 (black), A7 (black), A3 (black), A6 (black)
- 2:** A2 (black), p5 (black), R (red), p4 (black), A2 (black), A7 (black)
- 3:** A3 (black), A6 (black), A2 (black), p5 (black), R (red)
- 4:** p4 (black), A7 (black), A3 (black), A6 (black), A2 (black)
- 5:** p5 (black), R (red), p4 (black), A7 (black), A3 (black), A6 (black)
- 6:** A6 (black), A2 (black), p5 (black), R (red), p4 (black), A7 (black)
- 7:** A7 (black), A3 (black), A6 (black), A2 (black), p5 (black)

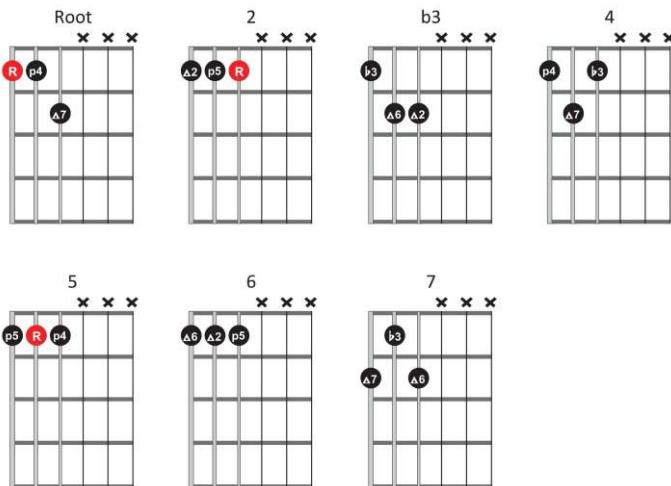
### 6part-Quartal Voicings – Major Scale

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

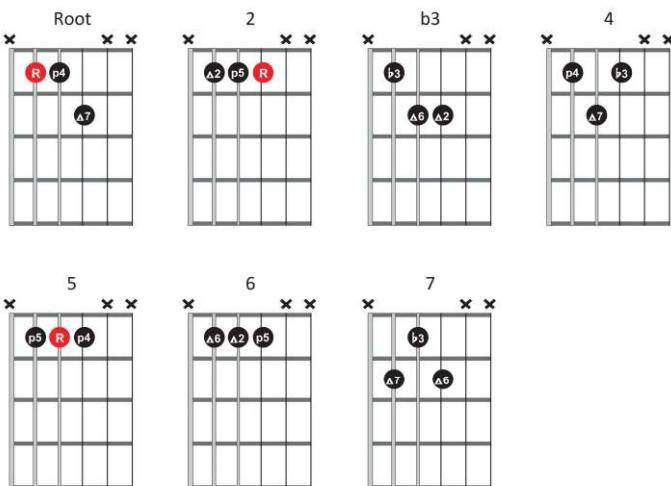


### 3part-Quartal Voicings – Melodic Minor

#### Stringset E-A-D



#### Stringset A-D-G



**Stringset D-G-B**

The diagram displays seven guitar chord diagrams for the stringset D-G-B. The chords are labeled as follows:

- Root:** Contains notes R (red circle), p4, Δ7.
- 2:** Contains notes Δ2, p5, R (red circle).
- b3:** Contains notes Δ3, Δ6, Δ2.
- 4:** Contains notes p4, Δ7, Δ3.
- 5:** Contains notes p5, R (red circle), p4.
- 6:** Contains notes Δ6, Δ2, p5.
- 7:** Contains notes Δ3, Δ7, Δ6.

**Stringset G-B-E**

The diagram displays seven guitar chord diagrams for the stringset G-B-E. The chords are labeled as follows:

- Root:** Contains notes R (red circle), p4, Δ7.
- 2:** Contains notes Δ2, p5, R (red circle).
- b3:** Contains notes Δ3, Δ6, Δ2.
- 4:** Contains notes p4, Δ7, Δ3.
- 5:** Contains notes p5, R (red circle), p4.
- 6:** Contains notes Δ6, Δ2, p5.
- 7:** Contains notes Δ7, Δ3, Δ6.

### 4part-Quartal Voicings – Melodic Minor

#### Stringset E-A-D-G

The diagram displays seven guitar chord voicings for the stringset E-A-D-G in 4part-Quartal Voicings – Melodic Minor. The voicings are labeled Root, 2, b3, 4, 5, 6, and 7. Each voicing is shown on a six-string fretboard diagram with note heads and labels. Red circles highlight specific notes in each chord.

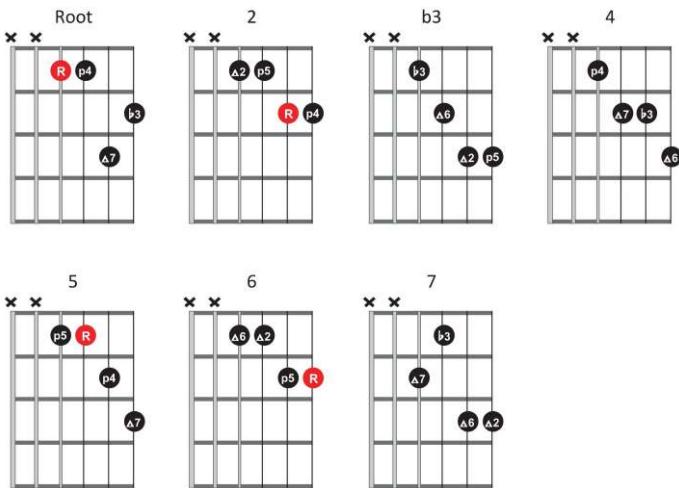
- Root:** E-A-D-G. Notes: R (red), p4, b3, A7.
- 2:** A2, p5, R (red), p4.
- b3:** b3, A6, A2, p5.
- 4:** p4, b3, A7, A6.
- 5:** p5, R (red), p4, A7.
- 6:** A6, A2, p5, R (red).
- 7:** b3, A7, A6, A2.

#### Stringset A-D-G-B

The diagram displays seven guitar chord voicings for the stringset A-D-G-B in 4part-Quartal Voicings – Melodic Minor. The voicings are labeled Root, 2, b3, 4, 5, 6, and 7. Each voicing is shown on a six-string fretboard diagram with note heads and labels. Red circles highlight specific notes in each chord.

- Root:** R (red), p4, A7, b3.
- 2:** A2, p5, R (red), p4.
- b3:** b3, A6, A2, p5.
- 4:** p4, b3, A7, A6.
- 5:** p5, R (red), p4, A7.
- 6:** A6, A2, p5, R (red).
- 7:** b3, A7, A6, A2.

Stringset D-G-B-E



### 5part-Quartal Voicings – Melodic Minor

Stringset E-A-D-G-B

The diagrams show the following voicings:

- Root:** R, p4, b3, p5, A7, A6
- 2:** A2, p5, R, p4, A7
- b3:** b3, A6, A2, p5, R
- 4:** p4, b3, A7, A6, A2
- 5:** p5, R, p4, A7, b3
- 6:** A6, A2, p5, R, p4
- 7:** b3, A7, A6, A2, p5

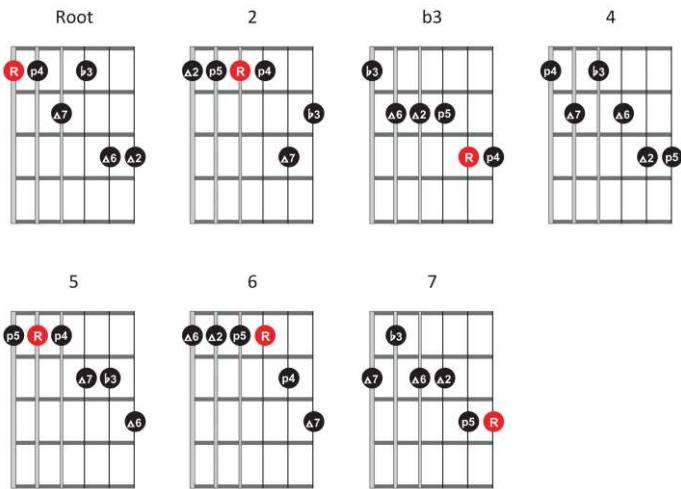
Stringset A-D-G-B-E

The diagrams show the following voicings:

- Root:** R, p4, b3, p5, A7, A6
- 2:** A2, p5, R, p4, A7
- b3:** b3, A6, A2, p5, R
- 4:** p4, b3, A7, A6, A2
- 5:** p5, R, p4, b3, A7
- 6:** A6, A2, p5, R, p4
- 7:** b3, A7, A6, A2, p5

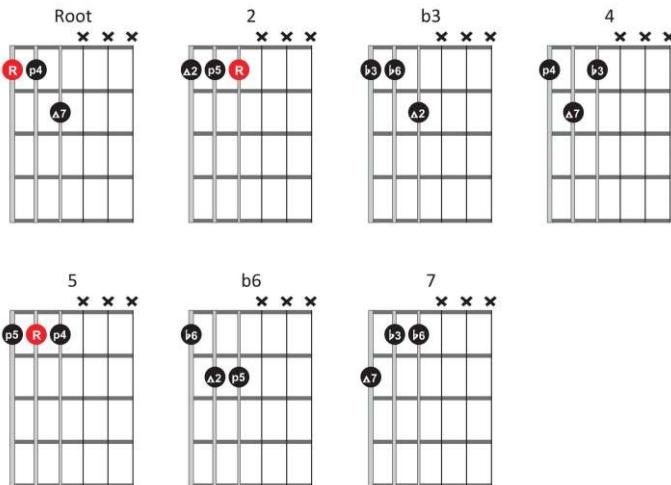
### 6part-Quartal Voicings – Melodic Minor

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

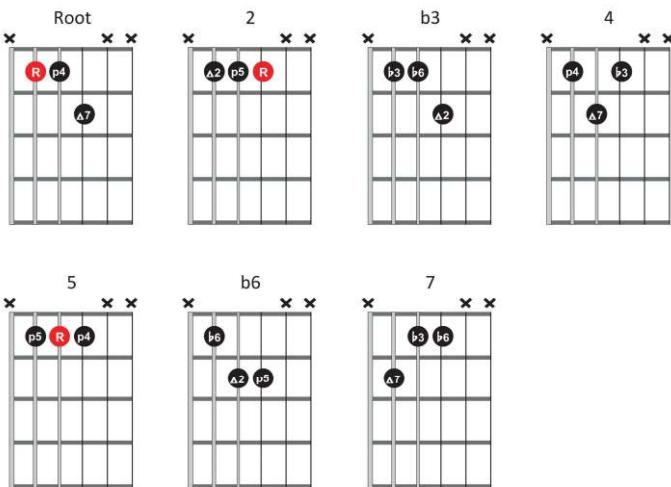


### 3part-Quartal Voicings – Harmonic Minor

#### Stringset E-A-D



#### Stringset A-D-G



**Stringset D-G-B**

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 guitar fretboard diagrams representing different 4part-Quartal voicings for the stringset E-A-D-G in Harmonic Minor. The voicings are labeled as follows:

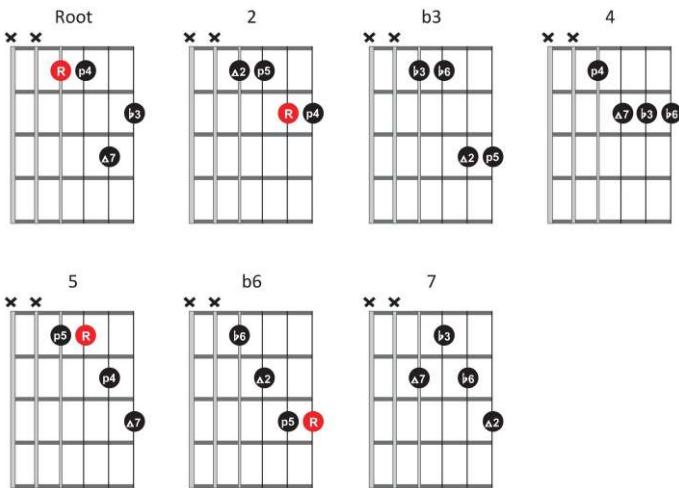
- Root:** Shows a root position voicing with notes R (Root), p4 (Perfect 4th), b3 (B flat 3rd), and b7 (B flat 7th).
- 2:** Shows a second-inversion voicing with notes a2 (Second inversion), p5 (Perfect 5th), R (Root), and p4 (Perfect 4th).
- b3:** Shows a third-inversion voicing with notes b3 (B flat 3rd), p6 (Perfect 6th), a2 (Second inversion), and p5 (Perfect 5th).
- 4:** Shows a fourth-inversion voicing with notes p4 (Perfect 4th), b3 (B flat 3rd), b6 (B flat 6th), and b7 (B flat 7th).
- 5:** Shows a fifth-inversion voicing with notes p5 (Perfect 5th), R (Root), p4 (Perfect 4th), and a7 (A flat 7th).
- b6:** Shows a sixth-inversion voicing with notes b6 (B flat 6th), a2 (Second inversion), p5 (Perfect 5th), and R (Root).
- 7:** Shows a seventh-inversion voicing with notes b3 (B flat 3rd), b6 (B flat 6th), a2 (Second inversion), and a7 (A flat 7th).

#### Stringset A-D-G-B

The diagram displays seven guitar fretboard diagrams representing different 4part-Quartal voicings for the stringset A-D-G-B in Harmonic Minor. The voicings are labeled as follows:

- Root:** Shows a root position voicing with notes R (Root), p4 (Perfect 4th), b3 (B flat 3rd), and b7 (B flat 7th).
- 2:** Shows a second-inversion voicing with notes a2 (Second inversion), p5 (Perfect 5th), R (Root), and p4 (Perfect 4th).
- b3:** Shows a third-inversion voicing with notes b3 (B flat 3rd), b6 (B flat 6th), a2 (Second inversion), and p5 (Perfect 5th).
- 4:** Shows a fourth-inversion voicing with notes p4 (Perfect 4th), b3 (B flat 3rd), b6 (B flat 6th), and b7 (B flat 7th).
- 5:** Shows a fifth-inversion voicing with notes p5 (Perfect 5th), R (Root), p4 (Perfect 4th), and a7 (A flat 7th).
- b6:** Shows a sixth-inversion voicing with notes b6 (B flat 6th), a2 (Second inversion), p5 (Perfect 5th), and R (Root).
- 7:** Shows a seventh-inversion voicing with notes b3 (B flat 3rd), b6 (B flat 6th), a2 (Second inversion), and a7 (A flat 7th).

Stringset D-G-B-E



### Spart-Quartal Voicings – Harmonic Minor

Stringset E-A-D-G-B

The diagram displays seven guitar chord voicings for the stringset E-A-D-G-B in Harmonic Minor. The chords are:

- Root:** E minor triad (E, G, B) with the root (E) highlighted in red.
- 2:** E minor 7th (E, G, B, D) with the root (E) highlighted in red.
- b3:** E minor 6th (E, G, B, A) with the root (E) highlighted in red.
- 4:** E major 7th (E, G, B, D) with the root (E) highlighted in red.
- 5:** E major 6th (E, G, B, A, C) with the root (E) highlighted in red.
- b6:** E major 7th (E, G, B, D, F#) with the root (E) highlighted in red.
- 7:** E major 6th (E, G, B, A, C) with the root (E) highlighted in red.

Stringset A-D-G-B-E

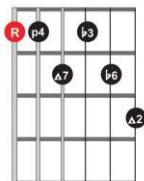
The diagram displays seven guitar chord voicings for the stringset A-D-G-B-E in Harmonic Minor. The chords are:

- Root:** E minor triad (E, G, B) with the root (E) highlighted in red.
- 2:** E minor 7th (E, G, B, D) with the root (E) highlighted in red.
- b3:** E minor 6th (E, G, B, A) with the root (E) highlighted in red.
- 4:** E major 7th (E, G, B, D) with the root (E) highlighted in red.
- 5:** E major 6th (E, G, B, A, C) with the root (E) highlighted in red.
- b6:** E major 7th (E, G, B, D, F#) with the root (E) highlighted in red.
- 7:** E major 6th (E, G, B, A, C) with the root (E) highlighted in red.

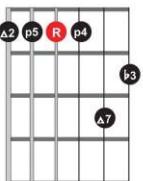
### 6part-Quartal Voicings – Harmonic Minor

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

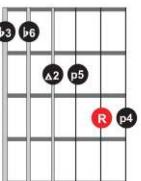
Root



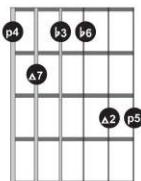
2



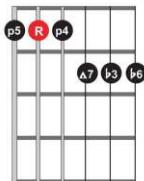
b3



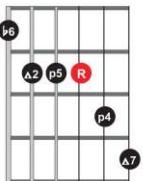
4



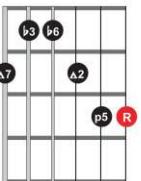
5



b6



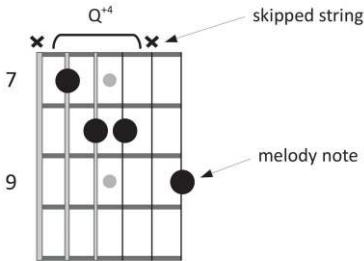
7



## 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.

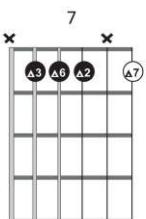
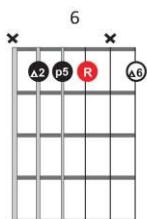
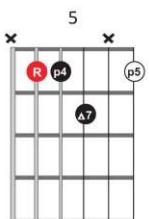
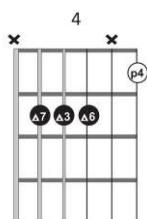
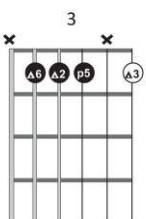
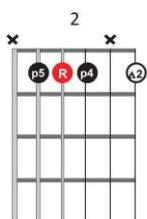
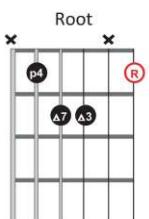
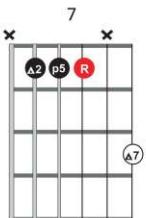
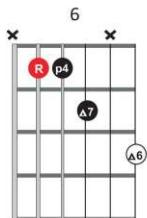
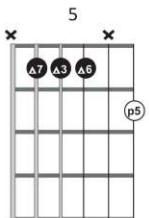
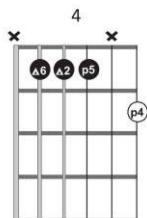
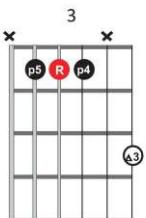
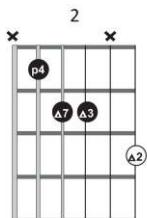
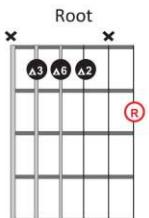
### **Ex. 142**



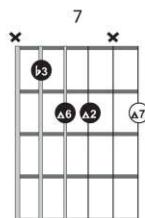
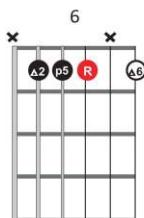
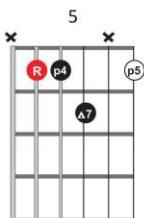
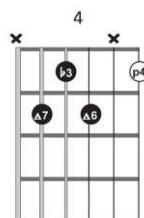
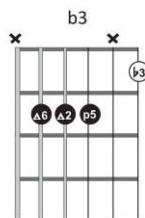
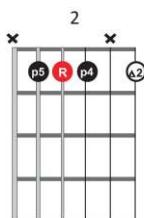
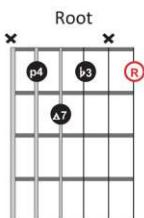
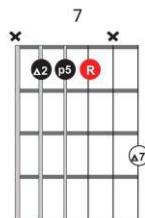
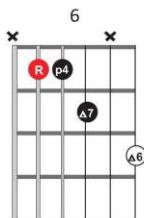
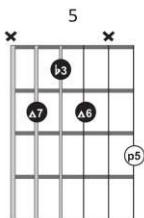
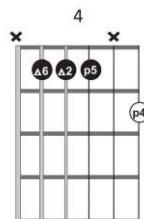
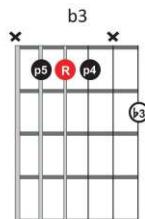
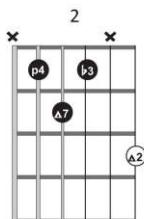
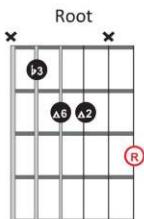
The voicing above is comprised of the notes E, Bb, Eb, Db. On its own this chord is incomplete but if played over certain bass notes it produces such chords as: F#<sup>13</sup>, C<sup>7#9b9</sup>, E<sup>b7b9</sup>, A<sup>7b5b9</sup>, E<sup>MA#11#5</sup>, G<sup>o7b13</sup>.

Try to discover all the substitution possibilities of each form.

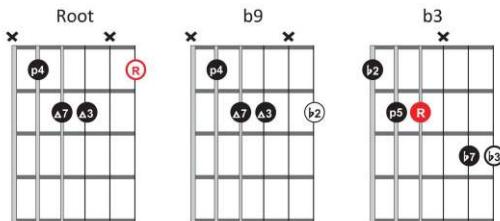
### Major Scale Skipped String Voicings



### Melodic Minor Scale Skipped String Voicings



### Dominant Diminished Skipped String Voicings



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

*Ex. 143*

The musical score consists of six staves of music for a string quartet. The first staff begins with a rest followed by a bass note. The second staff starts with an eighth-note bass line. The third staff features a bass line with eighth-note pairs. The fourth staff has a bass line with eighth-note pairs and includes a dynamic instruction 'foco'. The fifth staff starts with a bass note. The sixth staff concludes the piece.

Chords and voicings labeled in the score include:

- F<sup>7</sup>
- B<sub>b</sub>7
- D7<sup>b9</sup>
- G-7
- C7<sup>alt</sup>
- D7<sup>alt</sup>
- G-7
- C7
- F7

Performance markings include:

- 'foco'
- '8va'

## 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.

The image displays 12 guitar chord diagrams arranged in three rows of four. Each diagram shows a fretboard with strings 6, 5, and 4 as horizontal lines. Frets are numbered 5 and 7 vertically. Open strings are marked with 'o', muted strings with 'x', and played strings with red dots or black circles. The chords are:

- D<sup>6/9/sus4</sup>: Open 6, 5th fret 5, muted 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- A<sup>MA9/sus4</sup>: Open 6, 5th fret 5, muted 4, 3rd fret 3, 2nd fret 2, 1st fret 1, 0th fret 0.
- F#<sup>sus4/3</sup>: Muted 6, 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- Ab<sup>-9</sup>: Muted 6, 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, 0th fret 0.
- F<sup>MA9</sup>: 5th fret 5, muted 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- C<sup>MA9/#4</sup>: 5th fret 5, muted 4, 3rd fret 3, 2nd fret 2, 1st fret 1, 0th fret 0.
- F#<sup>sus4/3</sup>: Muted 6, 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- G<sup>MA9/13/#4</sup>: Muted 6, 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- Ab<sup>-11/b6</sup>: 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- F#<sup>7/6/sus4</sup>: 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- F<sup>maj7/#11</sup>: 5th fret 5, muted 4, 3rd fret 3, 2nd fret 2, 1st fret 1, muted 0.
- E<sup>sus4/add9</sup>: 5th fret 5, 4th fret 4, 3rd fret 3, 2nd fret 2, 1st fret 1, 0th fret 0.

**F#-11/b6**

**Bb<sup>maj7/6/#11</sup>**

**D-9/11**

**F<sup>maj7/9</sup>**

**E<sup>MA9</sup>**

**E<sup>MA9</sup>**

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

**Db<sup>7/#5/#9</sup>**

**E/C**

**E<sub>b</sub>-7/b6**

**E-<sup>add9</sup>**

**C<sup>#</sup>-9**

**Bb<sup>-b6/b2</sup>**

**B<sup>9/sus4/3</sup>**

**D-6/9**

**G<sup>9/13/#11</sup>**

**F#<sup>-11</sup>**

**D<sup>add9/G</sup>**

**D<sub>b</sub>/E**

**D<sup>add9/E</sup>**

**Bb<sup>6/#11</sup>**

**C#<sup>9/11</sup>**

**D<sup>11/add3rd</sup>**

**C<sup>9/13</sup>**

**F#<sup>7/sus4/3</sup>**

**C#<sup>7/6/sus4</sup>**

**C<sup>9#11</sup>**

**D<sup>7/sus4/3</sup>**

**C<sup>maj7/6/#11</sup>**

**C#<sup>-9</sup>**

**F<sup>lyd</sup>**

**C#<sup>7alt</sup>**

**F<sup>maj7</sup>/G**

**G<sup>#5/b5</sup>**

**C<sup>-9</sup>**

**G<sup>-7/b6</sup>**

**G<sup>#7/b6</sup>**

**A<sup>9/sus4</sup>**

**C<sup>#7/#5/b5</sup>**

**C<sup>-9/13</sup>**

**E<sub>b</sub><sup>sus4/G</sup>**

**G<sup>#7/b6</sup>**

**D<sup>MA6/sus4</sup>**

**A<sup>9</sup>**

**A<sup>add9/E<sub>b</sub></sup>**

**E<sub>b</sub><sup>7alt</sup>**

**B<sup>-11/b6</sup>**

**A<sub>b</sub><sup>lyd</sup>**

**G<sup>maj7/6</sup>**

**A-<sup>9</sup>**

**F<sup>maj7/#11/#5</sup>**

**F<sup>o7/maj7</sup>**

**Ab<sup>#5/b5/#9</sup>**

**Bb<sup>maj7/#11</sup>**

**E<sup>maj7/9</sup>**

**C#<sup>-7/b6</sup>**

**F#<sup>7/#5/b9</sup>**

**E<sup>7/sus4/6</sup>**

**C<sup>alt</sup>**

**D<sup>maj7/5/#5</sup>**

**D/C#**

**G/Bb**

**E/F#**

**Db<sup>dom.dim.</sup>**

Dadd9/G#

C#7alt

C#7alt

Bb-11/b5

A<sup>add9</sup>/G#

Db<sup>#9</sup>

D/C#

Fmaj7/#5

G#<sup>loc</sup>

E/G

D<sup>add9</sup>/G#

Eb<sup>loc</sup>

Ab<sup>7/#9</sup>

Bb

C#-11/b6

G#<sup>loc</sup>

**D-<sup>11/9</sup>**

**E/F**

**C/B**

**D<sub>b</sub><sup>o7</sup>**

**D<sup>7/sus4</sup>**

**D<sub>b</sub><sup>7alt</sup>**

**D<sup>add9/Bb</sup>**

**A<sub>b</sub><sup>MA6/#5</sup>**

**F#<sup>phryg</sup>**

**E<sup>7/b9/b5</sup>**

**D<sup>13/b5</sup>**

**G<sup>MA13/#11</sup>**

**A<sup>7alt</sup>**

**Ab<sup>7/#9/b9</sup>**

**C#<sup>-9</sup>**

**G<sup>sus4/3</sup>**

**Eb<sup>7/b5/#5</sup>**

**G/Ab**

**G<sup>9/13/b5</sup>**

**Db-/Eb**

**F#<sup>-7/b6</sup>**

**G<sup>b9</sup>**

**A<sup>-7/b6</sup>**

**A<sup>sus2/G#</sup>**

**G<sup>13/b9</sup>**

**A<sup>b9</sup>**

**E<sup>add9/F#</sup>**

**Db-/Gb**

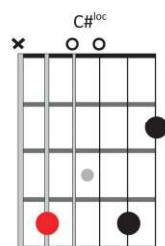
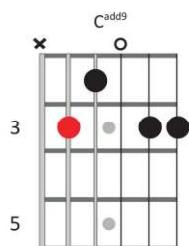
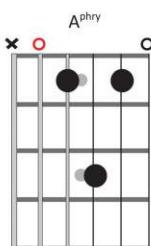
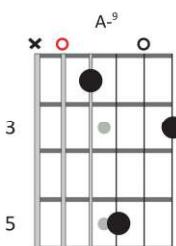
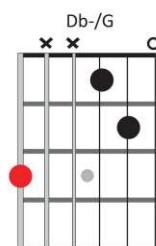
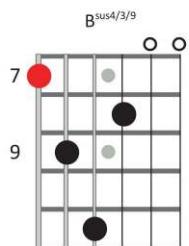
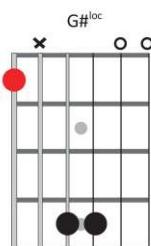
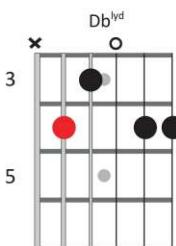
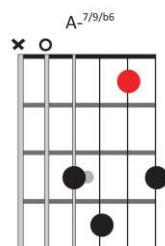
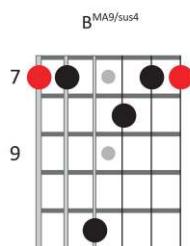
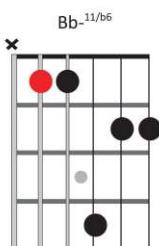
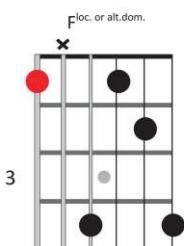
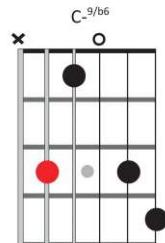
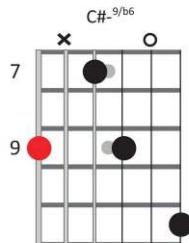
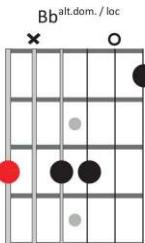
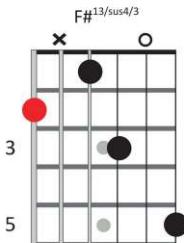
  

