

The Jazz Guitar's Little Helper

A Quick Lookup Guide

Alexander Harnisch

The Jazz Guitar's Little Helper

Modes, Scales, Arpeggios and many other topics

A Quick Lookup Guide for all Guitar Players

Alexander Harnisch

Guitar Tutor, Singer & Songwriter

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Version 001

About the Book

The purpose of this book is to give all guitar players a quick overview of all related topics in music theory such as intervals, scales, modes, arpeggios and many more. A good prerequisite for playing and arranging songs plus helping you becoming a better musician.

All samples are graphically edited. This form of presentation makes practicing and transposing into different keys more memorable creating a good understanding.

Good Luck!

About the Author

The Singer and Songwriter Alexander Harnisch alias John Scrivo, born in São Paulo, Brazil, enjoyed the feeling of Bossa Nova and the soccer euphoria at the beach of the Copacabana as a child.

For family reasons he grew up with two mother languages, Portuguese and English. After he had been given an electric guitar, he doggedly practiced the solos of his favourite Band "The Fab Four" - The Beatles. An interesting musical mixture was born now.

As his Austrian stepfather was a connoisseur of the Jazz Music, he heard the jazz tunes constantly at home. He was fascinated by the Big Bands, the Vocal Groups and last not least by Gypsy Jazz.

His guitar heroes like Django Reinhardt, Baden Powell, Yamandu Costa, Tommy Emmanuel, Frank Vignola, Martin Taylor, Joe Pass and many others became a part of his instrumental life as a guitar player.

Other products by Alexander Harnisch can also be purchased online from my website

www.john-scrivo.de/books.

1. Brazilian Beats
2. It's Jazzable
3. The Gypsy Guitar's Little Helper
4. The Space Elevator
5. The Fingerpicker
6. Intermezzo
7. Perpetual Emotions

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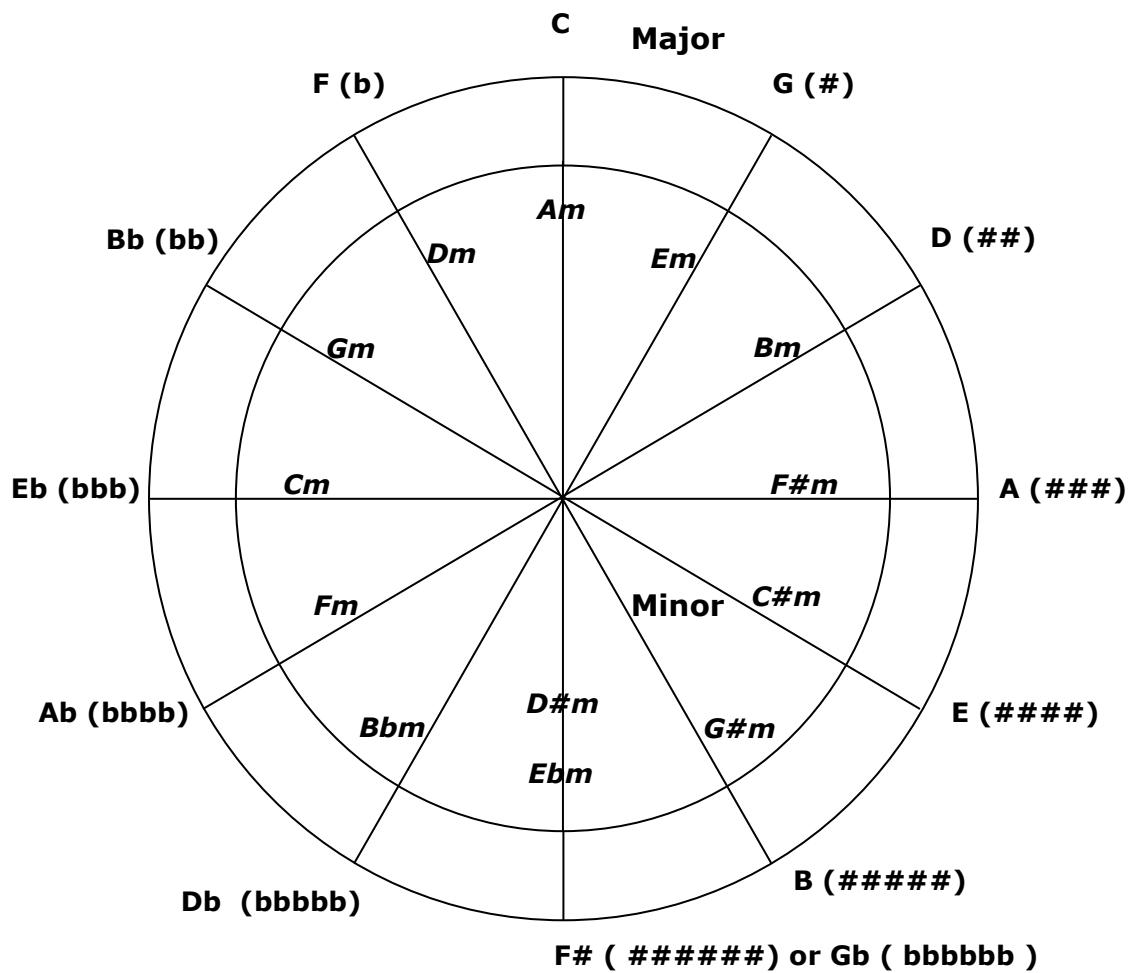
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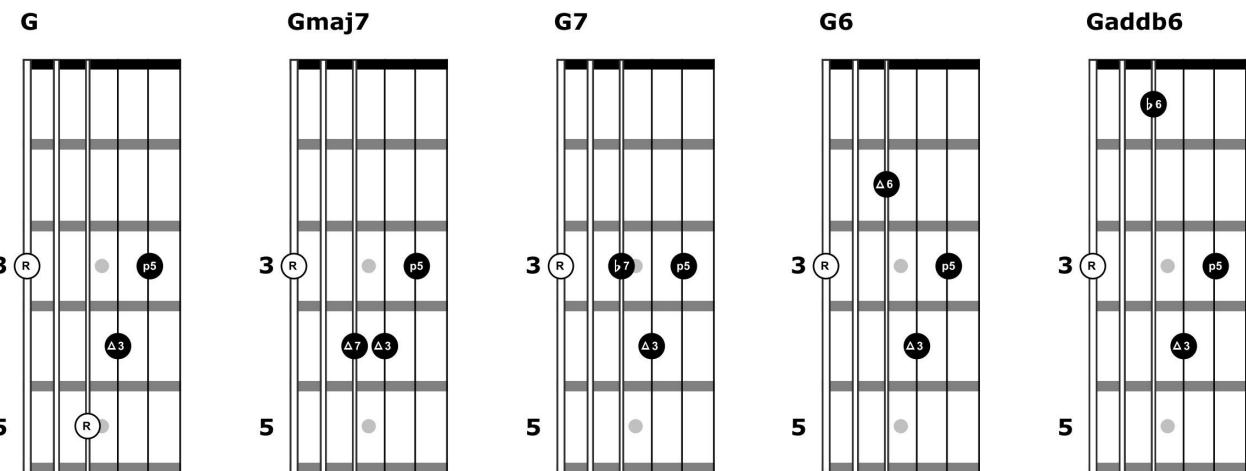
The Circle of Fifths

In music theory, the circle of perfect fifths is a graphical illustration of the relationships between the keys. The outer circle shows the major keys, the inner circle the parallel minor keys (minor relatives), which have the same signs as the major keys. The perfect fifth is one spot clockwise starting from the root "C" that has no signs.

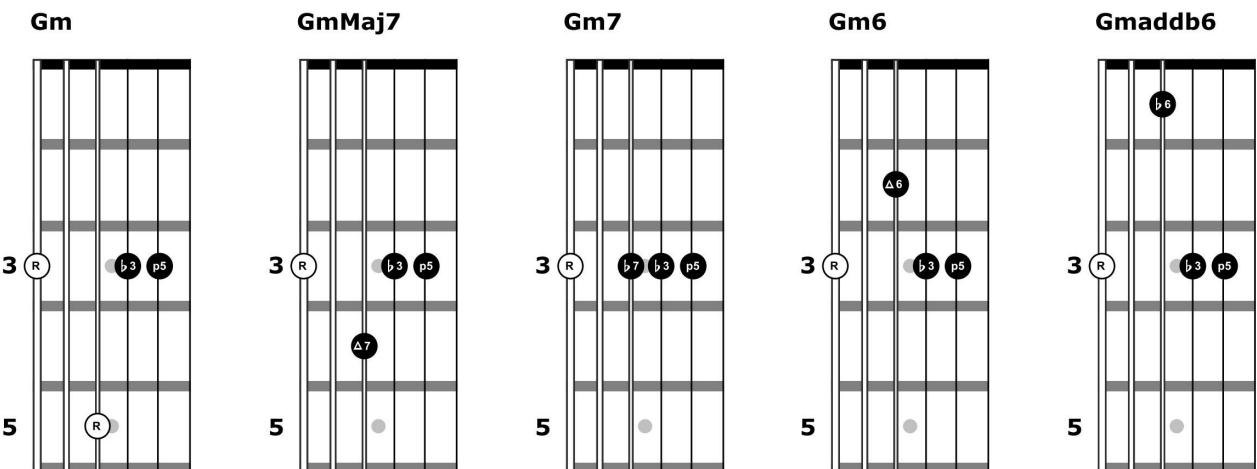


The intervals 1, 7, b7, 6, b6 are played chromatically backwards with the D-string.

Chords	Intervals			
G	1 (R)	3	5	
Gmaj7	1	3	5	7
G7	1	3	5	b7
G6	1	3	5	6
Gaddb6	1	3	5	b6



Chord	Intervals			
Gm	1 (R)	b3	5	
GmMaj7	1	b3	5	7
Gm7	1	b3	5	b7
Gm6	1	b3	5	6
Gmaddb6	1	b3	5	b6



The Intervals

G — G#	b2 / b9	Minor second
G — A	2 / 9	Major second
G — A#	b3	Minor third
G — B	3	Major third
G — C	4	Perfect fourth
G — C#	#4/ #11/ b5	Augmented fourth or diminished fifth
G — D	5	Perfect fifth
G — D#	#5 / b13	Augmented fifth or minor sixth
G — E	6 / 13	Major sixth
G — F	b7	Minor seventh
G — F#	7	Major seventh
G — G"	8 = 1	Perfect octave

How to determine an interval sequence!

G-Aeolian (Mode VI) origin = Bb-Major							
G-Major	G	A	B	C	D	E	F#
Intervals	1	2	3	4	5	6	7
G-Aeolian	G	A	Bb	C	D	Eb	F
Formula	1	2	b3	4	5	b6	b7

G-Dorian (Mode II) origin = F-Major							
G-Major	G	A	B	C	D	E	F#
Intervals	1	2	3	4	5	6	7
G-Dorian	G	A	Bb	C	D	E	F
Formula	1	2	b3	4	5	6	b7

Four-Voice Chords stacked in 3rds

G-Major Scale						
1	2	3	4	5	6	7
G	A	B	C	D	E	F#



Four-Voice chords after stacking						
G,B,D,F#	A,C,E,G	B,D,F#,A	C,E,G,B	D,F#,A,C	E,G,B,D	F#,A,C,E

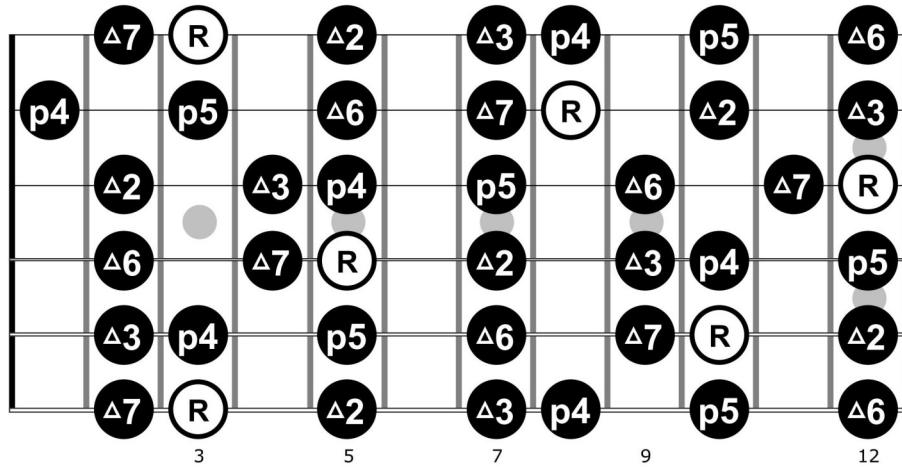


Chords and Modes						
Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
I	II	III	IV	V	VI	VII
Gmaj7	Am7	Bm7	Cmaj7	D7	Em7	F#m7b5

The Major Modes

... the seven modes and chords

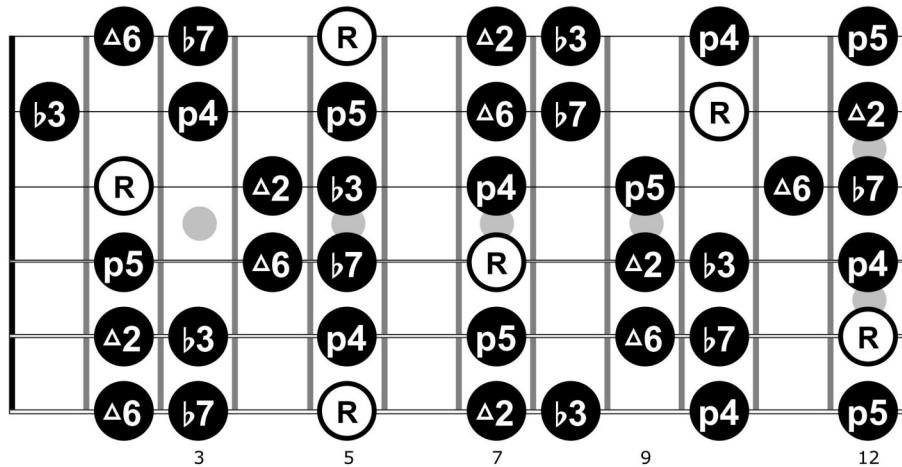
G-Ionian (Mode I)							
Scale	G	A	B	C	D	E	F#
Intervals	R(oot)	2 (9)	3	4 (11)	5	6 (13)	7



G-Ionian harmonized

G,B,D,F#	A,C,E,G	B,D,F#,A	C,E,G,B	D,F#,A,C	E,G,B,D	F#,A,C, E
Gmaj7	Am7	Bm7	Cmaj7	D7	Em7	F#m7(b5)

A-Dorian (Mode II)							
Scale	A	B	C	D	E	F#	G
Intervals	R(oot)	2	b3	4	5	6	b7

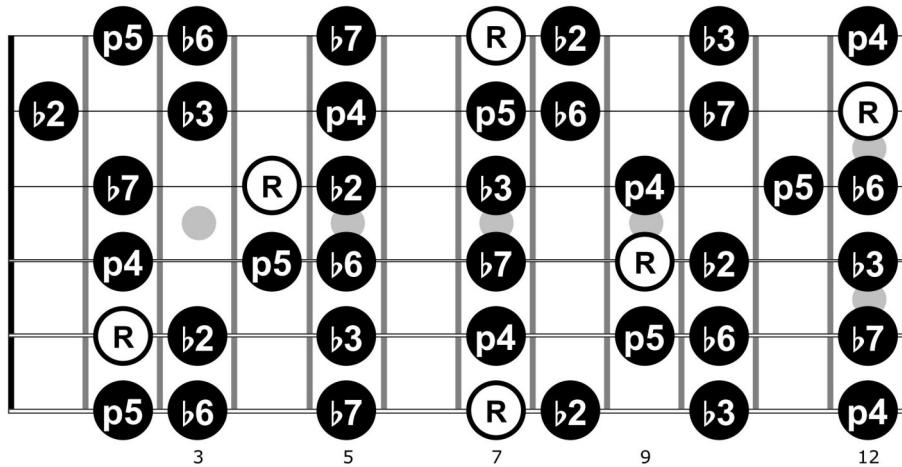


A-Dorian harmonized

A,C,E,G	B,D,F#,A	C,E,G,B	D,F#,A,C	E,G,B,D	F#,A,C,E	G,B,D,F#
Am7	Bm7	Cmaj7	D7	Em7	F#m7(b5)	Gmaj7

Guitar chord diagrams and tablature for Am7, Bm7, Cmaj7, D7, Em7, F#m7(b5), and Gmaj7. Chord diagrams show fingerings and voicings. Tablature shows string numbers (T, A, B) and fret numbers (5, 7, 8, 9, 10).

B-Phrygian (Mode III)							
Scale	B	C	D	E	F#	G	A
Intervals	R(oot)	b2	b3	4	5	b6	b7



B-Phrygian harmonized

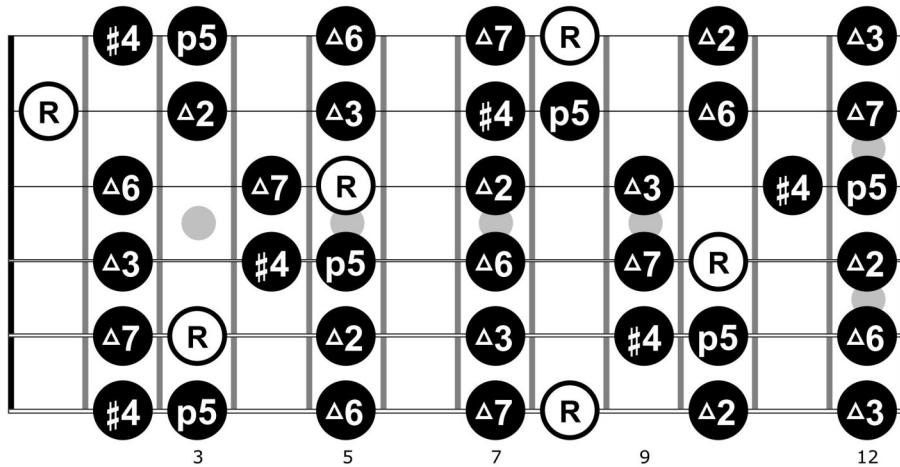
B,D,F#,A	C,E,G,B	D,F#,A,C	E,G,B,D	F#,A,C,E	G,B,D,F#	A,C,E,G
Bm7	Cmaj7	D7	Em7	F#m7(b5)	Gmaj7	Am7

Chord diagrams for Bm7, Cmaj7, D7, Em7, F#m7(b5), Gmaj7, and Am7.

Below the chords is a musical staff in 4/4 time with a key signature of one sharp (F#). The notes are marked with circled numbers: 3, 5, 7, 8, 9, 10, 7, 8, 10, 12.

The staff starts with a B note (circled 3), followed by an A note (circled 5), then a G note (circled 7), an E note (circled 8), a G note (circled 9), an A note (circled 10), another A note (circled 7), another G note (circled 8), and finally an A note (circled 10).

C-Lydian (Mode IV)							
Scale	C	D	E	F#	G	A	B
Intervals	R(oot)	2	3	#4	5	6	7



C-Lydian harmonized

C,E,G,B	D,F#,A,C	E,G,B,D	F#,A,C,E	G,B,D,F#	A,C,E,G	B,D,F#,A
Cmaj7	D7	Em7	F#m7(b5)	Gmaj7	Am7	Bm7

The top row shows chord diagrams for Cmaj7, D7, Em7, F#m7(b5), Gmaj7, Am7, and Bm7. The bottom row shows the corresponding guitar tablature (tablature) for each chord.

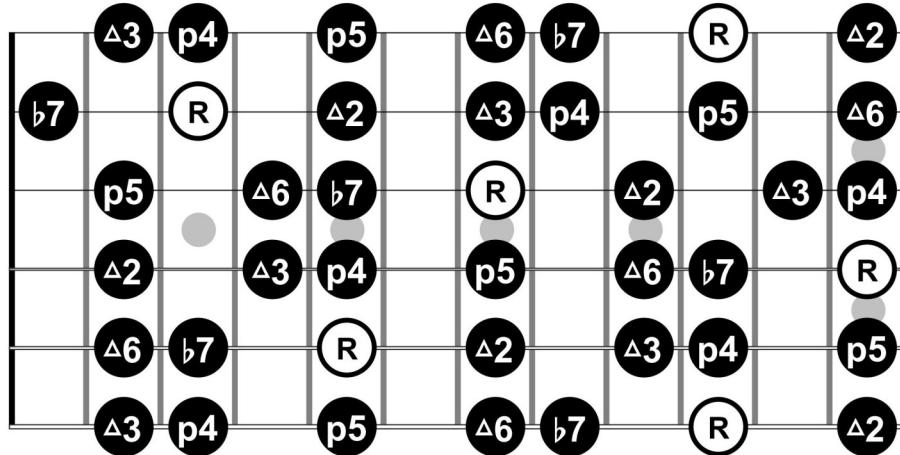
Chord Diagrams (Left):

- Cmaj7:** X-X-X-X-X-X
- D7:** X-X-X-X-X-X
- Em7:** X-X-X-X-X-X
- F#m7(b5):** X-X-X-X-X-X
- Gmaj7:** X-X-X-X-X-X
- Am7:** X-X-X-X-X-X
- Bm7:** X-X-X-X-X-X

Tablature (Right):

- Cmaj7:** T5 A4 B3
- D7:** T5 A4 B3
- Em7:** T5 A4 B3
- F#m7(b5):** T10/9 A9/9 B7
- Gmaj7:** T5 A4 B3
- Am7:** T8 A7 B5
- Bm7:** T7 A12 B7

D-Mixolydian (Mode V)							
Scale	D	E	F#	G	A	B	C
Intervals	R(oot)	2	3	4	5	6	b7



D-Mixolydian harmonized

D,F#,A,C	E,G,B,D	F#,A,C,E	G,B,D,F#	A,C,E,G	B,D,F#,A	C,E,G,B
D7	Em7	F#m7(b5)	Gmaj7	Am7	Bm7	Cmaj7

Chord diagrams:

- D7: Fret 5, strings 5, 4, 3, 2, 1, 0.
- Em7: Fret 7, strings 5, 4, 3, 2, 1, 0.
- F#m7(b5): Fret 7, strings 5, 4, 3, 2, 1, 0.
- Gmaj7: Fret 8, strings 5, 4, 3, 2, 1, 0.
- Am7: Fret 8, strings 5, 4, 3, 2, 1, 0.
- Bm7: Fret 7, strings 5, 4, 3, 2, 1, 0.
- Cmaj7: Fret 8, strings 5, 4, 3, 2, 1, 0.

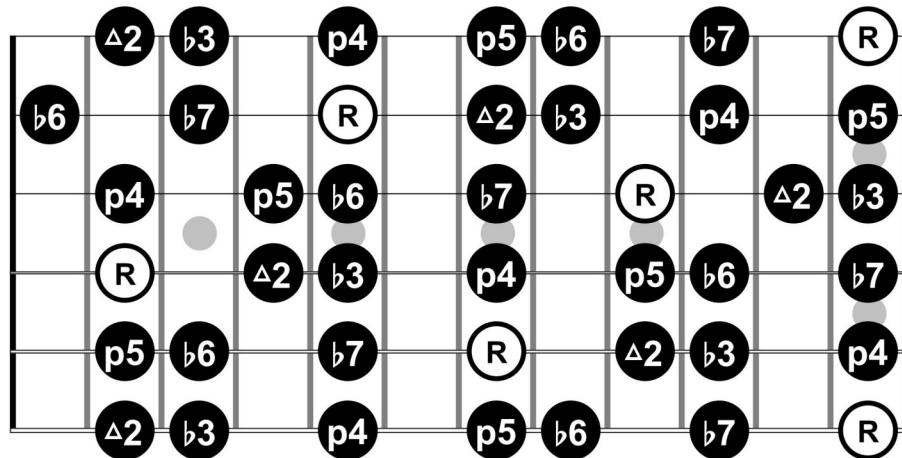
Staff (Treble Clef, 4/4 time):

mf

Bass Staff:

T	5	7	5	7	5	7	8
A	5	9	2	4	5	7	9
B	5	7	2	3	5	7	8

E-Aeolian (Mode VI)							
Scale	E	F#	G	A	B	C	D
Intervals	R(oot)	2	b3	4	5	b6	b7

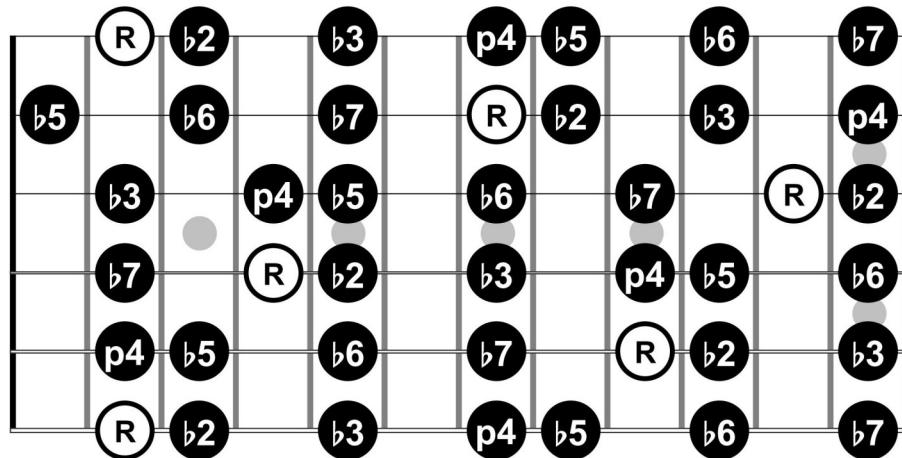


E-Aeolian harmonized

E,G,B,D	F#,A,C,E	G,B,D,F#	A,C,E,G	B,D,F#,A	C,E,G,B	D,F#,A,C
Em7	F#m7(b5)	Gmaj7	Am7	Bm7	Cmaj7	D7

The image displays the harmonic progression for the E-Aeolian mode. It includes seven chord diagrams: Em7, F#m7(b5), Gmaj7, Am7, Bm7, Cmaj7, and D7. Below the chords is a musical staff in 4/4 time with a treble clef, a dynamic marking of 'mf', and a bass staff with letter notes T, A, and B.