**A/B**

**A-/G#**

**C#<sup>-7b5</sup>**

**C<sup>7/#9/#5</sup>**



any fret

$E^{7/b6}$

$A^{\text{lyd}}$

any fret

$F\#/\text{E-}$

$E^{\text{lyd}}$

$B/G$

$E^{7\text{-alt}}$

$G\#^{7\text{-alt}}$

$A^{\text{lyd}}$

$E^{\text{lyd}}$

$E^{\text{M13}}$

$E_b^{7/\text{sus4/b9}}$

$G^{13/\text{sus4/3}}$

**E lyd**

**Maj<sup>add9</sup>/5**

**Min<sup>7/b6</sup> (aeolian)**

**A alt.dom.**

**Min<sup>b6</sup> (aeolian)**

**E-9**

**G<sup>13/b5</sup>**

**D<sup>sus4</sup>**

**E lyd**

**F#<sup>aeolian</sup>**

**F#<sup>-7/b5</sup>**

**B<sup>7/#5/b5/#9</sup>**

**Bb<sup>MA9/#4</sup>**

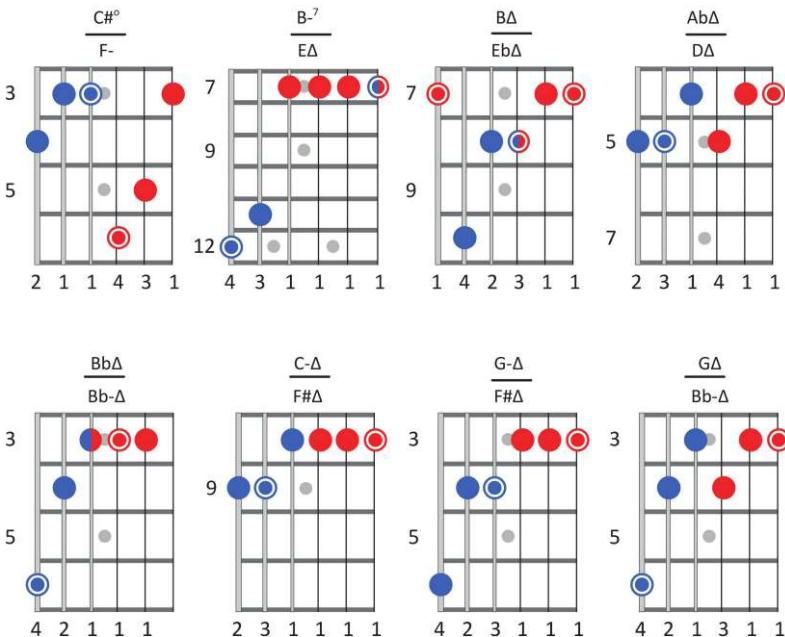
**C#<sup>7/b5/#9/#5</sup>**

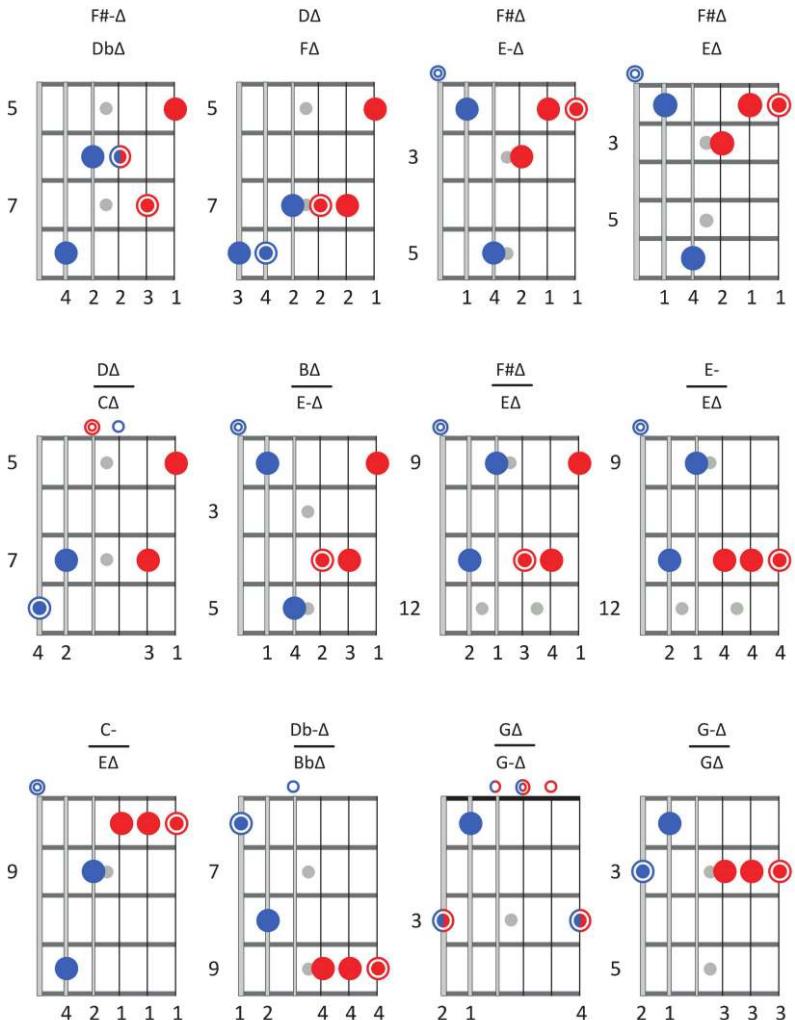
**Db<sup>ma7/9</sup>**

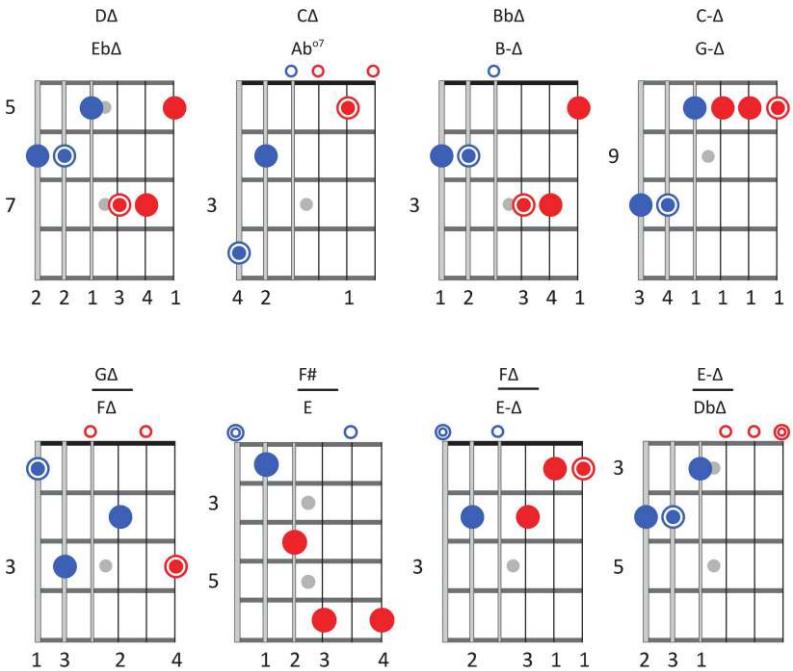
**E-<sup>ma7/9</sup>**

## Polychords (Triads over Triads)

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







## Using Comping Voicings in New Ways

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

### **Ex. 144**

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

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

Consult the substitution section for further applications.

## Constructing Chord Scales

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

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

### **Ex. 145**

C-<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.

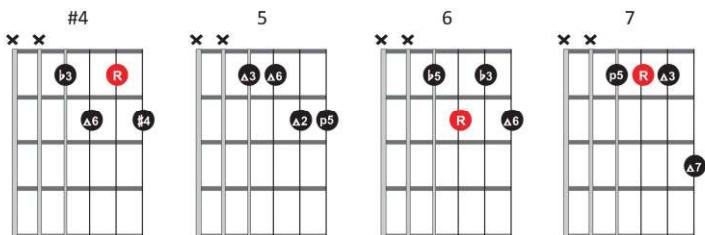
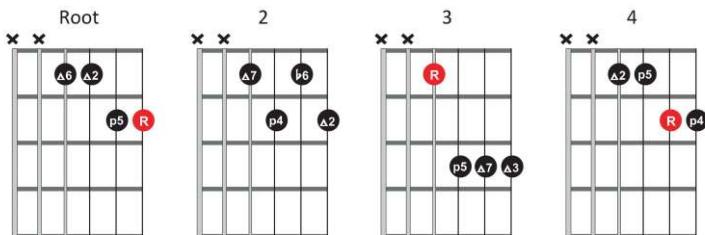
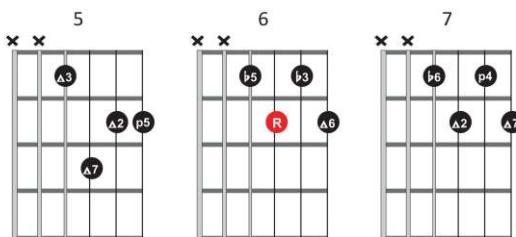
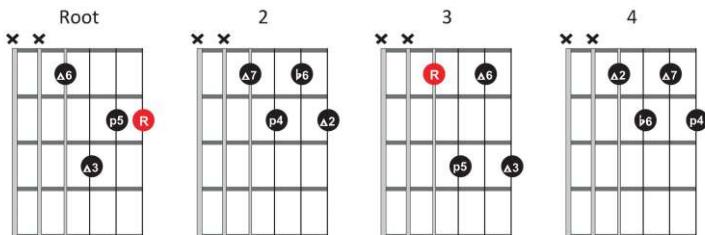
### **Ex. 147**

A musical staff with seven measures. The measures are grouped into three categories: F13 (measures 1-2), C-<sup>MA7</sup> (measures 3-4), and Eb<sup>MA7#4</sup> (measures 5-7). The staff uses a treble clef and includes bass notes. The voicings are primarily upper-string voicings.

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

## Chordal Scales

### *Major Scale (Bebop)*



### *Major Scale (modern)*

The image displays eight guitar neck diagrams illustrating various major scale patterns across the first seven positions. Each diagram shows a six-string guitar neck with frets numbered 1 through 12. The patterns are labeled as follows:

- Root:** Shows notes p5 (purple), R (red), Δ3 (black), and Δ2 (black).
- 2:** Shows notes R (red), Δ2 (black), Δ7 (black), and Δ6 (black).
- 3:** Shows notes p5 (purple), R (red), Δ3 (black), and Δ3 (black).
- 4:** Shows notes Δ6 (black), R (red), Δ6 (black), and p5 (purple).
- 5:** Shows notes p5 (purple), Δ6 (black), Δ2 (black), and Δ4 (red).
- 6:** Shows notes R (red), Δ6 (black), Δ7 (black), and p5 (purple).
- 7:** Shows notes Δ6 (black), Δ2 (black), Δ7 (black), and p5 (purple).
- Root:** Shows notes Δ7 (black), Δ3 (black), p5 (purple), and R (red).

### *Dorian/Minor (Bebop)*

The image displays nine guitar neck diagrams illustrating various Dorian/Minor Bebop scale patterns across the first seven positions. Each diagram shows a six-string guitar neck with frets numbered 1 through 12. The patterns are labeled as follows:

- Root:** Shows notes b7 (black), b3 (black), p5 (purple), and R (red).
- 2:** Shows notes Δ7 (black), b4 (black), b6 (black), and Δ2 (black).
- b3:** Shows notes R (red), b7 (black), b3 (black), and p5 (purple).
- 4:** Shows notes Δ2 (black), Δ7 (black), b6 (black), and p4 (purple).
- 5:** Shows notes b3 (black), R (red), b7 (black), and p5 (purple).
- 6:** Shows notes p4 (purple), b3 (black), Δ6 (black), and Δ6 (black).
- b7:** Shows notes p5 (purple), p4 (purple), b7 (black), and Δ2 (black).

**Dorian/Minor (modern)**

<p>Root</p>	<p>2</p>	<p>b3</p>	<p>4</p>
<p>5</p>	<p>6</p>	<p>b7</p>	
<p>Root</p>	<p>2</p>	<p>b3</p>	<p>4</p>
<p>5</p>	<p>6</p>	<p>b7</p>	

### Aeolian/Minor

Root      2      b3      4

5      b6      b7

Root      2      b3      4

5      b6      b7

**Root**

**2**

**b3**

**4**

**5**

**b6**

**b7**

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

**Root**

**2**

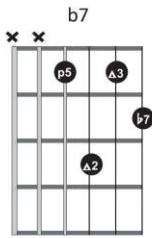
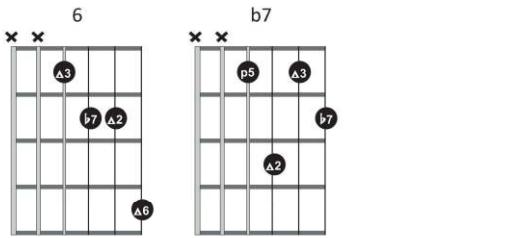
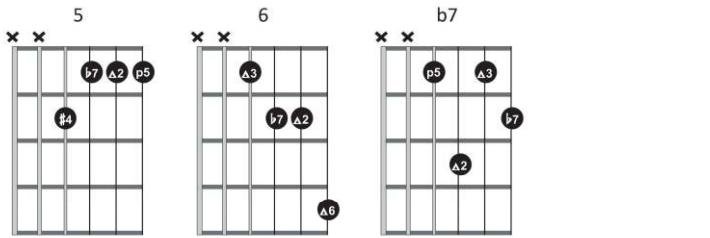
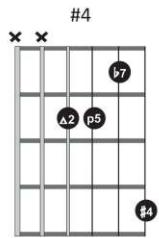
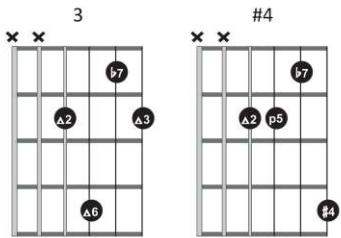
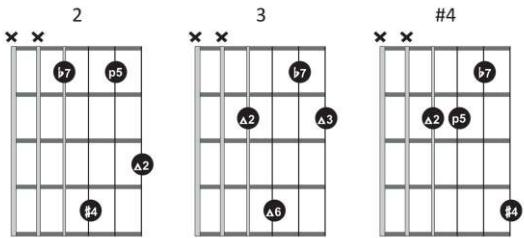
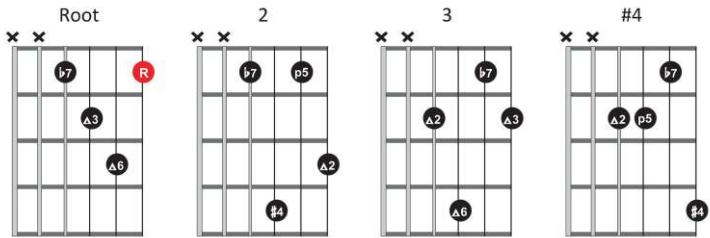
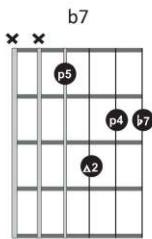
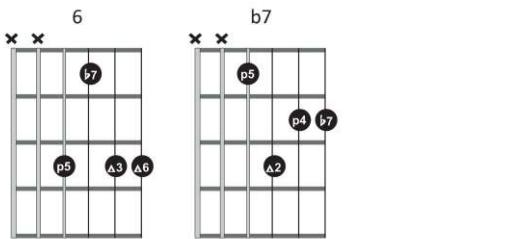
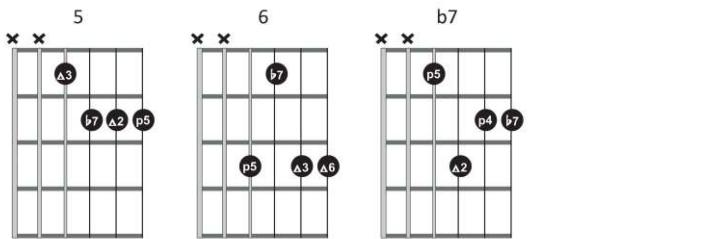
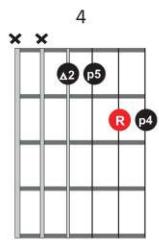
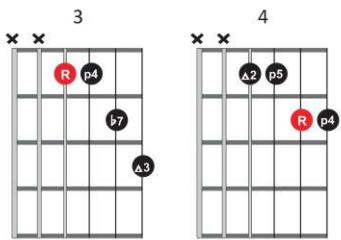
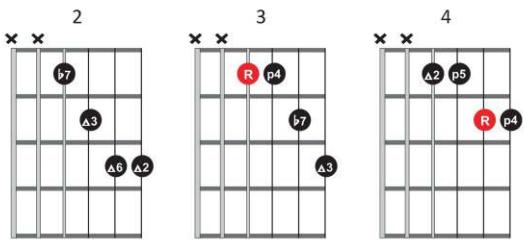
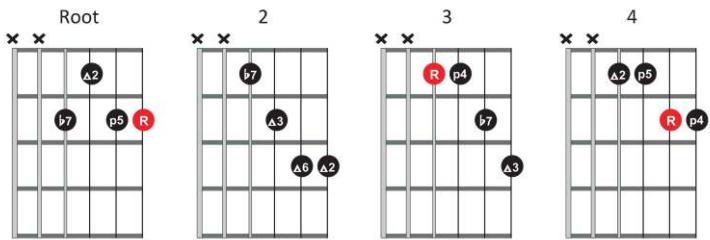
**3**

**4**

**5**

**6**

**b7**



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

Root      b9      #9      3

#4      #5      b7      b9

b9

The image displays eight guitar chord diagrams for altered dominant seventh chords. The first four diagrams are labeled 'Root', 'b9', '#9', and '3'. The second group of four diagrams is labeled '#4', '#5', 'b7', and 'b9'. The bottom diagram is labeled 'b9' and shows a single chord. Each diagram shows a six-string guitar neck with frets numbered 1 through 6. Fret 1 is the nut, and fret 6 is the 12th fret. Open strings are indicated by 'x' and muted strings by 'o'. Chord notes are represented by black circles with labels: 'b6', 'b9', 'b5', 'R' (red circle), 'b3', 'b6', 'b9', 'R' (red circle), 'b5', 'b3', 'b4', 'b9', 'b5', 'b3', 'b2', 'b7', 'b5', 'b2', 'b7', 'b2', 'b5', 'b7', 'b6', 'b2', 'b6', 'b2', 'b7', 'b6', 'b2', 'b5', 'b7', 'b6', 'b2', 'b5', 'b7', 'b6', 'b2'. The 'b9' diagram in the first row has a red circle at the 12th fret of the 3rd string. The 'b9' diagram in the second row has a red circle at the 12th fret of the 1st string.

**Root**

**b9**

**#9**

**3**

**#4**

**#5**

**b7**

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

**Root**

**b9**

**#9**

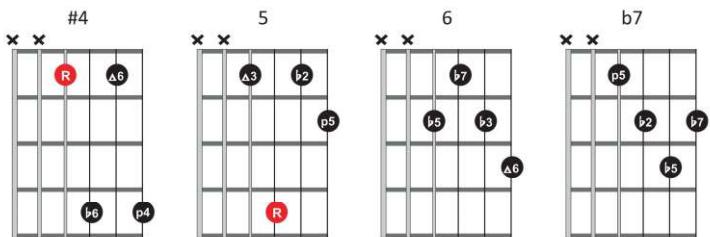
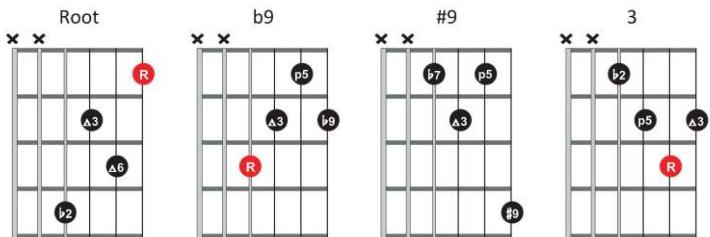
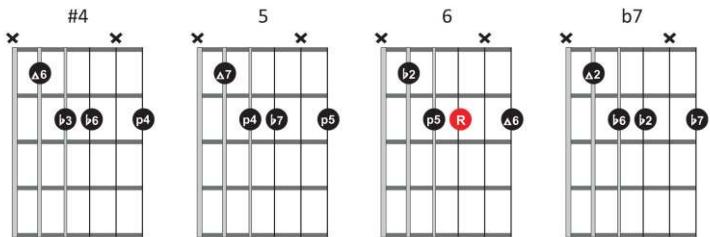
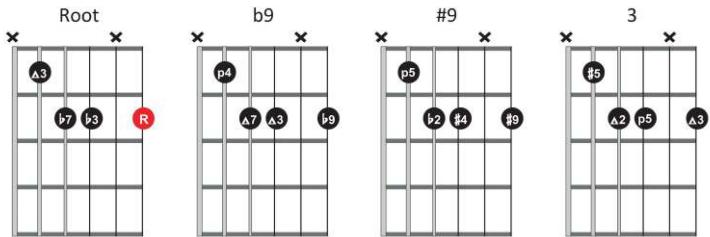
**3**

**#4**

**5**

**6**

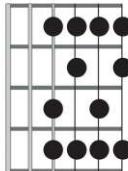
**b7**



## 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*

a) A<sup>7b5b9</sup>

b) E<sup>^OMA9</sup>

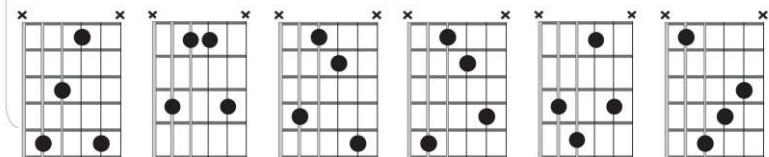
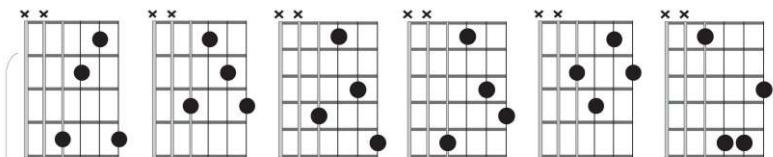
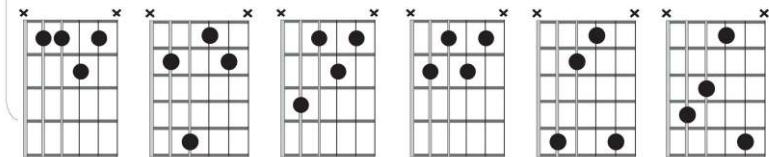
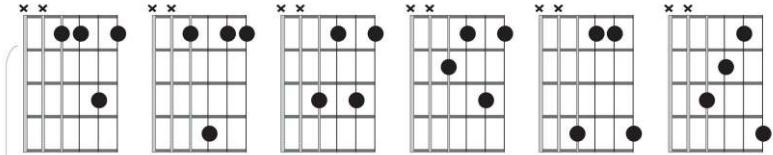
The voicings are grouped in pairs because they are the same shapes transposed.

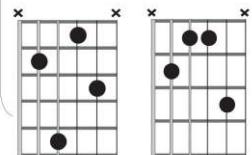
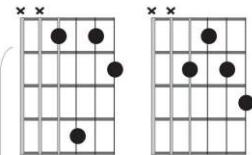
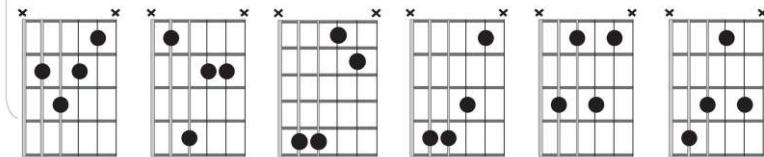
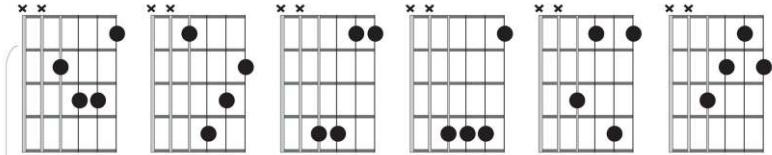
### *Ex. 150*

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, arranged in a grid. A vertical brace on the far left groups the chords into four columns. Each column contains six distinct chord diagrams, each representing a different voicing or fingering for a diminished seventh chord (Dim7). The diagrams are positioned on a standard six-string guitar neck, showing the frets and strings. The chords are indicated by dots (black circles) on the strings, with 'x' marks indicating muted or unplayed strings.





## **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 and common time. It contains seven chords, each consisting of three notes. 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 spans all seven chords, labeled "Modal Movement in Cmajor". To the left of the staff, the text "original voicing from key of Cmajor" is written.

### 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>**

**C<sup>MA6/9 no3rd</sup>**

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

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

**C<sup>maj7/6/9/#11</sup>**

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

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

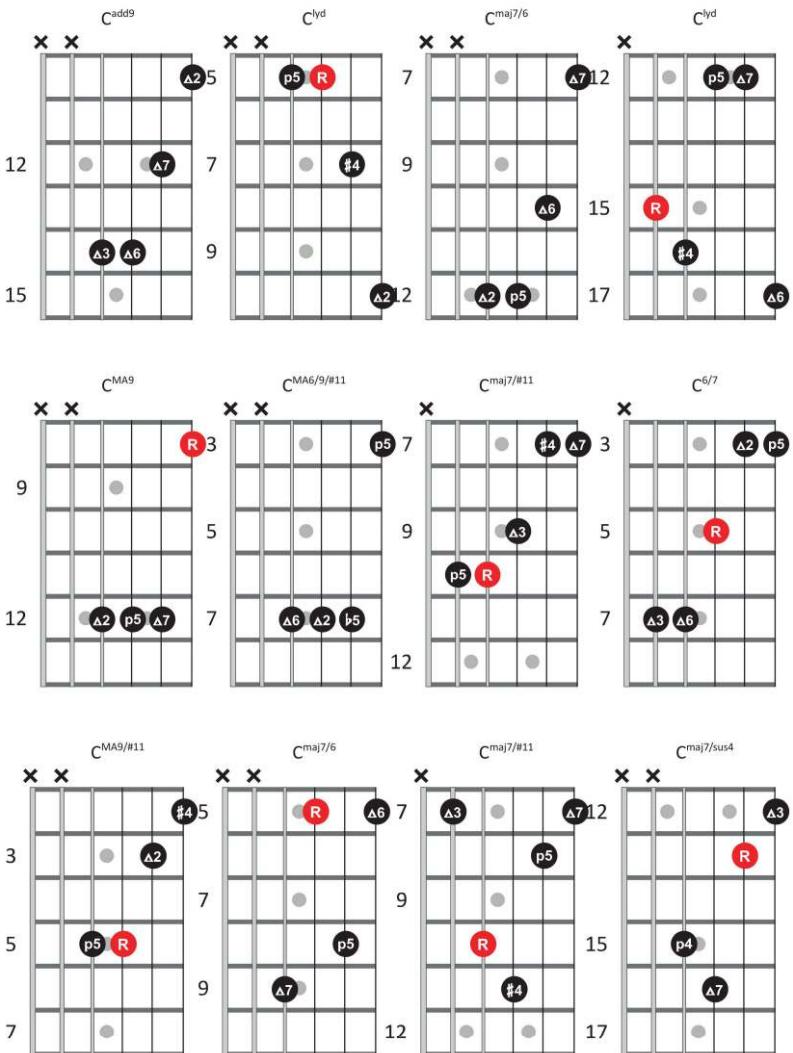
**C<sup>lyd</sup>**

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

**C<sup>MA9</sup>**

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

**C<sup>add9</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              A-G-C-F-E-A-G-C      A-G-C-E-G-C-A

Ex. 152b

D-7                    G7alt                  C<sub>MA7</sub>  
A-G-F-E              A-G-C-F-E-B-G-C-A      A-G-C-E-G-C-A

Ex. 152c

D-7                    G7alt                  C<sup>6</sup>  
A-G-F-E              A-G-C-F-E-B-G-C-A      A-G-C-E-G-C-A

Ex. 152d

D-7                    G7alt                  C<sup>6</sup>  
A-G-F-E              A-G-C-F-E-B-G-C-A      A-G-C-E-G-C-A

**Ex. 152e**

A musical score for piano or guitar. It features three measures. The first measure shows a D-9 chord (D, F#, A, C, E) in a treble clef staff. The second measure shows a G7b5(13) chord (G, B, D, E, G, B) in a bass clef staff. The third measure shows a C6 chord (C, E, G, B, D) in a treble clef staff.

Here are some examples of  $\text{ii}^7 \text{ V}^7 \text{ I}^{maj7}$  chord lines in the key of F major. The arrows are used to designate the use of the same voicing.

Ex. 153a

Musical score for piano showing a melodic line and harmonic progression. The score includes a treble clef, a key signature of one sharp, and a common time signature. The harmonic progression is indicated by Roman numerals above the staff: G-7, F#m7, G-7, A7, G-7, G-7, A7, G-7, G-7, F#m7, G-7, C7alt [S.N.]. The melody consists of eighth-note patterns. The right hand part ends with a single note, labeled 'single note' above the staff, followed by a fermata over the final note.

*Ex. 153b*

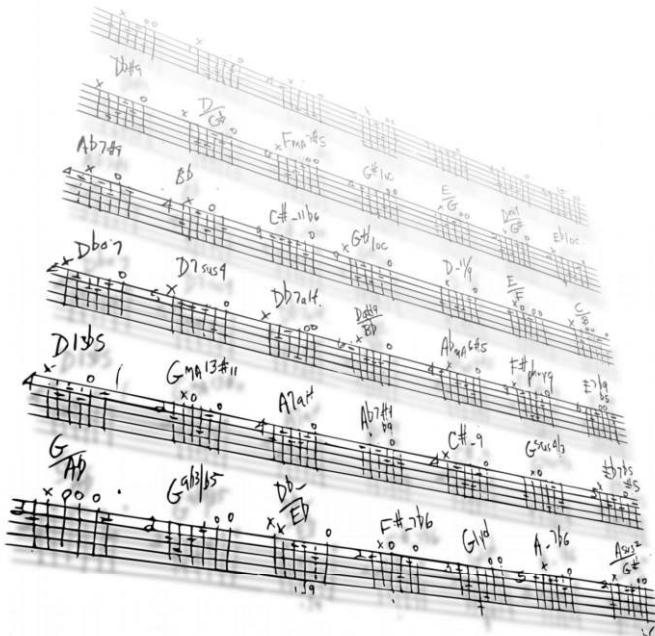
Musical score for piano in 4/4 time. The score includes a melodic line with eighth-note patterns and a harmonic progression. The progression is labeled as (D7⁹⁰) and includes chords G-7, G-7 F#⁹⁰⁷ G-7, C7⁹⁵ (G-MAT), C7, and F MAT. The score also features a bass line with sustained notes and rests.

*Ex. 153c*

*Ex. 153d*

# CHAPTER 3

## SCALES + ARPEGGIOS



## **Chapter 3**

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

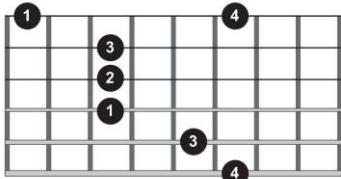
Modes should be practiced every day to warm-up the hands and develop fingerboard understanding. They should be practiced to a metronome in a variety of rhythms (eighths, quarters, eighth-note triplets, sixteenths, sixteenth-note triplets and dotted rhythms) paying particular attention to sound clarity.

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

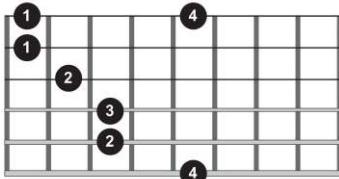
I would recommend practicing one scale group (major, melodic minor or harmonic minor) per day, isolating one mode for the purpose of interval studies. Practicing too many interval or arpeggio studies in one sitting will only add to your confusion.

## Triads

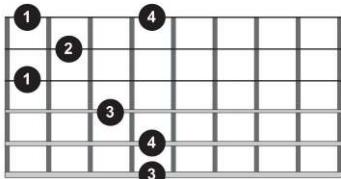
Major (Root Position)



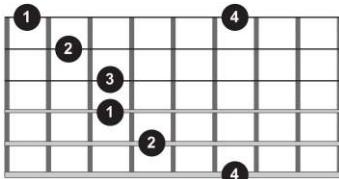
Major (3<sup>rd</sup> in Bass)



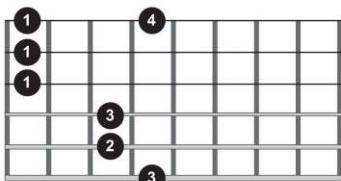
Major (5<sup>th</sup> in Bass)



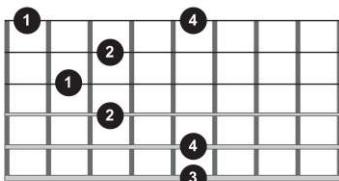
Minor (Root Position)



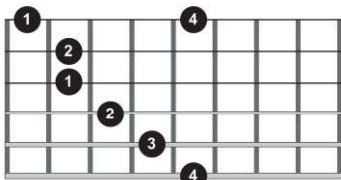
Minor (3<sup>rd</sup> in Bass)



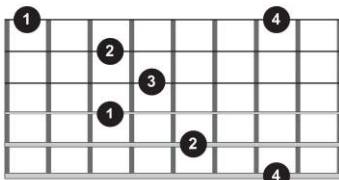
Minor (5<sup>th</sup> in Bass)



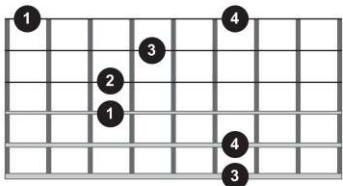
Augmented



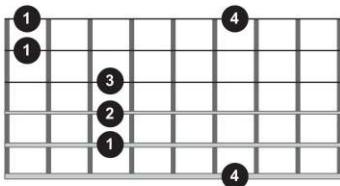
Diminished



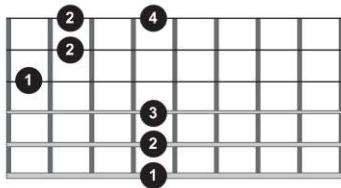
Sus<sup>4</sup>



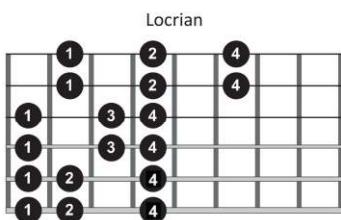
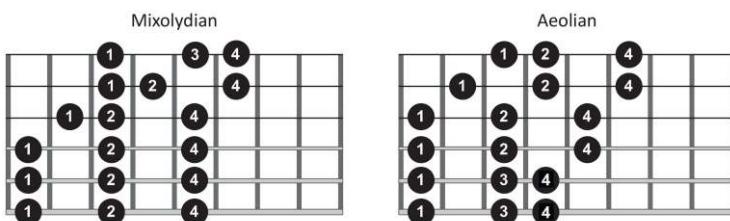
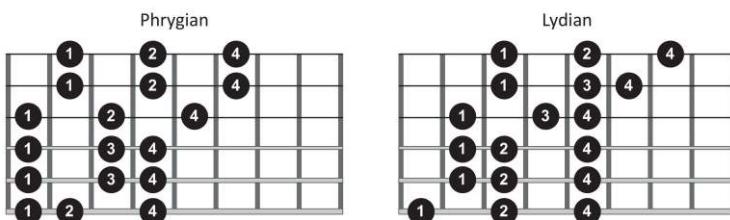
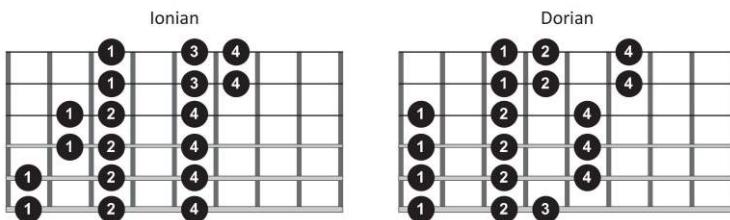
Sus<sup>2</sup>



Quartal

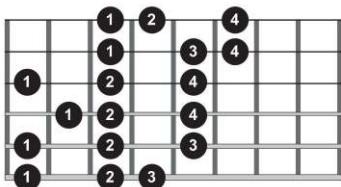


## Modes of the Major Scale

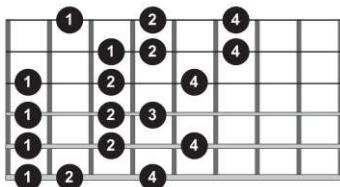


### Modes of the Melodic Minor Scale

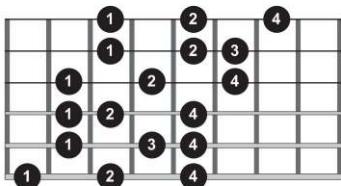
Melodic Minor



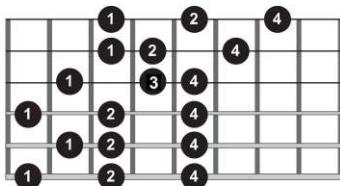
Dorian b2



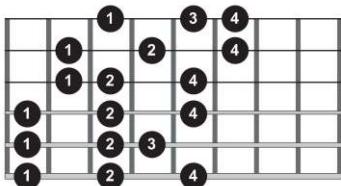
Lydian Augmented



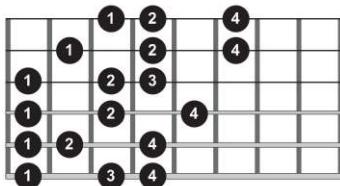
Mixolydian #11



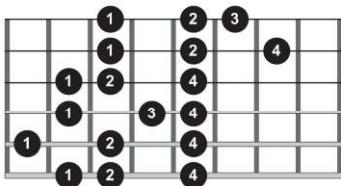
Mixolydian b6



Locrian nat.2

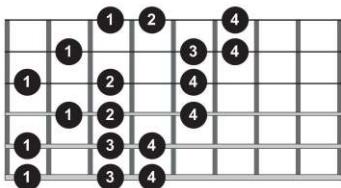


Altered Dominant

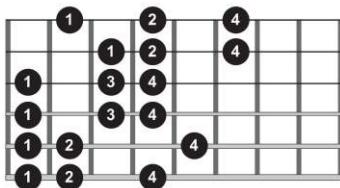


## Modes of the Harmonic Minor Scale

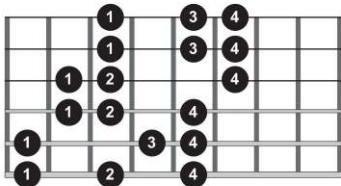
Harmonic Minor



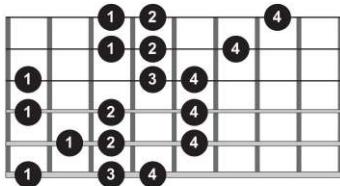
Locrian nat. 6



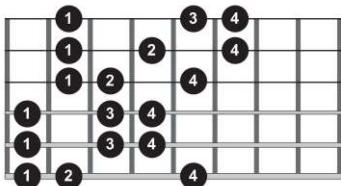
Ionian Augmented



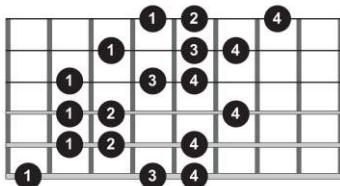
Dorian #4



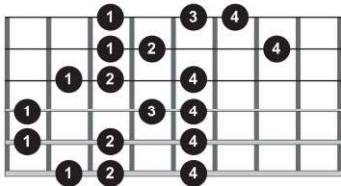
Phrygian Major



Lydian #9

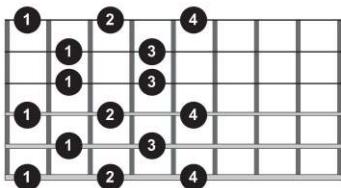


Altered Dominant bb7

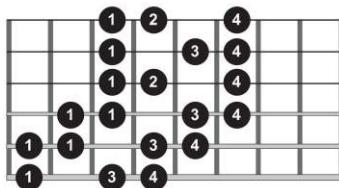


## Miscellaneous Scales

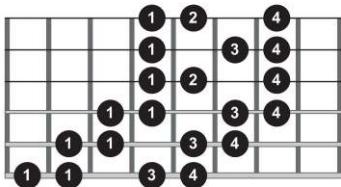
Whole Tone



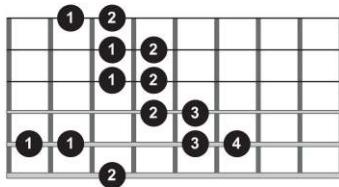
Tonic Diminished



Dominant Diminished



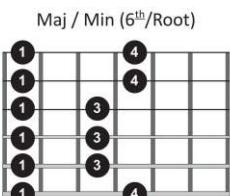
Augmented



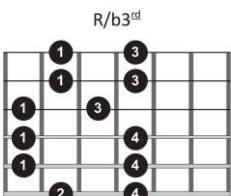
## Blues and Pentatonic Scales

### Pentatonic Scales:

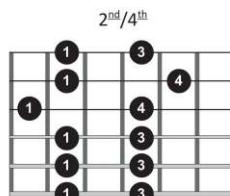
Major:	1	2	3	5	6
Minor:	1	b3	4	5	b7



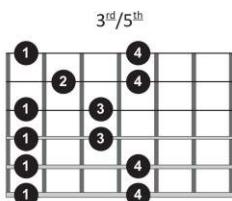
Position I



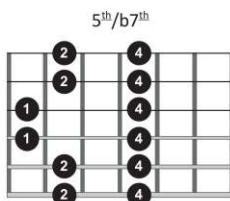
Position II



Position III



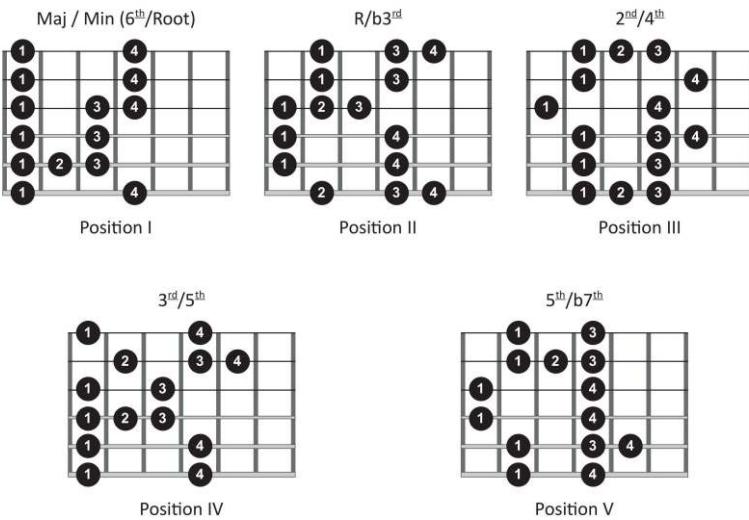
Position IV



Position V

**Blues Scales:**

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

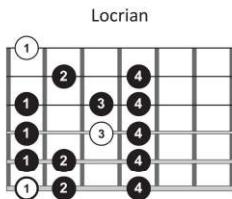
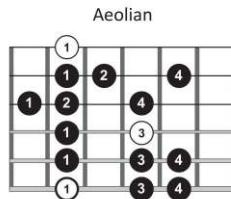
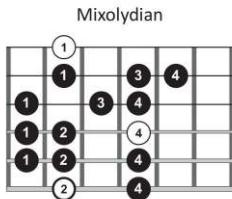
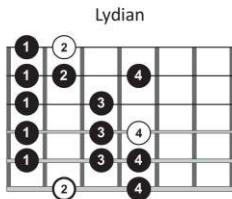
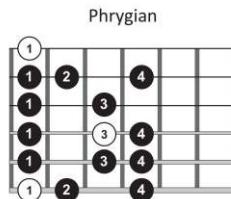
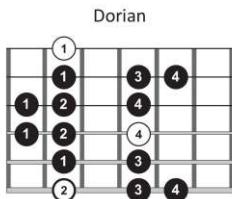
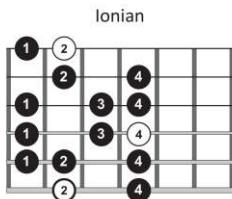


## Close Position Fingerings

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.

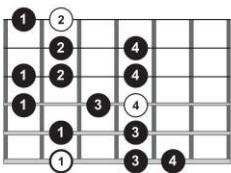
The added striking power creates a percussive attack aurally resembling a picked note. If you are already familiar with these fingerings move on to the two note per string scales.

### **Major Scale**

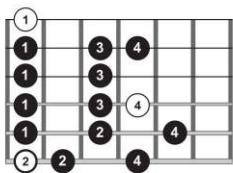


### Melodic Minor Scale

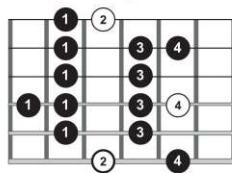
Melodic Minor



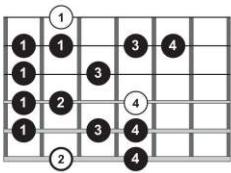
Dorian b2



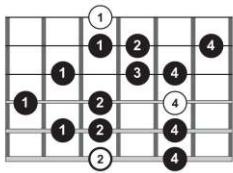
Lydian Augmented



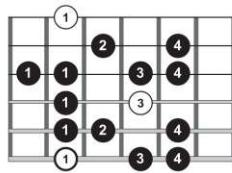
Mixolydian #11



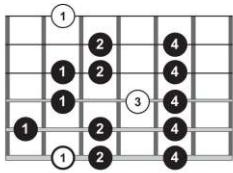
Mixolydian b6



Locrian nat.2

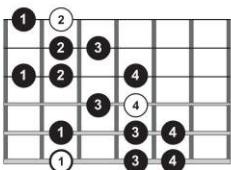


Altered Dominant

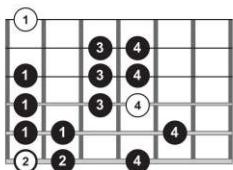


### Harmonic Minor Scale

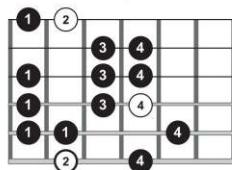
Harmonic Minor



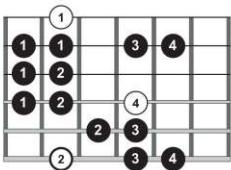
Locrian nat.6



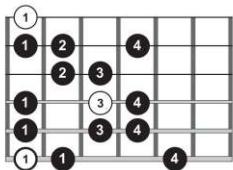
Ionian Augmented



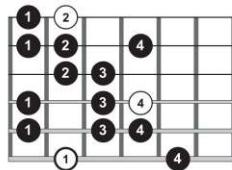
Dorian #4



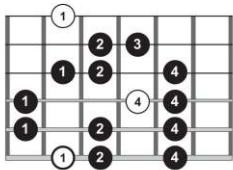
Phrygian Major



Lydian #9



Altered Dominant bb7



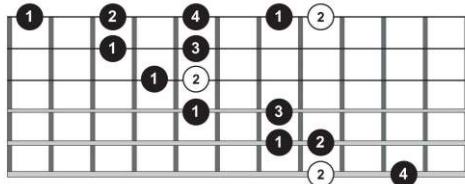
## **Scales with two notes per string**

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).

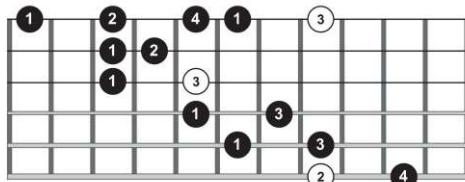
This unusual movement will open up your fingering possibilities and lead you in different directions while improvising. These fingerings work nicely if you slur on each string.

### **Modes of the Major Scale**

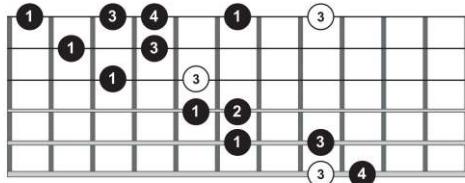
Ionian:



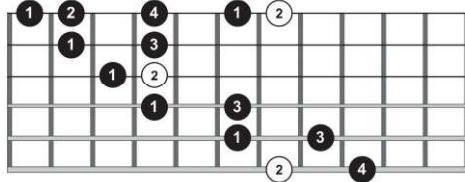
Dorian:



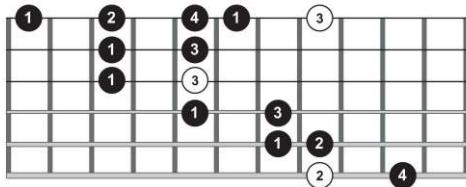
Phrygian:



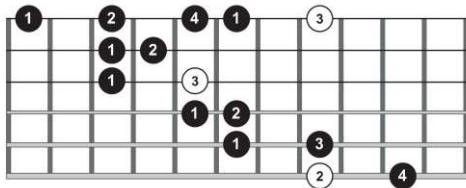
Lydian:



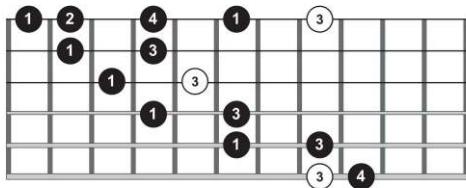
Mixolydian:



Aeolian:

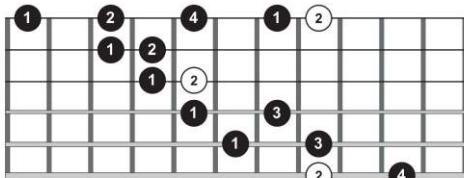


Locrian:

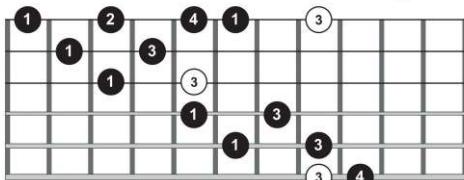


### Modes of the Melodic Minor Scale

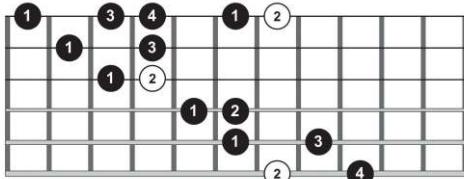
Melodic Minor:



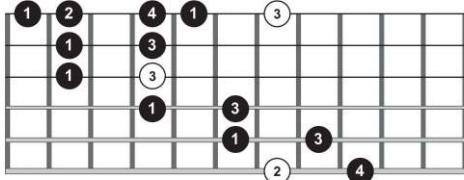
Dorian b2



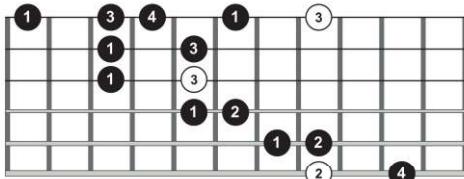
Lydian Augmented



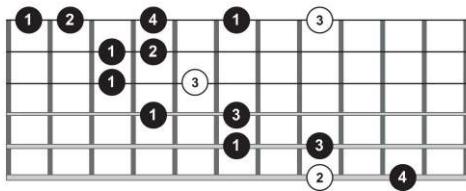
Mixolydian #11



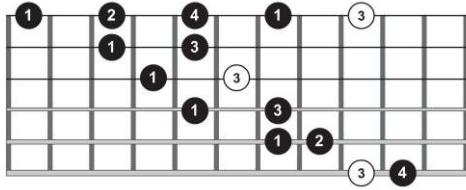
Mixolydian b6



Locrian nat.2

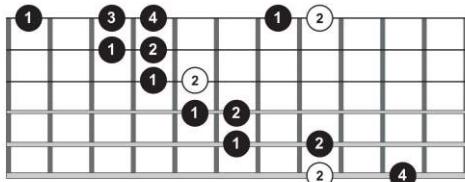


Altered Dominant

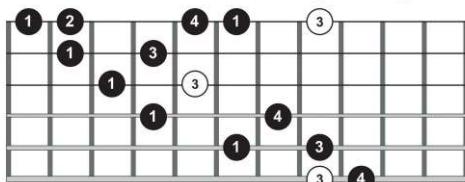


### Modes of the Harmonic Minor Scale

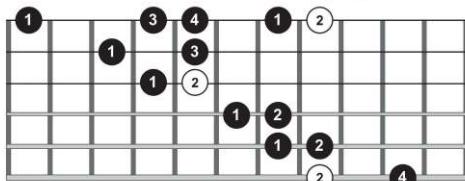
Harmonic Minor:



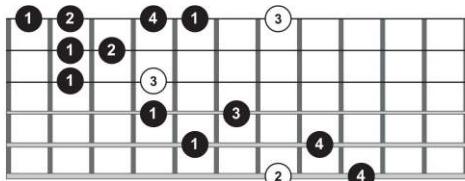
Locrian nat.6



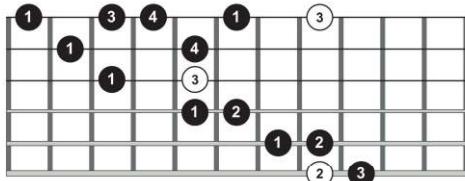
Ionian Augmented



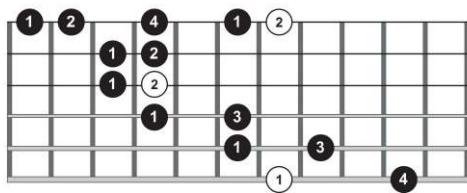
Dorian #4



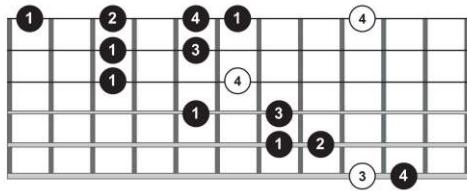
Phrygian Major



Lydian #9

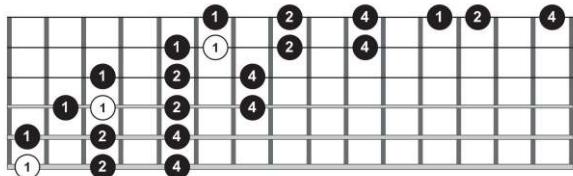


Altered Dominant bb7

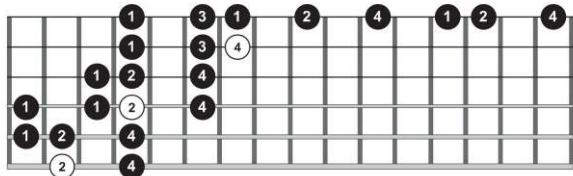


### Examples of Extended Range Scale Fingerings

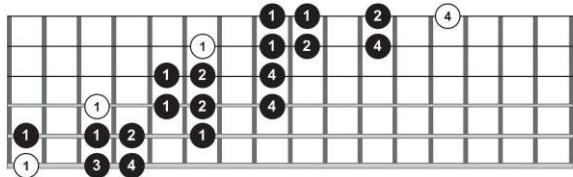
Major:



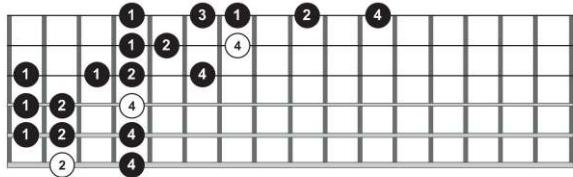
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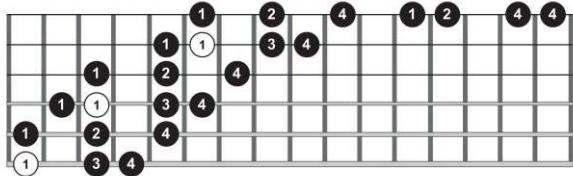
Aeolian:



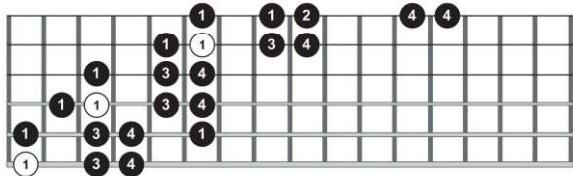
Mixolydian:



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, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "2 nds" is written. The notes are represented by open circles on the staff.

*Ex. 154b*

A musical staff in G clef, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "3 rds" is written. The notes are represented by open circles on the staff.

*Ex. 154c*

A musical staff in G clef, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "4 ths" is written. The notes are represented by open circles on the staff.

*Ex. 154d*

A musical staff in G clef, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "5 ths" is written. The notes are represented by open circles on the staff.

*Ex. 154e*

A musical staff in G clef, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "6 ths" is written. The notes are represented by open circles on the staff.

*Ex. 154f*

A musical staff in G clef, common time. The scale consists of eight notes: C, D, E, F, G, A, B, C. Above the staff, the instruction "7 ths" is written. The notes are represented by open circles on the staff.

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

Musical notation for Ex. 155a. It shows eight diatonic triads in C major. The notes are grouped by vertical lines and labeled above the staff:

C	D-	E-	F	G	A-	B°	C
---	----	----	---	---	----	----	---

The notation consists of two measures of sixteenth-note patterns on a treble clef staff.