F#-Locrian (Mode VII)							
Scale	F#	G	A	B	C	D	E
Intervals	R(oot)	b2	b3	4	b5	b6	b7



F#-Locrian harmonized

F#,A,C,E	G,B,D,F#	A,C,E,G	B,D,F#,A	C,E,G,B	D,F#,A,C	E,G,B,D
F#m7(b5)	Gmaj7	Am7	Bm7	Cmaj7	D7	Em7

Chord diagrams for the harmonized F#-Locrian mode:

- F# m7(b5)
- Gmaj7
- Am7
- Bm7
- Cmaj7
- D7
- Em7

Musical notation below:

4/4 time signature, key of F#.

Chord progression: F#m7(b5) - Gmaj7 - Am7 - Bm7 - Cmaj7 - D7 - Em7.

Fretboard diagram below shows fingerings for each chord:

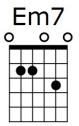
T 1	A 2	B 2	1	3	4	5	7	7	8	9	8	10	10	11	12
-----	-----	-----	---	---	---	---	---	---	---	---	---	----	----	----	----

Diatonic Scales Part 1

a warm up

6th String

1



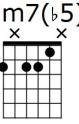
2



T
A
B

0 2 3 0 2 3 0 2 0 3 2 0 | 0 2

3



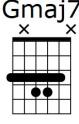
4



T
A
B

2 3 5 2 3 5 2 4 2 5 3 2 5 3 2 | 1 2 2 2

5



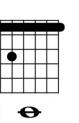
6



T
A
B

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

7



8



T
A
B

5 7 8 5 7 9 5 7 5 9 7 5 8 7 5 | 5 7 5 5

Bm7

Guitar chord diagram for Bm7 (B minor 7) in standard tuning (EADGBE). The diagram shows a barre chord with the index finger on the 7th fret of the A string. Tablature below shows the strings T (Thick), A, and B with note heads at the 7th, 8th, 10th, 7th, 9th, 10th, 7th, 10th, 9th, 7th, 10th, 8th, and 7th positions.

Guitar tablature for three chords: Bm7, Cmaj7, and D7. The first measure (Bm7) starts at the 7th fret. The second measure (Cmaj7) starts at the 8th fret. The third measure (D7) starts at the 10th fret. The tablature shows the strings T (Thick), A, and B with note heads corresponding to the fret numbers indicated above the staff.

D7

Guitar tablature for the D7 chord, starting at the 10th fret. The tablature shows the strings T (Thick), A, and B with note heads corresponding to the fret numbers indicated above the staff.

Em7

Guitar tablature for the Em7 chord, starting at the 12th fret. The tablature shows the strings T (Thick), A, and B with note heads corresponding to the fret numbers indicated above the staff.

5th String

Am7

1

T
A
B 0 2 3 0 2 4 0 2 0 4 2 0 3 2 0

2

0 1 0 2 0

Bm7

3

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

4

2 3 2 0

Cmaj7

5

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

6

3 5 3

D7

7

T
A
B 5 7 4 5 7 4 5 7 5 4 7 5 4 7 5

8

5 5 5

Em7



9

T A B 7 9 10 7 9 10 7 9 7 10 9 7 10 9 7 | 7 9 7 9 7

10 8 8

11

T A B 9 10 12 9 10 12 9 11 9 12 10 9 12 10 9 | 10 9 10 9 9

12 8 8

F#m7(b5)



11

T A B 9 10 12 9 10 12 9 11 9 12 10 9 12 10 9 | 10 9 10 9 9

12 8 8

Gmaj7



13

T A B 10 12 14 10 12 14 11 12 11 14 12 10 14 12 10 | 10 11 12 10

14 8 8

Am7

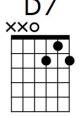


15

T A B 12 14 15 12 14 16 12 14 12 16 14 12 15 14 12 | 12 14 12

16 8 8

4th String

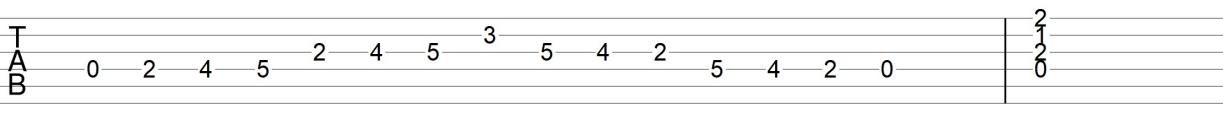
D7


1

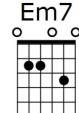


T
A 0 2 4 5
B

2



T
A 5 4 2 0
B

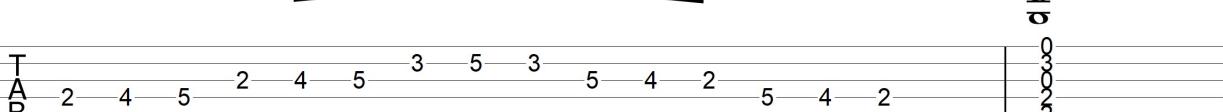
Em7


3

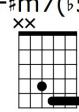


T
A 2 4 5 2 4 5
B

4



T
A 3 5 3 5 4 2
B

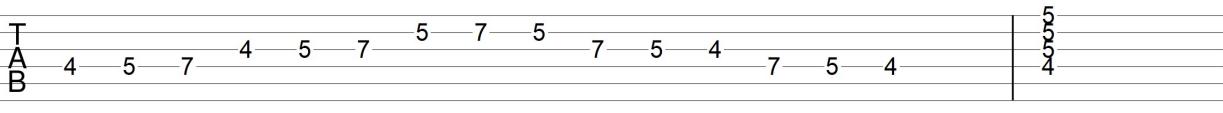
F#m7(b5)


5



T
A 4 5 7 4 5 7
B

6



T
A 7 5 4 7 5 4
B

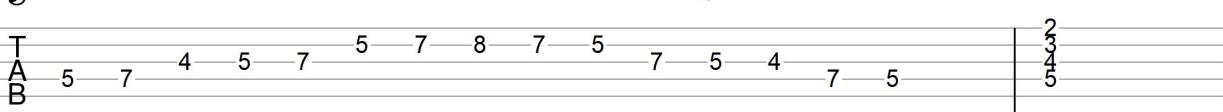
Gmaj7


7

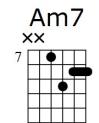


T
A 5 7 4 5 7
B

8



T
A 7 5 4 7 5
B



Am7

xx

7

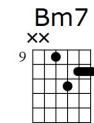
10 ♪

9

T 7 9 10 7 9 11 8 10 8 11 9 7 10 9 7 | 8

A 7 B

7



Bm7

xx

9

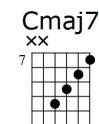
12 ♪

11

T 9 10 12 9 11 12 10 12 10 12 11 9 12 10 9 | 10

A 9 B

9



Cmaj7

xx

7

14 ♪

13

T 10 12 9 11 12 10 12 13 12 10 12 11 9 12 10 | 7

A 10 B

10



D7

xx

12

16 ♪

15

T 12 9 11 12 10 12 13 10 13 12 10 12 11 9 12 | 14

A 12 B

12

3rd String

Gmaj7

T A B

0 2 4 5 3 5 2 3 2 5 3 5 4 2 0 | 2
A B

Am7

T A B

2 4 5 3 5 2 3 5 3 2 5 3 5 4 2 | 0
A B

Bm7

T A B

4 5 7 5 7 8 5 7 5 8 7 5 7 5 4 | 5
A B

Cmaj7

T A B

5 7 5 7 8 5 7 8 7 5 8 7 5 7 5 | 7
A B

D7

xx
7

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

Em7

xx
8

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

F#m7(b5)

x x
9

13 12 14 12 13 15 12 14 12 15 13 12 14 12 11 | 10
T A B

Gmaj7

xx
12

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

Diatonic Scales Part 2

a warm up

6th String

1 Gmaj7 Am7 2 Bm7 Cmaj7

T A B 3 2 5 4 5 3 7 5 7 5 9 7 8 7 10 9

3 D7 Em7 4 F#m7(b5) Gmaj7

T A B 10 9 12 10 12 10 14 12 14 12 15 14 10 12 14 16

5th String

1 Cmaj7 Dm7 2 Em7 Fmaj7

T A B 3 2 5 4 5 3 7 5 7 5 9 7 8 7 10 9

3 G7 Am7 4 Bm7(b5) Cmaj7

T A B 10 9 12 10 12 10 14 12 14 12 15 14 8 9 8

4th String

Fmaj7

Gm7

Am7

Bbmaj7

T A B
3 2 5 5 3 7 6 | 7 5 9 8 8 7 10 10

C7

Dm7

Em7(b5)

Fmaj7

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

3rd String

Gmaj7

Am7

Bm7

Cmaj7

T A B
0 4 3 2 2 5 5 3 | 4 7 7 5 5 9 8 7

D7

Em7

F#m7(b5)

Gmaj7

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

A short analysis of the Lydian scale

The Lydian mode or scale is built on the 4th degree (see chapter "The Major Modes"). The 4th interval of the Lydian scale is raised by a half step. This interval is a tritone (6 half steps) above the tonic. All Lydian scales have a raised 4th interval.

Lydian Scale (Mode IV)	R(1)	2/9	3	#4/#11	5	6/13	7
	C	D	E	F#	G	A	B

If you stack **C** (as a root note) along the C-Lydian scale (C-D-E-F#-G-A-B) in 3rds you get a variety of major chords with the root note C.

C	C		E		G						
Cmaj7	C		E		G		B				
Cmaj9	C		E		G		B		D		
Cmaj9(#11)	C		E		G		B		D	F#	
Cmaj13	C		E		G		B		D	A	
Cmaj13(#11)	C		E		G		B		D	A	F#

Diagram showing four guitar chords and their fingerings:

- C:** Root position. Fretboard diagram shows dots at 3rd and 5th strings, 2nd fret. Staff: Treble clef, 4/4 time. Fingering: 1, 5, 7, 3.
- Cmaj7:** 1st inversion. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 4/4 time. Fingering: 5, 3.
- Cmaj7(#11):** Root position. Fretboard diagram shows dots at 3rd and 5th strings, 2nd fret. Staff: Treble clef, 4/4 time. Fingering: 7, 4, 3.
- Cmaj9:** Root position. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 4/4 time. Fingering: 3.

Diagram showing four guitar chords and their fingerings:

- Cmaj9(#11):** Root position. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 2/2 time. Fingering: 2.
- Cmaj13:** Root position. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 2/2 time. Fingering: 0.
- Cmaj13(#11):** Root position. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 2/2 time. Fingering: 10, 9, 8.
- Cmaj13(#11):** Root position. Fretboard diagram shows dots at 2nd and 4th strings, 2nd fret. Staff: Treble clef, 2/2 time. Fingering: 7.

A short analysis of the Locrian scale

When stacking the Locrian scale in 3rds you create a Half-Diminished chord. The intervals are 1, b3, b5 and b7. The Half-Diminished chord symbols are either **Ø7**, **-7b5** or **m7b5**.

F#-Locrian (Mode VII)							
Scale	F#		A		C		E
Intervals	R(oot)	b2	b3	4	b5	b6	b7

You can improvise over the Half-Diminished chord using the Locrian scale, the chord arpeggio or using a Dorian scale. The root of the Dorian scale is the minor 3rd (b3) of the Half-Diminished chord you are playing.

Two examples:

	Intervals					
F#m7(b5)	1	b3	b5	b7	-	-
	F#	A	C	E	-	-
A-Dorian	1	b3	5	6	b7	
	A	C	E	F#	G (1)	

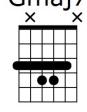
	Intervals					
Bbm7(b5)	1	b3	b5	b7	-	-
	Bb	Db	E	Ab	-	-
Db-Dorian	1	b3	5	6	b7	
	Db	E	Ab	Bb	B (1)	

1) The intervals "G" and B" (b7) of the Dorian scale represent the minor 2nd (b2) interval of the locrian scale.

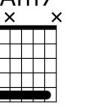
Short and Uncomfortable

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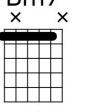
Gmaj7



Am7



Bm7



Gmaj7



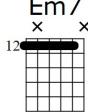
Cmaj7



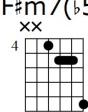
D7



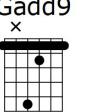
Em7



F#m7(b5)



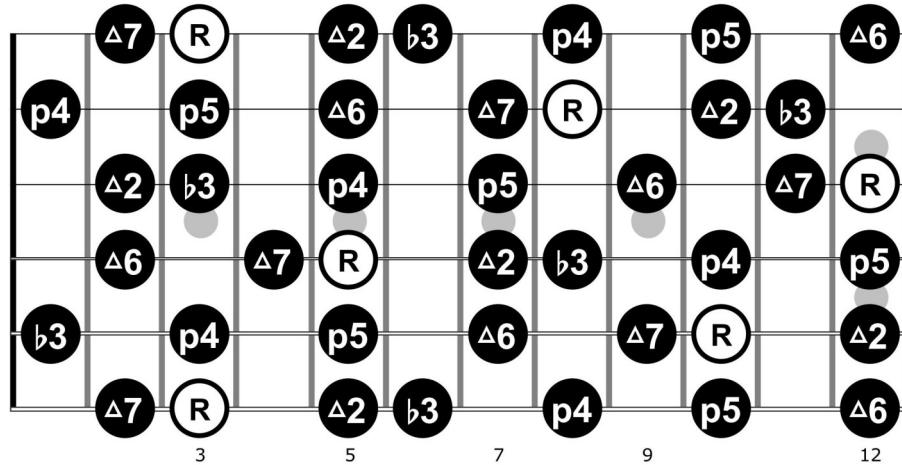
Gadd9



Melodic Minor Modes

... the seven modes and chords

G-Melodic Minor (Mode I)							
Scale	G	A	Bb	C	D	E	G _b
Intervals	R(oot)	2	b3	4	5	6	7



G-Melodic Minor harmonized

G,Bb,D,G _b	A,C,E,G	Bb,D,G _b ,A	C,E,G,Bb	D,G _b ,A,C	E,G,Bb,D	G _b ,A,C,E
GmMaj7	Am7	Bbmaj7(#5)	C7	D7	Em7(b5)	F#m7(b5)

Chord diagrams for the harmonized G-Melodic Minor progression:

- GmMaj7
- Am7
- B^b maj7(#5)
- C7
- D7
- Em7(b5)
- F#m7(b5)

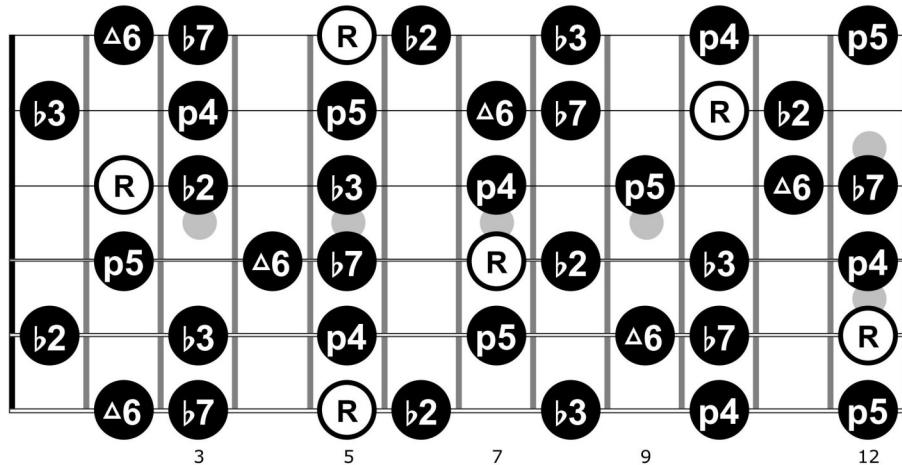
Musical staff below showing the progression in 4/4 time with dynamic *mf*:

```

Guitar staff:
T 2 3 5
A 5 7 8
B 10 11 12
C 10 11 12
D 8 9 10
E 7 8 9
F# 10 11 12

```

A-Dorian b2 (Mode II) origin = G-Melodic-Minor							
Scale	A	Bb	C	D	E	Gb	G
Intervals	R(oot)	b2	b3	4	5	6	b7



A-Dorian b2 harmonized

A,C,E,G	Bb,D,Gb,A	C,E,G,Bb	D,Gb,A,C	E,G,Bb,D	Gb,A,C,E	G,Bb,D,Gb
Am7	Bbmaj7(#5)	C7	D7	Em7(b5)	F#m7(b5)	GmMaj7

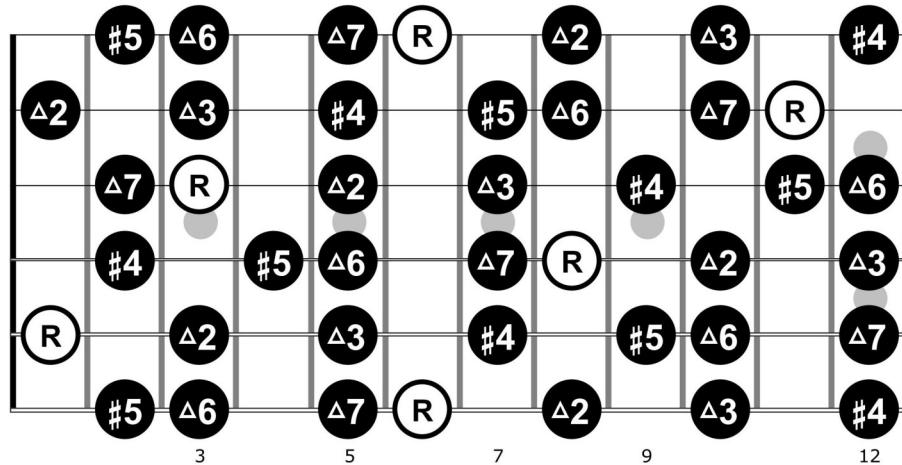
The tablature shows the guitar neck with the following fingerings:

- Am7: 1, 8, 0, 0, 0, 0
- Bbmaj7(#5): 2, #8, 0, 0, 0, 0
- C7: 3, 8, 0, 0, 0, 0
- D7: 4, #8, 0, 0, 0, 0
- Em7(b5): 5, 0, 0, 0, 0, 0
- F#m7(b5): 6, 0, 0, 0, 0, 0
- GmMaj7: 7, #8, 0, 0, 0, 0

The bass line below the tablature has the following notes:

- T: 5, 5, 5
- A: 5, 5, 6
- B: 5, 8, 8

Bb-Lydian #5 (Mode III) origin = G-Melodic-Minor							
Scale	Bb	C	D	E	Gb	G	A
Intervals	R(oot)	2	3	#4	#5	6	7

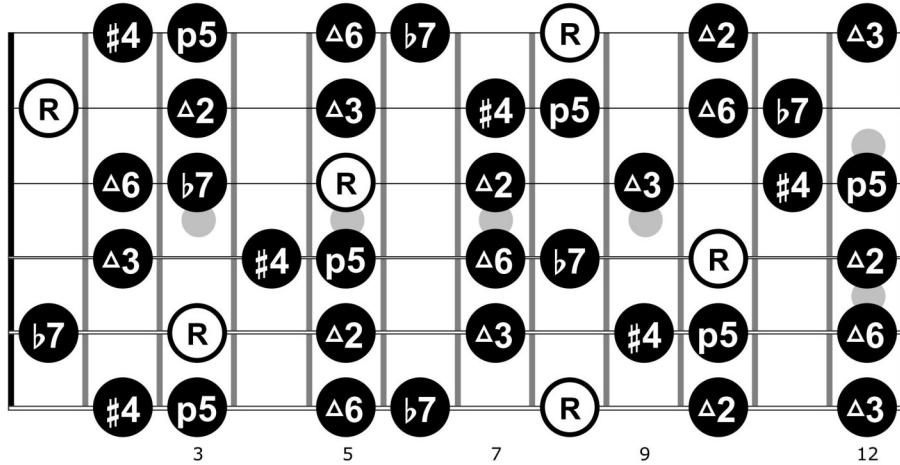


Bb-Lydian #5 harmonized

Bb,D,Gb,A	C,E,G,Bb	D,Gb,A,C	E,G,Bb,D	Gb,A,C,E	G,Bb,D,Gb	A,C,E,G
Bbmaj7(#5)	C7	D7	Em7(b5)	F#m7(b5)	GmMaj7	Am7

Guitar chord chart and tablature for the Bb-Lydian #5 harmonized progression. The chords are: Bb maj7(#5), C7, D7, Em7(b5), F#m7(b5), GmMaj7, and Am7. The tablature shows the strings (T, A, B) and fret positions (1-7).

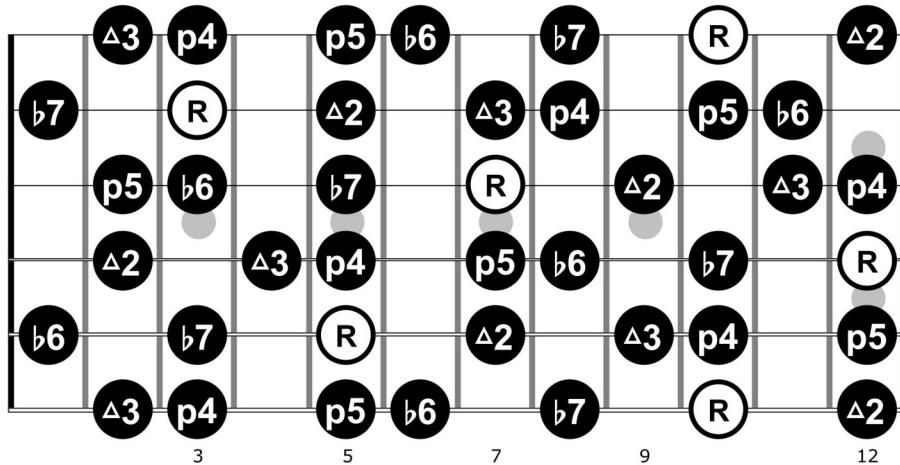
C-Lydian Dominant (Mode IV) origin = G-Melodic-Minor							
Scale	C	D	E	Gb	G	A	Bb
Intervals	R(oot)	2	3	#4	5	6	b7



C-Lydian Dominant harmonized

C,E,G,Bb	D,Gb,A,C	E,G,Bb,D	Gb,A,C,E	G,Bb,D,Gb	A,C,E,G	Bb,D,Gb,A
C7	D7	Em7(b5)	F#m7(b5)	GmMaj7	Am7	Bbmaj7(#5)

D-Mixolydian b6 (Mode V) origin = G-Melodic-Minor							
Scale	D	E	Gb	G	A	Bb	C
Intervals	R(oot)	2	3	4	5	b6	b7



D-Mixolydian b6 harmonized

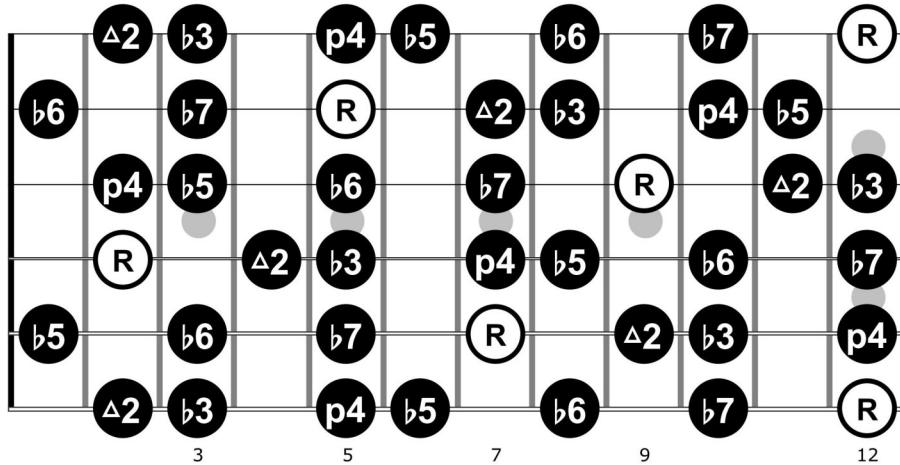
D,Gb,A,C	E,G,Bb,D	Gb,A,C,E	G,Bb,D,Gb	A,C,E,G	Bb,D,Gb,A	C,E,G,Bb
D7	Em7(b5)	F#m7(b5)	GmMaj7	Am7	Bbmaj7(#5)	C7

Chord diagrams and tablature for the harmonized chords:

- D7**: Chord diagram shows dots at 5th and 7th frets on the 6th string; tablature shows T5, A7, B5.
- Em7(b5)**: Chord diagram shows dots at 7th and 9th frets on the 6th string; tablature shows T7, A8, B7.
- F#m7(b5)**: Chord diagram shows dots at 9th and 11th frets on the 6th string; tablature shows T9, A10, B9.
- GmMaj7**: Chord diagram shows dots at 7th and 9th frets on the 6th string; tablature shows T7, A8, B7.
- Am7**: Chord diagram shows dots at 7th and 9th frets on the 6th string; tablature shows T7, A8, B7.
- Bbmaj7(#5)**: Chord diagram shows dots at 5th and 7th frets on the 6th string; tablature shows T5, A8, B7.
- C7**: Chord diagram shows dots at 6th and 8th frets on the 6th string; tablature shows T6, A10, B8.

Bottom row: Tablature (T, A, B) for each chord. Dynamics: *mf* for Em7(b5), *f* for GmMaj7, *p* for Am7, *f* for Bbmaj7(#5).