Ex. 155b

Musical notation for Ex. 155b. It shows eight diatonic triads in C major. The notes are grouped by vertical lines and labeled above the staff:

C	B°	A-	G	F	E-	D-	C
---	----	----	---	---	----	----	---

The notation consists of two measures of sixteenth-note patterns on a treble clef staff.

Ex. 155c

Musical notation for Ex. 155c. It shows eight diatonic triads in C major. The notes are grouped by vertical lines and labeled above the staff:

C	D-	E-	F	G	A-	B°	C
---	----	----	---	---	----	----	---

The notation consists of two measures of sixteenth-note patterns on a treble clef staff.

Ex. 155d

Musical notation for Ex. 155d. It shows eight diatonic triads in C major. The notes are grouped by vertical lines and labeled above the staff:

C	B°	A-	G	F	E-	D-	C
---	----	----	---	---	----	----	---

The notation consists of two measures of sixteenth-note patterns on a treble clef staff.

### 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>



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>



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>



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>



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



**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>

The musical score consists of a single melodic line on a staff. Above the staff, seven chords are labeled from left to right: C<sub>ma</sub>7, D-7, E-7, F<sub>ma</sub>7, G7, A-7, and B-7<sup>b5</sup>. The melody is composed of eighth-note patterns: the first four measures show eighth-note pairs, while the last three measures show eighth-note triplets.

# Spread Triad Arpeggios

Ascending & Descending

The score consists of seven staves, each representing a different chord or chord variation. Each staff has two measures. The first measure shows the arpeggio going up, and the second measure shows it going down. The chords are:

- Set 1: C, C/E, C/G, C, C/G, C/E, C
- Set 2: Cm, Cm/E $\flat$ , Cm/G, Cm, Cm/G, Cm/E $\flat$ , Cm
- Set 3: C $\circ$ , C $\circ$ /E $\flat$ , C $\circ$ /G $\flat$ , C $\circ$ , C $\circ$ /G $\flat$ , C $\circ$ /E $\flat$ , C $\circ$
- Set 4: C+, C+/E, C+/G $\sharp$ , C+, C+/G $\sharp$ , C+/E, C+
- Set 5: Csus4, Csus4/F, Csus4/G, Csus4, Csus4/G, Csus4/F, Csus4
- Set 6: Clyd, Clyd/F $\sharp$ , Clyd/G, Clyd, Clyd/G, Clyd/F $\sharp$ , Clyd

Each staff includes a guitar chord diagram above the staff, indicating the fingerings for each string. The diagrams use 'x' for a note and 'o' for an open string.

## 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).

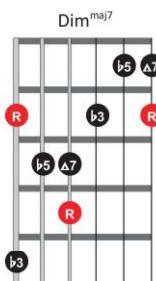
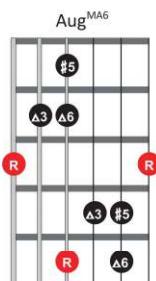
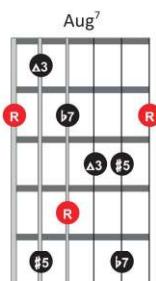
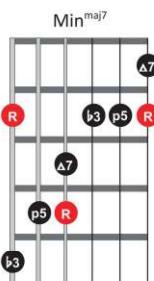
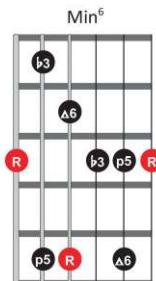
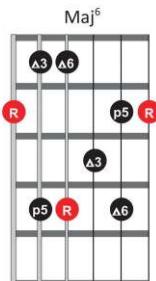
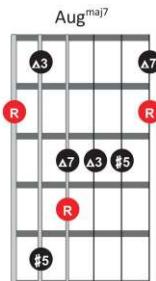
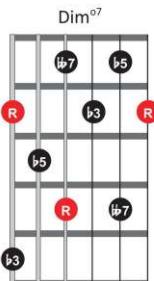
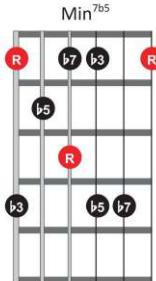
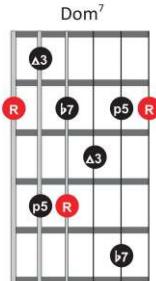
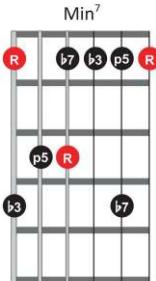
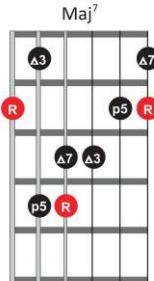
### Seventh Chord Formulas

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
ø <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)		

### Triads and Suspensions

Maj	1	3	5	#7 (8)	Phryg.Δ	1	b2	5	8
Min	1	b3	5	8	Loc.Δ	1	b2	b5	8
Dim	1	b3	b5	8	Lyd.Δ	1	#4	5	8
Aug	1	3	#5	8	MajΔ <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>	Ø <sup>d</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>

Maj<sup>7/bb5</sup>

Dom<sup>7/bb5</sup>

Maj<sup>6/bb5</sup>

Min<sup>maj7/bb5</sup>

Min<sup>7/bb5</sup>

Min<sup>6/bb5</sup>

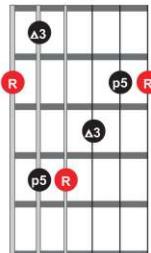
Maj<sup>7/sus2/bb5</sup>

Dom<sup>7/sus2/bb5</sup>

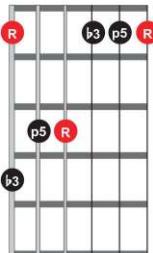
  

Maj<sup>6/sus2/bb5</sup>

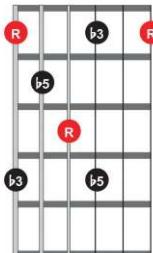
Maj



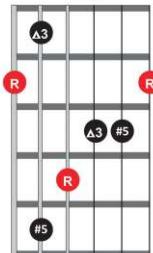
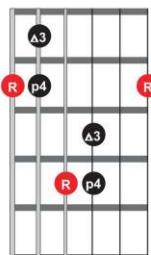
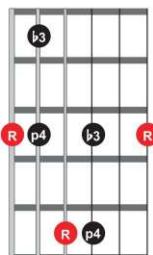
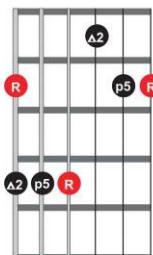
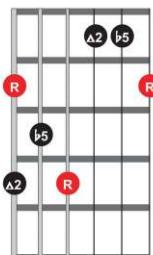
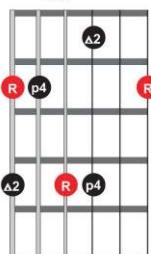
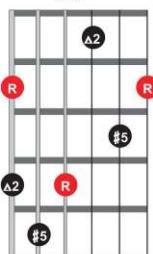
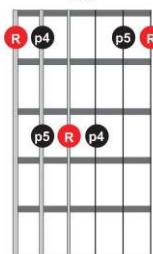
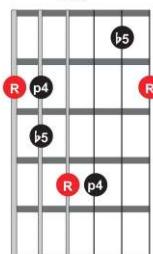
Min

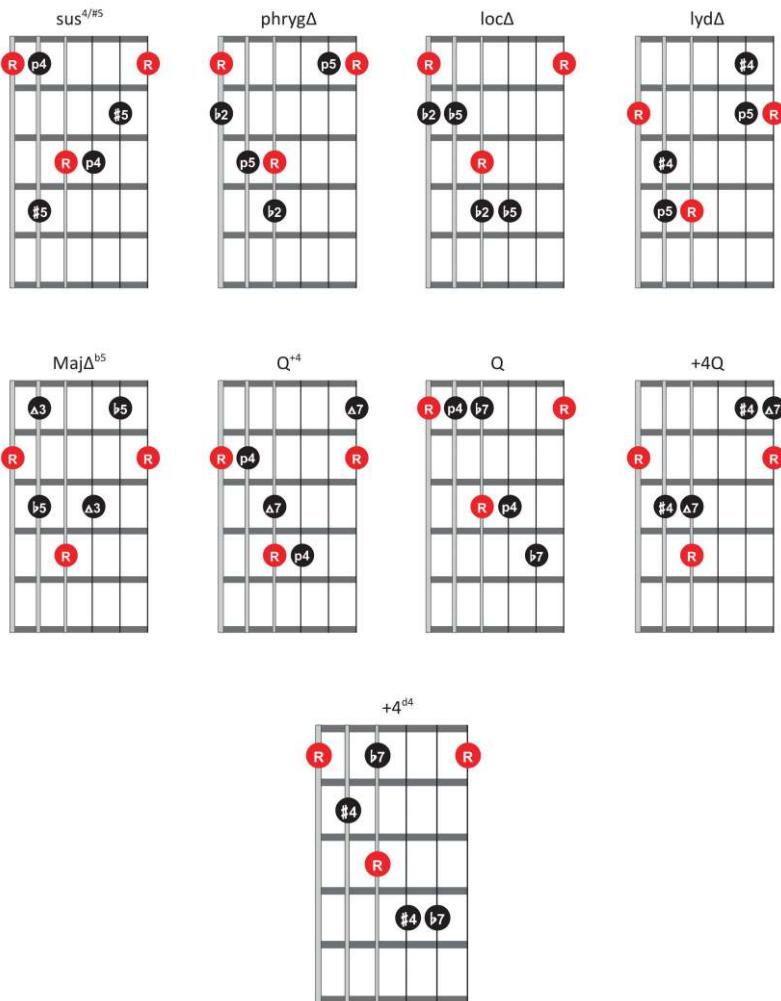


Dim

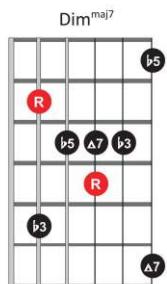
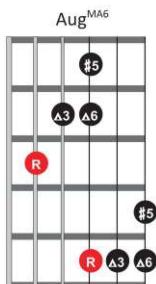
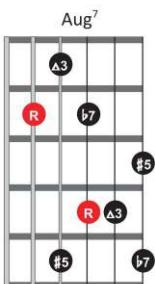
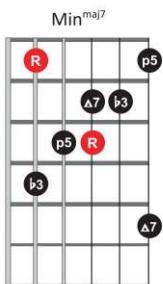
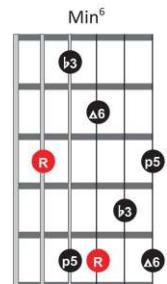
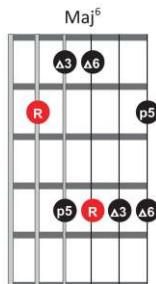
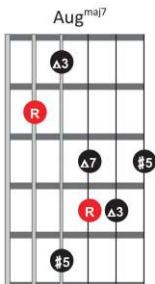
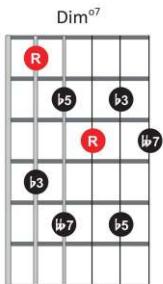
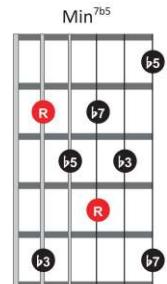
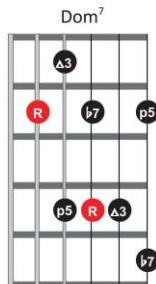
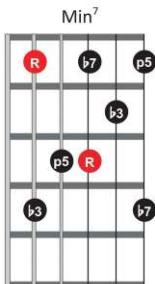
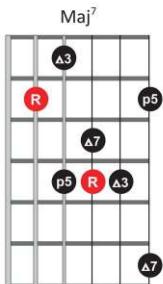


Aug

 $\Delta\text{sus}^4$  no 5th $-\Delta\text{sus}^4$  no 5thsus<sup>2</sup>sus<sup>2/b5</sup>sus<sup>2/4</sup> no 5thsus<sup>2/#5</sup>sus<sup>4</sup>sus<sup>4/b5</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>	Ø <sup>d</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>

$\text{Maj}^9/\text{sus4}/\sharp 5$	$\text{Min}\Delta^{\text{add9}}/5^{\text{th}}$	$\text{Maj}\Delta^{\sharp 9}/5^{\text{th}}$	$\text{Maj}^7/\text{sus2}$
$\text{Dom}^7/\text{sus2}$	$\text{Maj}^7/\text{sus2}/\sharp 5$	$\text{Maj}^6/\text{sus2}$	$\text{Dom}^7/\text{sus2}/\sharp 5$
$\text{Dim}^{\text{o7}}/\text{Maj9}/\text{b13}$	$\text{Maj}^7/\text{b5}/\text{sus2}$	$\text{Dom}^7/\text{b5}/\text{sus2}$	$\text{Dom}^{\sharp 2}$

Maj<sup>7/bb5</sup>

Dom<sup>7/bb5</sup>

Maj<sup>6/bb5</sup>

Min<sup>maj7/bb5</sup>

Min<sup>7/bb5</sup>

Min<sup>6/bb5</sup>

Maj<sup>7/sus2/bb5</sup>

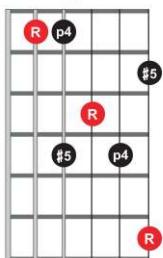
Dom<sup>7/sus2/bb5</sup>

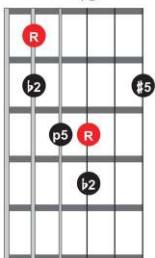
Maj<sup>6/sus2/bb5</sup>

Maj	Min	Dim	Aug
$\Delta\text{sus}^4$ no 5th	$-\Delta\text{sus}^4$ no 5th	$\text{sus}^2$	$\text{sus}^{2/b5}$
$\text{sus}^{2/4}$ no 5th	$\text{sus}^{2/\#5}$	$\text{sus}^4$	$\text{sus}^{4/b5}$

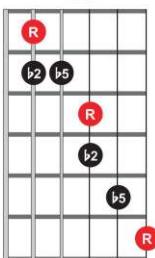
$\text{sus}^{4/\#5}$



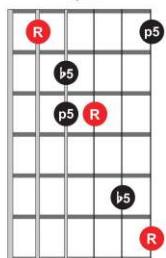
$\text{Phryg}\Delta$



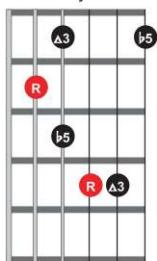
$\text{Loc}\Delta$



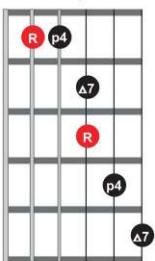
$\text{Lyd}\Delta$



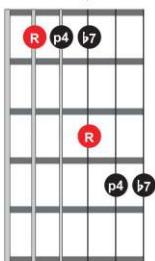
$\text{Maj}\Delta^{b5}$



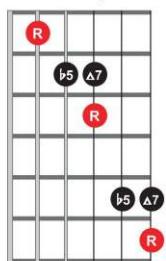
$Q^{+4}$



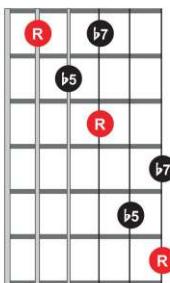
$Q$



$+4Q$



$+4^{d4}$

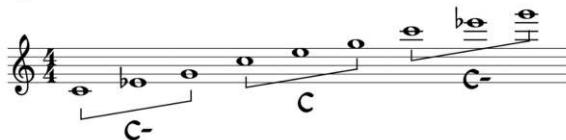


## Bitonal Arpeggios

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

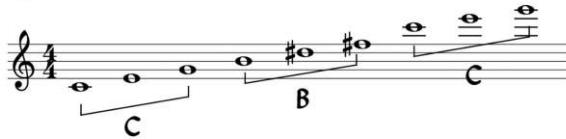
*Ex. 159a*

C  
—  
C-



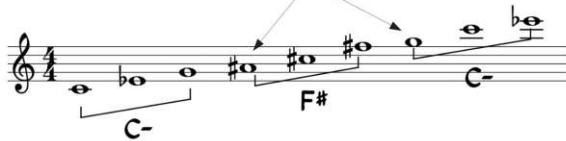
*Ex. 159b*

B  
—  
C



*Ex. 159c*

F#  
—  
C-

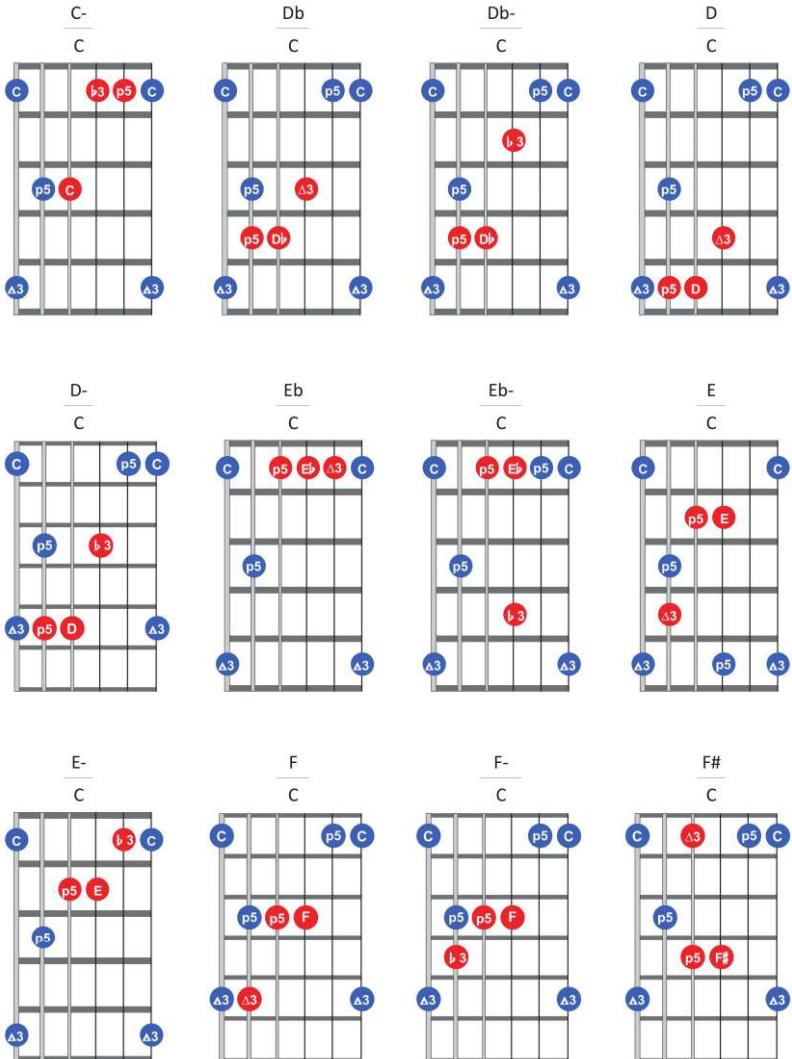


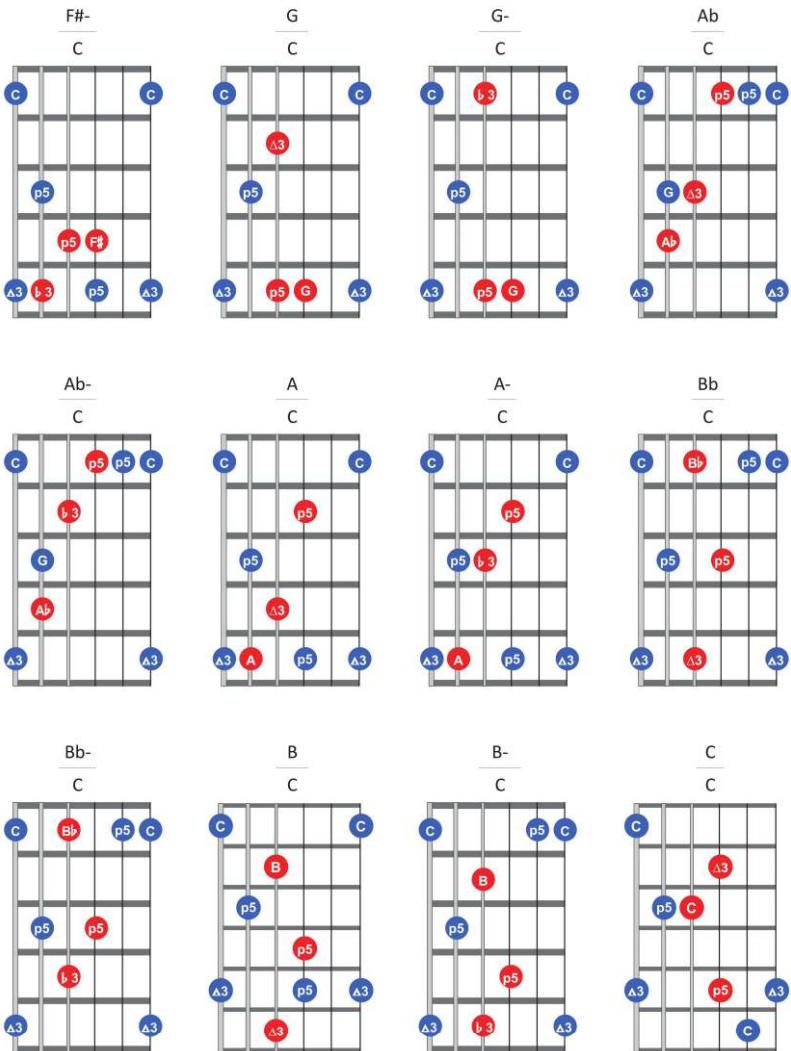
## Major and Minor Bitonal Arpeggios

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

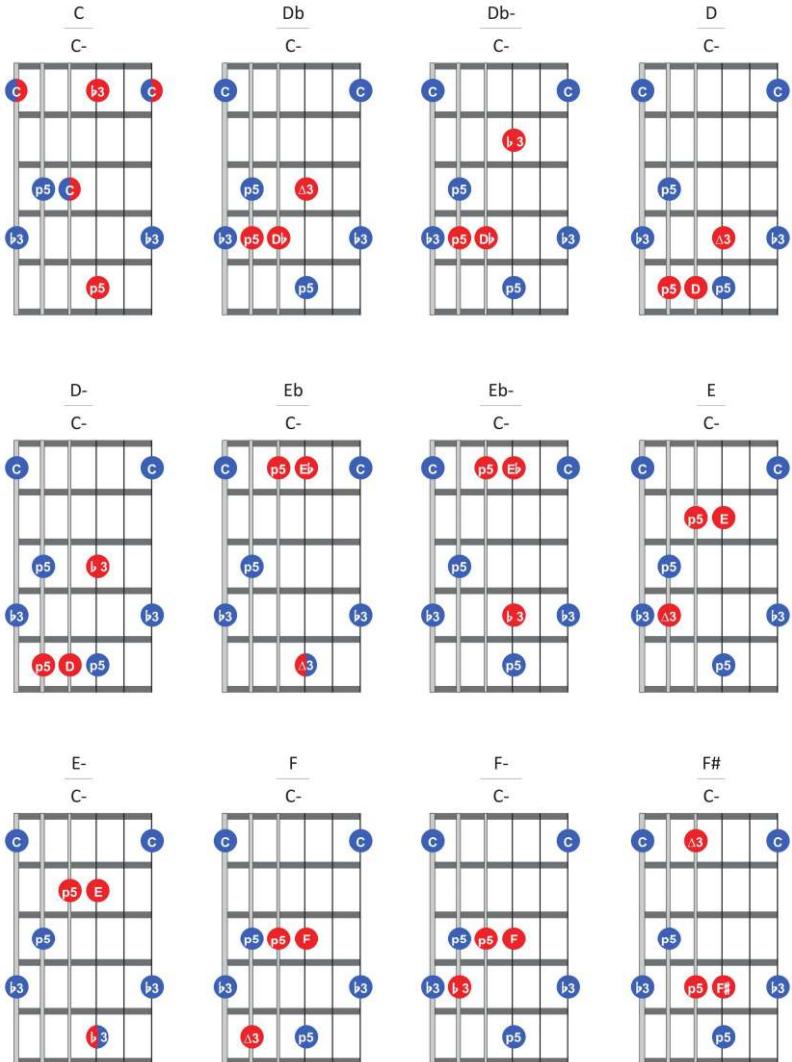
$\frac{C}{C}$	= 1 3 5 #9	$\frac{F\#}{C}$	= 1 3 5 13 b9 #11
$\frac{Db}{C}$	= 1 3 5 b6 b9 11	$\frac{G}{C}$	= 1 3 5 7 9
$\frac{Db-}{C}$	= 1 3 5 b6 b9	$\frac{G-}{C}$	= 1 3 5 b7 9
$\frac{D}{C}$	= 1 3 5 13 9 #11	$\frac{Ab}{C}$	= 1 3 5 #5 #9
$\frac{D-}{C}$	= 1 3 5 6 9 11	$\frac{Ab-}{C}$	= 1 3 5 #5 7 #9
$\frac{Eb}{C}$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

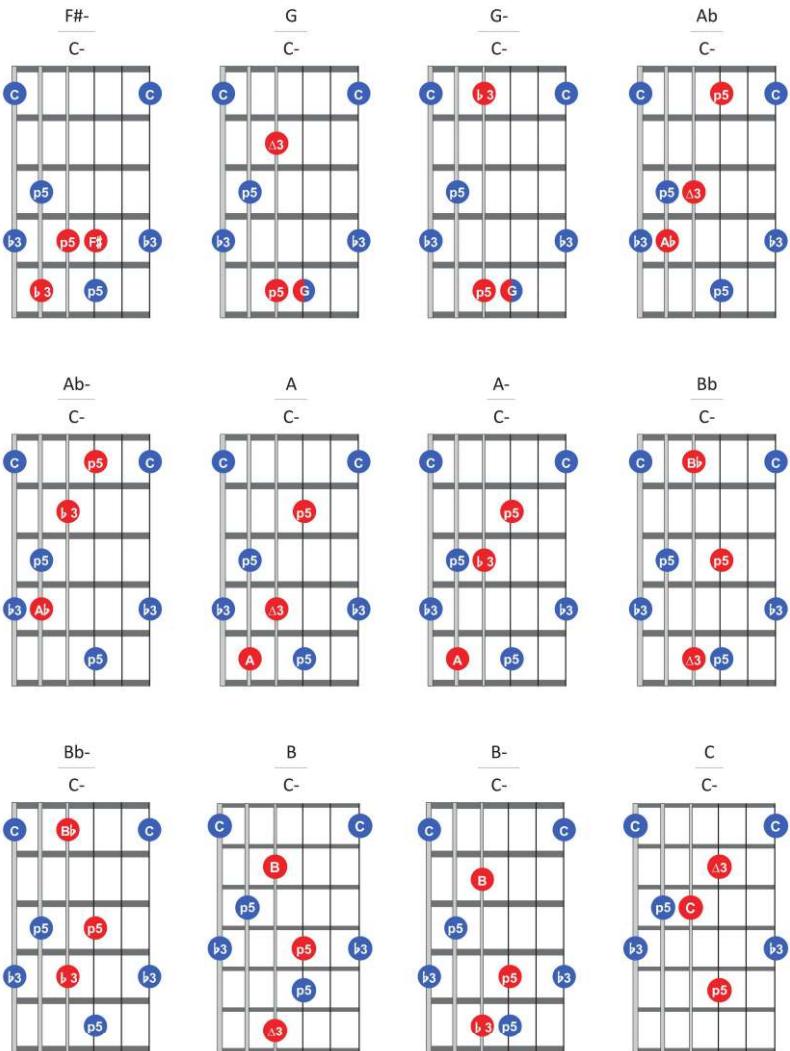
## Major Bitonal Arpeggios (over C at the 8<sup>th</sup> fret)



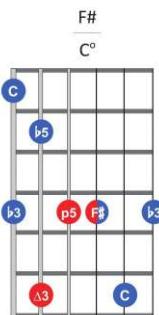
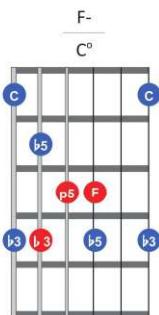
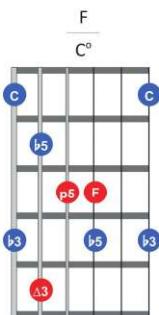
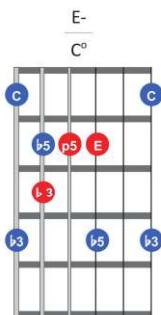
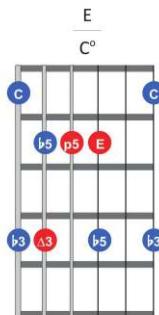
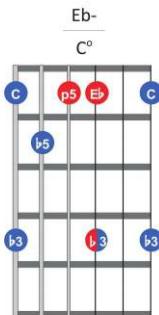
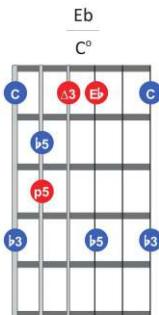
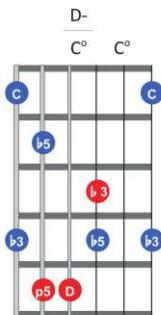
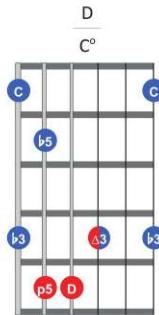
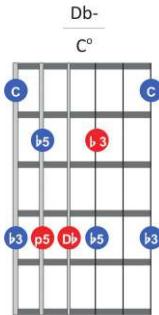
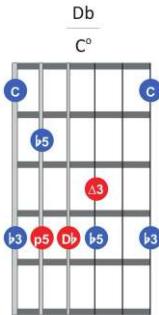
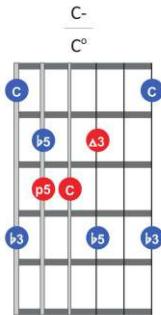


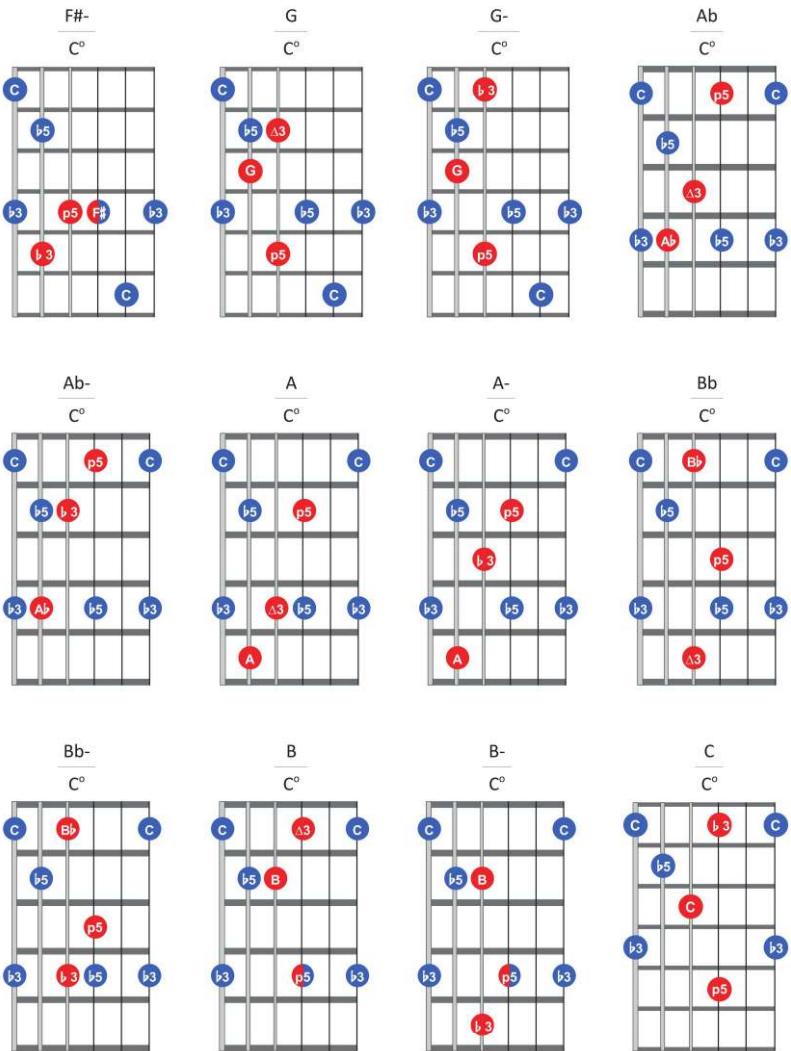
### Minor Bitonal Arpeggios (over C- at the 8<sup>th</sup> fret)





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





**Augmented Bitonal Arpeggios (over C<sup>+</sup> at the 8<sup>th</sup> fret)**

C-	Db	Db-	D
D-	Eb	Eb-	E
E-	F	F-	F#

$F\#-$ $C^+$	$G$ $C^+$	$G-$ $C^+$	$Ab$ $C^+$
$Ab-$ $C^+$	$A$ $C^+$	$A-$ $C^+$	$Bb$ $C^+$
$Bb-$ $C^+$	$B$ $C^+$	$B-$ $C^+$	$C$ $C^+$

## 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>	IMaj7
Comb. 1	D-Dorian	G-Mixolydian	C-Ionian
Parent Scale	(C-Major)	(C-Major)	(C-Major)
Comb. 2	D-Dorian	G-Alt.Dom.	C-Lydian
Parent Scale	(C-Major)	(Ab-Mel. Min.)	(G-Major)

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

### *Ex. 161*

ii <sup>7</sup>	V <sup>7</sup>	IMaj7
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*

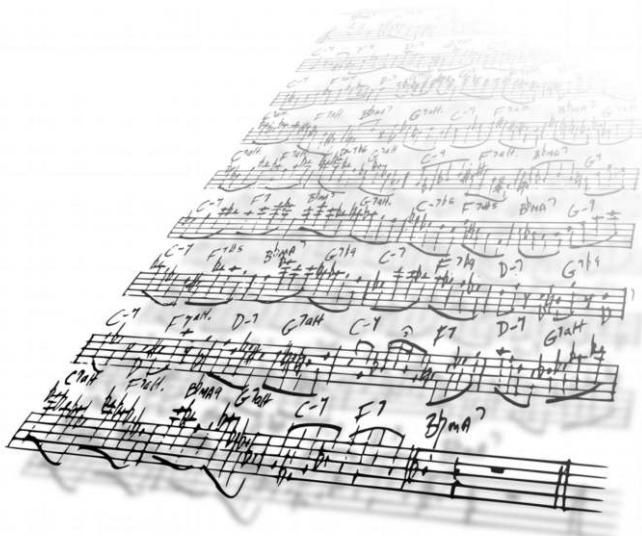
D-7 (Dorian)      G7alt (Alt. Dom.)      CMA7#11 (Lydian)

3<sup>nds</sup> (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



## 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/H5/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/H9/#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**

A musical score for Example 165. It features a treble clef staff in 4/4 time. The first measure shows a melody line with notes labeled 1, b3, 5, b7 above it, corresponding to the chord G-7 (G-B-D-B). The second measure shows a melody line with notes labeled #11, 13 above it, corresponding to the chord C7(#11) (C-E-G-B). The third measure shows a melody line with a single note above it, corresponding to the chord F#m7 (F#-A-C#).

### ii V's in One Measure

**Ex. 166**

### *Major keys*

a)

Musical score for guitar showing chords Gm7, C7alt, and Fmaj7 with corresponding fingerings and string indications.

The score consists of three measures:

- Gm7:** Fingerings 5-6-7-5-5-5. String indications: T-A-B-T-A-B.
- C7alt:** Fingerings 4-5-5. String indications: T-A-B-T-A-B.
- Fmaj7:** Fingerings 8. String indications: T-A-B-T-A-B.

b)

A musical score for a guitar or bass. The top staff shows a melody with a bass line underneath. The bottom staff shows a harmonic progression with notes labeled 8, 11, 10, 9, 9, 8, 11, and 10. The chords are labeled Gm7, C7alt, and Fmaj7 above the staff.

c)

Musical score showing three measures of chords: Gm7, C7, and Fmaj7. The first measure (Gm7) has a bass note A at the bottom of the staff. The second measure (C7) has a bass note B at the bottom of the staff. The third measure (Fmaj7) has a bass note A at the bottom of the staff. The top staff shows a melody line with various notes and rests. Below the staff, the bass notes are labeled with their corresponding letter names (A or B) and the fret number (e.g., 13, 11, 10, 12). The measure numbers 1-3 are also indicated below the staff.

d)

Guitar tablature for the first section of the solo, showing a melody from Gm to C7 to Fmaj across the A and B strings.

e)

A musical score for a guitar or bass. The top staff shows a melody line with a key signature of one sharp (F#). The bottom staff is a tablature (TAB) showing the corresponding fingerings: 3, 3, 6, 5, 6, 5, 3, 2. The score includes three chords: Gm7, C7b9, and Fmaj7.

f)

The image shows a musical score for guitar. It features three chords: Gm7, C7alt, and Fmaj7. The Gm7 chord is played with fingers 10, 7, and 8. The C7alt chord is played with fingers 11, 9, and 10. The Fmaj7 chord is played with finger 8. The music is written on a staff with a treble clef and includes a bass staff below it.

g)

Gm7 C7**9** Fmaj7

T A B

6 7 6 5 5 8 | (8) 6 5

h)

Gm7 C7 Fmaj7

T A B

- 7 | 5 8 5 6 8 5 | 7 4 | (4)

i)

Gm7 C7**9** Fmaj7

T A B

- 7 | 8 7 9 10 | 8 9 8 11 | 10

j)

**Minor keys**

Em7**5** A7alt Dm7

T A B

5 8 7 5 6 8 | 5 6 | 7

k)

Em7**5** A7alt Dm9

T A B

7 | 8 8 10 10 | 8 10 11 12 | (12)

l)

Em7**5** A7alt Dm9

T A B

3 | 3 2 5 2 | 5 | 5

*m)*

Em7**b**5                    A7alt                    Dm9

*n)*

Em7**b**5                    A7alt                    Dm9

*o)*

Em7**b**5                    A7alt                    Dm9

*p)*

Em7**b**5                    A7alt                    Dm9

*q)*

Em7**b**5                    A7alt                    Dm11

*r)*

Em7**b**5                    A7alt                    Dm11

One Measure ii V I's in Major

Ex. 167

a)

Guitar tablature for measure 1. The first two measures are in common time (4/4) and the third measure is in 7/8 time. The chords are Am7, D7, and Gmaj7. Fingerings and slurs are indicated.

Chord progression: Am7 - D7 - Gmaj7

Fingerings: T 9, A 10-12, B 9-12; T 10-9, A 12-11, B 9-10; T 10, A 9-12, B 9-11; T 10, A 10-12, B 8-12

Gmaj7

Guitar tablature for measure 2. The chords are Gmaj7. Fingerings and slurs are indicated.

Chord progression: Gmaj7

Fingerings: T 14, A 12-11, B 10-11; T 12, A 11-10, B 12-11; T 12, A 11-10, B 12-11; T 9, A 10-11, B 9

b)

Guitar tablature for measure 3. The chords are Am7, D7, and Gmaj7. Fingerings and slurs are indicated.

Chord progression: Am7 - D7 - Gmaj7

Fingerings: T 10, A 10-10, B 8-10; T 7, A 10-8, B 7; T 7, A 10-8, B 7; T 7, A 9-7, B (9)

c)

Guitar tablature for measure 4. The chords are Am7, D7, and Gmaj7. Fingerings and slurs are indicated.

Chord progression: Am7 - D7 - Gmaj7

Fingerings: T 9-10, A 9-12, B 12-13; T 12-13, A 12-11, B 10; T 10-13, A 12-10, B 11-9; T 10, A 10-9, B 7-10; T 9, A 7-9, B 7-10; T 10, A 9-10, B 9-7

d)

Guitar tablature for measure 5. The chords are Am7, D7, and Gmaj7. Fingerings and slurs are indicated.

Chord progression: Am7 - D7 - Gmaj7

Fingerings: T 12, A (12)-10, B 9-12; T 10-12, A 10-9, B 12-12; T 10, A 10-9, B 10-10; T 10, A 10-10, B 12-10; T 10, A 11-9, B (9)

e)

**Am7**

f)

**Am7**      **D7**      **Gmaj7**

g)

**Am7**      **D7**

h)

**Am7**      **D7**

i)

**Cm7**      **F7alt**      **Bmaj7**

jj

k)

The image displays a musical score for a guitar solo. At the top, the chords Am7, D7alt, and Gmaj7 are indicated. Below the staff, a tablature provides a detailed breakdown of the notes and fingerings for each chord. The tablature shows six horizontal lines representing the strings, with numbers indicating the frets and patterns indicating the picking or strumming.

り

The sheet music shows a treble clef staff with a key signature of one sharp (F#). The first measure starts with a single note followed by a sixteenth-note pattern. Subsequent measures feature eighth-note pairs connected by slurs, with grace notes preceding them. Measure 5 includes a bass note. The TAB staff below provides a fretboard representation, with numbers indicating fingerings: 0, 5, 4, 2, 2-4, 1, 2-4, 2-5, 2, 4-2, 2, 1, 4, 2.

m)

The image shows a musical score for a six-string 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 score includes fingerings (H, P, sl.) and strumming patterns (downward strokes). The bass line is indicated by 'T' and 'B' below the staff, with corresponding note heads. The time signature changes between common time and 12/8.

n)

**Gm7**

**C7alt**

**Fmaj7**

o)

**Dm7**

**G7alt**

**Cmaj9**

p)

**Dm7**

**G7alt**

**Cmaj7**

q)

**Dm7**

**G13b9**

**Cmaj9**

r)

**Dm7**

**G7b9**

**Cmaj7**

s)

**Dm7**

**G7alt**

**Cmaj7**

tj

**Dm7**

**G7**

**Cmaj7**

## One Measure ii V I's in Minor

Ex. 168

a)

b)

The image shows a musical score for guitar. It features three chords: Dm7:5, G7:9, and Cm7. The Dm7:5 chord is played with a bass note (T) and fingers 5, 6, 3-4, 6, 3, 6, 5. The G7:9 chord is played with a bass note (P) and fingers II, 4-5, 4, 6, 4, 7. The Cm7 chord is played with a bass note (H) and fingers sl., II, 7, 4, 3, 5, 6, 5, 5, 6, 7, 8. The music is in common time (indicated by '4'). The staff includes a treble clef, a key signature of one sharp (F#), and a dynamic marking 'p' (piano).

c)

The image shows a musical score for guitar across three staves. The first staff starts with a Dm7b5 chord, followed by a G7alt chord, and then a Cm7 chord. The second staff continues the melody. The third staff provides a tablature with fingerings (H, P, sl.) and a picking pattern (up-down-up-down) for the Cm7 section.

d)

The image shows a musical score for guitar. The top staff is a treble clef staff with three measures. The first measure is labeled 'Dm7b5' and contains a single note. The second measure is labeled 'G7alt' and contains a sixteenth-note pattern. The third measure is labeled 'Cm7' and contains another sixteenth-note pattern. The bottom staff is a bass clef staff with a continuous bass line. The bass line consists of eighth notes and sixteenth notes, with specific fingering indicated by '1', '2', '3', and 'H' above the notes. The bass line starts at 'T' (Treble) and ends at 'B' (Bass). The notes correspond to the following positions: 5, 6, 5-7, 8, 6, 8-9, 6, 8, 6, (6), 8, 5-7, 5, 6, 8.

e)

The image shows a musical score for guitar. The first measure is labeled 'Dm7:5' and features a descending eighth-note scale pattern with a hammer-on (H) and a pull-off (P). The second measure is labeled 'G7alt' and contains a descending eighth-note scale with a bend (b) and a pull-off (P). The third measure is labeled 'Cm7' and shows a descending eighth-note scale with a bend (b) and a hammer-on (H). Below the staff, a tablature indicates the following fingerings: 10-12-10-9-12-9-10 for the first measure, 11-9-10-9 for the second, and 11-12-10-(10)-13-12 for the third. The tablature also includes a 'T' above the first two strings and 'A' above the third string.

*f*

Dm7**5**                    G7alt                    Cm7

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

*g*

Dm7**5**                    G7alt                    Cm7

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

*h*

Dm7**5**                    G7alt                    Cm7

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

*i*

Gm7**5**                    C7alt                    Fm7

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

*jj*

Gm7**5**                    C7alt                    Fm7

T 9-0-11-10-11-10-8-10-11-8-10-11-8-10-11-13-14-13-11-14-12-11-13-11-12-13-11-12-13-13-10-11-10-13  
A 11-8-10-9-12-11-10-11-13-14-13-11-14-12-11-13-11-12-13-11-12-13-13-10-11-10-13  
B 11-8-9-12-11-10-11-13-14-13-11-14-12-11-13-11-12-13-11-12-13-13-10-11-10-13

*k)*

Gm7**5**                    C7alt                    Fm7

*l)*

Gm7**5**                    C7alt                    Fm7

*m)*

Gm7**5**                    C7alt                    Fm7

*n)*

Gm7**5**                    C7alt                    Fm7

*o)*

Gm7**5**

**C7alt**

**Fm7**

**H**

T A 16 17-13 14 15-11 12 13 13 10 11 11 11-8 11 9 11 11-11 9 11-12 9

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

### 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 ↓	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 ↑	E <sup>7</sup>	A <sup>7</sup>	D <sup>7</sup>	G <sup>7</sup>	C <sup>maj7</sup>
M3 ↓	Bb <sup>7</sup>	Eb <sup>7</sup>	Ab <sup>7</sup>	Db <sup>7</sup>	C <sup>maj7</sup>
TT ↓	Ab- <sup>7</sup>	Eb- <sup>7</sup>	Bb- <sup>7</sup>	F- <sup>7</sup>	C <sup>maj7</sup>
M2 ↑	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 ↓	Bb <sup>7</sup>	Eb <sup>7</sup>	Ab <sup>7</sup>	G <sup>7</sup>	C <sup>maj7</sup>
m3 ↓	B- <sup>7</sup>	Gb <sup>7</sup>	Db- <sup>7</sup>	Ab- <sup>7</sup>	C <sup>maj7</sup>
M2 ↑	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

(G7)

A**b**7

D**b**7

(Cmaj7)

Cmaj7

a)

Guitar tab for example a) showing a Dm7 chord followed by a G7 chord, then a Dbb7 chord, and finally a Cmaj7 chord. The tab includes a neck diagram with strings T, A, and B.

b)

Guitar tab for example b) showing a progression from E7 to A7 to D7 to G7 to Cmaj7. The tab includes a neck diagram with strings T, A, and B.

c)

Guitar tab for example c) showing a progression from G#m7 to D#m7 to Bbm7 to Fm7 to Cmaj7. The tab includes a neck diagram with strings T, A, and B.

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

Ex. 171

The sheet music consists of five staves of guitar tablature, each with a different chord progression and specific fingering instructions.

- Staff 1:** B<sub>b</sub>maj7, G7alt, Cm7, F7b9, Dm7, G7b9, Cm7, F7. Fingerings: 13-10, 13-12, 13-12-10; 11-12, 10-11-10-9; 12-9, 10-13, 9-11; 10-13, 11-12, 10-13, 12. Pizzicato (P) and slurs (sl.) markings.
- Staff 2:** Dm7, G7alt, Cm7, F7alt, Dm7, G7<sup>#</sup>5, Cm7, F7alt. Fingerings: 10-10, 12-10-9-12-13; 10-10, 12-13, 9-11-13; H (harmonics); 12-13-10, 10-12-8-9-10; 7-9, 10-7-8-10-11-13-11. Pizzicato (P) and slurs (sl.) markings.
- Staff 3:** Dm7, G7alt, Cm7, F7alt, B<sub>b</sub>maj7, G7alt. Fingerings: 10-13-11-12-15, 13-16-14; 15-11-10-8-9-12, 11-8; 12-10, 10-8-9-9-10, 11. Pizzicato (P) and slurs (sl.) markings.
- Staff 4:** C7alt, F7alt, B<sub>b</sub>maj7, G7alt, Cm7, Cm7, B<sub>b</sub>maj7, G7alt. Fingerings: 11-8, 9-11-11-11-14, 14-13; 12-10-13-14-12-14; 10-12-13, 10-11-13-11-14; 10-12-10, 13-11-12-10. Pizzicato (P) and harmonics (H) markings.
- Staff 5:** C7alt, F7alt, Dm7<sup>b</sup>6, G7alt, Cm9, F7alt, B<sub>b</sub>maj7, Gm7. Fingerings: 11-11, 11-9-10-9; 9-10-12-11-10-13-13-11-10-11; sl.; 10-13-11-11-10-13-12-11-11-13; 13-12-13, 13-9-12-12-10. Pizzicato (P) and harmonics (H) markings.

**Cm7**      **F7<sup>#</sup>5**      **B<sup>b</sup>maj7**      **G7<sup>9</sup>**      **Cm7<sup>b5</sup>**      **F7<sup>#</sup>5**      **B<sup>b</sup>maj7**      **Gm7**  
  
**Cm7**      **F7<sup>#</sup>5**      **B<sup>b</sup>maj7**      **G7<sup>9</sup>**      **Cm7**      **F7<sup>9</sup>**      **Dm7**      **G7<sup>9</sup>**  
  
**Cm7**      **F7alt**      **Dm7**      **G7alt**      **Cm9**      **F7**      **Dm7**      **G7alt**  
  
**C7alt**      **F7alt**      **B<sup>b</sup>maj9**      **G7alt**      **Cm7**      **F7**      **B<sup>b</sup>maj7**

## Turnarounds Over Four Measures

**Ex. 172a**

Musical score for 'The Star-Spangled Banner' featuring chords Fmaj7 and D7alt. The score includes a staff with notes and a TAB staff below it.

b)

**Fmaj7**

**D7alt**

**Gm7**

**T A B**

Musical score for guitar showing a C7alt chord followed by an Fmaj7 chord. The score includes fingerings and dynamic markings like H, sl., and p.

c)

A musical score for guitar featuring three chords: Fmaj7, D7alt, and Gm7. The Fmaj7 section starts with a bass note and a power chord. The D7alt section includes a melodic line with grace notes and a bass line. The Gm7 section concludes with a sustained note.

**C7alt**

**Fmaj7**

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

**d) Amaj7**

**F#7alt**

**Bm7**

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

**E7alt**

**Amaj7**

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

**e)**

**Bbmaj7**

**G7b9**

**Cm7**

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

**F7b9**

**Bbmaj7**

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

**f)**

**Bbmaj7**

**G7b9**

**Cm7**

T A B  
A 8 7 10 10 9-8 7-6 8-7 5 4 6 5 3 6 5 8 7 10 9-8 8

**F7b9**

T 11 10-9 10-9 11-10 13 12 13 10 14 10 12

**Bb maj7**

T 13 12 13 10 14 10 12

**g)**

**Bb maj7**

T 10-12 10 11-13 10-11 13 11-10 13 12 13-10 11-12 13-9 10

**G7b9**

T 12 13 10-11 12 13-9 10

**Cm7**

T 12-9-10 12-13 10-12 11-13 10-11 13-10 11-14 13-11 sl. 10

**h)**

**Bb maj7**

T 10 12 10-11 10 13 12 11-10 10 13 sl. 12 10-9 12 10 13-10 11

**G7b9**

**Cm7**

T 12-13-10 11-12 10-11 13 14-11 12-13 11-12 13-11 12-11 11-13 13-12 12-10 13-12 12-13 12-10

**F7b9**

T 12-13-10 11-12 10-11 13 14-11 12-13 11-12 13-11 12-11 11-13 13-12 12-10 13-12 12-13 12-10

### Turnaround Substitutions

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

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

**Ex. 173**

The Triads are labeled for analysis

**a)**

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

**b)**

F      Ab      Dbadd9      C7

**c)**

F      Ab      Dbadd9      Eb7

**d)**

Fadd9      Db      Ab      Fdim

**e)**

F      Db      Ab      Bb

## 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) and common time. It shows a sequence of 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 first F7, moves to B7, then E7, then A7, then D7, then G7, then C7, and finally back to F7. The B7, E7, A7, D7, G7, and C7 chords are positioned such that their roots form a descending fifth (or an ascending fourth) relationship with the root of the next chord in the sequence, except for the F7 which intersects the cycle.

*Ex. 175*

a)

T  
A    3    3    6    5    3    6 |    5    3    4    6    5    4    7 |    6

B    5

b)

T  
A    6    6    4    3    6    7    5 |    4    7    4    7    6    4    5    7 |    6    5    7    5    4    7    7    5

A  
B

c)

T  
A    4    7    5    8    7    5    5    8 |    7    5    8    6    5    8    8    6 |    5    8    6    9    8

B

d)

T  
A    5    4    4    7    6    6    4    7 |    6    7    6    9    8    7    7    10 |    9    9    7    10    9

A  
B

### Cycle of Fifths Exercise

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

Ex. 176

D7      G7      C7      F7      B<sub>b</sub>7      E<sub>b</sub>7      A<sub>b</sub>7      D<sub>b</sub>7

F#7      B7      E7      A7      D7      G7      C7      F7

B<sub>b</sub>7      E<sub>b</sub>7      A<sub>b</sub>7      D<sub>b</sub>7      F#7      B7      E7      A7

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

a)

D7      G7      C7      F7      B<sub>b</sub>7      E<sub>b</sub>7

T A 4 7 5 4 7 5 8 | 7 5 5 8 7 5 8 6 | 5 8 8 6 5 8 6 9 | 8 6 6 9 8 6 9

b)

D7      G7      C7      F7      B<sub>b</sub>7      E<sub>b</sub>7

T A 8 10 9 8 6 9 7 | 6 9 9 7 6 9 10 8 | 7 7 10 8 7 10 | 9 10 8 7 8 11

c)

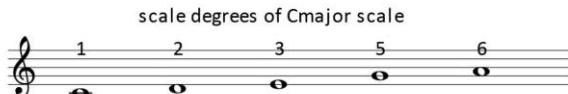
D7      G7      C7      F7      B<sub>b</sub>7      E<sub>b</sub>7

T A 8 11 10 8 11 | 10 8 9 11 10 9 | 8 11 11 9 8 11 9 | 12 11 9 12 10 9 12 10

## Pentatonic Scales

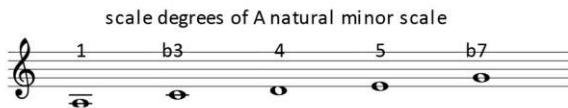
A pentatonic scale is simply a scale consisting of five notes. The two most common pentatonic scales are:

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*

<b>D-7</b>	<b>G7</b>	<b>Cmaj7</b>

*Ex. 178b*

<b>D-7</b>	<b>G7</b>	<b>Cmaj7</b>

*Ex. 178c*

The image shows three measures of musical notation. The first measure has a key signature of one sharp (F#). It contains a G7 chord above a Bb major pentatonic scale (G, Bb, C, D, E). The second measure has a key signature of no sharps or flats. It contains a Cmaj7 chord above a G major pentatonic scale (C, D, E, G, A). The third measure has a key signature of one sharp (F#). It contains a F#7 chord above a C major pentatonic scale (F#, G, A, C, D).

*Ex. 178d*

The image shows two measures of musical notation. The first measure has a key signature of one sharp (F#). It contains a Cmaj7 chord above a G major pentatonic scale (G, Bb, C, D, E). The second measure has a key signature of no sharps or flats. It contains a F#7 chord above a C major pentatonic scale (F#, G, A, C, D).

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

*Ex. 179*

The image shows a musical example in 4/4 time. The first measure shows a C major pentatonic scale (G, Bb, C, D, E) over a D-7 chord. The second measure shows a Db major pentatonic scale (Bb, C, D, E, G) over a G7alt chord. The third measure shows a D major pentatonic scale (D, E, G, A, C) over a Cmaj7 chord. The fourth measure shows a C major pentatonic scale (G, Bb, C, D, E) over a Cmaj7 chord.

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

## Triadic Superimposition

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

### **Ex. 182a**

Harmonic superimposition.

The image shows three musical staves. The first staff is labeled 'Csus4 Triad' and shows a C major chord with a sus4 substitution (C-E-G-B). The second staff is labeled 'A Triad' and shows an A major chord (A-C#-E). The third staff is labeled 'G Triad' and shows a G major chord (G-B-D). Below each staff is its corresponding Roman numeral analysis: D-11, G<sup>13(#11)</sup>, and Cmaj⁹ respectively.

### **Ex. 182b**

Melodic superimposition.

The image shows three musical staves. The first staff is labeled 'D-7' and shows a C major chord with a sus4 substitution (C-E-G-B) followed by a melodic line consisting of notes B, 7, 3, and 11. The second staff is labeled 'G7' and shows an A major chord (A-C#-E) followed by a melodic line consisting of notes 9, 13, #11, and 9. The third staff is labeled 'CMaj7' and shows a G major chord (G-B-D) followed by a melodic line consisting of notes 7, 5, 9, and 5. Below each staff is its corresponding Roman numeral analysis: 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 maj⁹, min⁷ and dom⁷, 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 (Maj<sup>7</sup>)

Chord	Superimposed Triad	Location from the root of the chord	Note functions of superimposition			Modal sound (scale derivation)
C <sup>maj7</sup>	C	Root	1	3	5	Ionian, Lydian
	C+	Root	1	3	#5	Lydian Aug. (Ionian Aug.)
	C <sup>sus4</sup>	Root	1	sus4	5	Ionian
	D	M2↑	9	#11	13	Lydian (Lydian Aug.)
	D°	M2↑	9	#11	#5	Lydian Aug.
	D <sup>sus4</sup>	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.)
	E <sup>sus4</sup>	M3↑	3	13	7	Ionian, Lydian
	F	P4↑	sus4	13	1	Ionian
	F-	P4↑	sus4	#5	1	Ionian Aug.
	F°	P4↑	sus4	#5	7	Ionian Aug.
	F#-	+4↓	#11	13	b9	
	F#°	+4↓	#11	13	1	Lydian (Aug.)
	F# <sup>sus4</sup>	+4↓	#11	7	b9	
	G	P4↓ P5↑	5	7	9	Ionian, Lydian
	G <sup>sus4</sup>	P4↓ P5↑	5	1	9	Ionian, Lydian
	G#-	M3↓ m6↑	#5	7	#9	
	G#°	M3↓ m6↑	#5	7	9	Lydian Aug.
	A-	m3↓ M6↑	13	1	3	Ionian, Lydian
	A <sup>sus4</sup>	m3↓ M6↑	6	9	3	Ionian, Lydian
	B	m2↓ M7↑	7	#9	#11	Lydian #9
	B-	m2↓ M7↑	7	9	#11	Lydian
	B°	m2↓ M7↑	7	9	sus4	Ionian
	B <sup>loc</sup>	m2↓ M7↑	7	3	sus4	Ionian
	B <sup>sus4</sup>	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)
	D <sup>b+</sup>	m2↑	b9	11	13	Dorian b2 (Dom <sup>7</sup> function)
	D <sup>blyd</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>blyd</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>blyd</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+		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
Bbsus <sup>4</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°	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°	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°	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°	m3↑	#9	#11	13	Dom.Dim.
	Eb <sup>sus4</sup>	m3↑	#9	#5	b7	Alt.Dom.
	E°	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#°	+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(9)

T 4-3 6-7 8-7 9-10  
A 6-7 9-10  
B 8-7 11-10

G Db Eb E | G Db E Bb | G

*Ex. 183b*

G7(9)

T 9-12 10-12 13-6 13-12 10-11  
A 12-10 11-10  
B 13-12 14-12 12-10 11-10

E Bb Db G | E Bb G Db | E

*Ex. 183c*

G7alt

T 11-11 13-13 12-13 11-13 13-11 12-13 11-13 13-10 13-13 11-11 14-13 13-11 11-11 13-13

Db Eb Absus4 Ebadd9 Ebsus4 Absus4 | sl.