E-Locrian #2 (Mode VI) origin = G-Melodic-Minor							
Scale	E	Gb	G	A	Bb	C	D
Intervals	R(oot)	2	b3	4	b5	b6	b7



E-Locrian #2 harmonized

E,G,Bb,D	Gb,A,C,E	G,Bb,D,Gb	A,C,E,G	Bb,D,Gb,A	C,E,G,Bb	D,Gb,A,C
Em7(b5)	F#m7(b5)	GmMaj7	Am7	Bbmaj7(#5)	C7	D7

Chord diagrams:

- Em7(b5)
- F#m7(b5)
- GmMaj7
- Am7
- Bbmaj7(#5)
- C7
- D7

Musical staff and tablature:

4/4 time, key signature of one sharp (F#). Measures 1-7.

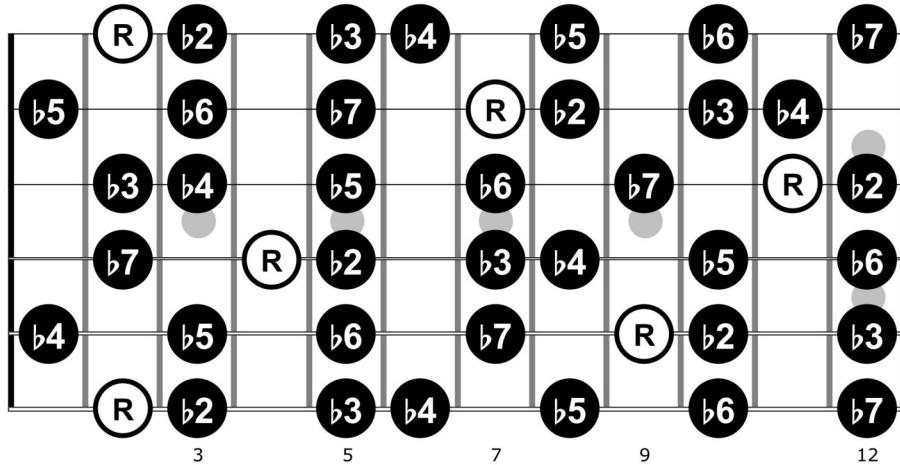
mf dynamic in measure 1.

Tablature (T, A, B strings):

```

T 3 2
A 3 2
B 5 4
      |-----|
      5 4
      |-----|
      5 4
      |-----|
      5 4
      |-----|
      5 4
      |-----|
      5 4
      |-----|
      2 0
  
```

Gb-Superlocrian "altered" (Mode VII) origin = G-Melodic-Minor							
Scale	Gb	G	A	Bb	C	D	E
Intervals	R(oot)	b2	b3	b4	b5	b6	b7



Gb-Superlocrian "altered" harmonized

Gb,A,C,E	G,Bb,D,Gb	A,C,E,G	Bb,D,Gb,A	C,E,G,Bb	D,Gb,A,C	E,G,Bb,D
F#m7(b5)	GmMaj7	Am7	Bbmaj7(#5)	C7	D7	Em7(b5)

Chord diagrams for the harmonized chords:

- F#m7(b5)
- GmMaj7
- Am7
- Bbmaj7(#5)
- C7
- D7
- Em7(b5)

Musical staff and tablature for the progression:

Staff: $\text{G}_\text{C} \text{ F#}_\text{B} \text{ E}_\text{A} \text{ D}_\text{G} \text{ C}_\text{F#} \text{ B}_\text{E} \text{ A}_\text{D}$

Tablature (T-A-B):

T: 5	A: 5	B: 3	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8
T: 4	A: 4	B: 3	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8
T: 5	A: 5	B: 5	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8
T: 5	A: 4	B: 3	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8
T: 5	A: 3	B: 2	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8
T: 5	A: 2	B: 1	T: 8	A: 8	B: 8	T: 8	A: 8	B: 8

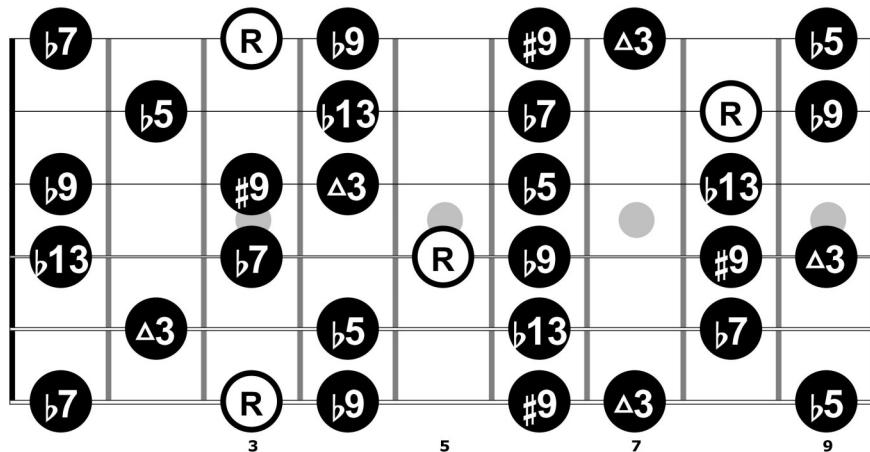
The Altered Scale or Superlocrian Scale, is a dominant scale, where all the intervals except the root (1) and the flat seventh (b7) have been altered:

1, b2, b3, b4 (=3), b5, b6, b7

G-Mixolydian (Mode VII) origin = G-Ionian Scale							
Scale	G	A	B	C	D	E	F
Intervals	R(oot)	2=9	3	4=11	5	6=13	b7



G-Superlocrian (Mode VII) origin = G-Melodic-Minor							
Scale	G	Ab	Bb	B	Db	Eb	F
Intervals	R(oot)	b9	#9	3	b5	b13	b7



Related Altered Dominant Chords:

G7(b5)	1, 3, b5, b7
G7(#5)	1, 3, #5, b7
G7(b5,b9)	1, 3, b5, b7, b9
G7(#5,b9)	1, 3, #5, b7, b9
G7(b5,#9)	1, 3, b5, b7, #9
G7(#5,#9)	1, 3, #5, b7, #9

Melodic Minor Applications Concept

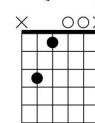
Melodic Minor Applications Concept

In addition to other scales the Melodic Minor Scale, also called the Jazz minor, is a very useful and versatile scale for soloing over Dominant 7th chords especially for altered chords.

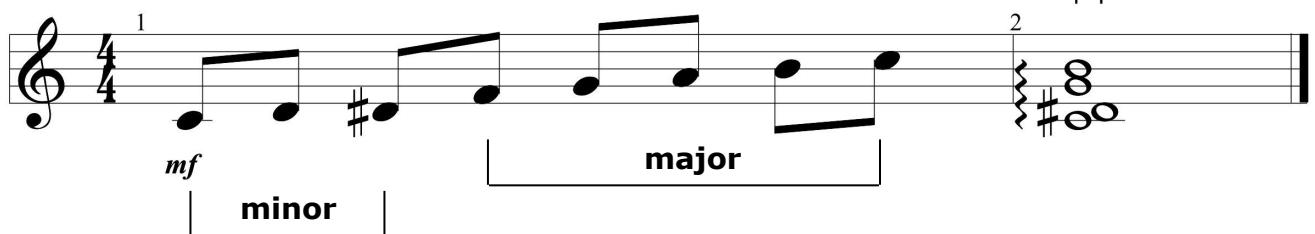
This scale is simply a major scale with a lowered 3rd degree. It gives us a combined major and minor effect.

C-Melodic Minor Scale

Cm(maj7)



□



Each altered Dominant 7th chord has a suitable Melodic Minor Scale which supports the sound of the altered chord you're playing.

There are 5 Intervals that are derived from the Mixolydian Mode (5, 4, b7, b3 and b2) as a starting point to your Melodic Minor Scale.

	Tensions	Intervals	Scale
less altered tension	5th degree	D	D-Melodic Minor
	4th degree	C	C-Melodic Minor
	lowered 7th degree	F	F-Melodic Minor
	lowered 3rd degree	Bb	Bb-Melodic Minor
more tension	lowered 2nd degree	Ab	Ab-Melodic Minor

D-Melodic Minor (5th degree with the lowest tension)

G-Dominant 7th							D-Melodic-Minor						
Intervals							Intervals						
1	2/9	3	4/11	5	6/13	b7	1	2	b3	4	5	6	7
G	A	B	C	D	E	F	D	E	F	G	A	B	C#

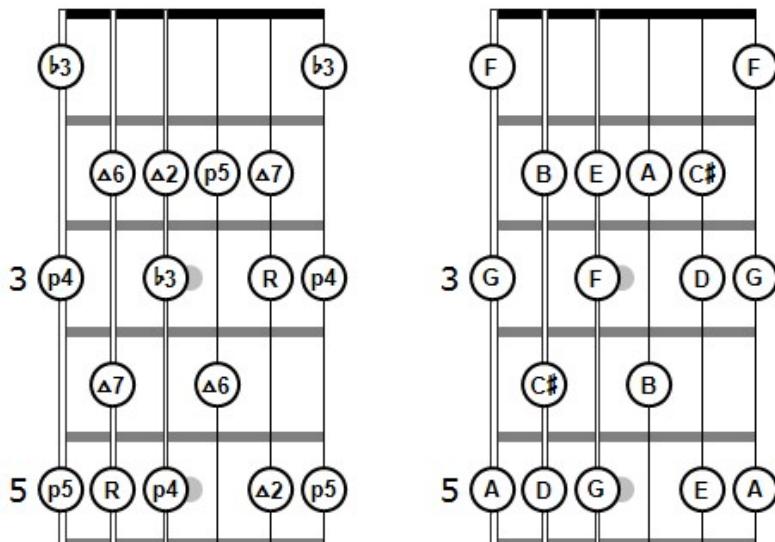
Matching Intervals (*Consonant Intervals*) between both scales

1	2/9	3	5	6/13	b7
G	A	B	D	E	F

Non-Matching Intervals (*Dissonant Intervals*)

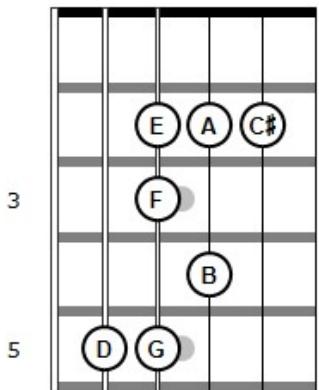
b5 (#11)

Applicable Chords: G7(#11), G7(b5), G9(#11), G13(b5)

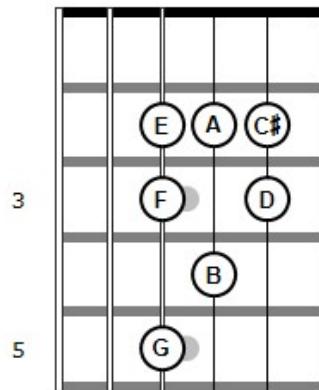


D-Melodic Minor

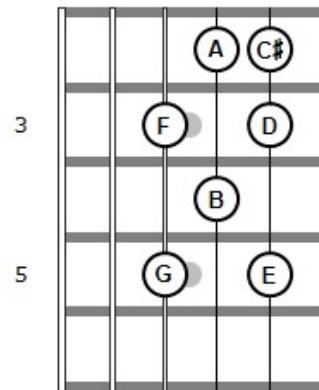
D-E-F-G-A-B-C#



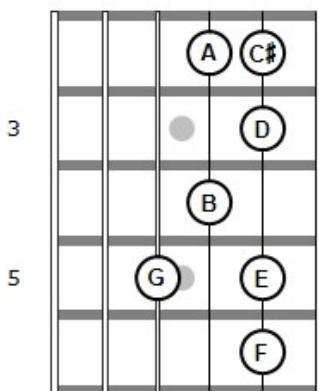
E-F-G-A-B-C#-D



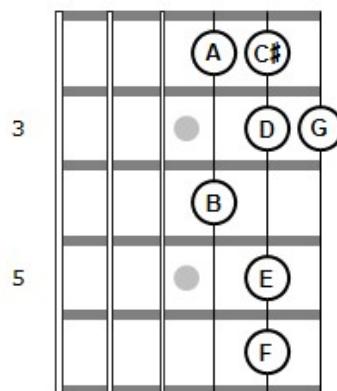
F-G-A-B-C#-D-E



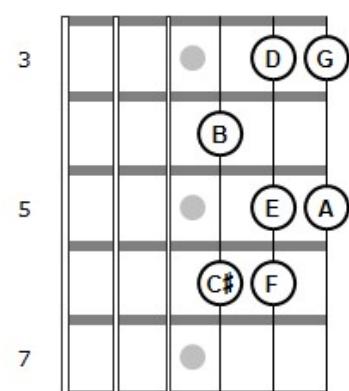
G-A-B-C#-D-E-F



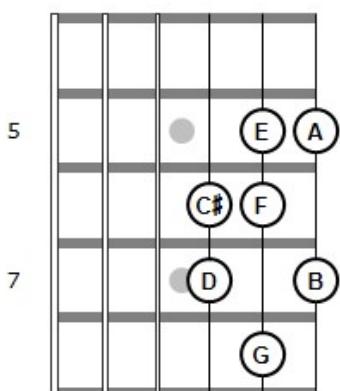
A-B-C#-D-E-F-G



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



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



C-Melodic Minor (4th degree)

G-Dominant 7th							C-Melodic-Minor						
Intervals							Intervals						
1	2/9	3	4/11	5	6/13	b7	1	2	b3	4	5	6	7
G	A	B	C	D	E	F	C	D	Eb	F	G	A	B

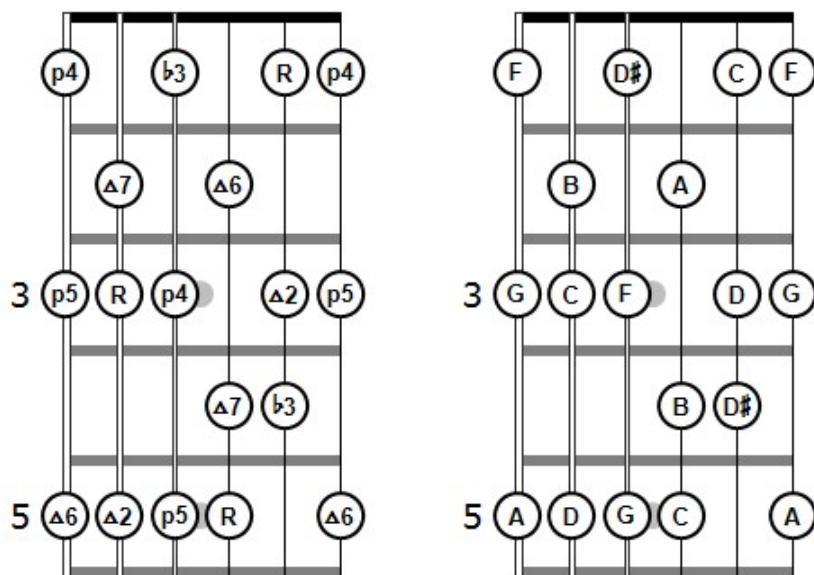
Matching Intervals (*Consonant Intervals*) between both scales

1	2/9	3	4	5	b7
G	A	B	C	D	F

Non-Matching Intervals (*Dissonant Intervals*)

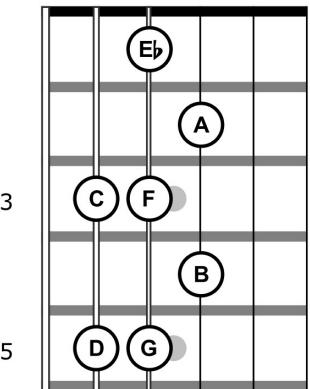
#5 (b13)

Applicable Chords: G7(b13), G7(#5), G9(b13), G9(#5)

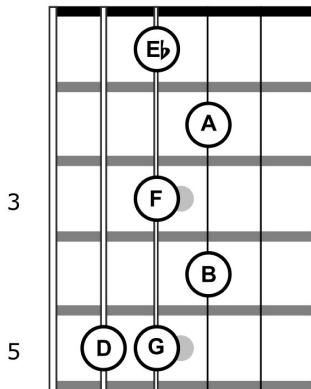


C-Melodic Minor

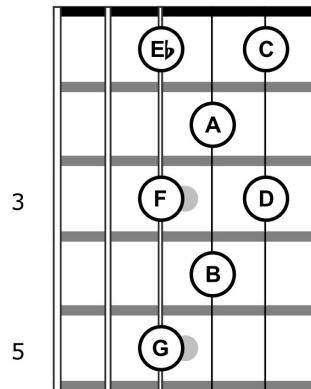
C-D-Eb-F-G-A-B



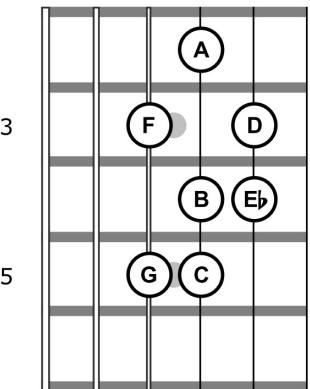
D-Eb-F-G-A-B-C



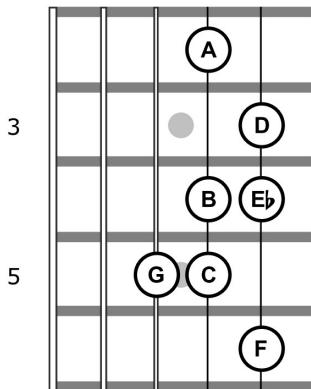
Eb-F-G-A-B-C-D



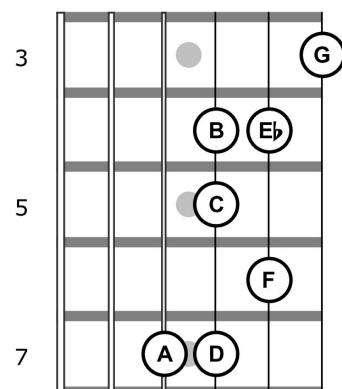
F-G-A-B-C-D-Eb



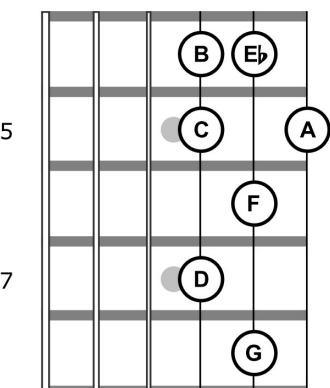
G-A-B-C-D-Eb-F



A-B-C-D-Eb-F-G



B-C-D-Eb-F-G-A



F-Melodic Minor (lowered 7th degree)

G-Dominant 7th							F-Melodic-Minor						
Intervals							Intervals						
1	2/9	3	4/11	5	6/13	b7	1	2	b3	4	5	6	7
G	A	B	C	D	E	F	F	G	Ab	Bb	C	D	E

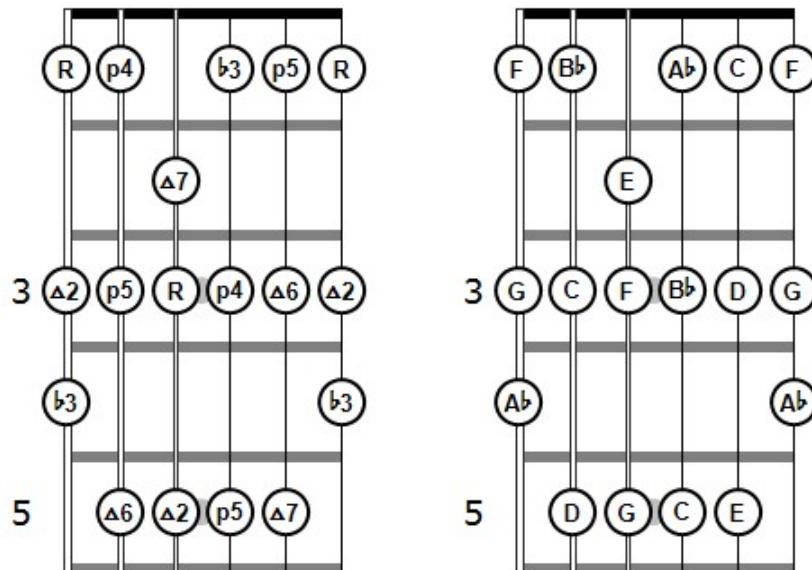
Matching Intervals (*Consonant Intervals*) between both scales

1	4	5	6/13	b7
G	C	D	E	F

Non-Matching Intervals (*Dissonant Intervals*)

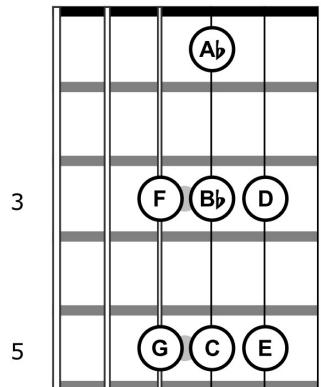
b9 - #9

Applicable Chords: G7(b9), G7(#9), G13(b9), G13(#9)

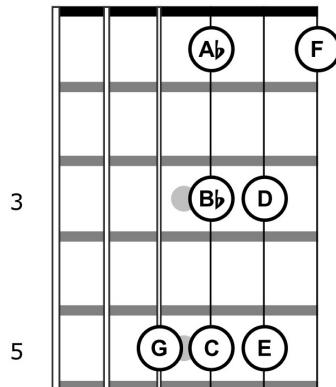


F-Melodic Minor

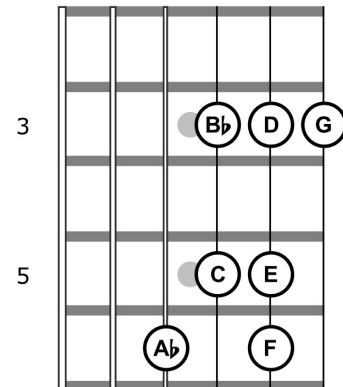
F-G-Ab-Bb-C-D-E



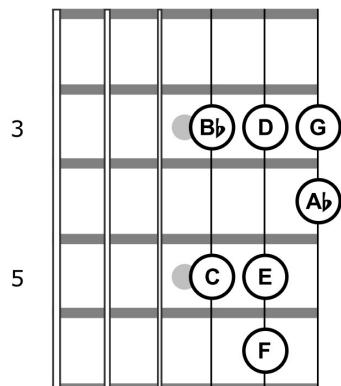
G-Ab-Bb-C-D-E-F



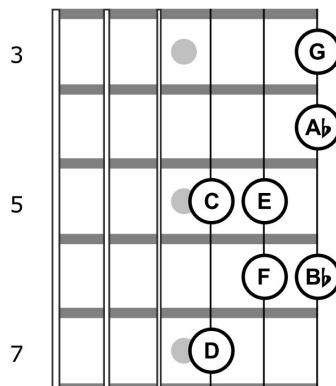
Ab-Bb-C-D-E-F-G



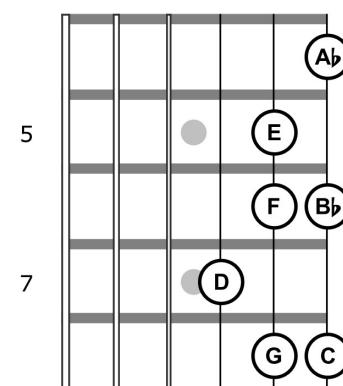
Bb-C-D-E-F-G-Ab



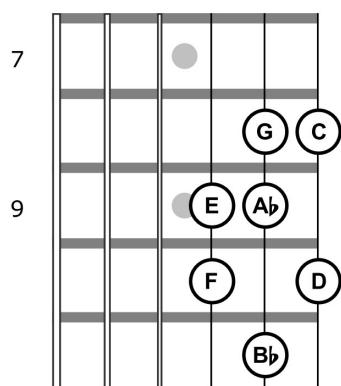
C-D-E-F-G-Ab-Bb



D-E-F-G-Ab-Bb-C



E-F-G-Ab-Bb-C-D



Bb-Melodic Minor (lowered 3rd degree)

G-Dominant 7th							Bb-Melodic-Minor						
Intervals							Intervals						
1	2/9	3	4/11	5	6/13	b7	1	2	b3	4	5	6	7
G	A	B	C	D	E	F	Bb	C	Db	Eb	F	G	A

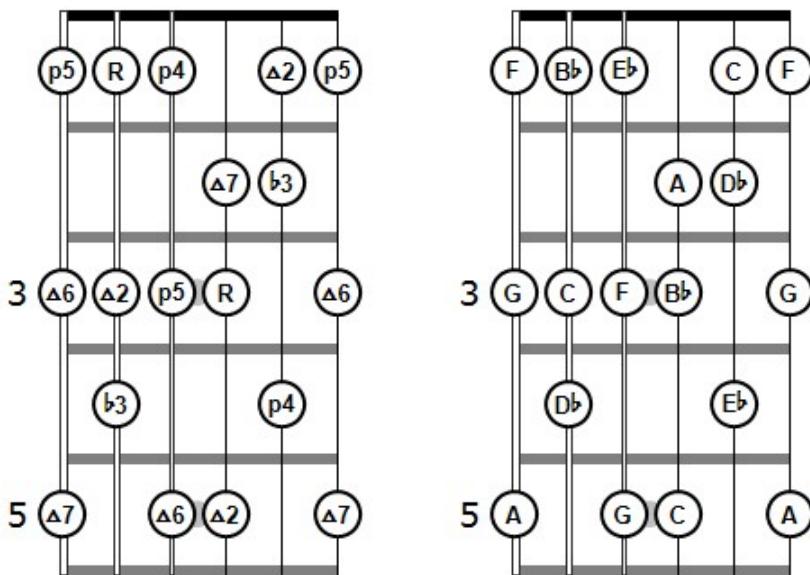
Matching Intervals (*Consonant Intervals*) between both scales

1	2/9	4/11	b7
G	A	C	F

Non-Matching Intervals (*Dissonant Intervals*)

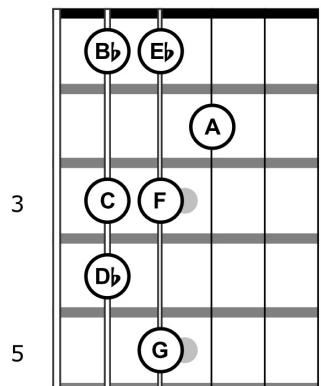
#9 - b5 (#11) - #5 (b13)

Applicable Chords: G7(#9), G13(#9), G9(#11), G13(#11), G9(b13)

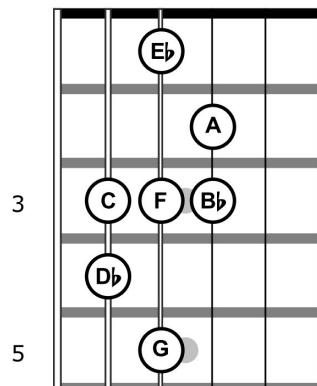


Bb-Melodic Minor

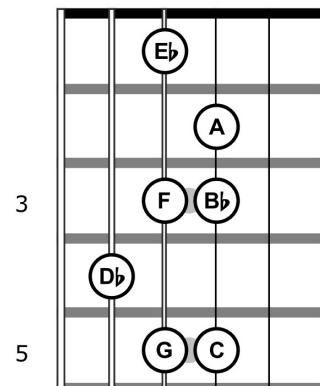
Bb-C-Db-Eb-F-G-A



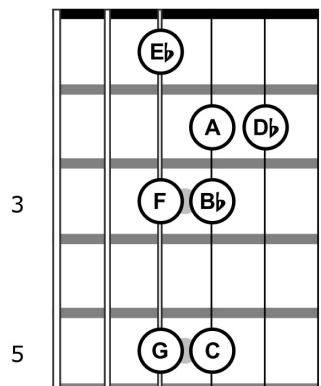
C-Db-Eb-F-G-A-Bb



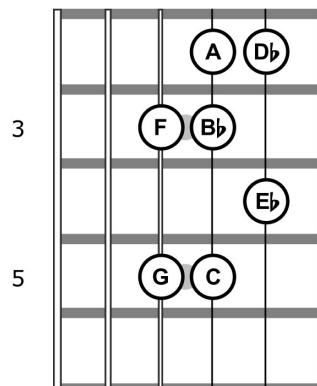
Db-Eb-F-G-A-Bb-C



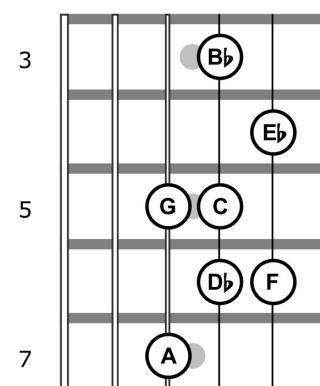
Eb-F-G-A-Bb-C-Db



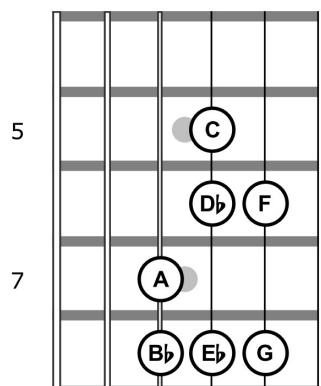
F-G-A-Bb-C-Db-Eb



G-A-Bb-C-Db-Eb-F



A-Bb-C-Db-Eb-F-G



Ab-Melodic Minor (lowered 2nd degree)

G-Dominant 7th							Ab-Melodic-Minor						
Intervals							Intervals						
1	2/9	3	4/11	5	6/13	b7	1	2	b3	4	5	6	7
G	A	B	C	D	E	F	Ab	Bb	B	Db	Eb	F	G

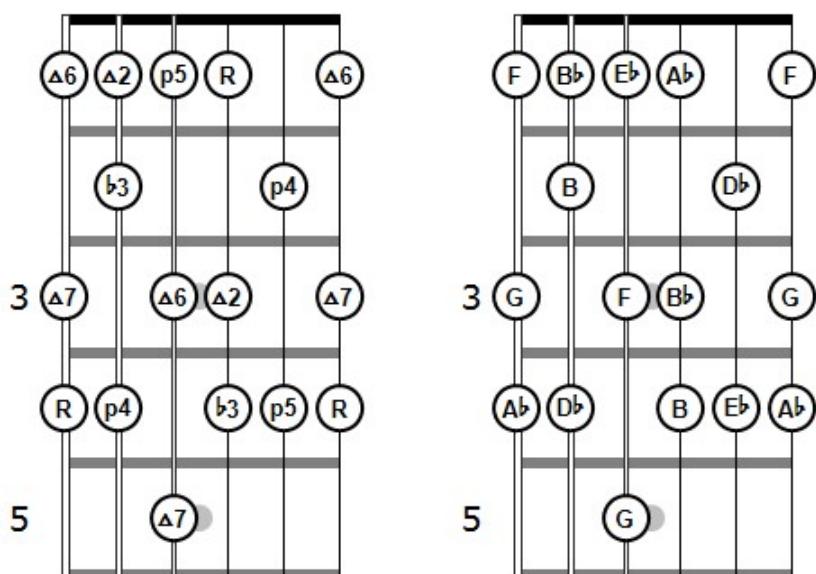
Matching Intervals (*Consonant Intervals*) between both scales

1	3	b7
G	B	F

Non-Matching Intervals (*Dissonant Intervals*)

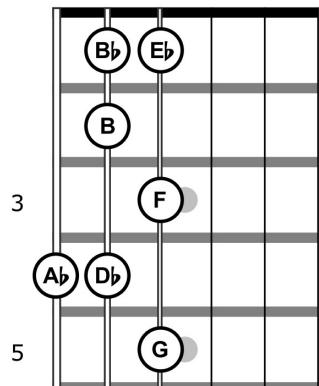
b9 - #9 - b5 (#11) - #5 (b13)

Applicable Chords: G7(b9), G7(#9), G7(b13), G7(#11)

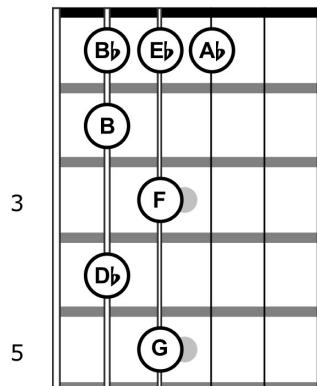


Ab-Melodic Minor

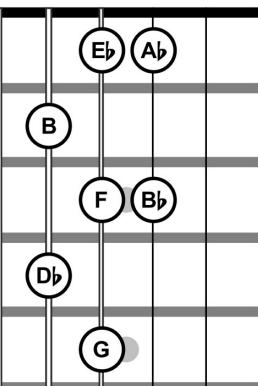
Ab-Bb-B-Db-Eb-F-G



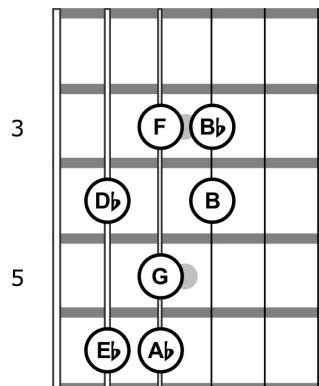
Bb-B-Db-Eb-F-G-Ab



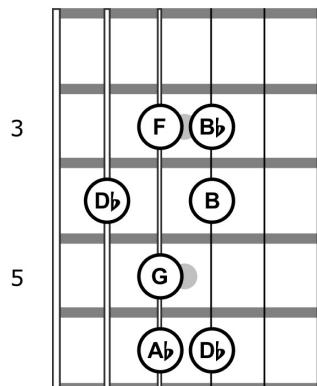
B-Db-Eb-F-G-Ab-Bb



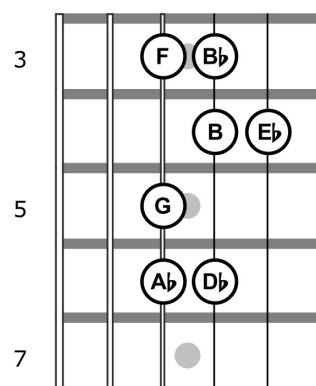
Db-Eb-F-G-Ab-Bb-B



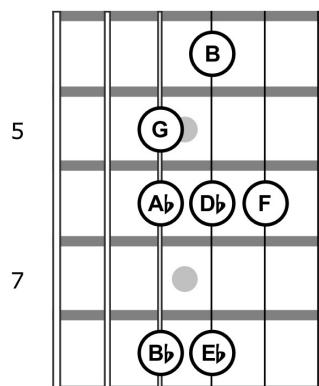
Eb-F-G-Ab-Bb-B-Db



F-G-Ab-Bb-B-Db-Eb



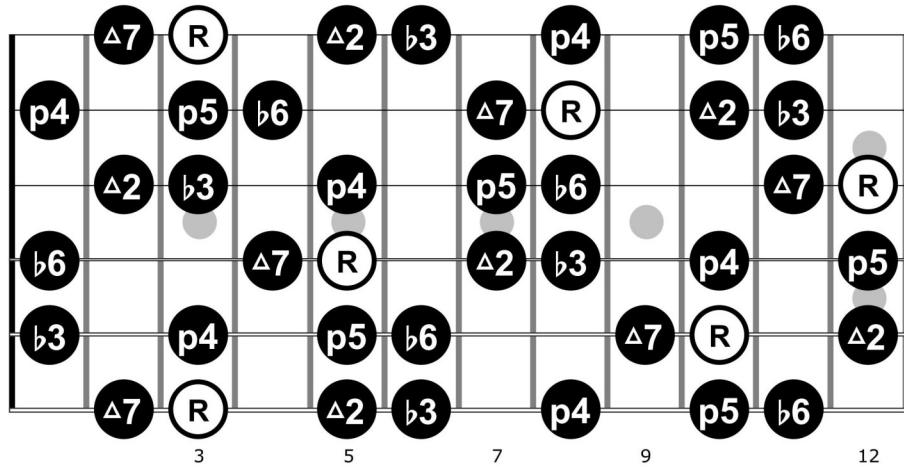
G-Ab-Bb-B-Db-Eb-F



Harmonic Minor Modes

... the seven modes and chords

G-Harmonic-Minor (Mode I)							
Scale	G	A	Bb	C	D	Eb	Gb
Intervals	R(oot)	2	b3	4	5	b6	7



G-Harmonic Minor harmonized

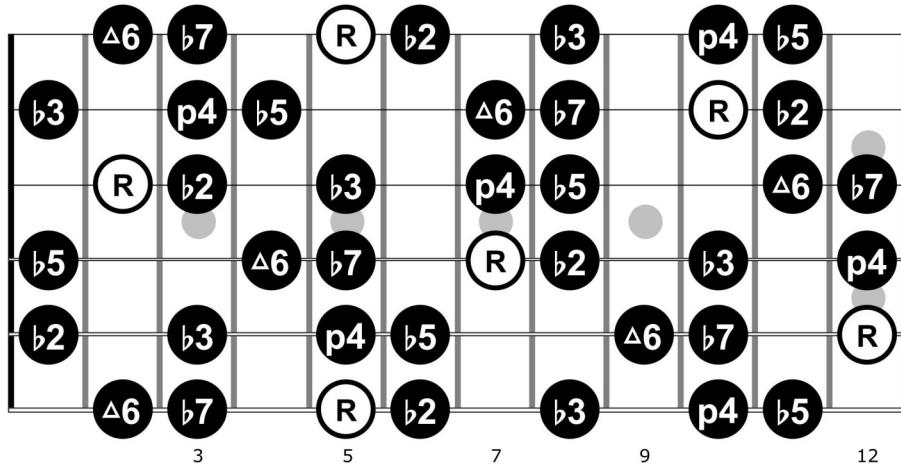
G,Bb,D,Gb	A,C,Eb,G	Bb,D,Gb,A	C,Eb,G,Bb	D,Gb,A,C	Eb,G,Bb,D	Gb,A,C,Eb
GmMaj7	Am7(b5)	Bbmaj7(#5)	Cm7	D7	Ebmaj7	F#dim7

Chord diagrams for GmMaj7, Am7(b5), Bbmaj7(#5), Cm7, D7, Ebmaj7, and F#dim7.

Below the diagrams is a musical staff in 4/4 time, key of A major (two sharps). The bass line is indicated by T, A, B notes.

Performance dynamics: *mf*.

A-Locrian #6 (Mode II) origin = G-Harmonic-Minor							
Scale	A	Bb	C	D	Eb	Gb	G
Intervals	R(oot)	b2	b3	4	b5	6	b7



A-Locrian #6 harmonized

A,C,Eb,G	Bb,D,Gb,A	C,Eb,G,Bb	D,Gb,A,C	Eb,G,Bb,D	Gb,A,C,Eb	G,Bb,D,Gb
Am7(b5)	Bbmaj7(#5)	Cm7	D7	Ebmaj7	F#dim7	GmMaj7

Chord diagrams and musical notation for the harmonized A-Locrian #6 mode:

- Am7(b5)
- Bmaj7(#5)
- Cm7
- D7
- Ebmaj7
- F#dim7
- GmMaj7

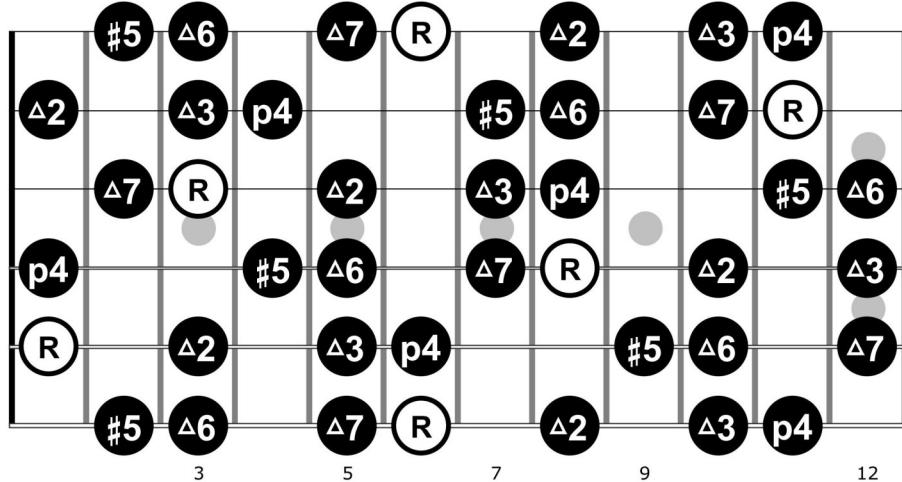
Musical notation below:

4/4 time, key signature of one sharp (F#). Dynamics: *mf*.

Fretboard diagram below the staff:

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

Bb-Ionian #5 (Mode III) origin = G-Harmonic-Minor							
Scale	Bb	C	D	Eb	Gb	G	A
Intervals	R(oot)	2	3	4	#5	6	7



Bb-Ionian #5 harmonized

Bb,D,Gb,A	C,Eb,G,Bb	D,Gb,A,C	Eb,G,Bb,D	Gb,A,C,Eb	G,Bb,D,Gb	A,C,Eb,G
Bbmaj7(#5)	Cm7	D7	Ebmaj7	F#dim7	GmMaj7	Am7(b5)

Chord diagrams for the harmonized Bb-Ionian #5 mode:

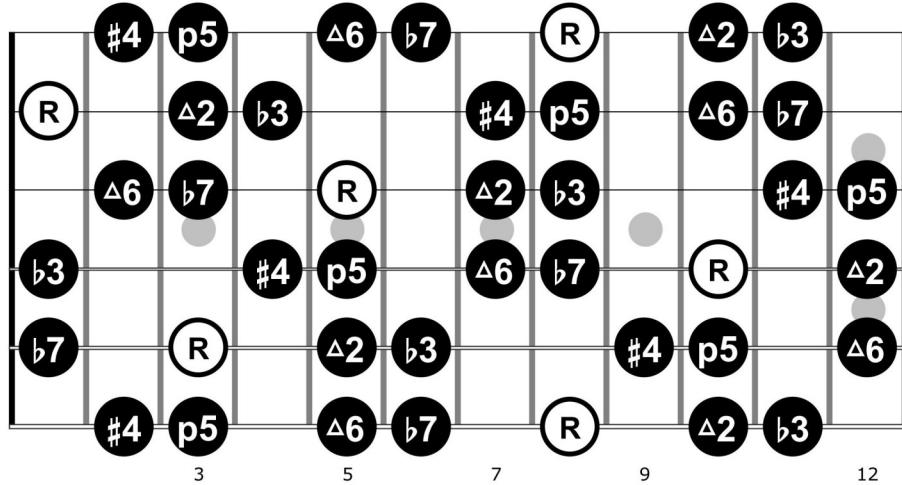
- Bb maj7(#5) (2nd position)
- Cm7 (3rd position)
- D7 (5th position)
- Eb maj7 (3rd position)
- F# dim7 (4th position)
- GmMaj7 (5th position)
- Am7(b5) (6th position)

Musical notation below:

4/4 time, key signature of one sharp (F#). Measures show chords and bass line (T,A,B).

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

C-Dorian #4 (Mode IV) origin = G-Harmonic-Minor							
Scale	C	D	Eb	Gb	G	A	Bb
Intervals	R(oot)	2	b3	#4	5	6	b7

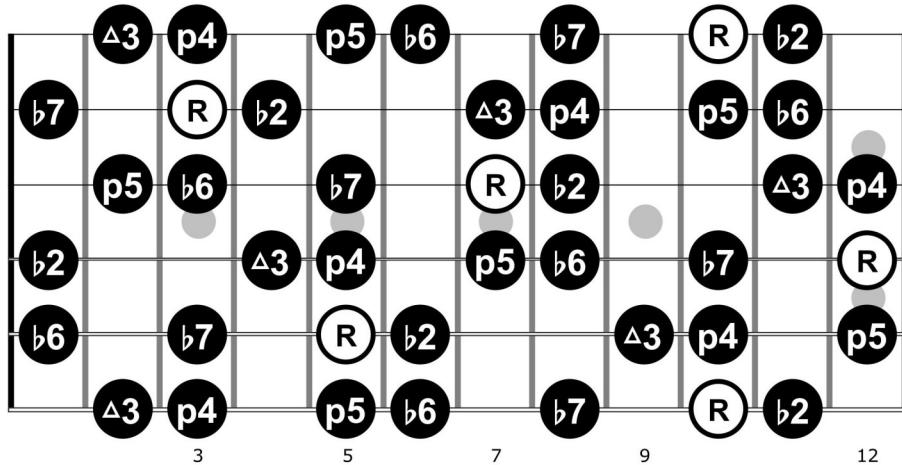


C-Dorian #4 (#11) harmonized

C,Eb,G,Bb	D,Gb,A,C	Eb,G,Bb,D	Gb,A,C,Eb	G,Bb,D,Gb	A,C,Eb,G	Bb,D,Gb,A
Cm7	D7	Ebmaj7	F#dim7	GmMaj7	Am7(b5)	Bbmaj7(#5)

Musical score for C-Dorian #4 harmonized. The score includes seven chord diagrams (Cm7, D7, Eb maj7, F# dim7, Gm Maj7, Am7(b5), Bb maj7(#5)), a treble clef staff with a 4/4 time signature and dynamic marking (mf), and a bass staff with a 4/4 time signature and note heads corresponding to the chords above.

D-Mixolydian b2/b6 (Mode V) origin = G-Harmonic-Minor							
Scale	D	Eb	Gb	G	A	Bb	C
Intervals	R(oot)	b2	3	4	5	b6	b7



D-Mixolydian b2 / b6 harmonized

D,Gb,A,C	Eb,G,Bb,D	Gb,A,C,Eb	G,Bb,D,Gb	A,C,Eb,G	Bb,D,Gb,A	C,Eb,G,Bb
D7	Ebmaj7	F#dim7	GmMaj7	Am7(b5)	Bbmaj7(#5)	Cm7

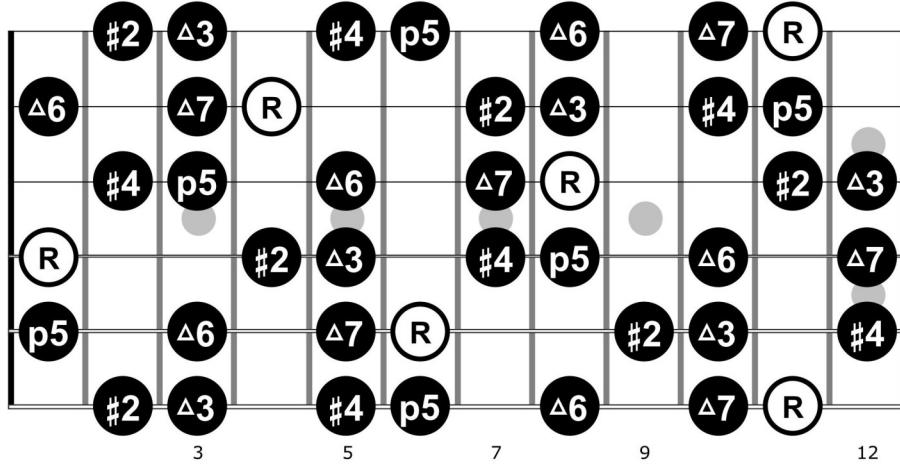
Chord diagrams for the harmonized progression:

- D7
- E♭ maj7
- F♯ dim7
- GmMaj7
- Am7(♭ 5)
- B♭ maj7(♯ 5)
- Cm7

Musical notation below:

- 4/4 time
- Key signature: F# (two sharps)
- Instrument: Bass (T, A, B strings)
- Progression: D7 - E♭ maj7 - F♯ dim7 - GmMaj7 - Am7(♭ 5) - B♭ maj7(♯ 5) - Cm7
- Performance instruction: *mf*

Eb-Lydian #2 (Mode VI) origin = G-Harmonic-Minor							
Scale	Eb	Gb	G	A	Bb	C	D
Intervals	R(oot)	#2	3	#4	5	6	7



Eb-Lydian #2 harmonized

Eb,G,Bb,D	Gb,A,C,Eb	G,Bb,D,GbF	A,C,Eb,G	Bb,D,Gb,A	C,Eb,G,Bb	D,Gb,A,C
Ebmaj7	F#dim7	GmMaj7	Am7(b5)	Bbmaj7(#5)	Cm7	D7

Chord diagrams:

- E♭ maj7
- F♯ dim7
- GmMaj7
- Am7(b5)
- B♭ maj7(#5)
- Cm7
- D7

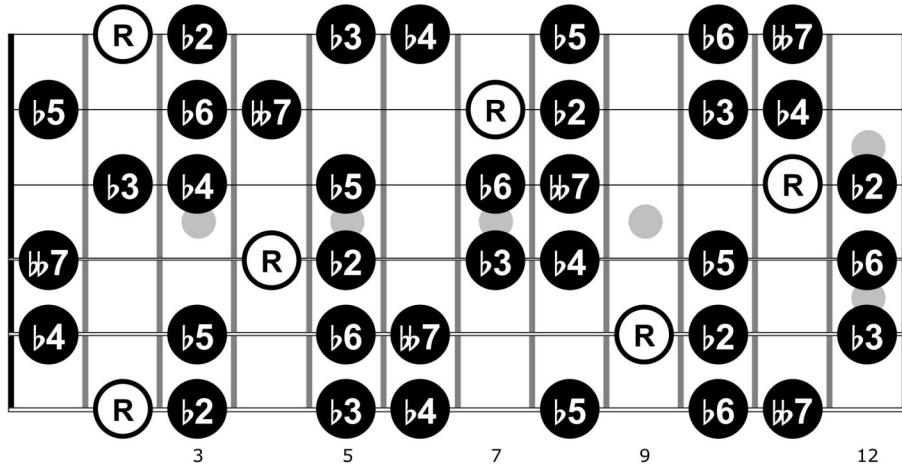
Musical notation:

4/4 time, key signature of one sharp (F#). Dynamics: *mf*.

String positions:

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

Gb - altered 6 = bb7 (Mode VII) origin = G-Harmonic-Minor							
Scale	Gb	G	A	Bb	C	D	Eb
Intervals	R(oot)	b2	b3	b4	b5	b6	6



Gb - altered bb7 harmonized

Gb,A,C,Eb	G,Bb,D,Gb	A,C,Eb,G	Bb,D,Gb,A	C,Eb,G,Bb	D,Gb,A,C	Eb,G,Bb,D
F#dim7	GmMaj7	Am7(b5)	Bbmaj7(#5)	Cm7	D7	Ebmaj7

Guitar chord diagrams and sheet music for the harmonized Gb-altered bb7 progression. Chords shown are F#dim7, GmMaj7, Am7(b5), Bbmaj7(#5), Cm7, D7, and Ebmaj7. Below the chords is a 4/4 time signature sheet music staff with fingerings (1, 3, 4, 5, 6) corresponding to the chords above.