*Ex. 183d*

G7alt

T 4-6 6-6 8-9 8-10 6-11 6-9 8-11 6-6

Absus4 Absus4 Bbsus4 Ebsus4 | sl.

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

G7alt

T 9-7 8-6 6-6 8-8 8-10 9-11 9-8 8-10 11-9 8-8 11-10 9-8 11-11 8-8 10-11

Abm Db Eb Dbadd9 Ebsus4 Eb' Eb' Eb' Dbadd9 |

## Seventh Chord Superimposition

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

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

### Seventh Chord Superimposition Chart ( $\text{Maj}^7$ )

Chord	Superimposed seventh chord	Location from the root of the chord	Note functions of superimposition				Modal sound (scale derivation)
$\text{C}^{\text{maj}7}$	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)
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>b5</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
	D7/#5	M2↑	9	b5	b7	1	Locrian
	D7/b5	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>7/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>Hyd/maj7</sup>	+4↓	b5	1	b2	11		Locrian
G <sup>7</sup>	P4↓ P5↑	5	7	2	11		Melodic + Harmonic Minor
G- <sup>7b5</sup>	P4↓ P5↑	5	b7	b2	11		Dorian, Aeolian
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>7b5</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)
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>97</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/sus4</sup>	M2↑	9	5	13	1	Mixolydian
E <sup>b</sup>	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>b7</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>maj7</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>b5</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>-5</sup>		+4↓	#11	13	b9	#9	Dom. Dim
F# <sup>-b5</sup>		+4↓	#11	13	1	3	Dom. Dim
F# <sup>7#5</sup>		+4↓	#11	b7	4	3	Mix. #11, Whole Tone
F# <sup>b5</sup>		+4↓	#11	b7	1	3	Mix. #11, Whole Tone
F# <sup>7db7</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>7</sup>		P4↓ P5↑	5	b7	b9	3	Dom. Dim
G <sup>-maj7</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>7db7</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	3	5		Phrygian Major
Bb <sup>-7b5</sup>	M2↓ m7↑	b7	b9	3	#5		Alt. Dom.
Bb <sup>97</sup>	M2↓ m7↑	b7	b9	3	5		Dom. Dim
Bb <sup>0maj7</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>b7/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>7</sup>	Root	1	#9	b5	13		Dom. Dim
Eb <sup>07</sup>	m3↑	#9	b5	13	1		Dom. Dim
F# <sup>07</sup>	+4↓	b5	13	1	#9		Dom. Dim
A <sup>07</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*

The image shows three measures of musical notation in 2/4 time. The first measure is labeled "Cadd9" and contains notes 1, 9, 3, and 5. The second measure is labeled "Cadd#11" and contains notes 1, 3, #11, and 5. The third measure is labeled "Csus4(3)" and contains notes 1, 3, 4, and 5. Below the staff, a bass line is provided with notes 3, 5, 2, and 5 for the first measure, 3, 2, 4, and 5 for the second, and 3, 2, 3, and 5 for the third. The bass line is written in a T-A-B format, where T is Treble clef, A is Alto clef, and B is Bass clef.

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)	
<b>C<sup>maj7</sup></b>	<b>C<sup>add9</sup></b>	1	9	3	5	Ionian, Lydian	
	<b>G<sup>add9</sup></b>	5	6	7	9	Ionian, Lydian	
	<b>D<sup>add9</sup></b>	9	3	#11	13	Lydian (Augmented)	
	<b>E<sup>add9</sup></b>	3	#11	#5	7	Lydian Augmented	
	<b>C<sup>add11</sup></b>	1	3	4	5	Ionian	
	<b>D<sup>add11</sup></b>	9	#11	5	13	Lydian	
	<b>E<sup>add11</sup></b>	3	#5	13	7	Lydian Augmented	
	<b>G<sup>add11</sup></b>	5	7	1	9	Ionian, Lydian	
	<b>C<sup>add#11</sup></b>	1	3	#11	5	Lydian	
	<b>D<sup>add#11</sup></b>	9	#11	5	13	Lydian	
	<b>C<sup>add9/11</sup></b>	1	9	3	11	Ionian	
	<b>G<sup>add9/11</sup></b>	3	13	7	1	9	Ionian, Lydian
	<b>D<sup>add9/11</sup></b>	9	3	#11	5	13	Lydian
	<b>C<sup>add9/#11</sup></b>	1	9	3	#11	5	Lydian
	<b>D<sup>add9/#11</sup></b>	9	3	#11	5	13	Lydian
	<b>A<sup>-add9</sup></b>	6	7	1	3	Ionian, Lydian	
	<b>B<sup>-add11</sup></b>	7	9	3	#11	Lydian	
	<b>E<sup>-add9</sup></b>	3	#11	5	7	Lydian	
	<b>E<sup>-add9/11</sup></b>	3	#11	5	13	7	Lydian
	<b>A<sup>-add9/11</sup></b>	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)
C- <sup>7</sup>	E <sup>badd9</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
	Bb <sup>add9</sup>	b7	1	9	11		Dorian, Aeolian
	D <sup>badd9</sup>	b9	b3	11	b6		Phrygian
	E <sup>badd11</sup>	b3	5	b6	b7		Aeolian
	F <sup>add11</sup>	11	13	b7	1		Dorian
	Bb <sup>add11</sup>	b7	9	b3	11		Dorian, Aeolian
	G <sup>add11</sup>	5	7	1	9		Melodic Minor
	E <sup>badd#11</sup>	b3	5	13	b7		Dorian (b2)
	F <sup>add#11</sup>	11	13	7	1		Melodic Minor
	D <sup>badd#11</sup>	b9	11	5	b6		Phrygian
	D <sup>badd9/#11</sup>	b9	b3	11	5	b6	Phrygian
	E <sup>badd9/#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)
C- <sup>7b5</sup>	Eb- <sup>add9</sup>	b3	11	b5	b7	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	Locrian
	Ab- <sup>add11</sup>	b6	1	b9	b3	Locrian
	Eb- <sup>add9/11</sup>	b3	11	b5	b6	Locrian (nat. 2)
	Ab <sup>add9/11</sup>	b6	b7	1	b9	Locrian

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

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

A musical staff in G clef. It starts with a B diminished 7th chord (B, D, F#) followed by a B major 7th chord (B, D, F#, A). The notes are represented by open circles on the staff.

**B<sup>b</sup>7 (dorian)**

A musical staff in G clef. It starts with a B-flat major 7th chord (B-flat, D, F, A) followed by another B-flat major 7th chord. The notes are represented by open circles on the staff.

#### *Ex. 186a*

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

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

**B<sup>b</sup>7 (Dorian)**      (b<sup>ø</sup>)      (b<sup>ø</sup>)      (b<sup>ø</sup>)      b<sup>ø</sup>      (b<sup>ø</sup>)      (b<sup>ø</sup>)      b<sup>ø</sup>

1      9      9      b3      11      11      5      b7

Weak      (Ok. But Not As Strong)

#### *Ex. 186b*

whole step resolution

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

**B<sup>b</sup>7**      b<sup>ø</sup>      b<sup>ø</sup>      b<sup>ø</sup>      b<sup>ø</sup>      b<sup>ø</sup>

11      5      5      1      Weak      11

**Ex. 186c**

### Bdim7 1/2 step resolution

Musical score for Bdim7 1/2 step resolution. The score consists of two staves. The top staff shows a melodic line with grace notes and slurs. The bottom staff shows the corresponding tablature for a guitar, with fingerings (9, 6, 7, 8, 6, 9, 7, 10, 11) and string indications (T, A, B). Various performance markings are present, including dynamics H, P, b3, and Bm7, and articulations sl and 11.

*Ex. 186d*

### Bdim7 Whole step resolution

Bbm7

② Dom7 chords resolving up by whole step

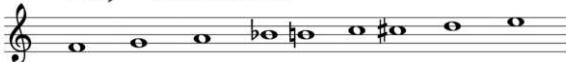
Tunes found in: Just Friends  
 Yardbird Suite  
 There Will Never Be Another You  
 Donna Lee  
 Cherokee  
 Stella By Starlight

Scales

**E♭7** (mixolydian #11)



**Fmaj7** (ionian, lydian)



*Ex. 187a*

½ step resolutions

*Ex. 187b*

whole step resolutions

*Ex. 187c*

E<sup>b</sup>7

Fmaj7

*Ex. 187d*

E<sup>b</sup>7 H P

Fmaj7

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

*Ex. 188*

1	E <sup>b</sup> 7	►	F <sup>MAJ</sup> 7
2	A <sup>7ALT</sup>	►	Dm <sup>7</sup>
3	A <sup>7ALT</sup>	►	B <sup>MAJ</sup> 7
4	E <sup>b</sup> 7	►	B <sup>MAJ</sup> 7
5	A <sup>7ALT</sup>	►	F <sup>MAJ</sup> 7 or F <sup>7</sup>
6	E <sup>b</sup> 7	►	Am <sup>7</sup>
7	A <sup>7ALT</sup>	►	Am <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>	—————►	E <sub>b</sub> <sup>maj7</sup>
F- <sup>7</sup>	—————►	D- <sup>7</sup>
E <sup>maj7</sup>	—————►	A <sub>b</sub> <sup>maj7</sup>
B- <sup>7</sup>	—————►	G- <sup>7</sup>

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

### Ex. 190a

Musical staff in G major (one sharp) and common time (4/4). The first measure contains a D-7 chord followed by a G7 chord. The second measure contains a D-flat 7 chord followed by a G-flat 7 chord.

### Ex. 190b

Musical staff in G major (one sharp) and common time (4/4). The first measure contains an E-7 chord followed by an A7 chord. The second measure contains an F-7 chord followed by a B-flat 7 chord.

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

### Ex. 191

Musical staff in G major (one sharp) and common time (4/4). The first measure contains an A-7 chord. The second measure contains an F-sharp 7 chord with a b5 (F#-7b5). The third measure contains a B-7 chord with a b5 (B-7b5). The fourth measure contains an E7 chord in alternative form (E7alt).

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

Musical example 192 consists of three measures of music in 4/4 time. The melody is played on a treble clef staff. Below the staff, a guitar neck diagram shows fingerings: measure 1 has 'H' over 5, 7, 5, 8; measure 2 has 'H' over 5, 8, 5, 7; measure 3 has 'H' over 7, 8, 5, 7. The notes are eighth notes.

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

Musical example 193 consists of three measures of music in 4/4 time. The melody is played on a treble clef staff. Below the staff, a guitar neck diagram shows fingerings: measure 1 has 'H' over 3, 5; measure 2 has '4' over 7, 4, 5; measure 3 has '5' over 3. The notes are eighth notes. Above the staff, dynamics are indicated: measure 1 has 'H' above the first note and 'P' above the second note; measure 2 has 'P' above the first note and 'H' above the second note; measure 3 has 'P' above the first note and 'H' above the second note. Vertical bar lines under the staff indicate 5-note groupings.

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 shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

**Ex. 194b**

Musical example 194b shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

**Ex. 194c**

Musical example 194c shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

**Ex. 194d**

Musical example 194d shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

**Ex. 194e**

Musical example 194e shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

**Ex. 194f**

Musical example 194f shows a melodic line with various slurs and grace notes. The guitar tab below shows the notes being played on specific frets and strings.

*Ex. 194g*

Musical example 194g consists of two staves. The top staff is a treble clef staff with sixteenth-note patterns. The bottom staff is a bass staff with note heads and stems. The bass staff has labels T, A, and B above the notes.

T 7 7 8 9 10 7 7 | 8 7 7 9 10 | 7 7 8 6 | 9

A 7 9 |

B

**Major Scale Impressions**

**Ex. 195a**

**C**

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

**Ex. 195b**

**B♭**

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

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

**Ex. 195c**

**A♭**

4 6 8 6 6 8 | 5 6 8 6 8 9 | 8 9 11 8 9 8 | 10 11 8 9 11 8 | 6 8 5 6 3 | 3

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

*Ex. 195d*

The musical score consists of two staves. The top staff is in treble clef and 4/4 time, featuring a melodic line with eighth and sixteenth notes. The bottom staff is in bass clef and 4/4 time, showing harmonic support with eighth and sixteenth notes. Measure 1 starts with a forte dynamic (F) followed by three piano dynamics (P). Measure 2 begins with a piano dynamic (P). Measure 3 starts with a piano dynamic (P). Measure 4 starts with a piano dynamic (P).

**Ex. 195e**

D

The image shows a musical score for guitar. The top part is a staff with six strings, featuring a melodic line with grace notes indicated by short vertical strokes above the main notes. The bottom part is a tablature with two lines, labeled T and B, representing the 6th and 5th strings of a standard six-string guitar. The tablature shows fingerings and string indications. Measure numbers 11 through 14 are present above the staff, and dynamic markings P (piano), H (harmonics), and H (harmonics) are placed above the tablature.

**Ex. 195f**

B

The image shows two staves of sheet music for guitar. The top staff is for the treble clef part, featuring a melodic line with grace notes and dynamic markings (p). The bottom staff shows the corresponding chords (T, A, B) and a bass line. Measures 11 and 12 are shown.

*Ex. 195g*

A

*Ex. 195h*

D<sub>b</sub>

T A B

2 1 4 2 1 3 1 | 1 4 2 1 3 1 4 | 4 2 1 3 1 4 3 |

*Ex. 195i*

E<sub>b</sub>

T A B

11 10 12 10 13 11 12 10 | 13 12 13 11 10 8 10 8 | 7 5 6 5 8 6 8 6 |

*Ex. 195j*

C

T A B

15 13 15 12 15 15 13 12 13 | 15 13 13 12 15 12 13 12 | 12 15 13 15 12 15 14 13 |

*Ex. 195k*

G

T A B

2 4 5 3 5 2 4 5 3 5 | 2 5 2 4 4 5 3 |

*Ex. 195l*

C

T A B

2 5 4 3 6 4 6 5 7 8 | 8 7 9 10 7 10 9 10 12 |

9 12 10 12 13 13 12 14 15 | 12 15 14 14 16 17 |

*Ex. 195m*

E

Musical score for Example 195m in E major. The score consists of two staves. The top staff is a treble clef staff with a tempo of 3. The bottom staff is a bass clef staff with a tempo of 3. The score includes fingerings and string indications.

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

*Ex. 195n*

Musical score for Example 195n in G major. The score consists of two staves. The top staff is a treble clef staff with dynamics p. The bottom staff is a bass clef staff with dynamics p. The score includes fingerings and string indications.

T A  
B 9 11 9 8 8 11 9 | 8 10 8 11 9 11 10 8 | 11 9 11 10 8 11 9 11 | 10

*Ex. 195o*

A♭

Musical score for Example 195o in A flat major. The score consists of two staves. The top staff is a treble clef staff with a tempo of 3. The bottom staff is a bass clef staff with a tempo of 3. The score includes fingerings and string indications.

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

*Ex. 195p*

F

Musical score for Example 195p in F major. The score consists of two staves. The top staff is a treble clef staff with a tempo of 3. The bottom staff is a bass clef staff with a tempo of 3. The score includes fingerings and string indications.

T A  
B 12 15 13 12 15 14 12 | 14 12 13 15 14 | 12 15 13 15 15 13 12 13 | 13

*Ex. 195q*

C

Musical score for Example 195q in C major. The score consists of two staves. The top staff is a treble clef staff with a tempo of 3. The bottom staff is a bass clef staff with a tempo of 3. The score includes fingerings and string indications.

T A  
B 14 15 12 14 15 12 14 12 | 12 13 14 15 13 15 | 15 12 15 12 14 12 13

*Ex. 195r*

F♯

Musical score for Example 195r in F sharp major. The score consists of two staves. The top staff is a treble clef staff with dynamics H. The bottom staff is a bass clef staff with dynamics H. The score includes fingerings and string indications.

T A  
B 8 9 11 10 11 8 9 11 | 8 11 8 10 9 11 10 9 | 10 11

*Ex. 195s*

Musical score for Example 195s in E-flat major (E♭). The score consists of two staves. The top staff is for the left hand (piano) and the bottom staff is for the right hand (guitar). The key signature has one flat. The time signature is common time (indicated by '4'). The left hand part is mostly sustained notes with some eighth-note patterns. The right hand part shows fingerings (6, 8, 5; 6, 8, 7, 8; 5, 7, 8, 5; 6, 8, 5, 7; 8, 5, 6, 8, 5) and dynamic markings (H, P). The guitar part uses a standard tuning (E, A, D, G, B, E).

*Ex. 195t*

Musical score for Example 195t in B major (B). The score consists of two staves. The top staff is for the left hand (piano) and the bottom staff is for the right hand (guitar). The key signature has one sharp. The time signature is common time (indicated by '4'). The left hand part consists of eighth-note patterns with dynamic markings (H, H, H, H, H, H, H). The right hand part shows fingerings (7; 6, 7, 9; 6, 7, 9; 6, 8, 6, 8, 9; 6, 8, 7; 8, 9, 7, 9; 6, 9) and dynamic markings (H, H, H, H, H, H, H). The guitar part uses a standard tuning (E, A, D, G, B, E).

### 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*

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**

*Ex. 197b*  
**A Lydian**

*Ex. 197c*  
**G Dorian**

*Ex. 197d*  
**C Phrygian**

*Ex. 197e*  
**B♭ Mixolydian**

*Ex. 197f*

**E Aeolian**

*Ex. 197g*

**A Locrian**

*Ex. 197h*

**A Ionian**

*Ex. 197i*

**G Lydian**

*Ex. 197j*

**C Aeolian**

*Ex. 197k*  
**D Mixolydian**

T  
A  
B

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

*Ex. 197l*  
**D Dorian**

T  
A  
B

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

*Ex. 197m*  
**G Phrygian**

T  
A  
B

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

*Ex. 197n*  
**E Aeolian**

T  
A  
B

12 15 14 12 16 13 15 12 12 14 11 12 10 12 10 14

*Ex. 197o*  
**A Dorian**

T  
A  
B

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

*Ex. 197p*

## E Mixolydian

**Ex. 197q**

## F# Phrygian

Modal Lines (Melodic Minor)

*Ex. 198a*

D Melodic Minor

*Ex. 198b*

F Lydian Augmented

*Ex. 198c*

A Dorian b2

*Ex. 198d*

E Mixolydian #11

*Ex. 198e*

B Locrian  $\frac{2}{4}$

Musical example 198e shows a B Locrian scale pattern in 2/4 time. The scale consists of the notes B, A, G, F#, E, D, C, B. The pattern is: B (H), A (H), G (H), F# (H), E (sl.), D (sl.). Fingerings: 9, 10, 10; 9, 10, 12; 9, 10, 12; 12, 14.

*Ex. 198f*

C $\sharp$  Altered Dominant

Musical example 198f shows a C $\sharp$  Altered Dominant scale pattern. The scale consists of the notes C $\sharp$ , B, A, G, F $\sharp$ , E, D, C $\sharp$ . The pattern is: C $\sharp$  (H), B (H), A (P), G (sl.), F $\sharp$  (sl.), E (P), D (P). Fingerings: 9, 10, 9, 12, 11, 11, 9; 12, 9, 12, 12, 9, 11, 10; 7, 12, 13, 9, 12, 10, 9, 12.

*Ex. 198g*

E $\flat$  Melodic Minor

Musical example 198g shows an E $\flat$  Melodic Minor scale pattern. The scale consists of the notes E $\flat$ , D, C, B, A, G, F, E $\flat$ . The pattern is: E $\flat$  (P), D (P), C (P), B (P), A (P), G (H). Fingerings: 10, 6; 7, 8, 7; 8, 9, 6; 8.

*Ex. 198h*

C Lydian Augmented

Musical example 198h shows a C Lydian Augmented scale pattern. The scale consists of the notes C, B, A, G, F $\sharp$ , E, D, C. The pattern is: C (H), B (H), A (P), G (sl.), F $\sharp$  (sl.), E (H). Fingerings: 7, 8; 10, 7, 9, 7; 10, 0, 6, 7; 9, 6, 7, 8.

*Ex. 198i*

G Altered Dominant

*Ex. 198j*

F Dorian ♯2

*Ex. 198k*

E♭ Mixolydian #11

*Ex. 198l*

F♯ Locrian ♯2

*Ex. 198m*

D Altered Dominant

*Ex. 198n*

*Ex. 198o*

### **A♭ Lydian Augmented**

A musical score for guitar in standard notation. The staff shows a continuous melodic line with various performance techniques indicated by markings such as grace notes, slurs, and dynamic changes (p, f). The score includes a key signature of one flat, a time signature of common time, and a tempo marking of 120 BPM. The guitar neck below the staff shows the fingerings for the notes.

Ex. 198p

### **G Altered Dominant**

The image shows a musical score for a six-string guitar. The top staff features a treble clef, a key signature of one sharp, and a common time signature. The bottom staff shows the corresponding tablature with six vertical columns representing the strings. The melody consists of eighth and sixteenth-note patterns. Several slurs are applied to groups of notes, and grace notes are indicated by small 'H' symbols above the main note heads. The tablature below the staff includes numerical values under each string position, such as '3 4' under the first string and '2 4' under the second string.

*Ex. 198q*

## C Mixolydian #11

Sheet music for 'Memory Lane' showing measures 11-12. The top staff shows a melodic line with various slurs and grace notes. The bottom staff shows a bass line with eighth-note patterns. Fingerings and dynamic markings are included.

**Blues Sounds**

**Ex. 199a**

A7

T A B

**Ex. 199b**

G7

T A B

**Ex. 199c**

F7

T A B

**Ex. 199d**

T A B

**Ex. 199e**

B7

T A B

T A B

**Ex. 199f**

Sheet music for C7 H major scale. The scale consists of 11 notes: C, D, E, F, G, A, B, C, D, E, F. Grace notes are indicated by small 'H' above the main notes. Performance markings include slurs, dynamics (p, f), and a fermata over the 11th note. Fingerings are shown below the notes: 5, 6-7, 7-8, 7-8, 8-9, 11-12, 11-8, 11, 8, 11-10-8, 10-8, 8-9, 10.

*Ex. 199g*

The image shows a musical score for a bass line in E♭7. The top staff is a treble clef staff with a bass clef at the beginning. The bass line consists of eighth and sixteenth note patterns. The bottom staff is a tablature staff with vertical lines representing the strings. Arrows labeled  $\frac{V_1}{2}$  point to specific notes in the bass line, corresponding to the numbers 8, 6, 7, 6, 4, and 5 in the tablature below. The tablature also includes a 6 over a 6, indicating a tied note.

**Ex. 199h**

*Ex. 199i*

A musical score for trumpet part 2, page 10, featuring two staves. The top staff shows a melodic line starting with an A7 chord, followed by a series of eighth-note patterns. The bottom staff shows a harmonic progression: T (7), A (5), B (6), A (7), G (8), F# (9), E (7), D (8), C (9), B (7). Measure 10 concludes with a harmonic progression: G (8), F# (9), E (7), D (8), C (9), B (10), A (8).

**Ex. 199j**

The image shows a musical score for a guitar. The top staff is in treble clef, D-flat major, and 7/8 time. It features a melodic line with slurs and grace notes. The bottom staff is in bass clef, showing chords and bass notes. The score consists of two measures followed by a repeat sign and two more measures.

T 4 7 6 4 7 6 4 6 5 7 5 | 6 4 6 5 4 7 4

A 4 7 6 4 7 6 4 6 5 7 5 | 6 4 6 5 4 7 4

B

**Diminished Sounds**

**Ex. 200a**  
Ddim7

T 9-8-11-9  
A 8-11-9-8  
B 11-8-9

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

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

P

Repeat down an octave

**Ex. 200b**  
F13(9)

T 8-7-8  
A 7-8  
B

T 10-8-7-8  
A 8-7-8  
B 7-8

T 7-8-7-8  
A 8-7-8  
B

T 9-7-6-7  
A 7-6-7  
B 7-6-7

P H

sl. H

P H

Repeat down an octave

**Ex. 200c**  
Bdim7

T 8-6-6-9  
A 6-7-9-10  
B

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

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

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

P

sl.

sl. P

**Ex. 200d**  
G<sup>b</sup>7(9)

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

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

**Ex. 200e**  
E<sup>b</sup>dim7

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

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

H

H

sl.

sl.

p

sl.

*Ex. 200f*

E7(b9)

T A B

12 13 14 12 10 11 9 9 6 4 5 | 5 2 3 4 2 5 8 6 8 10 9 7 10 9 10 8 7 10 13

*Ex. 200g*

Gdim7

T A B

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

*Ex. 200h*

Bdim7

T A B

8 10 7 8 9 10 7 9 7 8 10 7 7 9 11 8

*Ex. 200i*

E7(59)

T A B

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

*Ex. 200j*

Bdim7

T A B

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

*p* *H*

T A B  
14 11 14 12 13 14

9 *H* 11

8 11 11 10 *sl.* 8 8 7

*sl.*

*Ex. 200k*

A7(9)

T A B  
12 11 8 9 10 10 7 7

9 9 6 6 8 8 9 9

*sl.*

*Ex. 200l*

E♭dim7

T A B  
8 6 7 9 5 8 4 6 7 5 8 4 6 7 5 4

*Ex. 200m*

F13(9)

T A B  
1 3 4 4 1 2 3 4 5 6 3 4 4 6 7 7

*Ex. 200n*

Bdim7

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

*Ex. 200o*

A13(9)

T A B  
6 7 9 10 7 8 11 8 10 10 7 9 8 10 9 10 8 11 9 7 10 8

*Ex. 200p*

Cdim7 *sl.*

*Ex. 200q*

G7(9)

**Whole Tone Lines**

**Ex. 201a**

D7(5)

Musical score for Ex. 201a in D7(5) for guitar. The score consists of four measures of sixteenth-note patterns. Measure 1 starts with a whole tone line (H) followed by a half note (P). Measures 2-4 continue with whole tone lines (H) and half notes (P). Fingerings are indicated above the notes.

**Ex. 201b**

B7(5)

Musical score for Ex. 201b in B7(5) for guitar. The score consists of four measures of sixteenth-note patterns. Measures 1-3 feature slurs (sl.) and whole tone lines (H). Measure 4 concludes with a half note (P). Fingerings are indicated below the notes.

**Ex. 201c**

C7(5)

Musical score for Ex. 201c in C7(5) for guitar. The score consists of three measures of sixteenth-note patterns. Measures 1-2 feature whole tone lines (H) and half notes (P). Measure 3 concludes with a whole tone line (H) and a slur (sl.). Fingerings are indicated below the notes.

**Ex. 201d**

F7(5)

Musical score for Ex. 201d in F7(5) for guitar. The score consists of four measures of sixteenth-note patterns. Measures 1-3 feature whole tone lines (H) and half notes (P). Measure 4 concludes with a whole tone line (H) and a half note (H). Fingerings are indicated below the notes.

**Ex. 201e**

F#7(5)

Musical score for Ex. 201e in F#7(5) for guitar. The score consists of five measures of sixteenth-note patterns. Measures 1-4 feature slurs (P) and whole tone lines (H). Measure 5 concludes with a half note (P). Fingerings are indicated below the notes.