Whonetone

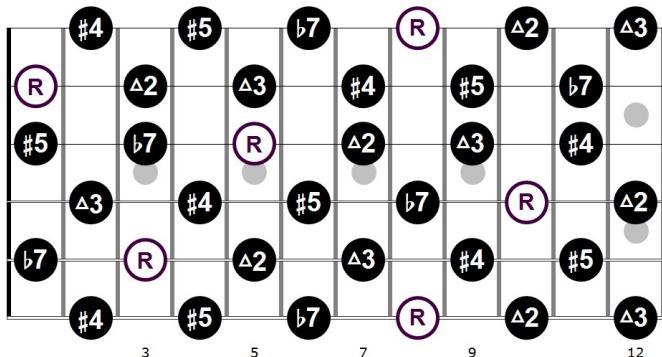
Whonetone-Halftone

Halftone-Whonetone

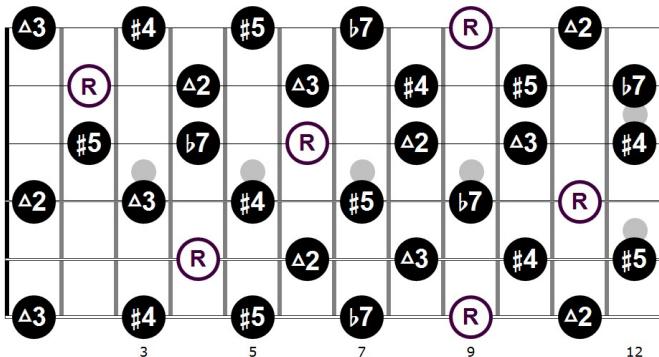
C- / Db-Wholitone (scale)						
Scale (1)	C	D	E	F#/Gb	G#/Ab	A#/Bb
Scale (2)	Db/C#	Eb/D#	F	G	A	B
Intervals	R(oot)	2	3	#4	#5	b7

Wholitone scales are considered symmetrical. There are only two unique versions of the wholitone scale, that cover all our 12 notes. The C- and Db-wholitone scale.

Scale (1)

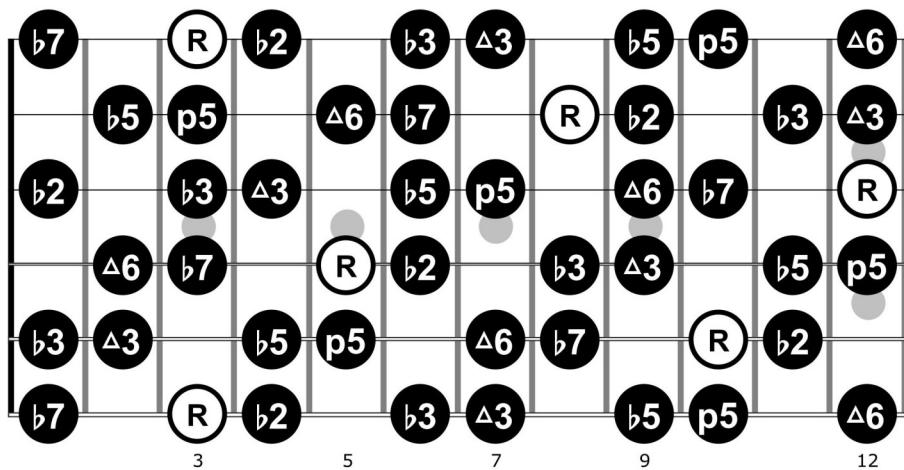


Scale (2)

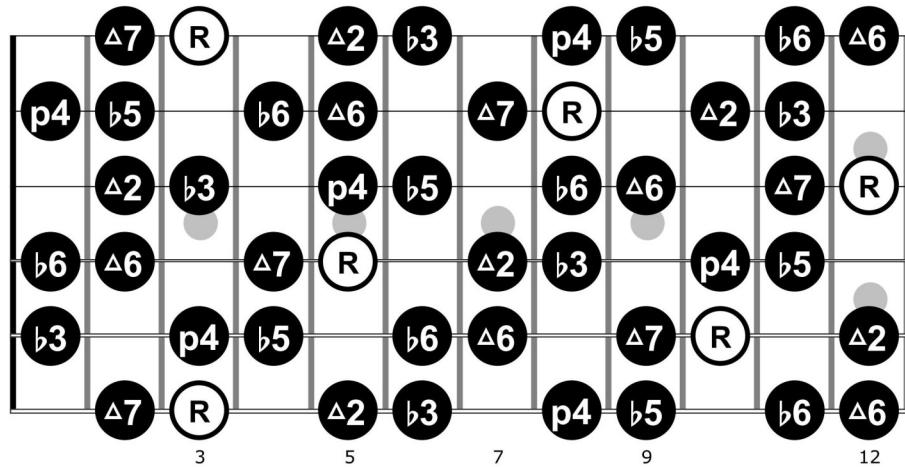


G-Halftone-Wholitone (scale)

Scale	G	Ab	Bb	B	Db	D	E	F
Intervals	R(oot)	b2/b9	#2/#9	3	#4/#11	5	6/13	b7



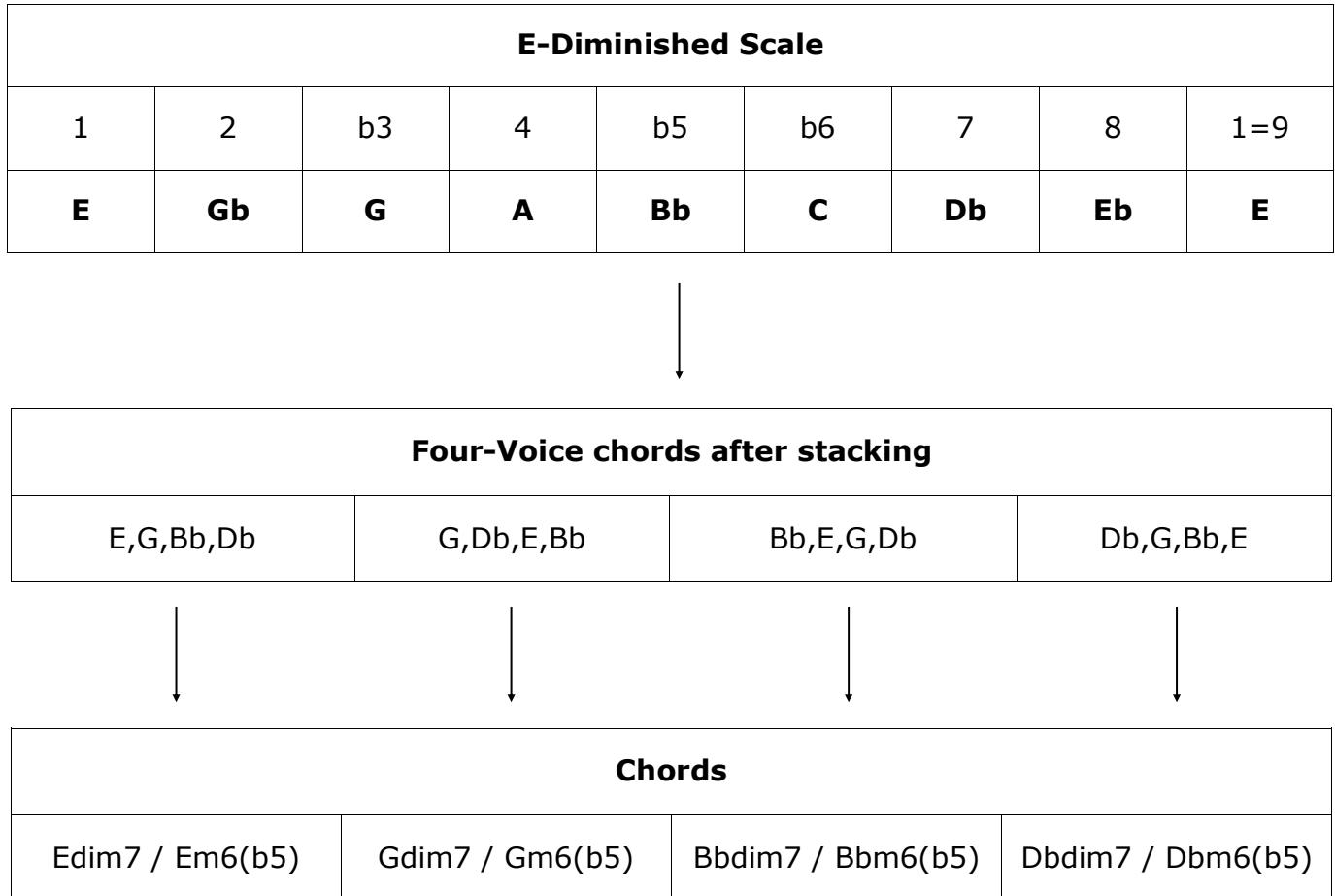
G-Wholitone-Halftone (scale) "diminished scale"								
Scale	G	A	Bb	C	Db	Eb	E	F#
Intervals	R(oot)	2	b3	4	b5	b6	6	7



Diminished Scales

The diminished scale, also known as the wholitone-halftone scale, is an octatonical symmetrical scale formed by the sequence of minor 3rds or three half steps

Four-Voice Chords stacked in Minor 3rds



Improvising over a V7(b9) chord

You can improvise over a V7(b9) chord using 4 diminished scales.

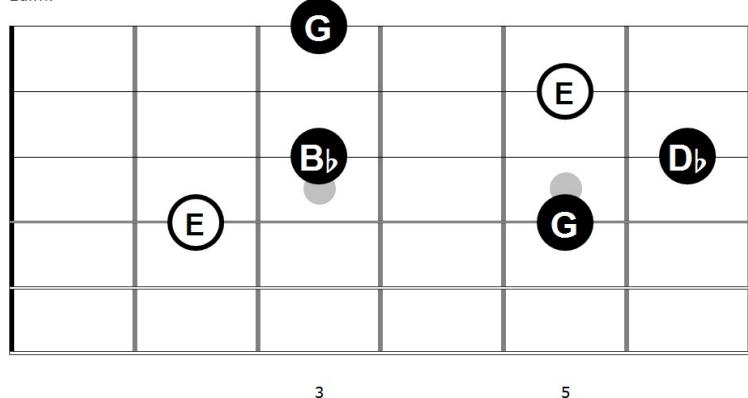
The V7(b9) intervals **3**, **5**, **b7** and **b2/b9** act as the starting point for the diminished scale.

V7(b9)	3	5	b7	b2/b9
C7(b9)	E	G	Bb	Db

V7(b9)	3	5	b7	b2/b9
C7(b9)	Edim7	Gdim7	Bbdim7	Dbdim7
Db7(b9)	Fdim7	Abdim7	Bdim7	Ddim7
D7(b9)	Gbdim7	Adim7	Cdim7	Ebdim7
Eb7(b9)	Gdim7	Bbdim7	Dbdim7	Edim7
E7(b9)	Abdim7	Bdim7	Ddim7	Fdim7
F7(b9)	Adim7	Cdim7	Ebdim7	Gbdim7
F#7(b9)	Bbdim7	Dbdim7	Edim7	Gdim7
G7(b9)	Bdim7	Ddim7	Fdim7	Abdim7
Ab7(b9)	Cdim7	Ebdim7	Gbdim7	Adim7
A7(b9)	Dbdim7	Edim7	Gdim7	Bbdim7
Bb7(b9)	Ddim7	Fdim7	Abdim7	Bdim7
B7(b9)	Ebdim7	Gbdim7	Adim7	Cdim7

Diminished Scales over C7(b9)

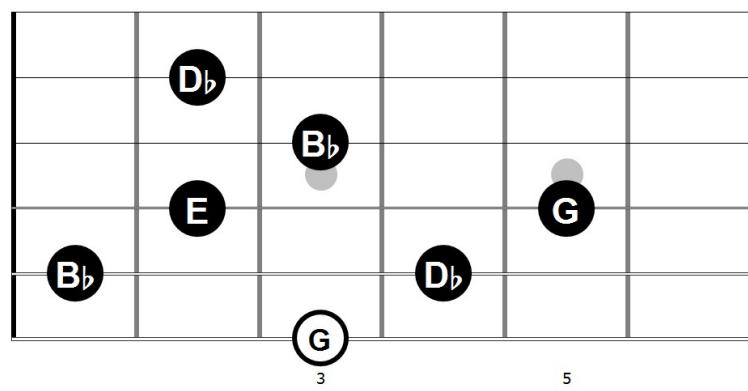
Edim7



3

5

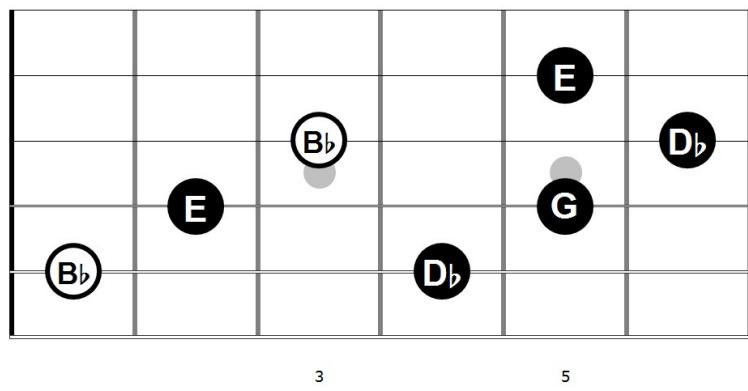
Gdim7



3

5

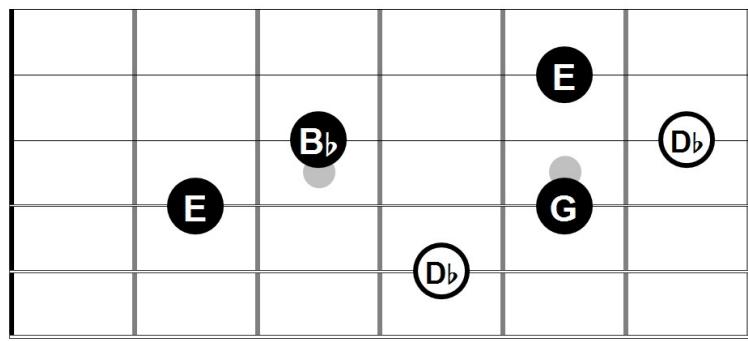
Bbdim7



3

5

Dbdim7



3

5

Diminished Chords

resolving to Minor

Gdim7	B _b dim7	D _b dim7	C7	Fm7
T A B	2 2 3	5 5 6	8 8 9	11 8 8

Fdim7	A _b dim7	Bdim7	B _b 7	E _b m7
T A B	0 0 1	3 3 4	6 6 7	9 6 6

Adim7	Cdim7	E _b dim7	D7	Gm7
T A B	4 4 5	7 7 8	10 10 9	13 10 10

Lonesome George

( = 

G#dim7 **Fdim7** **Ddim7** **Fdim7** **G#dim7** **E7(b9)**

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

Am7 **Am7** **F#dim7** **D#dim7** **Cdim7** **D#dim7**

T A B 5 5 7 5 0 5 5 4 5 6 7 8 6 7 6

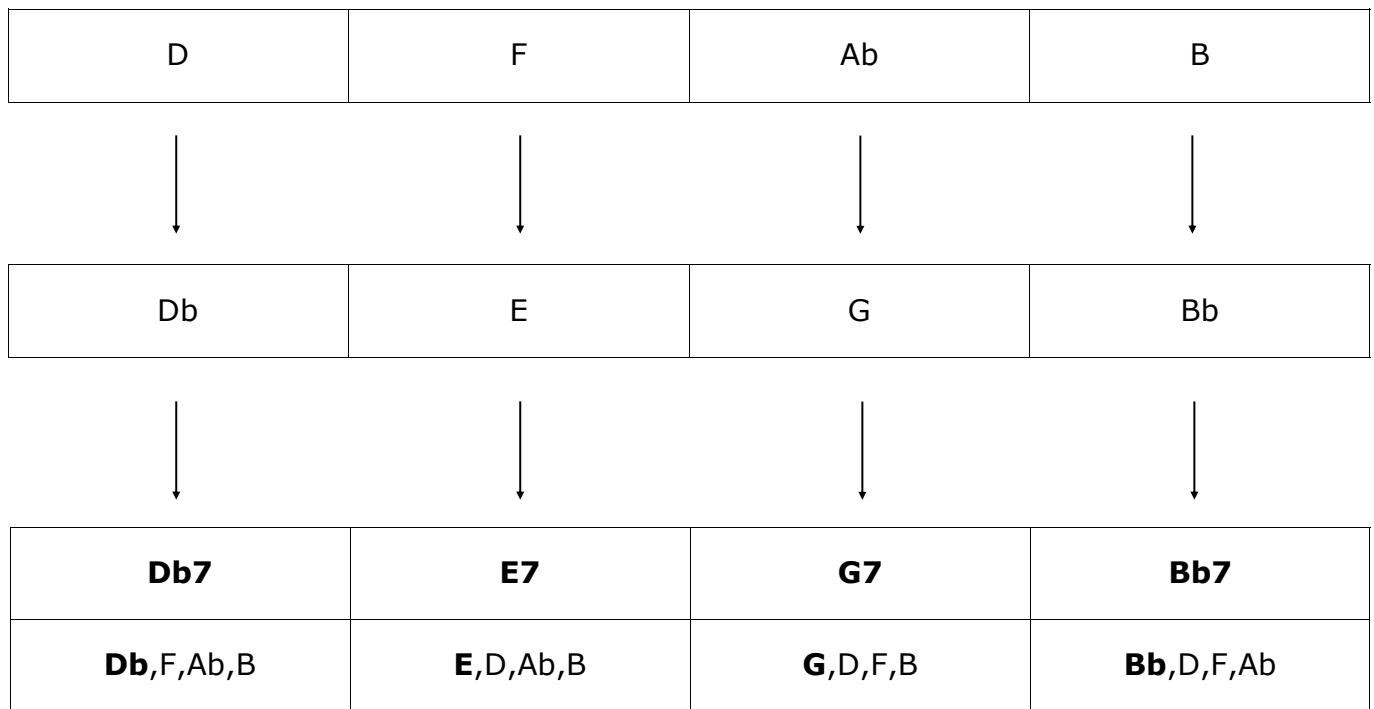
F#dim7 **D7(b9)** **Gm7** **Gm7**

T A B 5 4 5 4 5 3 3 5 3 3 3 (3)

Family of 4 Dominants

A concept that was created by Barry Harris states that all dominants come from a diminished chord. If you take an D-Diminished chord (Ddim7) and lower the first chord note one half step below leaving the other notes unchanged and proceed to the next note, you create four Dominant chords.

Ddim7:



The **D**b7**** and **G**7**** chords are 3 whole steps away and are defined as tritone substitutions as well as the chords **B**b7**** and **E**7****.

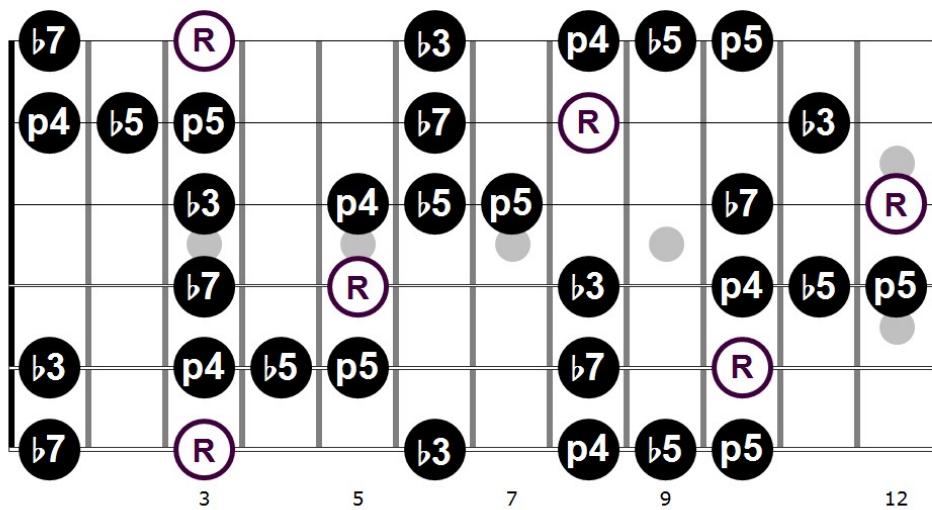
The four created dominant chords can be used in a II-V7-I progression or used for improvisation with an appropriate dominant scale.

Blues

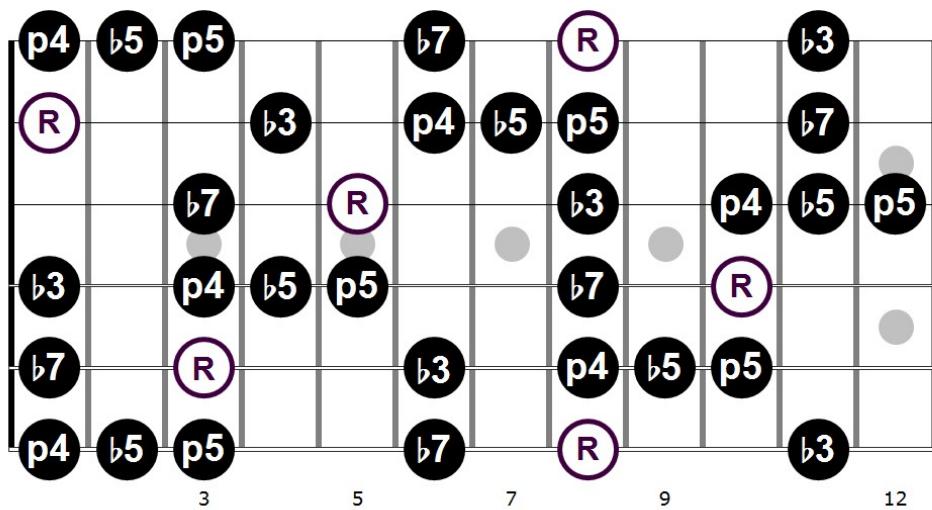
Blues Scale

The blues scale a.k.a minor blues scale is built by adding a b5 interval to the minor pentatonic scale, forming the pattern 1-b3-4-b5-5-b7.

G-Blues (scale)						
Scale	G	A#/Bb	C	C#/Db	D	F
Intervals	R(oot)	b3	4	b5	5	b7



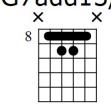
C-Blues (scale)						
Scale	C	D#/Eb	F	F#/Gb	G	A#/Bb
Intervals	R(oot)	b3	4	b5	5	b7



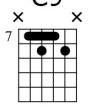
Blues Progression

()

G7add13/F

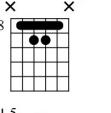


C9

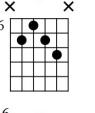


T A B

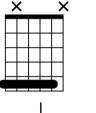
G7add13/F



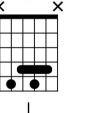
E7(#9)



Am7

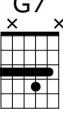


D7(b9)

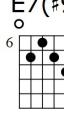


T A B

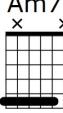
G7



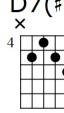
E7(#9)



Am7



D7(#9)



Gmaj9



T A B

3 0 5 5 3

3 7 5 4 4

8 6 5 5 5

5 6 4 4 3

Scales and their interval structures

Heptatonical Scales

Interval Patterns

Ionian	1	2	3	4	5	6	7	
Dorian	1	2	b3	4	5	6	b7	
Phrygian	1	b2	b3	4	5	b6	b7	
Lydian	1	2	3	#4	5	6	7	
Mixolydian	1	2	3	4	5	6	b7	
Aeolian	1	2	b3	4	5	b6	b7	
Locrian	1	b2	b3	4	b5	b6	b7	

Melodic Minor	1	2	b3	4	5	6	7	
Dorian (b2)	1	b2	b3	4	5	6	b7	
Lydian (#5)	1	2	3	#4	#5	6	7	
Mixolydian (#4)	1	2	3	#4	5	6	b7	
Mixolydian (b6)	1	2	3	4	5	b6	b7	
Locrian (#2)	1	#2	b3	4	b5	b6	b7	
Superlocrian	1	b2	#2	3	b5	b6	b7	

Harmonic Minor	1	2	b3	4	5	b6	7	
Locrian (6)	1	b2	b3	4	b5	6	b7	
Ionian (#5)	1	2	3	4	#5	6	7	
Dorian (#4)	1	2	b3	#4	5	6	b7	
Mixolydian (b2/b6)	1	b2	3	4	5	b6	b7	
Lydian (#2)	1	#2	3	#4	5	6	7	
Altered bb7	1	b2	b3	4	b5	b6	bb7	

Octatonical Scales

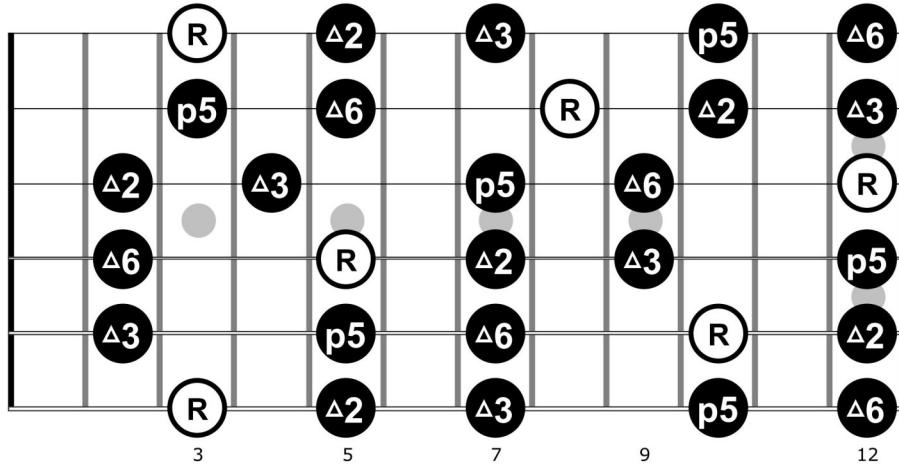
Interval Patterns

Wholitone-Halftone WTWT	1	2	b3	4	b5	#5	6	7
Halftone-Wholitone HTWT	1	b2	#2	3	#4	5	6	b7
Wholitone WT	1	2	3	#4	#5	-	b7	-