*Ex. 201f*

C#7(5)

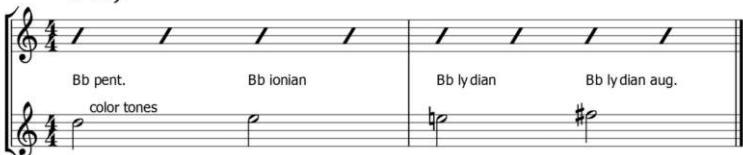
The music example consists of two staves. The top staff is a standard musical notation for a six-string guitar, featuring a treble clef, a key signature of one sharp (F#), and a common time signature. It contains six measures of a melodic line, with various slurs and grace notes indicated by small strokes above the main notes. The bottom staff is a tablature for a six-string guitar, showing the fingerings for each note. The tablature is organized into two measures separated by a vertical bar line. The first measure starts with a 'T' and ends with an 'A'. The second measure starts with a 'B'. Below the tablature, numerical values are written under each string, corresponding to the fingerings shown in the tablature. The first measure has fingerings: 9, 8, 7, 6, 6, 6. The second measure has fingerings: 6, 7, 9, 10, 11, 9. The third measure has fingerings: 10, 11, 8, 4, 5, 3. The fourth measure has fingerings: 1.

### 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

H      p      p      H

T A 12 10 12 10 13 12 10 11 10 12 10 12 11 9 12 12

b)

p      sl      p      H      p

T A 12 12 10 10 11 12 13 12 10 12 9 11 12 12 10

c)

sl.      sl.      sl.      sl.      sl.      sl.      sl.      sl.

T A 1 1 5 6 3 6 3 5 7 8 5 7 9 7 7 8

d)

p      p      p      p

T A 7 7 8 6 7 6 9 7 8 8 5 7 7 8

The color tones are the most characteristic notes of the mode. I have used them as structural points from which to build my lines.

### Minor Sounds

#### Ex. 203

[ Dorian ] [ Aeolian ] [ Phrygian ] [ Locrian ] [ Aeolian ]

**Em7** H P H H P

### Dominant Sounds

#### Ex. 204

[ F Pent. ] [ Mix. ] [ Mix. #11 ] [ Dom. Dim. ] [ Alt. Dom. ] [ Tonic Dim. ]

**F7**

### Using One Interval Set Over Many Chords

Many of the greatest players have been the ones who learned to incorporate a limited amount of melodic material into the most harmonic structures.

*Ex. 205a*  
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#-7b9, A/G#, A<sup>maj7</sup>, B<sup>7sus4</sup>, A/B, C#-7b6, D#-7b5, A-<sup>maj7</sup>, B<sup>7sus4/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

T 8 6 5 8 | 6

**Ex. 206b** For the sake of variety

Up 1 half-step

#

P

T 9 11 10 8 | 10

Because of its interval structure, this type of idea can function in a variety of ways

**Ex. 207a**

F7alt

b9

T 9 7 6 8 | 7

R

b7

Bbmaj7

5

**Ex. 207b**

Bbm6

b9

T 9 7 6 8 | 7

R

b7

Am7

R

C7alt

Fmaj7

3

This example is over a standard progression

**Ex. 208**

**E<sup>⁹</sup>**      **A7alt**      **Cm7**      **F7**

**Fm7**      **Variation**      **Bb7**      **Ebmaj7**

**A⁹**      **Bbmaj7**      **E<sup>⁹</sup>**      **A7alt**      **Dm7**

**B<sup>⁹</sup>**      **Bbm6**      **Am7**      **D7alt variation**      **Gm7**      **C7alt variation**

**A<sup>⁹</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 example consists of four measures of guitar tablature in 4/4 time. The chords are labeled above each measure: E<sup>9</sup>, B<sup>>add9</sup>, Cm<sup>7/9</sup>, and G<sup>b7#5</sup>. Below the tablature, the strings are labeled T (top) and B (bottom). The first measure has notes at positions 5, 8, and 7. The second measure has notes at 8, 11, 10, 11, 10, and 8. The third measure has notes at 10, 13, 12, 13, 12, and 10. The fourth measure has notes at 9, 11, 11, 12, 11, and 9. Below the tablature are four chord diagrams:

- Measure 1: A major triad (E, G, B) in the 3rd position.
- Measure 2: B major add9 chord (B, D, G, B) in the 5th position.
- Measure 3: C minor 7/9 chord (C, E, G, B) in the 7th position.
- Measure 4: G major 7#5 chord (G, B, D, G) in the 2nd position.

### Outside Playing Over One Chord

Here are a few examples of outside playing approaches on one chord. You provide the analysis.

**Ex. 210a**

Gm7

**Ex. 210b**

Dm7

**Ex. 210c**

F7

**Ex. 210d**

A♭maj7

*Ex. 210e*

Fmaj7

Fingerings: P, H, P, sl., sl., P

Guitar tablature (A-T-B):

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

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

*Ex. 210f*

C7

Fingerings: sl., sl., H, P, H

Guitar tablature (A-T-B):

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

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

*Ex. 210g*

A7

Fingerings: sl., sl., H, H

Guitar tablature (A-T-B):

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

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

*Ex. 210h*

B7alt

Fingerings: sl., sl., P, H, P, sl., sl., H

Guitar tablature (A-T-B):

A	7	9	6	9	9	11	9	7	9	9
T					8	9	8	6	9	7
B					7					

A	3	5	5	2	3	3	1	0	3	3	1	4	3
T					3	1	1	0	3	3	1	2	1
B	5	6	9	10	8	10	8	11	11	3	2	3	

The musical score consists of two staves. The top staff is for the piano, featuring a treble clef, a key signature of one sharp, and three measures. The first measure contains a half note followed by a eighth-note triplet. The second measure contains a half note followed by a eighth-note triplet. The third measure contains a half note followed by a eighth-note triplet. The bottom staff is for the bassoon, featuring a bass clef, a key signature of one sharp, and three measures. The first measure contains a bass note followed by a eighth-note triplet. The second measure contains a bass note followed by a eighth-note triplet. The third measure contains a bass note followed by a eighth-note triplet.

**Ex. 210i**

Emaj7

**Ex. 210j**

Eb7

**Ex. 210k**

### Chromaticism And Twelve-Tone Applications

Chromaticism and twelve-tone techniques are not commonly discussed in jazz improvisation books for reasons that are unclear to me. The use of chromaticism in jazz became popular during the bebop era through the use of approach notes and chromatic enclosure of chord tones.

*Ex. 211a*

**Gm7**

**C7**

**Fmaj7**

T A B      T A B      T A B

9 10      8 7 10 7 8 9      5 6 7 8 4 5 8 6 7      (7) 7 5 8 5

*Ex. 211b*

**B♭m7**

**A♭maj7**

T A B      T A B

8 7      6 8 6 9 8 7 6 8      5 5 8 7 6 6 5 4      8 7 6 3 6 4 3 4

**E♭7**

**A♭maj7**

**D7**

**A♭maj7**

T A B      T A B

8 7 6 9 8 7 6 8      5 5 8 7 6 6 5 4      8 7 6 3 6 4 3 4

*Ex. 211c*

**D7**

**A♭maj7**

T A B      T A B

5 4 3 5 2 5      4 3 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**

Approach Tones [ H T H T ] T [ Enclosure ] H T sl. T

H 9 10 11 12 12 10 12 8 9 12

**Ex. 212b**

**Cmaj7** P.T. H [ Enclosure ] H **Dm7** H [ Enclosure ] sl. **G7** P.T. T sl.

H 8 9 11 9 10 7 10 9 8 6 7 5 4 7 5 4 8 7 7 5

**Cmaj7** sl. Target 3 P.T. sl. Enclosure 1 sl. T

5 7 8 5 8 9 7 9 10 10

**Ex. 212c** The B natural is a target note from A# while also functioning as part of a diatonic enclosure idea.

**Dm7** P.T. H T P.T. T P.T. H T P.T. [Approach Tones] P.T. H [ Enclosure ] T

H 12 15 14 12 13 15 12 14 15 14 13 15 12 15 12 13 14

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)

Musical notation for Ex. 213. The top staff shows a D7 chord progression with passing tones (P) indicated by small circles above the notes. The bottom staff shows the corresponding bass line with note heads and stems. Fingerings (T, A, B) are also present.

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.

Musical notation for Ex. 214. The top staff shows an Am7 chord progression with passing tones (P) indicated by small circles above the notes. The bottom staff shows the corresponding bass line with note heads and stems. Fingerings (T, A, B) are also present.

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

12 11 10 9 9 13 12 9 10 8 9 7 10 6 9 6 7 9 10 9 8 10 7 9

H      H      sl.      H      H      sl.      H      H

10 7 9 8 6 7 10 9 8 9 11 10 8 7 9 7 11 10 9 8 7 5 7 4 5

An example of usage on a Dom<sup>7</sup> chord.

*Ex. 215a*

The image shows three staves of musical notation for guitar, likely tablature. The top staff uses a treble clef and a common time signature (indicated by '4'). It features a 'C7' chord at the beginning. The middle staff uses a bass clef and a common time signature. The bottom staff uses a bass clef and a common time signature. All staves include various performance markings such as 'H' (Hammer-on), 'P' (Pull-off), 'sl.' (Slur), and '3' (Three-note grouping). Fingerings are indicated below the strings.

**Ex. 215b**

or a Maj<sup>7</sup> chord

**Gmaj7**

T 7 9 || 7-8-7 10-9-8-7 | 9-10-7 9-10-7-9-7 | 10-7-10-9-8-10 | 7-10

Gmaj9

T 14 13 12 11-10 13 12 11 | 10

## Twelve Tone Triadic Formulas

Here are some formulas for creating twelve tone rows comprised of triadic groupings. This is an incomplete list but should provide the basis for creating your own rows.

### **Group**

I	Cm Formula	Dm Min M2↑	E Maj M2↑	F# Maj TT↓
II	C <sup>+</sup> Formula	Dm Aug M2↑	Eb <sup>+</sup> Min m2↑	F# Aug M2↑
III	C <sup>+</sup> Formula	Eb Aug m3↑	F#m Maj m3↑	B° Min P4↑
IV	C <sup>o</sup> Formula	F <sup>o</sup> Dim P4↑	Gm Dim M2↑	A Min M2↑
V	C <sup>+</sup> Formula	Db <sup>+</sup> Aug m2↑	D <sup>+</sup> Aug m2↑	Eb <sup>+</sup> Aug M6↑
Vi	C <sup>sus4</sup> Formula	Db <sup>sus2</sup> Sus4 m2↑	D Sus2 m2↑	E <sup>lyd</sup> Maj M2↑
VII	C <sup>sus4</sup> Formula	D <sup>lyd</sup> Sus4 M2↑	Bb <sup>o</sup> Lyd m6↑	B Dim m2↑
VIII	C <sup>sus4</sup> Formula	D <sup>*</sup> Sus4 M2↑	G#m Aug TT↓	A Min m2↑

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** This one combines two groups as well as a transposed group.

Group III      Group I      Group III transposed

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 D67sus4, 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

A musical staff in 4/4 time with a treble clef. The staff shows a sequence of notes from an A7 chord, followed by a Cmaj7#5 chord, an Ebmmaj7 chord, an A7#5 chord, and finally a Fsus4 chord. Below the staff, the chords are labeled: A7, Cmaj7#5, Ebmmaj7, A7#5, and Fsus4. A bracket below these labels is labeled "Row of 3 seventh chords". Above the staff, the notes are numbered: #9, 5, ♭7, 9, 11, ♭9, 13, b5, #5, b7, 1, 3, #5, b9, #9, #5, 3.

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

A musical staff in 4/4 time with a treble clef. The staff shows a repeating sequence of four chords: Ebm, Ab°, A+, and C. Each chord is shown three times in a row. Below the staff, the chords are labeled: Ebm, Ab°, A+, C, Ebm, Ab°, A+, C. Below each group of four chords, there is a '3' indicating a three-measure repeat sign.

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*

A musical staff in G major (one sharp) and common time. It features six chords: **F#7alt**, **Ebm**, **Ab9**, **A+**, **C**, and **Bmaj7 (Min7)**. Below the staff, two bass notes are indicated: **F#13** and **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**

### Non-Systematic Row

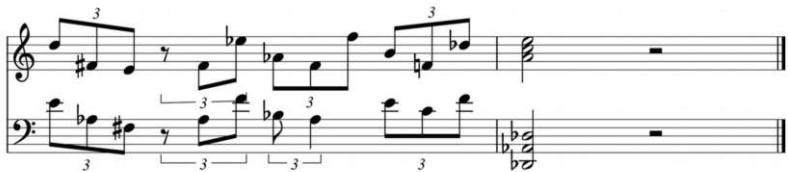
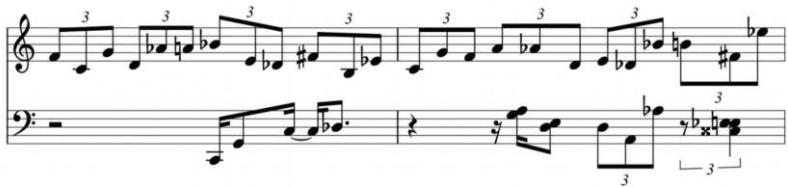
Non-Systematic Rows may use many interval combinations but should avoid any harmonic structures in order to maintain the equality of each note.

**Ex. 224**

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

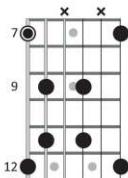
The image displays four staves of musical notation, likely for a piano or harpsichord, arranged vertically. Each staff consists of a treble clef, a bass clef, and a 4/4 time signature. The music is written in a 12-tone system, where each note is assigned a specific pitch and a unique combination of accidentals (sharps, flats, naturals). The notation includes various note heads, stems, and bar lines. Measures are divided by vertical bar lines, and some measures begin with a '3' under a bracket, indicating a triplet grouping. The first staff starts with a treble clef, the second with a bass clef, the third with a treble clef, and the fourth with a bass clef. The music is composed of eighth-note patterns.



## Modal Shapes

A modal shape is a fingerboard pattern whose intervals produce a modal or chordal sound.

Ex. 225



This shape (Ex. 222) if played in an ascending manner would look like this:

Ex. 226



These notes form an E<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

Bb<sup>7alt</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

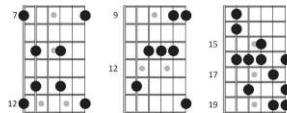


**Ex. 229**

Combination of two hybrid structures  
Eadd9 and F#add9 over Bb7alt.

The musical score consists of two staves of guitar tablature. The top staff is labeled "8va" and the bottom staff is labeled "T A B". Both staves show a combination of hybrid structures (H) and slurs (sl). The top staff has a tempo of 7 and the bottom staff has a tempo of 11. Fingerings are indicated above the notes.

These are the three hybrid structures involved in this line.



Next is an example of a free line using harmonic shapes.

**Ex. 230**

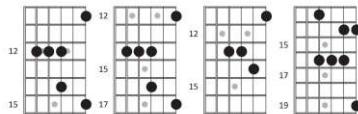
*8va*

Musical notation for Ex. 230, 8va. The staff shows a series of notes connected by slurs, with articulation marks (H, P) above them. Below the staff is a guitar neck diagram with fingerings: T 12, A 12, B 14, 10, 15, 10, 17, 12, p, 16, 14, 16, 13, 14, 16. The neck has 24 frets, with 12 being the nut and 24 being the 12th fret.

*8va*

Continuation of musical notation for Ex. 230, 8va. The staff shows a series of notes connected by slurs, with articulation marks (H) above them. Below the staff is a guitar neck diagram with fingerings: 11, 14, 13, 13, 11, 12, 14, H, 11, 14, 19, H, 21. The neck has 24 frets, with 11 being the nut and 24 being the 12th fret.

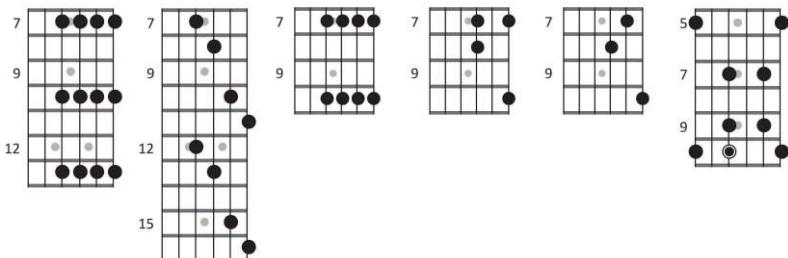
Shapes used:



### Tonic and Dominant Diminished Scale Shapes

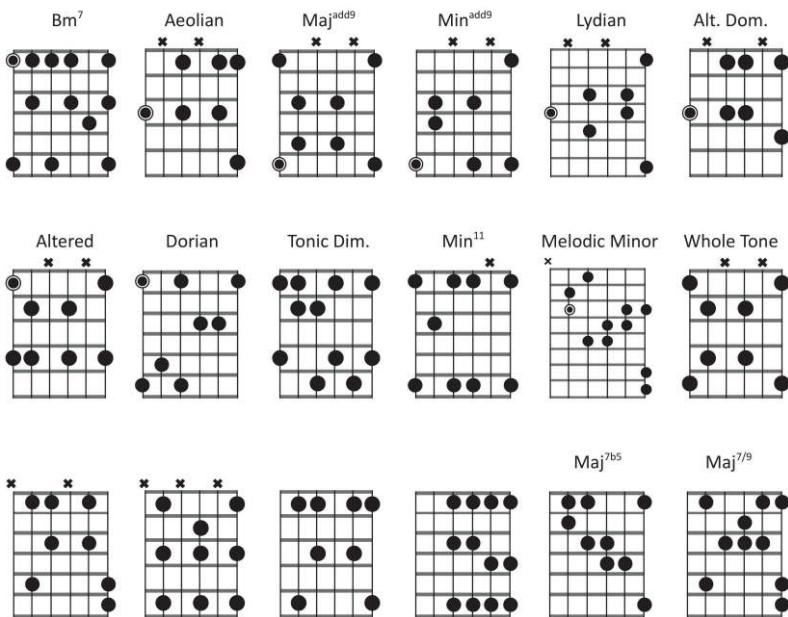
These shapes will work over the chords: F#<sup>o7</sup>, A<sup>o7</sup>, C<sup>o7</sup>, Eb<sup>o7</sup>, F<sup>13b9</sup>, D<sup>13b9</sup>, B<sup>13b9</sup>, Ab<sup>13b9</sup>

#### 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 and may lead to injury if not approached with caution.

*Ex. 233a*

*Ex. 233b*

*Ex. 233c*

*Ex. 233d*

*8va* -----,

*Ex. 233e*

*8va* -----,

### 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**

Fret positions: T 12, A 12, B 12, 10, 9, 10, 9, 12, 12, 12, 10, 8, 7, 8, 7, 10, 10, 10.

**Ex. 234b**
**Gm11**

Fret positions: T 8, A 5, B 8, 5, 5, 3, 6, 6, 5, 8, 8, 8, 10, 7, 8, 10, 10, 9, 7, 8, 10.

**Ex. 234c**
**C#7alt**

Fret positions: T 5, A 5, B 7, 7, 7, 10, 5, 7, 9, 8, 9, 10, 12, 12, 12, 12, 15, 9, 12, 12, 10, 12.

**Ex. 234d**
**Bm7 or A/D**
**C#m7b6**

Fret positions: T 9, A 10, B 9, 10, 10, 10, 9, 11, 12, 9, 11, 9, 12, 9, 12, 9, 12, 9, 12, 9, 10, 7, 12, 12, 10, 9, 9, 12, 9, 12, 9, 10, 7, 12, 12, 10, 9, 9, 12.

**Ex. 234e**
**Amaj7**

Fret positions: T 5, A 7, B 5, 7, 4, 5, 5, 4, 6, 7, 7, 4, 7, 4, 4, 5, 2, 4, 7, 6, 6, 9, 9.

*Ex. 234e*

T A  
B 12 11 9 9 7 9 9 11 11 11 14 12 14 16 14 16 16 19

*Ex. 234f*  
Bm7 or E7sus4

T A  
B 9 6 9 12 12 14 14 12 17 12 15 14 14 17 16 14 14 12 11 11 11 14 12 11 14 14 16 14 15 16 17 14 12

*Ex. 234g*  
E7<sup>#</sup>9

T A  
B 15 (15) 13 14 13 15 15 15 13 14 15 18 17 17 19 16 14 13 15 13 17

T A  
B 10 11 9 7 8 9 9 9 11 13 12 10 11 12 13 14 12 10 11 10 12 13

*Ex. 234h*  
F#m7

T A  
B 9 7 6 5 4 7 9 9 9 12 9 11 8 9 12 12 11 14 14 14

**Ex. 234i**

A7alt      D♭maj7♯5      B♭mmaj7      E7♯11

**Ex. 234j**

E7♯5

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 7 9 7 | 7 9 10 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 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 | 11 11 10 10 12 |

**Ex. 237b**

Cmaj7 8va

T  
A  
B

8 8 9 9 10 9 9 10 | 9 9 10 9 9 10 9 10 | 9 8 9 10 9 8 9 10 |

**Ex. 237c**

8va Pedal Point New Pedal New Pedal New Pedal

T  
A  
B

12 10 12 13 12 12 15 13 15 12 15 14 13 12 13 14 13 | 12 16 14 16 12 16 16 |

# A Ionian to A Mixolydian Study

Instagram (5/25/20)

**B VII -**

**Slower**

**Quick**

1/1

448

# C Dorian Study

(Instagram 1/20/20)

The sheet music consists of five staves of guitar tablature. The first staff is in 4/4 time, the second in 12/8, the third in 11/8, the fourth in 4/4, and the fifth in 2/4 time. Performance markings include P (Pizzicato), H (Hammer-on), sl (Slur), and accents. The music includes sections labeled "Accelerando" and "Ritardando". Fingerings are indicated by circled numbers above the tabs.

**Accelerando**

**Ritardando**

# A Lydian Study

Instagram (10/3/19)

**Rit.**

1/1

# C Mixolydian Study

Instagram (4/30/20)

Slowly Accelerate

Sheet music for 'Slowly Accelerate' section in 4/4 time. The treble staff shows eighth-note patterns with dynamics H and P. The bass staff shows sixteenth-note patterns with fingerings 10, 12, 13, 10, 12, 10, 12, 13, 10, 12, 10, 10, 12, 13. Fingerings are placed under the notes.

A Little Quicker

Sheet music for 'A Little Quicker' section in 4/4 time. The treble staff shows eighth-note patterns with dynamics H and P. The bass staff shows sixteenth-note patterns with fingerings 12, 13, 15, 10, 12, 13, 12, 13, 15, 12, 14, 10, 12, 14, 12, 13, 15, 15, 17, 15, 17, 13, 18. Fingerings are placed under the notes.

Quick Again

Sheet music for 'Quick Again' section. It starts in 3/4 time with a dynamic p and fingerings 20, 17, 15, 18, 15, 17, 15, 18, 17. It then changes to 4/4 time with a dynamic p and fingerings 13, 15, 15, 14, 15, 18, 13, 15.

Fast

Rit.

Gracefully

Sheet music for 'Fast', 'Rit.', and 'Gracefully' sections. The treble staff shows eighth-note patterns with dynamics H and P. The bass staff shows sixteenth-note patterns with fingerings 14, 12, 10, 8, 7, 5, 3, 2, 3, 0, 3, 5. The bass staff ends with a grace note pattern above the staff.

# E Mixolydian Study

Instagram (11/23/19)

The sheet music consists of four staves of guitar tablature. The first three staves are in common time (indicated by a '4') and the last staff is in 4/4 time. The tuning is E major (E-B-G-D-A-E). The first staff starts with a sixteenth-note pattern followed by eighth-note pairs. The second staff continues with eighth-note pairs and includes a grace note (T) and a sixteenth-note pattern. The third staff features a sixteenth-note pattern followed by eighth-note pairs. The fourth staff begins with a sixteenth-note pattern and ends with a dynamic marking 'Ritardando' above the staff.

**Techniques:**

- H: Hammer-on
- P: Pull-off
- T: Grace note

**Ritardando:**

**Dynamic:**

**let ring -----**

# D Bebop Dominant Study

Instagram (7/23/19)

The musical score consists of two staves of guitar tablature. The top staff is in 4/4 time and starts with a D7 chord. It features sixteenth-note patterns with various performance markings such as 'P' (pizzicato), 'H' (harmonic), and 'T' (tapping). The bottom staff is in 3/4 time and also includes similar markings. Both staves show fingerings and string indications. The tablature uses standard guitar notation with 'T' for tapping and 'B' for bass strings.

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# B Minor Study

Instagram (8/21/19)

Bm11

T A B

T A B

T A B

# D Aeolian Study

Instagram (5/30/20)

**Andante**

Sheet music for the Andante section. The key signature is B-flat major (two flats). The tempo is indicated as Andante. The music consists of two measures. The first measure starts with a bass note at position 12, followed by a series of eighth-note pairs. The second measure starts with a bass note at position 15, followed by a similar pattern. Fingerings H and P are shown above the notes.

**Slow and Steady**

Sheet music for the Slow and Steady section. The key signature is B-flat major. The tempo is indicated as Slow and Steady. The music consists of three measures. The first measure shows a bass line with notes at positions 12, 14, 15, 12, 14, 10, 14, 12, 10, 12. The second measure shows notes at positions 10, 12, 9, 10, 12, 10, 9, 12, 10, 8. The third measure shows notes at positions 7, 7, 9, 10, 8, 7, 8, 7, 5, 7, 5, 3, 5. Fingerings H and P are indicated.

**Accelerando**

**Very Slow**

**Ritardando**

**Andante**

Sheet music for the Very Slow, Ritardando, and Andante sections. The key signature is B-flat major. The tempo changes from Very Slow to Ritardando to Andante. The music consists of three measures. The first measure shows a bass line with notes at positions 8, 7, 8, 6, 5, 7, 8, 7, 9, 11, 10, 15, 13. The second measure shows notes at positions 17, 15, 13, 17, 15, 17, 15, 17, 15, 17, 15, 17. The third measure shows notes at positions 15, 13, 15, 14, 15. Fingerings H and P are indicated.

**Quick**

**Ritard.**

Sheet music for the Quick and Ritard sections. The key signature is B-flat major. The tempo changes from Quick to Ritard. The music consists of two measures. The first measure shows a bass line with notes at positions 15, 14, 12, 14, 10, 15, 12, 10, 15, 12, 10, 15, 10, 12. The second measure shows notes at positions 15, 12, 10, 15, 12, 10, 15, 12, 10, 15, 10, 12, 15, 10, 12, 10, 15. Fingerings H and P are indicated.

**Slow**

**Ritard.**

**Steady**

**Ritard.**

**Sorrowful**

Sheet music for the Slow, Ritard., Steady, Ritard., and Sorrowful sections. The key signature is B-flat major. The tempo changes from Slow to Ritard. to Steady to Ritard. to Sorrowful. The music consists of five measures. The first measure shows a bass line with notes at positions 10, 13, 12, 10, 13, 12, 10, 8, 12. The second measure shows notes at positions 10, 9, 12, 10, 9, 7, 10, 7, 8, 6, 8. The third measure shows notes at positions 3, 5, 8, 5, 3, 5, 2, 5. The fourth measure shows notes at positions 10, 14, 12, 10, 11. The fifth measure shows a bass line with notes at positions 10, 14, 12, 10, 11. Fingerings H and P are indicated.

## C Mixolydian #11 Study

**C7**

T A B

T A B

T A B

**C7**

# E Altered Dominant Study

Instagram (1/11/20)

The sheet music consists of five staves of musical notation for guitar, arranged vertically. Each staff has a different time signature: the first two staves are in 4/4, the third is in 12/8, the fourth is in 4/4, and the fifth is in 12/8. The notation includes various guitar techniques such as hammer-ons (H), pull-offs (P), and slurs (sl.). Fingerings are indicated below the strings. The music is divided into measures by vertical bar lines.

# Whole Tone Study

Instagram (11/1/19)

Sheet music for Whole Tone Study, Instagram (11/1/19). The music is in 4/4 time and consists of three staves. The top staff shows a melodic line with various slurs and grace notes, labeled with 'H' (Harmonious) and 'P' (Pleasant). The middle staff continues the melodic line with similar patterns. The bottom staff shows a harmonic progression with chords and bass notes. Fingerings and string indications (T, A, B) are provided below the staves.

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## E Augmented Scale Study

Sheet music for E Augmented Scale Study, featuring four staves of musical notation:

- Staff 1:** Treble clef, 4/4 time, dynamic *mf*. Fingerings: 12, 11, 12, 10, 11, 9, 10, 9, 13, 9, 12, 13, 13, 9, 10, 9, 13.
- Staff 2:** Treble clef, 4/4 time. Fingerings: T 12, A 13, B 9, 12, 13, 9, 12, 13, 11, 12, 13, 11, 16, 12, 15.
- Staff 3:** Treble clef, 4/4 time. Fingerings: T 15, A 11, B 12, 13, 12, 9, 8, 9, 8, 10, 9, 10, 8, 10, 9, 11.
- Staff 4:** Treble clef, 8/8 time. Fingerings: T 10, A 11, B 9, 11, 12, 8, 11, 5, 6, 6, 7, 0.

# Chromatic/Ploytonal Improvisation

Instagram (12/22/19)

Sheet music for Chromatic/Polytonal Improvisation, featuring six staves of musical notation for guitar, with tablatures below each staff. The notation includes various techniques like hammer-ons (H), pull-offs (P), and grace notes. The key signatures and time signatures change frequently throughout the piece. The tabs show fingerings and picking patterns. The piece ends with a final section of eighth-note patterns.