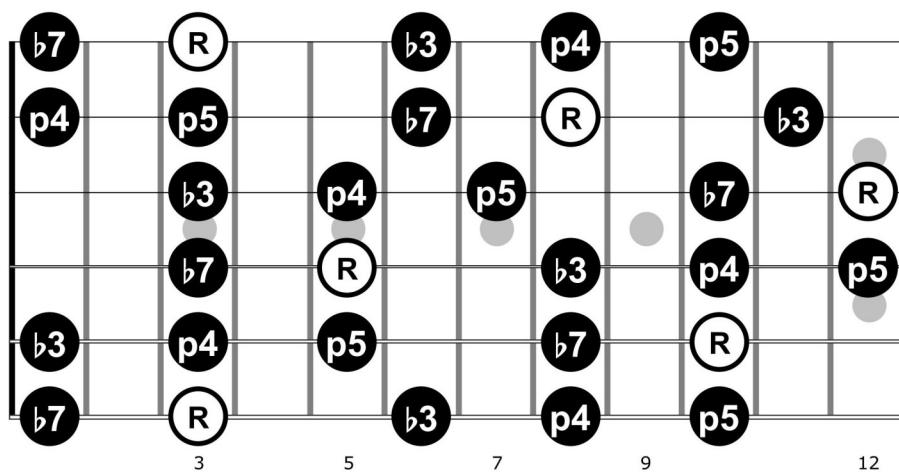
Pentatonics

A pentatonic scale is a musical scale with five notes per octave, in contrast to the heptatonic scale, which has seven notes per octave (such as the major scale and minor scale)

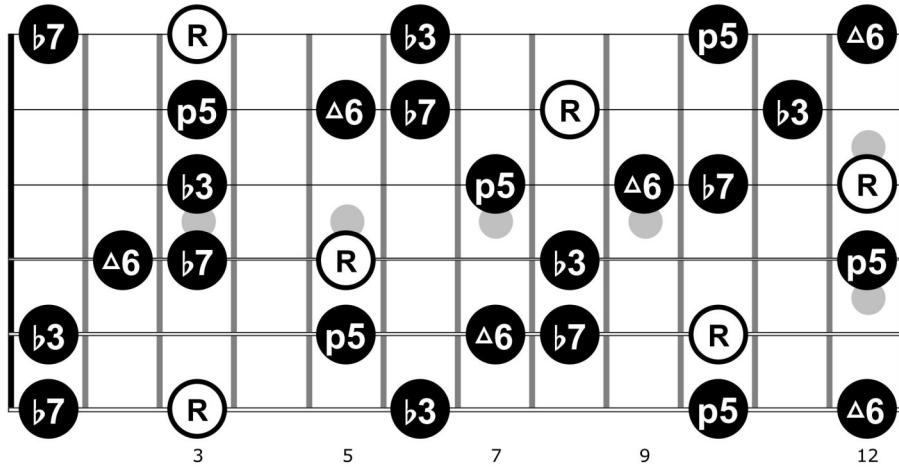
G-Major Pentatonic					
Scale	G	A	B	D	E
Intervals	R(oot)	2	3	5	6



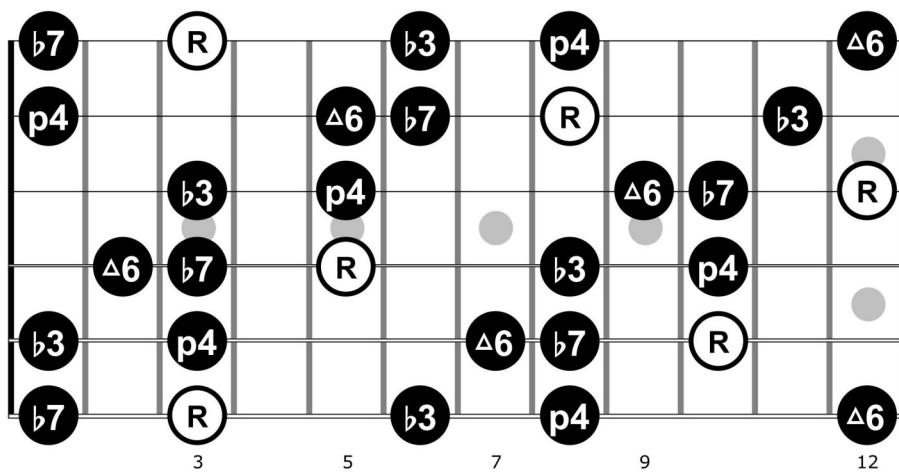
G-Minor Pentatonic					
Scale	G	Bb	C	D	F
Intervals	R(oot)	b3	4	5	b7



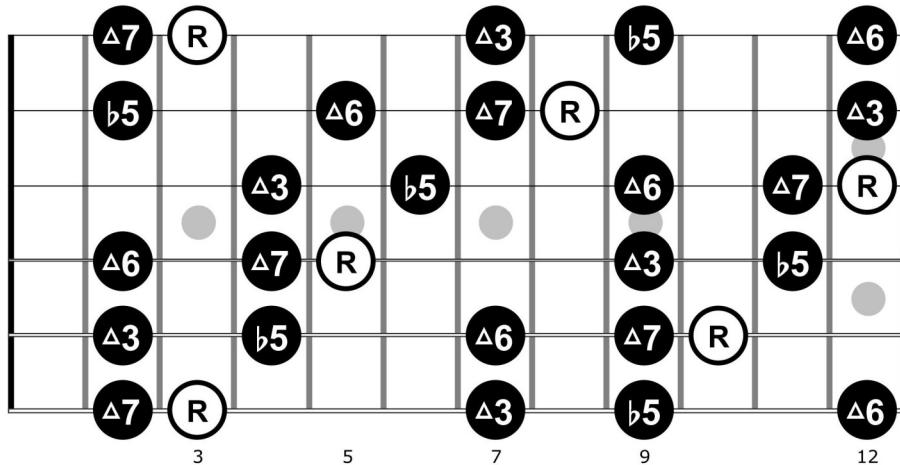
Dorian (1) Pentatonic					
Scale	G	Bb	D	E	F
Intervals	R(oot)	b3	5	6	b7



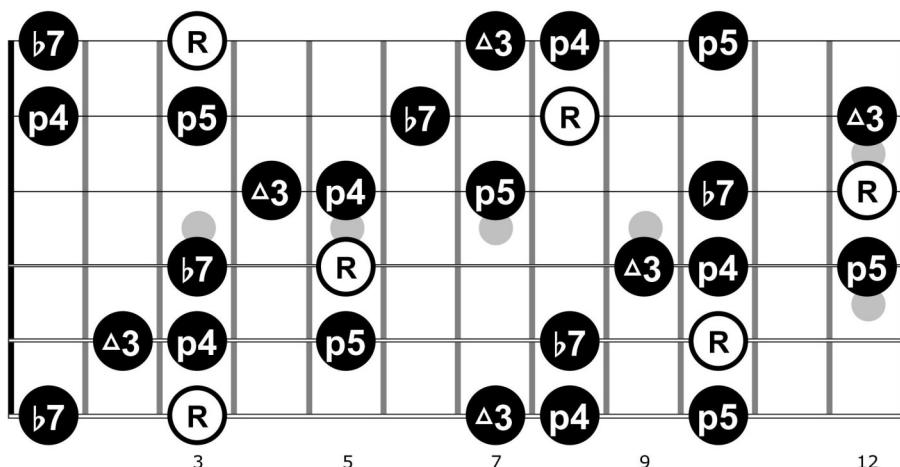
Dorian (2) Pentatonic					
Scale	G	Bb	C	E	F
Intervals	R(oot)	b3	4	6	b7



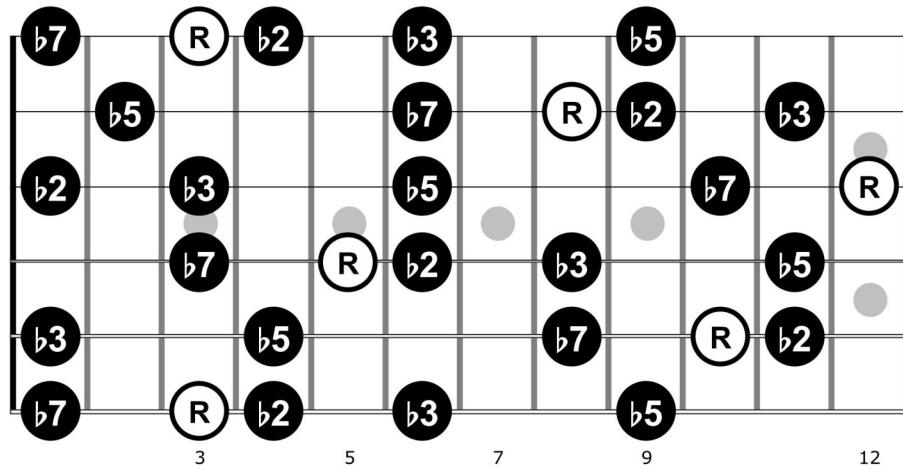
G-Lydian Pentatonic					
Scale	G	B	D \flat	E	F \sharp
Intervals	R(oot)	3	b5	6	7



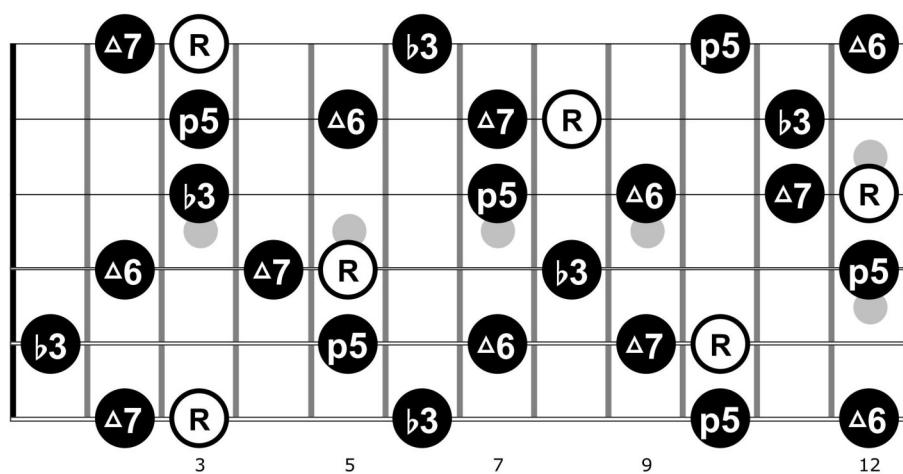
G-Mixolydian Pentatonic					
Scale	G	B	C	D	F
Intervals	R(oot)	3	4	5	b7



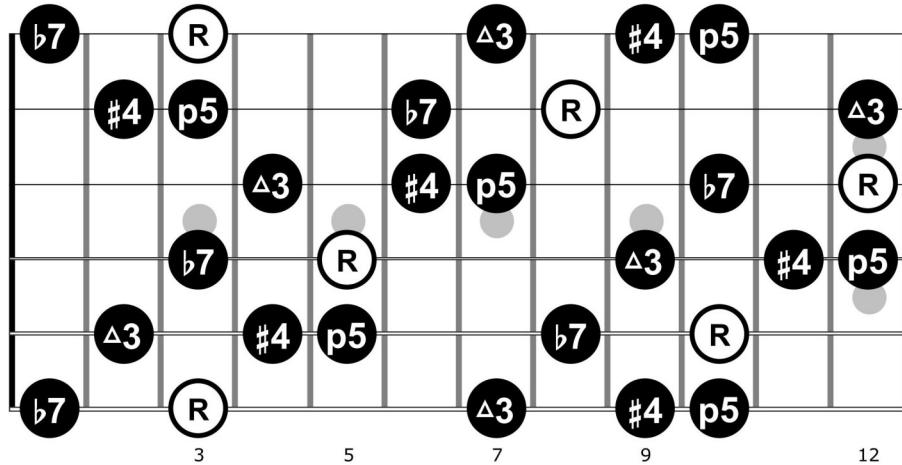
G-Locrian Pentatonic					
Scale	G	Ab	Bb	Db	F
Intervals	R(oot)	b2	b3	b5	b7



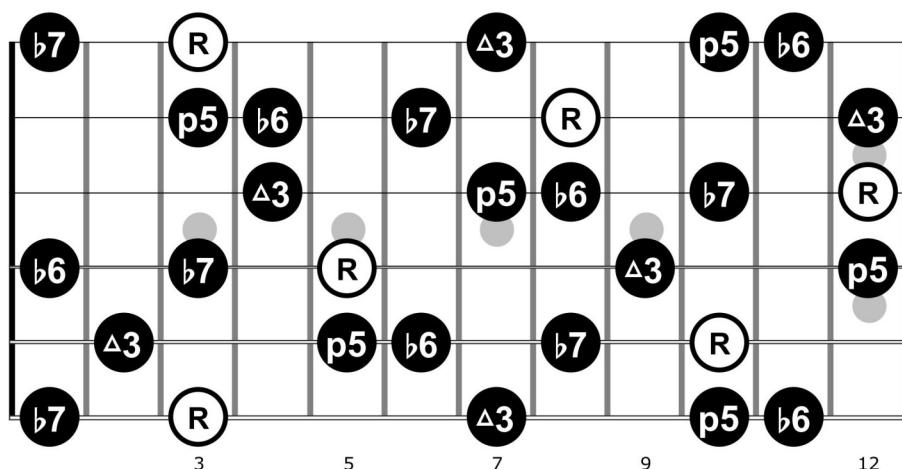
G-Melodic Minor Pentatonic					
Scale	G	Bb	D	E	F#
Intervals	R(oot)	b3	5	6	7



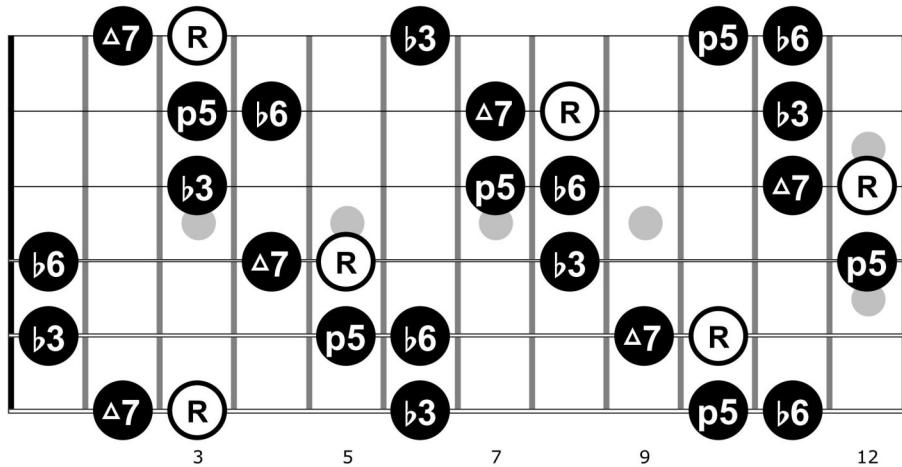
G-Lydian-Dominant Pentatonic					
Scale	G	B	D _b	D	F
Intervals	R(oot)	3	#4	5	b7



G-Mixolydian(b6) Pentatonic					
Scale	G	B	D	Eb	F
Intervals	R(oot)	3	5	b6	b7



G-Harmonic Minor Pentatonic					
Scale	G	Bb	D	Eb	F#
Intervals	R(oot)	b3	5	b6	7



Improvising over Major 7th chords (Imaj7)

In addition to the Lydian pentatonic, the Aeolian minor pentatonic is also very suitable for improvising over Major 7 chords (Imaj7). The major third (3rd) or the major seventh (7th) interval serve as the starting interval for your minor pentatonic scale.

Example 1: Gmaj7, Gmaj9, Gmaj13 using **3rd**.

1	2=9	3	4=11	5	6=13	7
G	A	B	C	D	E	F#

Appropriate scale is **B-minor-pentatonic**.

1	b3	4	5	b7
B	D	E	F#	A

Example 2: Gmaj7, Gmaj9, Gmaj7(#11), Gmaj13 using **7th**.

1	2=9	3	4=11	5	6=13	7
G	A	B	C	D	E	F#

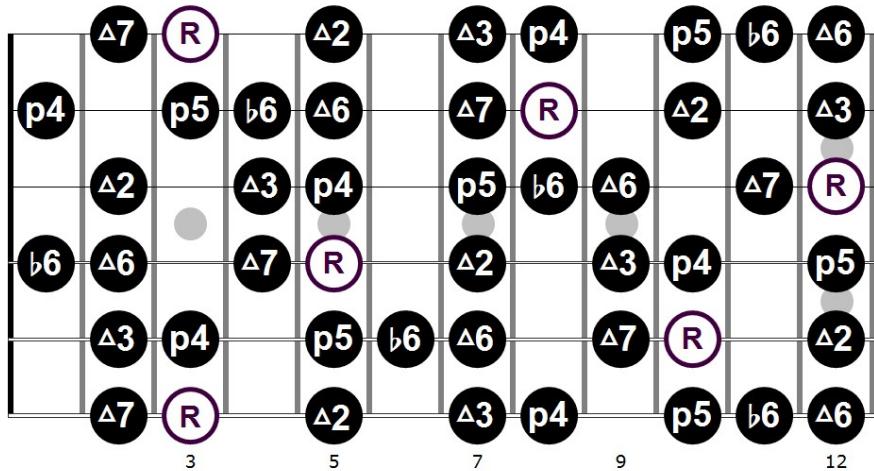
Appropriate scale is **F#-minor-pentatonic**.

1	b3	4	5	b7
F#	A	B	C#	E

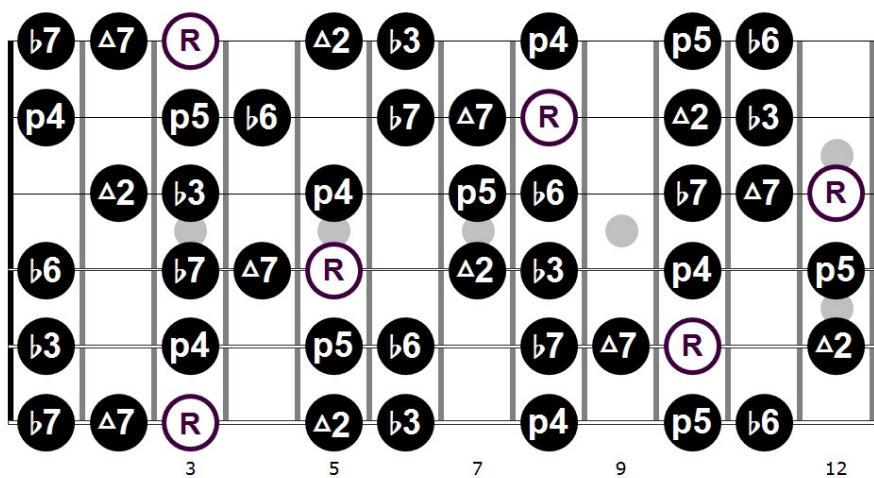
Bebop Scales

*Bebop scales are common heptatonic scales (seven-note scales),
that have an added chromatic passing note*

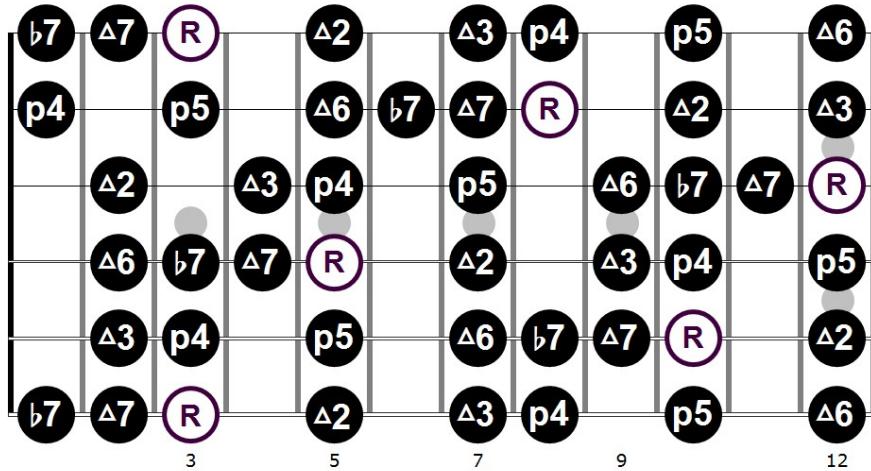
G-Bebop-Major								
Scale	G	A	B	C	D	Eb	E	F#
Intervals	R(oot)	2	3	4	5	b6	6	7



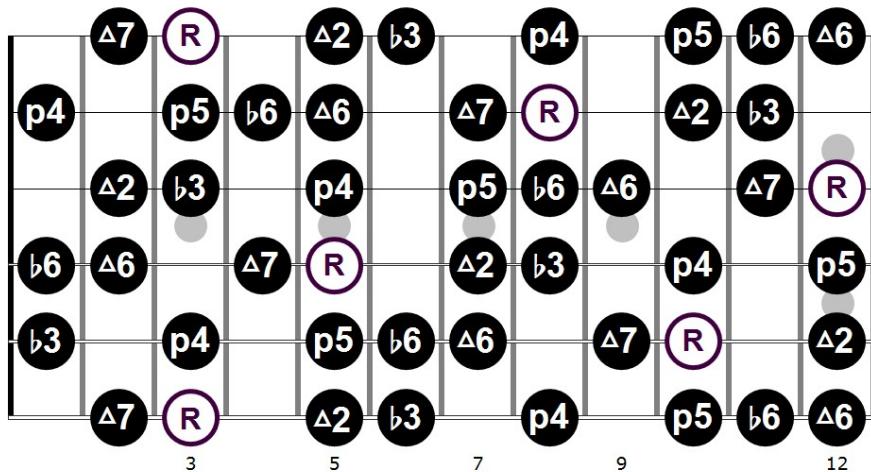
G-Bebop-Natural Minor								
Scale	G	A	Bb	C	D	Eb	F	Gb
Intervals	R(oot)	2	b3	4	5	b6	b7	7



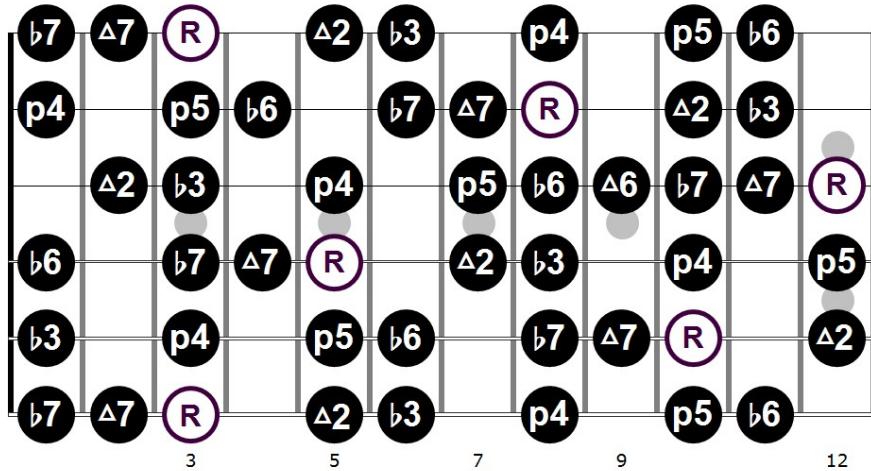
G-Bebop-Dominant								
Scale	G	A	B	C	D	E	F	F#
Intervals	R(oot)	2	3	4	5	6	b7	7



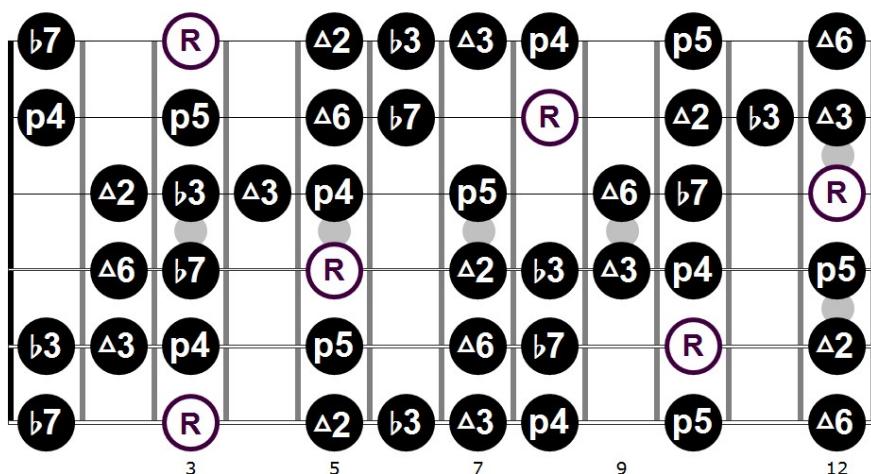
G-Bebop-Melodic Minor								
Scale	G	A	Bb	C	D	Eb	E	F#
Intervals	R(oot)	2	b3	4	5	b6	6	7



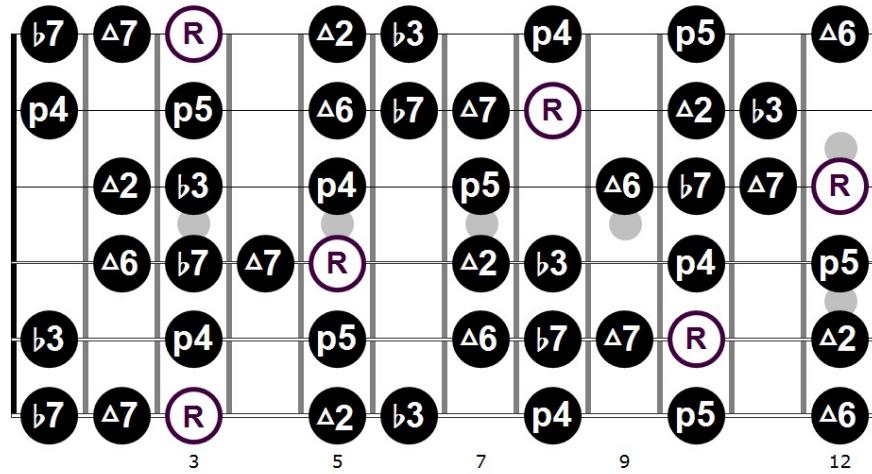
G-Bebop-Harmonic Minor								
Scale	G	A	Bb	C	D	Eb	F	F#
Intervals	R(oot)	2	b3	4	5	b6	b7	7



G-Bebop Dorian(1)								
Scale	G	A	Bb	B	C	D	E	F
Intervals	R(oot)	2	b3	3	4	5	6	b7



G-Bebop Dorian (2)								
Scale	G	A	Bb	C	D	E	F	F#
Intervals	R(oot)	2	b3	4	5	6	b7	7



The harmonized C-Bebop Major Scale

Scale	C	D	E	F	G	G#	A	B	C
Chords	C6	Ddim7	C6/E	Fdim7	C6/G	G#dim7	C6/A	Bdim7	C6

For the optimal tonal representation of the cadences listed below, the tones **D**, **F**, **G#** and **B** are represented as diminished chords. The remaining tones create C6 inversions.

Diagram showing guitar chord diagrams and musical notation for measures 1 through 5. The chords are:

- Measure 1: C6 (inversion)
- Measure 2: Ddim7 (inversion)
- Measure 3: C6/E (inversion)
- Measure 4: Fdim7 (inversion)
- Measure 5: C6 (inversion)

Below the diagrams are the corresponding musical notes and bass lines:

1	#		#	
mf				
T	1	6	8	9
A	2	4	5	7
B	3	6	7	8

Diagram showing guitar chord diagrams and musical notation for measures 9 through 14. The chords are:

- Measure 9: C6/G (inversion)
- Measure 10: G#dim7 (inversion)
- Measure 11: C6/A (inversion)
- Measure 12: Bdim7 (inversion)
- Measure 13: C6 (inversion)

Below the diagrams are the corresponding musical notes and bass lines:

2	#		#	3
10	9	12	13	15
10	10	12	14	14
10	11	12	12	17

You can count on me

(A)

C6

Ddim7

C6/E

Fdim7

Guitar Tab (4/4)

T A B
3 2 7 5 5 6 9 7 | 7 8 12 10 8 9 15 14

C6/G

G#dim7

C6/A

Bdim7

Guitar Tab (3/4)

T A B
10 10 12 10 11 12 15 14 | 12 13 14 12 14 15 15 14

C6

C6/G

Guitar Tab (5/4)

T A B
15 17 17 | 6 ↑ 8 9 10 11 | 1 2 3

The harmonized C-Bebop Natural Minor Scale

Scale	C	D	Eb	F	G	Ab	Bb	B	C
Chords	Cm7	Ddim7	Cm7/Eb	Fdim7	Cm7/G	Abdim7	Cm7/Bb	Bdim7	Cm7

For the optimal tonal representation of the cadences listed below, the tones **D, F, Ab** and **B** are represented as diminished chords. The remaining tones create Cm7 inversions.

Diagram showing four guitar chord diagrams and their corresponding musical notation. The chords are:

- Cm7**: Chord diagram shows a 3-note inversion. Musical notation: Treble clef, 4/4 time, dynamic *mf*. Fret 1, string 1: X; Fret 2, string 2: X; Fret 3, string 3: dot; Fret 3, string 4: dot.
- Ddim7**: Chord diagram shows a 3-note inversion. Musical notation: Fret 4, string 1: X; Fret 5, string 2: dot; Fret 5, string 3: dot; Fret 6, string 4: X.
- Cm7/Eb**: Chord diagram shows a 3-note inversion. Musical notation: Fret 5, string 1: X; Fret 6, string 2: dot; Fret 6, string 3: dot; Fret 7, string 4: X.
- Fdim7**: Chord diagram shows a 3-note inversion. Musical notation: Fret 7, string 1: X; Fret 8, string 2: dot; Fret 8, string 3: dot; Fret 9, string 4: X.

Below each chord diagram is a guitar neck diagram with fingerings (T, A, B) and fret numbers (4, 3, 1, 3).

Diagram showing five guitar chord diagrams and their corresponding musical notation. The chords are:

- Cm7/G**: Chord diagram shows a 3-note inversion. Musical notation: Fret 8, string 1: X; Fret 9, string 2: dot; Fret 9, string 3: dot; Fret 10, string 4: X.
- Abdim7**: Chord diagram shows a 3-note inversion. Musical notation: Fret 10, string 1: X; Fret 11, string 2: dot; Fret 11, string 3: dot; Fret 12, string 4: X.
- Cm7/Bb**: Chord diagram shows a 3-note inversion. Musical notation: Fret 12, string 1: X; Fret 13, string 2: dot; Fret 13, string 3: dot; Fret 14, string 4: X.
- Bdim7**: Chord diagram shows a 3-note inversion. Musical notation: Fret 13, string 1: X; Fret 14, string 2: dot; Fret 14, string 3: dot; Fret 15, string 4: X.
- Cm7**: Chord diagram shows a 3-note inversion. Musical notation: Fret 13, string 1: X; Fret 14, string 2: dot; Fret 14, string 3: dot; Fret 15, string 4: X.

Below each chord diagram is a guitar neck diagram with fingerings (2, 11, 10, 10), (3, 12, 11), (2, 13, 13), (3, 15, 14), and (3, 16, 15).

Romantic Love

A

Chords shown:

- Cm7
- Ddim7
- Cm7/E♭
- Fdim7

Strumming pattern: (down, down, up) = (down, up, up)

Chord Boxes:

- Cm7:** 1st position, 4th and 5th strings muted.
- Ddim7:** 4th position, 4th string muted.
- Cm7/E♭:** 5th position, 5th string muted.
- Fdim7:** 7th position, 5th string muted.

Guitar Fretboard:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

T A B T A B T A B T A B T A B T A B T A B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Chord Boxes:

- Cm7/G:** 8th position, 4th string muted.
- A♭dim7:** 10th position, 4th string muted.
- Cm7/B♭:** 12th position, 5th string muted.
- Bdim7:** 9th position, 5th string muted.

Guitar Fretboard:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

T A B T A B T A B T A B T A B T A B T A B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Chord Boxes:

- Cm7:** 10th position, 4th string muted.
- Cm7:** 6th position, 5th string muted.

Guitar Fretboard:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

T A B T A B T A B T A B T A B T A B T A B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

The harmonized C-Bebop Dominant Scale

Scale	C	D	E	F	G	A	Bb	B	C	
Chords	C7/Bb	Bdim7	C7	Ddim7	C7/E	C7/G	F#dim7	C7/G	G#dim7	C7/Bb

For the optimal tonal representation of the cadences listed below, the tones **D**, **F**, **A** and **B** are represented as diminished chords. The remaining tones create C7 inversions.

1 3 5 6

T A B

2 8 10 11 12 13 14

5 8 10 11 12 13 14

We Stumble Backwards

A

C7/B_b

G[#]dim7

C7/G

F[#]dim7

T A B 13 14 13 11 12 11 | 10 11 10 10 9 10 9

C7/E

Ddim7

C7

Bdim7

T A B 7 8 7 5 6 6 5 | 3 5 3 3 2 3 2

C7/B_b

C13

T A B 1 2 | 8 10 8 8 8 8

The harmonized C-Bebop Melodic Minor Scale

Scale	C	D	Eb	F	G	Ab	A	B	C
Chords	Cm6	Ddim7	Cm6/Eb	Fdim7	Cm6/G	Abdim7	Cm6/A	Bdim7	Cm6

For the optimal tonal representation of the cadences listed below, the tones **D**, **F**, **Ab** and **B** are represented as diminished chords. The remaining tones create Cm6 inversions.

Musical score for measures 1-4:

- Chord 1:** Cm6 (inversion) - Fingerings: 1, 3, 5, 7. Dynamics: *mf*.
- Chord 2:** Ddim7 - Fingerings: 1, 3, 5, 7.
- Chord 3:** Cm6/Eb (inversion) - Fingerings: 2, 4, 6, 8.
- Chord 4:** Fdim7 - Fingerings: 3, 5, 7, 9.

String Octave Chart:

T	3	4	5	6	7
A	2	4	5	8	9
B	3	5	6	8	7

Musical score for measures 8-14:

- Chord 8:** Cm6/G (inversion) - Fingerings: 1, 3, 5, 7.
- Chord 10:** Abdim7 - Fingerings: 1, 3, 5, 7.
- Chord 11:** Cm6/A (inversion) - Fingerings: 2, 4, 6, 8.
- Chord 13:** Bdim7 - Fingerings: 3, 5, 7, 9.
- Chord 14:** Cm6 (inversion) - Fingerings: 1, 3, 5, 7.

String Octave Chart:

8	10	12	13	15
10	8	10	12	13
12	10	11	14	15

Cloudy Skies

(=)

A

Cm6/G

A♭dim7

Cm6/G

Bdim7

T A B

Cm6

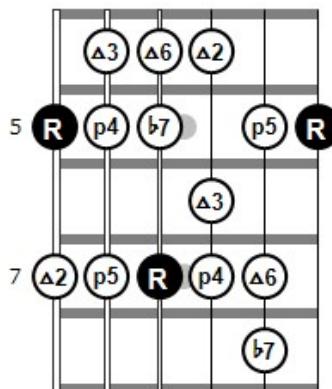
Cm6

T A B

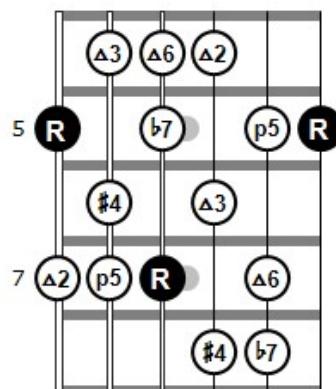
96

Scales for improvising over Dominant 7th Chords

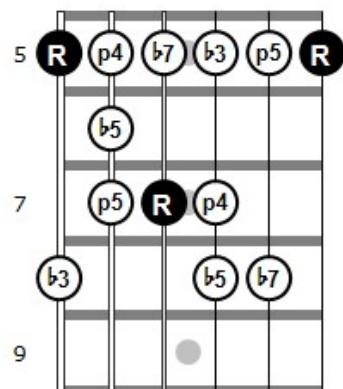
Mixolydian (Major-Scale)



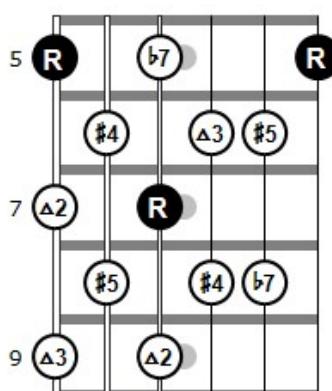
Mixolydian #11



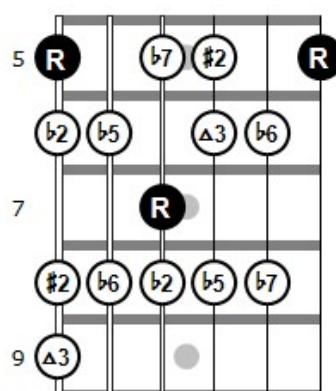
Blues



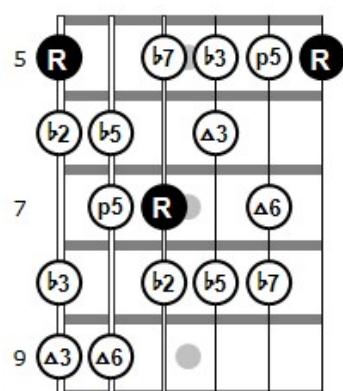
Wholitone



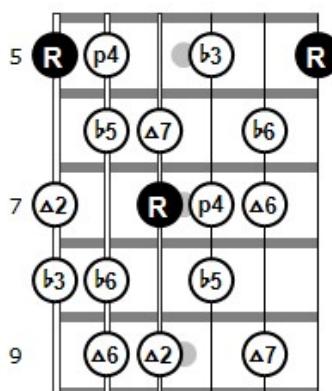
Superlocrian



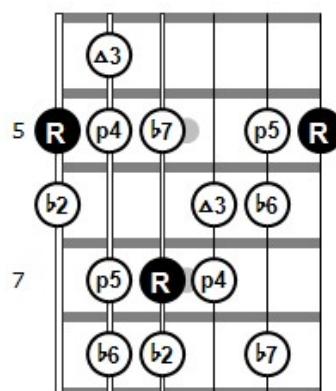
Halftone-Wholitone



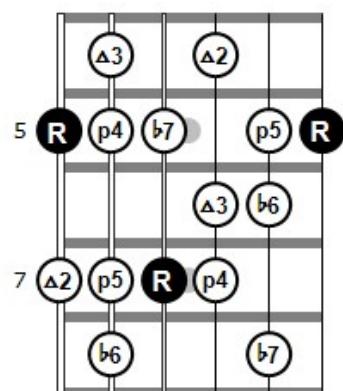
Wholitone-Halftone



Mixolydian b9/b13



Mixolydian b13



Major and Minor 6th Diminished Scale

concept by Barry Harris

Major 6th Diminished Scale

The major 6th diminished scale a.k.a Bebop Major has an added b6 or #5 intervall making an eighth note (octatonic) scale. After harmonizing the scale you get inversions of a major 6th chord and symmetrical diminished chords.

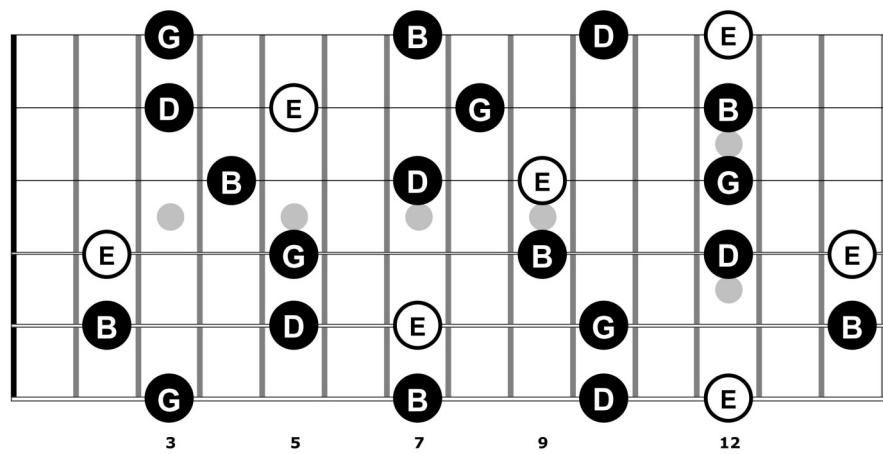
T A B
3 5 2 3 5 1 2 4 | 5

Scale	G	A	B	C	D	E	F#
	G, B, D, E		B, D, E, G		D, E, G, B		E, G, B, D
Chords	G6	Adim7	G6/B	Cdim7	G6/D	D#dim7	G6/E

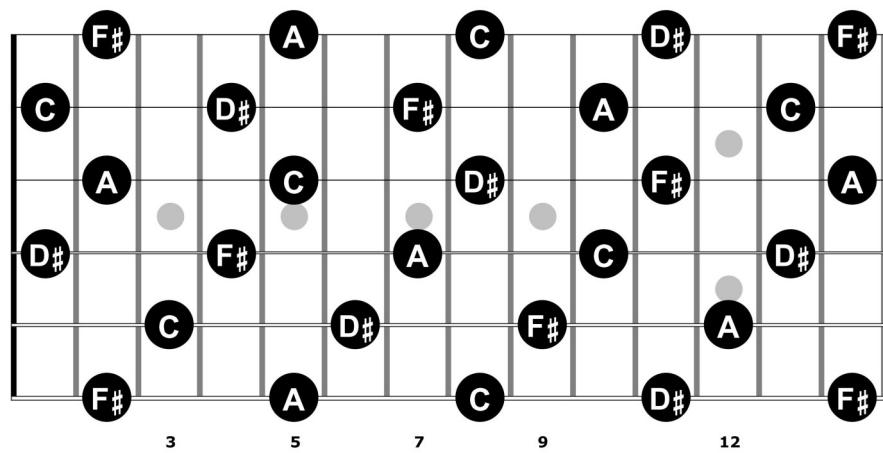
T A B
3 4 2 3 | 5 4 5 4 | 7 5 7 5 | 7 8 7 8 |

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

The displayed fingerboard notes on the diagram below represent the major part of the G-Major 6th diminished scale. The dot with the "E" is the 6th interval.



The displayed fingerboard notes on the diagram below represent the diminished part of the G-Major 6th diminished scale.

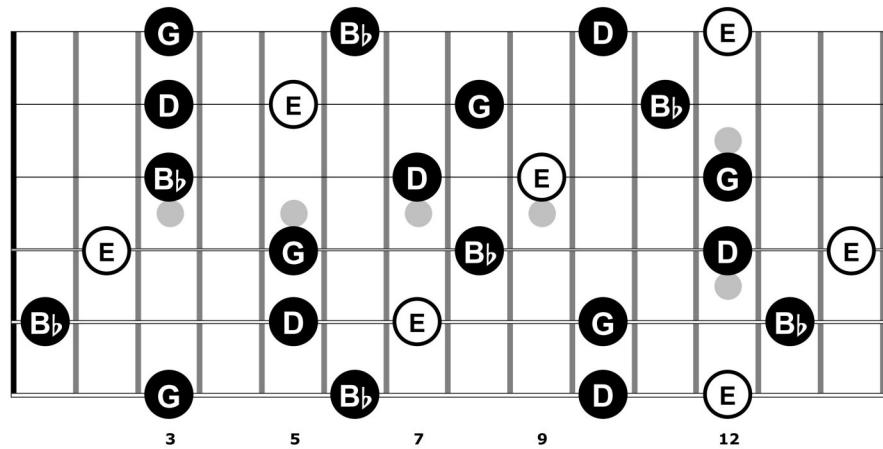


Minor 6th Diminished Scale

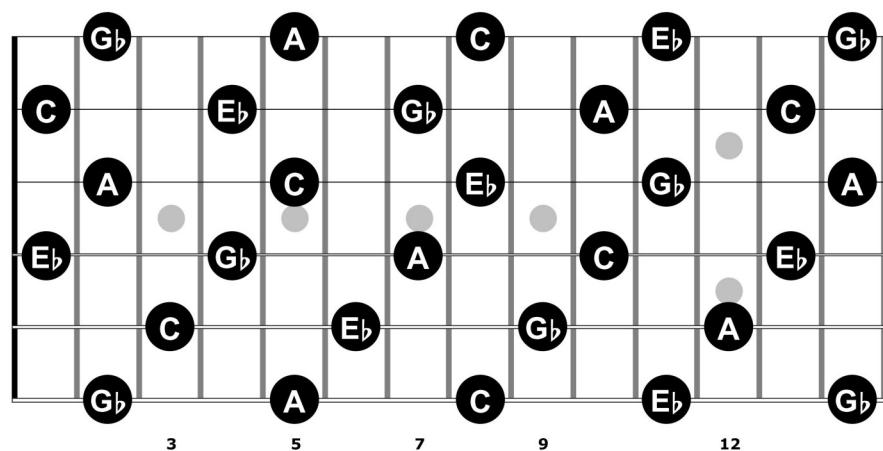
The minor 6th diminished a.k.a Bebop Minor scale has a minor 3rd and an added b6 or #5 intervall making an eighth note (octatonic) scale. After harmonizing the scale you get inversions of a minor 6th chord and symmetrical diminished chords.

Scale	G	A	Bb	C	D	Eb	E	G _b
	G, Bb, D, E		Bb, D, E, G		D, E, G, Bb		E, G, Bb, D	
Chords	Gm6	Adim7	Gm6/Bb	Cdim7	Gm6/D	Ebdim7	Gm6/E	Gbdim7

The displayed fingerboard notes on the diagram below represent the minor part of the G-Minor 6th diminished scale. The dot with the "E" is the 6th interval.



The displayed fingerboard notes on the diagram below represent the diminished part of the G-Minor 6th diminished scale.



The smallest fraction

A

Chords shown:

- Gm6/E
- Adim7
- Gm6/D
- Fm9
- Bdim7
- E♭maj7

TAB notation below the chords:

```

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

```

Chords shown:

- D7(♯9)
- Gm7
- Gm6
- Gm6/B♭
- C7

TAB notation below the chords:

```

T 6 4 | 3 6 | 5 6 | 8 10 | 8 11
A 4 3 | 3 6 | 5 5 | 8 8 | 8
B 5 3 | 3 3 | 3 | 8

```

Chords shown:

- E♭/F
- F7(♭9)
- B♭add9

TAB notation below the chords:

```

T 8 | 10 | 5 6 | 8
A 5 | 13 | 6 | 8
B 5 | 13 | 6 | 8

```

Chromatic Scales

from the Greek word "chroma" that means "color".

Chromatic Scale Applications

The chromatic scale is a twelve-tone scale starting on a root and moving either in ascending or descending order by semi-tones (half-steps).

Example 1:

Musical notation for Example 1: F-Chromatic scale. The title "F-Chromatic" is at the top left. The staff shows a continuous sequence of eighth notes on a single string, starting from the 1st fret and moving up to the 12th fret. Below the staff is a guitar neck diagram with the strings labeled T, A, B and the frets numbered 1 through 4, then 0, 1, 2, 3, 4, 0, 1, 2, 3. The notes correspond to the fret positions: 1, 2, 3, 4, 0, 1, 2, 3, 4, 0, 1, 2, 3.

Example 2:

Musical notation for Example 2: Chromatic scale pattern. The staff shows a continuous sequence of eighth notes on a single string, starting from the 3rd fret and moving down to the 0th fret, then back up to the 3rd fret. Below the staff is a guitar neck diagram with the strings labeled T, A, B and the frets numbered 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0.

Musical notation for Example 2, continuing from the previous staff. The staff shows a continuous sequence of eighth notes on a single string, starting from the 3rd fret and moving down to the 0th fret. Above the staff is a chord diagram for E7(b9) with the strings labeled T, A, B and the frets numbered 3, 2, 1, 0, 3, 2, 1, 0. To the right of the staff is a guitar neck diagram with the strings labeled T, A, B and the frets numbered 6, 7, 6, 7.

Example 3:

Musical notation and TAB for Example 3. The notation is in 4/4 time with a key signature of one sharp. The TAB shows the strings T, A, and B with fingerings below them.

1

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

2

T A B
4 5 5

Example 4:

Musical notation and TAB for Example 4. The notation is in 4/4 time with a key signature of two sharps. The TAB shows the strings T, A, and B with fingerings below them.