**Staves and Key Signatures:**

- Staff 1: G major (no sharps or flats)
- Staff 2: A major (no sharps or flats)
- Staff 3: B major (no sharps or flats)
- Staff 4: C major (no sharps or flats)
- Staff 5: D major (no sharps or flats)
- Staff 6: E major (no sharps or flats)

**Chords and Key Changes:**

- Staff 1: H, P, H, P
- Staff 2: P H, P H, ①
- Staff 3: P H, P H, ①
- Staff 4: P H, P H, ①
- Staff 5: P H, P H, ①
- Staff 6: P H, P H, ①
- Staff 1: P H, P H, ①
- Staff 2: H, H, H, H
- Staff 3: H, 8, 5, 6
- Staff 4: H, P, P H
- Staff 5: A/G<sup>#</sup>
- Staff 6: B/G, C/F<sup>#</sup>
- Staff 1: H, P, P
- Staff 2: H, P, P, ①, ①
- Staff 3: let ring
- Staff 4: let ring
- Staff 5: let ring
- Staff 6: let ring
- Staff 1: D/B<sup>b</sup>, BMaj(add#4), B/F
- Staff 2: E<sup>b</sup>/D
- Staff 3: F/D<sup>b</sup>
- Staff 4: F<sup>#</sup>/C
- Staff 5: A<sup>b</sup>/B
- Staff 6: B<sup>b</sup>/G<sup>b</sup>
- Staff 1: G<sup>#</sup>m7add13
- Staff 2: let ring
- Staff 3: let ring
- Staff 4: let ring
- Staff 5: let ring
- Staff 6: let ring
- Staff 1: 7, 7
- Staff 2: 6, 6
- Staff 3: 7, 8, 8
- Staff 4: 10, 10
- Staff 5: 11, 11
- Staff 6: 13, 13
- Staff 1: 15, 15
- Staff 2: 16, 15
- Staff 3: 12, 11
- Staff 4: 16, 15
- Staff 5: 15, 15
- Staff 6: 11, 11
- Staff 1: 11, 13, 13, 11, 14
- Staff 2: 12, 11, 10, 8
- Staff 3: 11, 9, 9
- Staff 4: 8, 9, 8, 11, 9, 7, 6
- Staff 5: 4, 6, 4, 4
- Staff 6: 4

# Ultra Mega Arpeggios

Cmaj7

**T A B**

9 10 7 10 | 10 9 12 9 10 | 12 12 9 | 10 12 12 13 12 15 12 | 13

Cmin7

**T A B**

8 10 6 10 | 12 8 8 10 11 12 8 | 10 11 12 13 15 11 15 11 | 13

C7(11)

**T A B**

8 10 7 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 9 6 8 10 6 | 8 9 6 8 9 7 8 9 | 13

**T A B**

7 8 9 8 7 | 8 10 7 8 10 | 13

Cmin7

**T A B**

8 10 6 10 | 10 7 8 10 12 8 11 12 | 10 11 13 12 11 13 15 11 | 13 15 11 | 13

C7

T  
A  
B

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

T  
A  
B

15 10 12 13 12 10 10 11 8 11 8 9 10 8 10 7 8

Cmaj7

T  
A  
B

7 8 7 10 8 7 10 9 7 10 9 10 10 9 10 9 12 10 9 12 12

T  
A  
B

9 12 12 8 12 8 12 12 8 12 8 10 9 10 9 10 9 10 9 10 7 10 8

C13b9

T  
A  
B

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

Cmin7 and Bbmaj

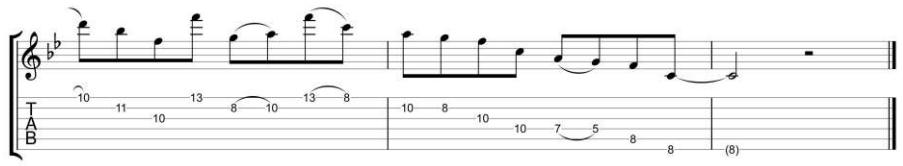
T  
A  
B

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

Cmin7, Bbmaj and Fadd9

T  
A  
B

8 11 10 8 10 12 10 11 10 13 10 15 11 13 12 13



## D Minor Improv

**Dm (add9)**

**G7/D**

**Dm7b6**

**B♭maj7/13**

**Fmaj7**

**Am7b6**

**E7**9**5**

T  
A  
B

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

**A7**9****

T  
A  
B

7 8 7 9 6 10 9 10 9 12 12 13 12 15 15 16 15 18

**A7**9****

**Ritardando**

T  
A  
B

15 13-12 15 14 14-12 15 14 12 11 12 13 10 9 12

**Dm9**

T  
A  
B

10 12 14 10 10 10 10 10 10 10 10 10

# Sunday Morning Warmup

Instagram (2/20)

The sheet music consists of five staves of guitar tablature. The first four staves are in common time (indicated by 'C') and the fifth staff is in 13/8 time (indicated by '13/8'). The first four staves each have a key signature of one sharp (F#). The fifth staff has a key signature of one flat (B-flat). The tablature uses standard six-string notation with 'H' indicating hammer-ons and 'p' indicating pull-offs. Measure numbers are provided at the start of each staff. The first four staves end with a vertical bar line, while the fifth staff ends with a double bar line.

**Staff 1:**

- Measure 1: H H 12-17 H H H H 12-17 H H H H
- Measure 2: H H 12-17 H H H H 12-17 H H H H
- Measure 3: H H 12-17 H H H H 12-17 H H H H
- Measure 4: H H 12-17 H H H H 12-17 H H H H

**Staff 2:**

- Measure 1: T A 14-16 14-16 14-16 14-16 14-16 14-16
- Measure 2: B 17 14-16 14-16 17 14-16 14-16 17 16-17
- Measure 3: 14 16-17 16-18 16-18 16-18 16-18 16-18 16-18
- Measure 4: 16-17 16-17 16-17 16-17 16-17 16-17 16-17 16-17

**Staff 3:**

- Measure 1: H H 13-17 H H H H 13-17 H H H H
- Measure 2: H H 13-17 H H H H 13-17 H H H H
- Measure 3: H H 10-15 H H H H 10-15 H H H H
- Measure 4: H H 10-15 H H H H 10-15 H H H H

**Staff 4:**

- Measure 1: T A 14-17 14-17 14-17 14-17 14-17 14-17
- Measure 2: B 13 15-17 15-17 15-17 15-17 15-17 15-17
- Measure 3: 12-14 12-14 12-14 12-14 12-14 12-14 12-14 12-14
- Measure 4: 12-14 12-14 12-14 12-14 12-14 12-14 12-14 12-14

**Staff 5:**

- Measure 1: H H 11-15 H H H H 11-15 H H H H
- Measure 2: H H 10-15 H H H H 10-15 H H H H
- Measure 3: H H 10-15 H H H H 10-15 H H H H
- Measure 4: H H 10-15 H H H H 10-15 H H H H

**Staff 6:**

- Measure 1: T A 12-15 12-15 12-15 12-15 12-15 12-15
- Measure 2: B 11 13-15 13-15 13-15 13-15 13-15 13-15
- Measure 3: 12-14 12-14 12-14 12-14 12-14 12-14 12-14 12-14
- Measure 4: 12-14 12-14 12-14 12-14 12-14 12-14 12-14 12-14

**Staff 7:**

- Measure 1: H H 12-13 H H H H 12-13 H H H H
- Measure 2: H H 10-12 10-12 10-12 10-12 10-12 10-12
- Measure 3: H H 8-13 H H H H 8-13 H H H H
- Measure 4: H H 8-13 H H H H 8-13 H H H H

**Staff 8:**

- Measure 1: T A 12-15 12-15 12-15 12-15 12-15 12-15
- Measure 2: B 12 13-15 13-15 13-15 13-15 13-15 13-15
- Measure 3: 10-12 10-12 10-12 10-12 10-12 10-12 10-12 10-12
- Measure 4: 10-12 10-12 10-12 10-12 10-12 10-12 10-12 10-12

**Staff 9:**

- Measure 1: H H H H sl. H H H H
- Measure 2: b b b b b b b b
- Measure 3: H H H H sl. H H H H
- Measure 4: H H H H sl. H H H H

**Staff 10:**

- Measure 1: H H H H 16-13
- Measure 2: 18-13 16 15-12 15-13-15 12-15-13
- Measure 3: 13-10

A Little Slower

Tiny bit slower

Ritardando

A Little Faster

Ritardando

# 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                3                0                2                0                0                3                2

*Ex. 239*

Cmaj7                    C.N.                    Am7                    C.N.                    Dm7                    C.N.                    G7                    C.N.

T  
A  
B      3                6                0                4                0                4                3                2

*Ex. 240*

Bmaj7                    D7/A                    Gmaj7                    B7/F                    Ebmaj7

T  
A  
B      2                2                0                0                3                3                1                1                1

3. Ascending or descending inverted movement.

*Ex. 241*

Bbmaj7                    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.      B<sup>7</sup>

A<sup>b</sup>maj7      F7<sup>b</sup>9

- Four chords a P5<sup>th</sup> descending apart.

**Ex. 243**

Am7      N.T.      D7      N.T.      Gmaj7      N.T.      Cmaj7

T A B      0 7 8 4      0 7 8 4      0 7 8      0 5

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)

Am7      D7      Gmaj7      Cmaj7

T A B      2 0 4 2      0 3 2 0      3 4 2 0      3

Note: there are no passing tones in Ex. 244 because there are five scale tones between chords.

**Ex. 245**

3. Chromatic

A7      N.C.T.      Am7      N.C.T.      N.C.T.      D7      N.C.T.      Gmaj7

T A B      0 1 2 1      0 4 0 1      0 2 0 4      3

N.C.T. = Neighboring (Chromatic) Tones

Also Try:

*Ex. 246a*

A7

This guitar tab shows a chromatic line from the A7 chord to the Am7 chord. The strings are labeled T, A, B from top to bottom. The tab consists of two measures. The first measure starts with an open A string (T) and ends with a half note on the B string (B). The second measure starts with an open B string (B) and ends with a half note on the A string (A). The notes are: T (open), A (open), B (open), B (open), A (open), G (open), F# (open), E (open), D (open), C (open), B (open), A (open), G (open).

Am7

*Ex. 246b*

A7

This guitar tab shows a chromatic line from the A7 chord to the Am7 chord. The strings are labeled T, A, B from top to bottom. The tab consists of two measures. The first measure starts with an open A string (T) and ends with a half note on the B string (B). The second measure starts with an open B string (B) and ends with a half note on the A string (A). The notes are: T (open), A (open), B (open), B (open), A (open), G (open), F# (open), E (open), D (open), C (open), B (open), A (open), G (open).

Am7

*Ex. 246c*

A7

This guitar tab shows a chromatic line from the A7 chord to the Am7 chord. The strings are labeled T, A, B from top to bottom. The tab consists of two measures. The first measure starts with an open A string (T) and ends with a half note on the B string (B). The second measure starts with an open B string (B) and ends with a half note on the A string (A). The notes are: T (open), A (open), B (open), B (open), A (open), G (open), F# (open), E (open), D (open), C (open), B (open), A (open), G (open).

Am7

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*

Guitar tab for Ex. 247a. The first bar starts with an A7 chord (T: 0, B: 7). The second bar begins with a 5th position (T: 4, B: 8), followed by N.T. (T: 7, B: 4), and ends with an Am7 chord (T: 0, B: 6). The tab includes string numbers (3, 3) above the first two notes of the first bar.

*Ex. 247b*

Guitar tab for Ex. 247b. The first bar starts with an A7 chord (T: 0, B: 4). The second bar begins with N.T. (T: 4, B: 3), followed by a 5th position (T: 2, B: 0), and ends with an Am7 chord (T: 4, B: 2). The tab includes string numbers (3, 3) above the first two notes of the first bar.

The second example used the F# (13<sup>th</sup>) on the A<sup>7</sup> for the sake of variety.

Open strings in bass lines can lead to more intervallic sounds.

*Ex. 248*

Guitar tab for Ex. 248. The first bar starts with an E7 chord (T: 7, B: 0). The second bar begins with a tritone sub (Bb7) (T: 6, B: 7), followed by an Amaj7 chord (T: 7, B: 6). The tab includes string numbers (3, 3) above the first two notes of the first bar.

### 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

Musical score for Ex. 249 in F major blues. The score consists of three staves of music. The first staff starts with an F7 chord, followed by a measure of F Pedal (indicated by a dashed line under the note) and then a series of eighth-note chords: B♭7, F7, A-7, and D7. The second staff begins with G-7, followed by C7, F7, D7, G-7, and C7. The third staff continues the pattern. The text "Pedal Cont." is written above the second staff, and "Walk" is written below the third staff.

#### Dominant Pedals

##### Ex. 250

Musical score for Ex. 250 in F major blues. The score consists of three staves of music. The first staff starts with A-7, followed by D7 (labeled as a Dominant Note), GMaj7, and GMaj7. The second staff begins with D7, followed by GMaj7, GMaj7, and GMaj7. The third staff continues the pattern. The text "D Pedal" is written above the second staff.

### Rhythm Changes

#### Ex. 251

The musical score consists of two staves. The top staff shows a sequence of chords: B♭Maj7, G7, C-7, F7, D-7, G7, C-7, F7. The bottom staff continues this sequence: F-7, B♭7, E♭Maj7, Eo7, B♭/F, G7, C-7, F7. Pedal markings are shown below the notes: 'F Pedal' under the first B♭Maj7, 'E' under the first F-7, and 'F Pedal' under the first C-7. A bracket labeled '† Break for the Eo7 Chord' spans the gap between the end of the first staff and the start of the second staff.

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

The musical score shows a single staff of rhythm changes: B♭Maj7, G7, C-7, F7, D-7, G7, C-7, F7. Pedal markings are shown below the notes: a vertical line under the first B♭Maj7, a vertical line under the first G7, a vertical line under the first C-7, and a vertical line under the first F7.

Here is an example of a Rhythm Changes bassline.

*Ex. 253a*

The image displays a sequence of eight horizontal music staves, each representing a measure of a bassline. The staves are arranged vertically, showing the progression of chords and the corresponding bass notes. Each staff includes a treble clef, a key signature, and a time signature of  $\frac{4}{4}$ . Below each staff is a tablature for a six-string guitar, with the top string being the 6th string and the bottom string being the 1st string. The tablature shows the fingerings for each note. The chords and their keys are labeled above the staves:

- Measure 1: B<sup>b</sup>maj7, G7alt, Cm7, F7, Dm7, G7alt, Cm7, F7
- Measure 2: Fm7, B<sup>b</sup>7, E<sup>b</sup>maj7, Edim7, B<sup>b</sup>/F, G7alt, Cm7, F7
- Measure 3: B<sup>b</sup>maj7, Bd<sup>b</sup>7, Cm7, C<sup>#</sup>dim7, Dm7, G7alt, Cm7, F7
- Measure 4: B<sup>b</sup>7, E<sup>b</sup>maj7, Edim7, B<sup>b</sup>/F, Cm7, F7, B<sup>b</sup>maj7
- Measure 5: Am7, D7, G7, Dm7, G7
- Measure 6: C7, Gm7, C7, F7
- Measure 7: B<sup>b</sup>maj7, B<sup>b</sup>/A<sup>b</sup>, E<sup>b</sup>/G, G<sup>b</sup>dim7, B<sup>b</sup>/F, E<sup>b</sup>maj7, Dm7, Cm7

A musical score for a guitar solo, consisting of a staff with notes and a tablature staff below it. The staff has a key signature of one flat (B-flat) and a time signature of common time (indicated by a 'C'). The notes are eighth notes. The tablature staff shows the fret positions on a six-string guitar neck. The score is divided into four measures by vertical bar lines. The chords and notes are as follows:

Measure	Chord / Note						
1	B♭7	E♭maj7	Edim7	B♭maj7	Cm7	F7	B♭maj7
2	E♭maj7	Edim7	B♭maj7	Cm7	F7	B♭maj7	Cm7
3	Edim7	B♭maj7	Cm7	F7	B♭maj7	Cm7	F7
4	B♭maj7	Cm7	F7	B♭maj7	Cm7	F7	B♭maj7

The tablature below the staff shows the following fret positions from left to right: 1, 3, 0, 1 | 1, 0, 1, 2 | 3, 3, 3, 3 | 1, 2, 3, -1.

Rhythm Changes bassline transposed for bass.

**Ex. 253b**

Bbmaj7                    G7alt                    Cm7                    F7

Dm7                    G7alt                    Cm7                    F7                    Fm7                    Bb7                    Ebmaj7                    Edim7

Bb/F                    G7alt                    Cm7                    F7                    Bbmaj7                    Bdim7                    Cm7                    Cdim7

Dm7                    G7alt                    Cm7                    F7                    Bb7                    Ebmaj7                    Edim7

Bb/F                    Cm7                    F7                    Bbmaj7                    Am7                    D7

G7                    Dm7                    G7                    C7                    Gm7                    C7

F7                    Bbmaj7                    Bb/Ab                    Eb/G                    Gdim7

Bb/F                    Ebmaj7                    Dm7                    Cm7                    Bb7                    Ebmaj7                    Edim7

B♭maj7              Cm7              F7              B♭maj7              Cm7              F7

1 3 3 3 | 1 2 3 -1 |

When walking a bass line, chords can be interspersed to create a more complete harmonic backdrop (especially useful in solo & duo settings).

*Ex. 254a*

B♭maj7 G7alt Cm7 F7alt Dm7 G7b9 Cm7

T A B

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

*Ex. 254b*

B♭maj7 G7alt Cm7 F7 Dm7 G7alt Cm7

T A B

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

Or combination

*Ex. 254c*

B♭maj7 A♭7♯5 G7alt D♭m9 Cm7 F7

T A B

6 4 3 4 3 1 2 1 3 2 1 4

Dm7

A♭7♯9

G7alt

C♯m7

Cm7

F7

B♭7

T A B

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

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 two measures of eighth-note pairs followed by a measure of eighth-note pairs. Below the notes are the corresponding rhythm patterns: T T C T T T C T C T T C T T C T T T.

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 two measures of eighth-note pairs followed by a measure of eighth-note pairs. Below the notes are the corresponding rhythm patterns: T C T T C T T T C T T T.

### Ex. 255c

Rhythm Pattern No.3

Musical notation for Rhythm Pattern No.3 in 4/4 time. The pattern consists of two measures of eighth-note pairs followed by a measure of eighth-note pairs. Below the notes are the corresponding rhythm patterns: T T C T T T C T C T T T C T T C T T T. Above the first measure, there are five 'click' markings above the notes.

### 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 music is written in 4/4 time with a treble clef. The notation includes various rhythmic patterns such as eighth and sixteenth notes, rests, and grace notes. Some notes are connected by vertical stems or horizontal beams. The patterns are designed to provide harmonic support, typical of a jazz comping style. The notation spans approximately 32 measures across the eight staves.

### **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**

T 8 9 || 9 8 9 10 10 8 11 | 11 8 10 8 10 11 8

**Eflat**

**Aflatmaj7**

T 9 9 10 12 12 12 9 12 10 9 8 8 10 | 10 13 10 11 13

**Dflatmaj7**

**Dm7**

**G7flat9**

T 9 10 9 12 12 10 8 | (8) 9 9 7 7 9 9 5 | 5 7 5 3 10

**Cmaj7**

**Fm7**

**Bflat9**

T 10 12 13 10 11 12 11 10 | 13 12 10 15 13 15 | 12 15 13 15 15

**Eflatmaj7**

**Aflatmaj7**

**Am7**

**D7alt**

T 15 13 15 11 12 11 12 | 11 13 10 13 11 10 13 | 14 15 14 17 16 15 13 15 16 11 15 13 15

**Gmaj7**

**Bm7**

**E7alt**

**Am7**

T 14 12 14 12 10 12 9 11 9 | 9 7 10 10 7 9 10 7 8 9 7 10 6 8 7 10 | 7 9 7 8 10 10 7 8 9 10 9 10 9 8 8

**D7alt** H

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

**Gmaj7** H

sl.

**Bdim7** H P

7-10 7-9 9-12 10

**F#m7**

**B7b9**

**Emaj7**

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

**C7alt**

**Fm7**

**Bbm7**

11-13-14-13 11-13-14-11 11-9  
11-11-8 11-8-10, 8-6  
11-8-10, 8-11  
8-10, 8-11  
8-10, 8-11, 11-13-10-13-12-10-11  
11-10-13-10-11-13

**Eb7b9**

**Abmaj7**

**Dbmaj7**

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

**Dbm7** H

**Cm7**

**Bdim7**

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

**B♭m7**

**E7alt**

**A♭maj7**

**Gm7b5**

**C7alt**

**Fm7**

**Solo No. 2**

**E°**

**A13(b9)**

**Cm7**

**F7(#5)**

**Fm7**

**B7(#5)(#9)**

**E:maj7**

**A7(b5)**

**B:b6**

**Dm7**

**Dm7/C**

**B°**

**Am7**

**D7(b9)**

**Gm7**

**C7(b9)**

**A°**

**D7(b9)**

**G7(♯5)**

**Cm7**

**A♭7(♭5)**

**A/B♭**

**B♭maj7**

**E°**

**A7(♯5)**

**D°**

**G13(♭9)**

**C°**

**F7(♯5)**

**B♭maj7**

**Solo No. 3**

**Chords and Instructions:**

- Staff 1:** Gmaj7 (p), Bb7 (sl), Emaj7 (sl), Abmaj7 (H, H)
- Staff 2:** Am7 (p), D7alt (p, 3), Gmaj7 (sl), Dm7 (H), G7 (sl, H)
- Staff 3:** Cm7 (p), F7 (p), Bbmaj7 (H), Ebmaj7 (sl, p)
- Staff 4:** Am7 (H, p), D13(69) (sl, 3), Gmaj7 (sl), Am7 (p), D79 (p)
- Staff 5:** Gmaj7 (p), Bb7 (sl, 3), Ebmaj7 (sl, 3), Gmaj7 (p, 3)

**Fretboard Fingerings:**

- Staff 1:** T: A (9), B (8-7)
- Staff 2:** T: A (10), B (7-9-7-8)
- Staff 3:** T: A (11), B (12-13-12-10)
- Staff 4:** T: A (10), B (9-12-12-10-12-9-10)
- Staff 5:** T: A (8-11-8-9-9), B (8-10-11-10)

**A**flat**maj7**

**Gmaj7**

**Dm7**

**G7**

**Cmaj7**

**Am7**

**D7**flat**9**

**Bm7**

**B**flat**dim7**

**Am7**

**D7**

**Gmaj7**

**E7alt**

**Am7**

**D7**flat**9**

**Gmaj7**

Blues

Guitar tablature for the Blues section. The chords are C7, C7alt, F7, and F#dim7. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 13-14 12-14, 13-10 11-10 9-8 11, 10-8 10-9 8-10 12-9.

Guitar tablature for Gm7, C7alt, and F7 chords. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 10-12 13-12 15-14-13, 14-13 11-10 13-10-11, 12-10-9 12-8 10-8 7-9.

Guitar tablature for F7, F#dim7, C7, and A7alt chords. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 6-8 9-10 11-10 10-9-7, 8-10 10-9 12, 11-14 12-13 11-13 (13)-11 14-11 13.

Guitar tablature for Dm7, G7alt, C7, and A7alt chords. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 10-10 12-13 14-15 12-14 15, 11-13 11-13 13-13 14-13 16, 15-14 12-11 14-14.

Guitar tablature for Dm7, G7alt, C7, F7, and F#dim7 chords. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 12-15 12-13 12-14, 12-14 15-13 13-12-14-13, 12-13 13-12-14-13, (13)-14 15-12-13 12-14-13.

Guitar tablature for Gm7, C7alt, and F7(11) chords. The tab shows sixteenth-note patterns with slurs and grace notes. Fingerings are indicated below the strings: T A B 12-13 12-15 12-11-12, 10-9 9-11 11-11 9-6, 5-6 8-5 7-10 7-8 10-11 8-10 11-13-11.

**C7**

P H H H sl. P P H H

T A B  
15-11 13-15 12-14-15 12-13-15 11-12-14 | 15-12-14 13-12 15-12-13-14 13 11 14 10-12

**A7alt**

H sl. P P H P H

T A B  
11 H 10-12 8-6 8-6 8-6 8-6 8-10 | 8-12 10 9-12-9-11-8 9 9-12 11-12-8 10 10

**G7alt**

H P H H P H

T A B  
9 sl. 14-9 13-11 11-8-6 9-4-9 | 7-10 10 9 8-7 9 6 6-5 8-6 6-5 8

**Dm7**

P P H H

T A B  
7 8-5 6 9-6 8-6 6 8-6 6 8 | 5 7

**G7alt**

P P H H

T A B  
7 8-5 6 9-6 8-6 6 8-6 6 8 | 5 7

**C7**

H P H H

T A B  
7 8-5 6 9-6 8-6 6 8-6 6 8 | 5 7

Rhythm Changes

**[A]**

B<sup>p</sup>maj7 G7alt Cm7 G7alt Dm7 G7alt Cm7 F7alt

Fm7 B<sup>p</sup>7 E<sup>p</sup>maj7 Edim7 B<sup>p</sup>/F G7alt Cm7 F7

**[A]**

B<sup>p</sup>maj7 G7b9 Cm7 F7 Dm7 G7alt Cm7 F7alt

Fm7 B<sup>p</sup>7(5) E<sup>p</sup>maj7 Edim7 B<sup>p</sup>/F Cm7 F7 B<sup>p</sup>maj7

**[B]**

Am7 A<sup>p</sup>m7 D7alt G7 Dm7 C7alt

C7                      Gm7    D7    Gm7    C7              Cm7              Cm7              F7alt

A  
B:maj7      G7alt      Cm7      F7alt      Dm7      G7      Cm7      F7

Fm7      B:7      E:maj7      Edim7      B/F      Cm7      F7      B:maj7

**Modern Approach To Rhythm Changes**

**A**

Bmaj7      G7alt      Cm7      F7alt      Bmaj7      G7alt      Cm7      Bmaj

F      P      sl.      P      P      sl.      H      sl.

T 18-15 15-17-13 14-11-11 | 13-10 11-13-10 12 | 13-15 12-15 13-15-13 | 11-13-15 14-16 16-13-14

A

Fm7      Bb7      Emaj7      Edim7      Dm7      G7(9)      Cm7      G7alt

sl.      sl.      sl.      sl.      sl.      p      sl.      sl.

T 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

B

Bb      G7(9)      Cm7      F7      Bmaj7      G7(9)      Cm7      F7

p      sl.      sl.      sl.      p      sl.      sl.      sl.

T 10 11-10 9 10 11 | 11-11 11 9-13-14 11 12 | 12-13-10 12-12 9 | 9-10 11 12-14

A

Fm7      Bb7      Emaj7      Edim7      Bmaj7      Cm7      F7      Bmaj7

sl.      sl.      sl.      sl.      sl.      p      sl.      p

T 11 11-13-8 8 7-8 8 8-7 8-9 8 | 9-11 8 9 8 9-6 8 | 9-7 6 8

A

B

D7      G7

p      sl.      p      p      p      H      sl.

T 14-13-14-10 13-12 | 12-14 17-14 16 | 17-16 15-17 | 14-16 14-14 14-12-14 | 14-12 12-14 14-12-11

A

B

**C7** **F7**

T A 10-12 8-10-7-9 10-8-7-10-7-10-8-6 | 8-1 1-3-3-3-5-5-3-4-5-6  
B

**Bmaj7** **G7(9)** **Cm7** **F7** **Dm7** **G7(9)** **Cm7** **F7**

T A 6-7 8-7-6-5-4-7-6-5-4 | 3-6-5-3-2-2-2-5 | 4-3-2-4-1  
B

**Bb7** **Ebmaj7** **Ebm7** **Bbmaj7** **F7alt** **Bbmaj7**

T A 6-9-10 8-9-11-12-13-15-12-16-15-14-17 | 13-10-11-10-9-7-7-8 | 6-8-7-5-8-8  
B

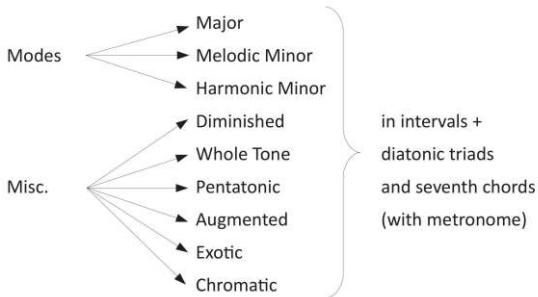
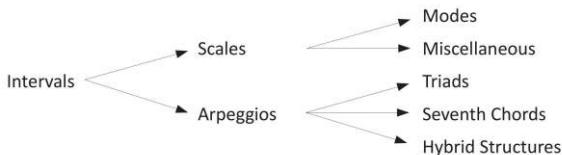
## Practicing

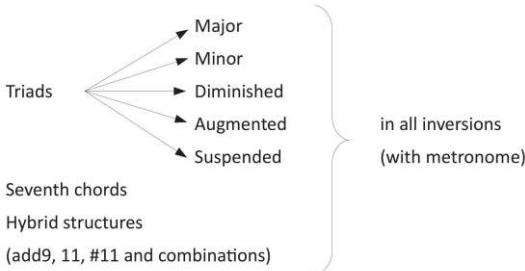
Here are some important points for practicing:

- 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/>		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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