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

Dm11

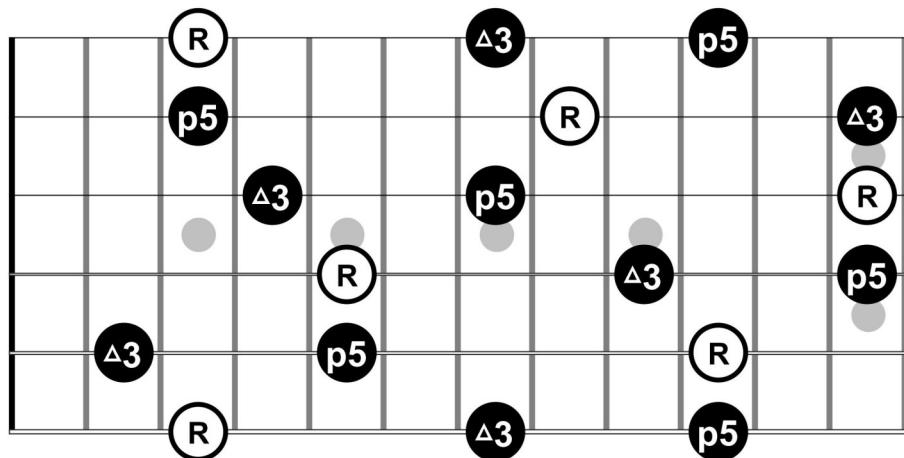
x

8 8
3 3
5 5

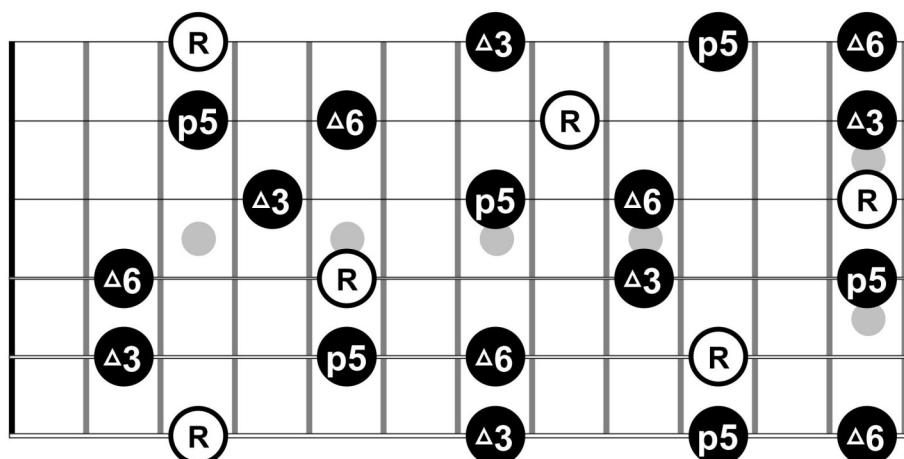
Arpeggios

*The notes of a chord are played individually,
one after the other.*

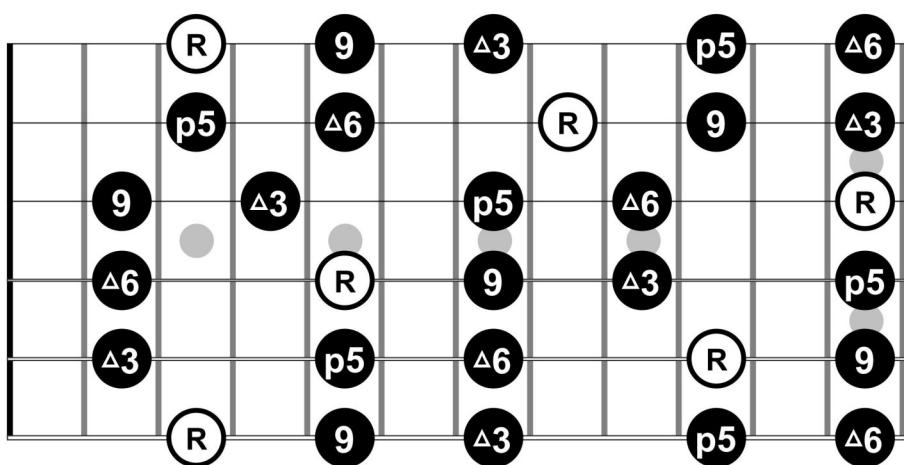
G	1, 3, 5	G, B, D
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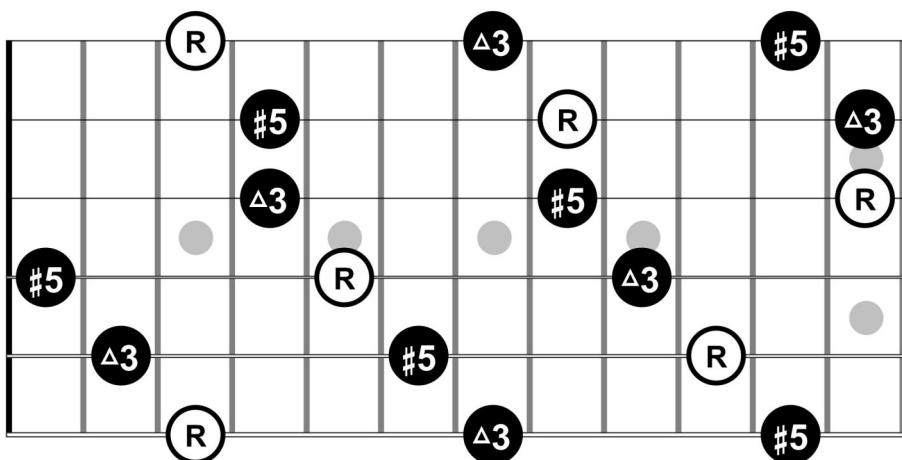
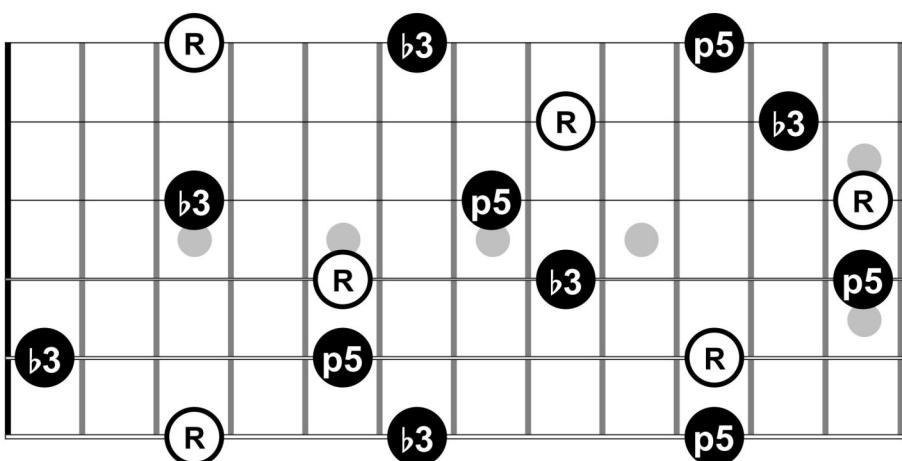
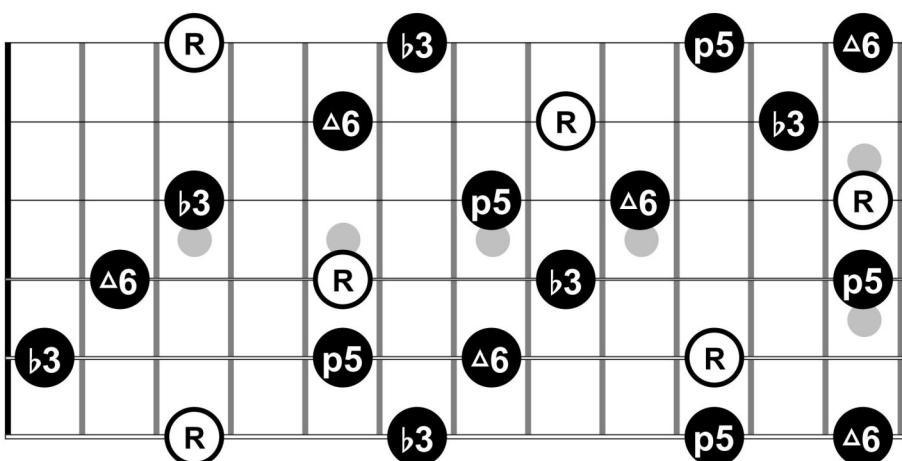


G6	1, 3, 5, 6	G, B, D, E
-----------	-------------------	-------------------



G6add9	1, 3, 5, 6, 9	G, B, D, E, A
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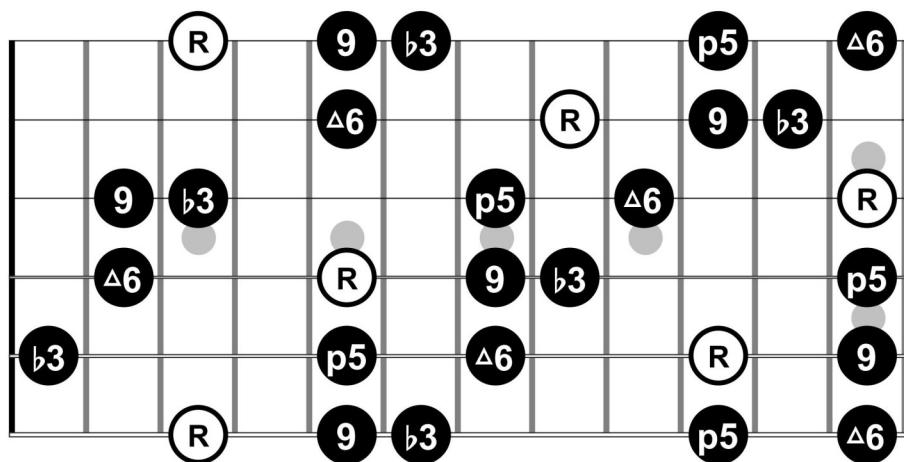


G#5**1, 3, #5****G, B, D#****Gm****1, b3, 5****G, Bb, D****Gm6****1, b3, 5, 6****G, Bb, D, E**

Gm6add9

1, b3, 5, 6, 9

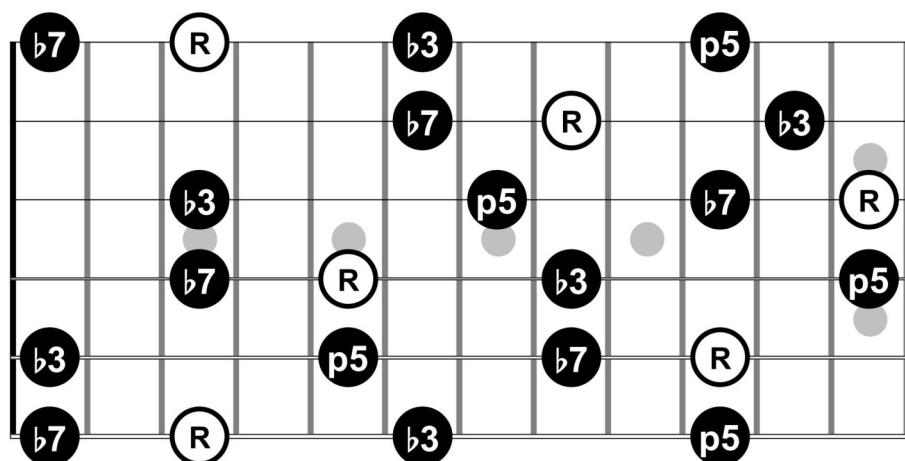
G, Bb, D, E, A



Gm7

1, b3, 5, b7

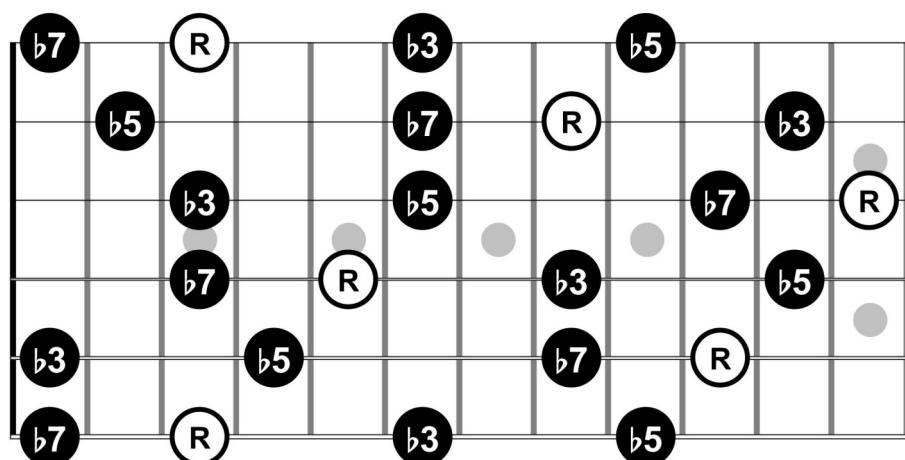
G, Bb, D, F

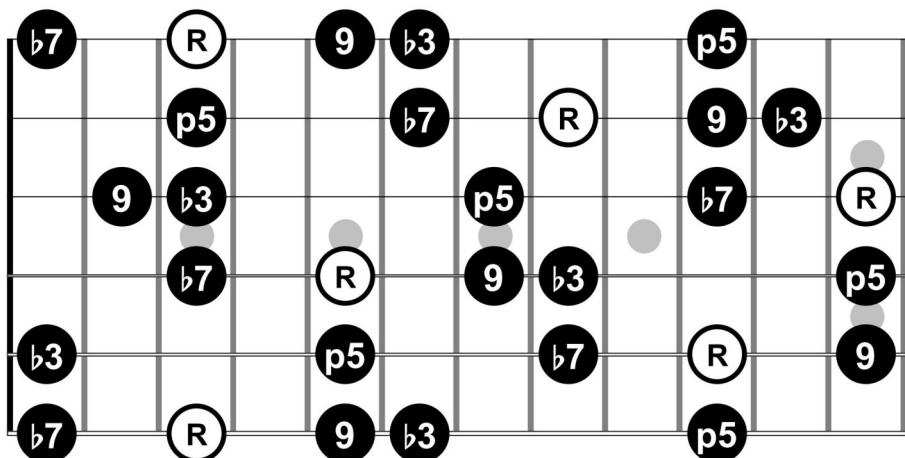
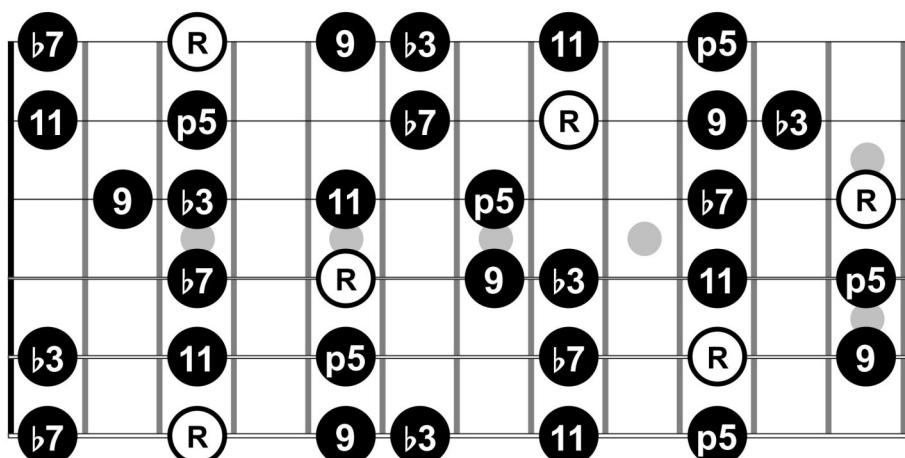
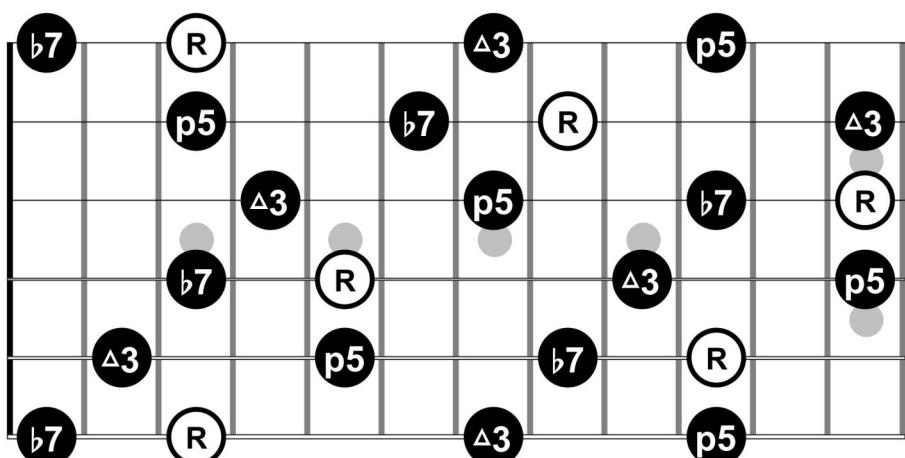


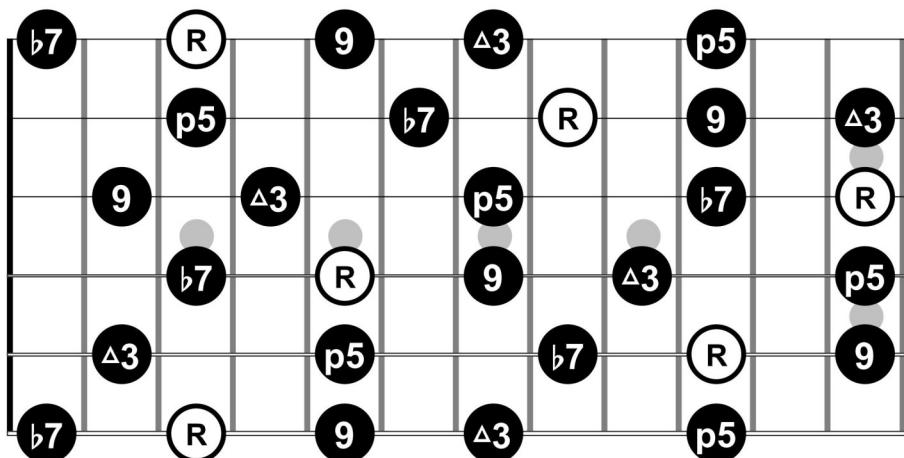
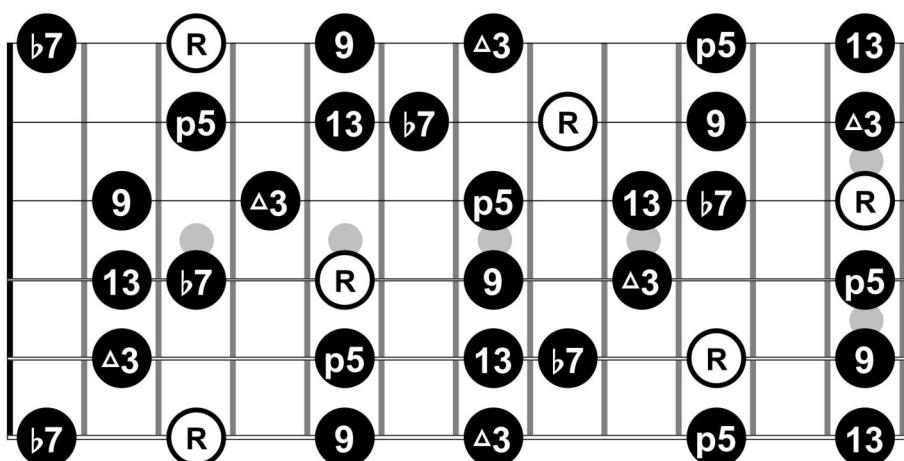
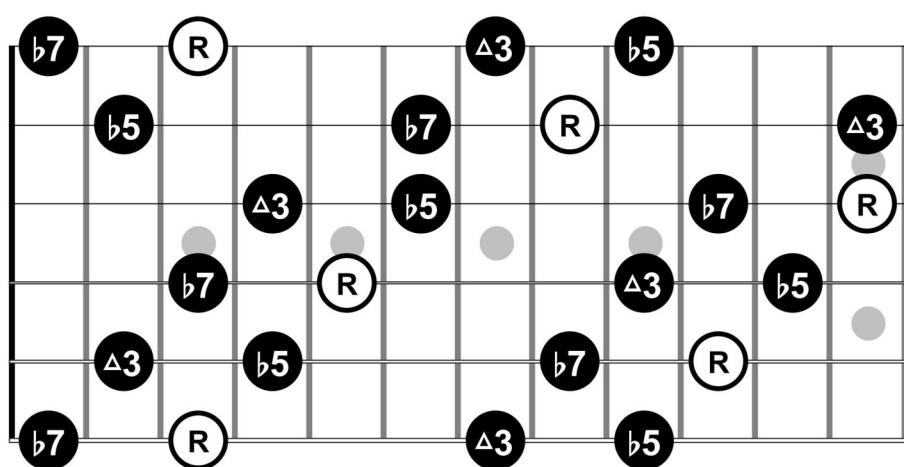
Gm7b5

1, b3, b5, b7

G, Bb, Db, F



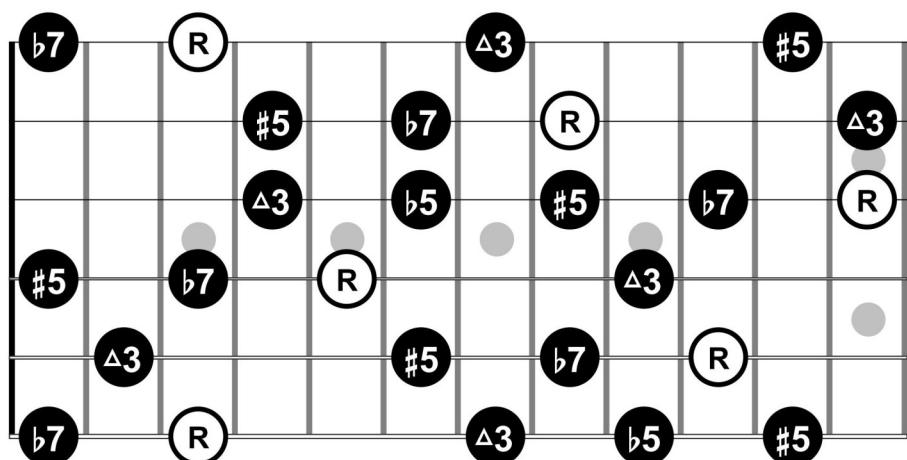
Gm9**1, b3, 5, b7, 9****G, Bb, D, F, A****Gm11****1, b3, 5, b7, 9, 11****G, Bb, D, F, A, C****G7****1, 3, 5, b7****G, B, D, F**

G9**1, 3, 5, b7, 9****G, B, D, F, A****G13****1, 3, 5, b7, 9, 13****G, B, D, F, A, E****G7(b5)****1, 3, b5, b7****G, B, C#, F**

G7(#5)

1, 3, #5, b7

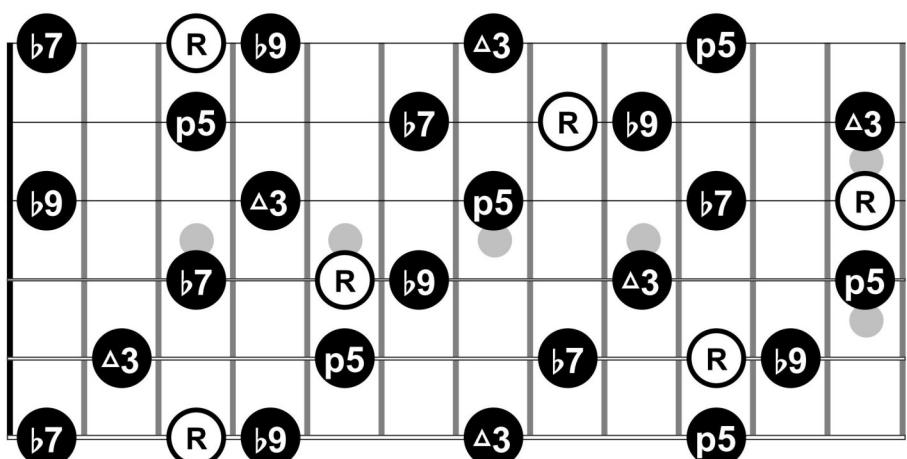
G, B, D#, F



G7(b9)

1, 3, 5, b7, b9

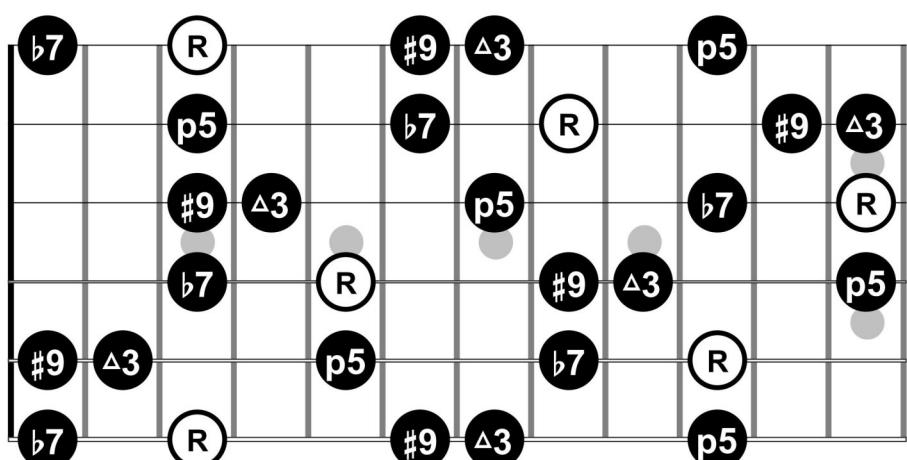
G, B, D, F, G#

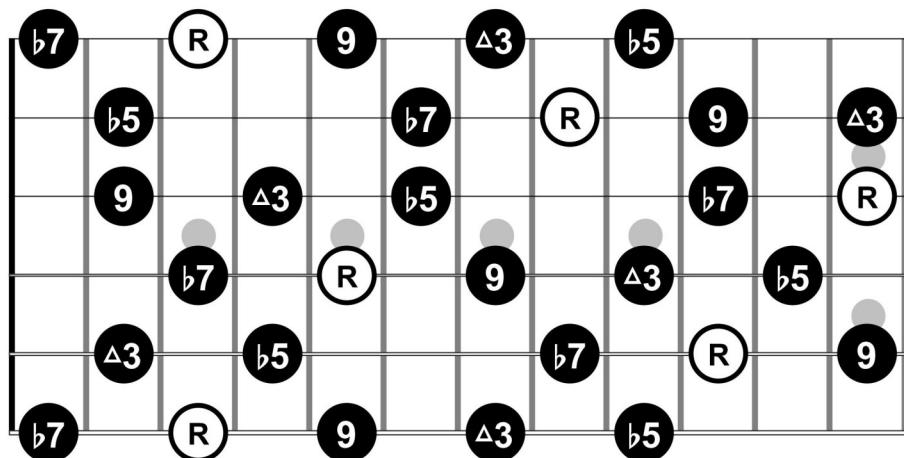
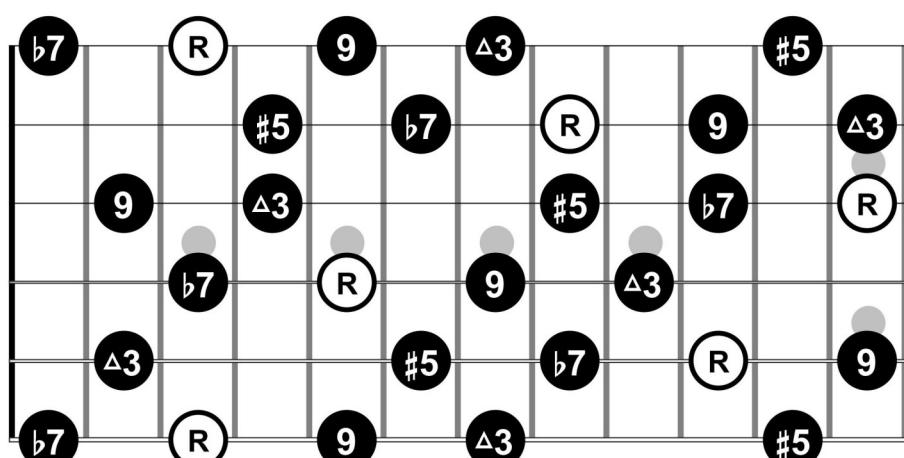
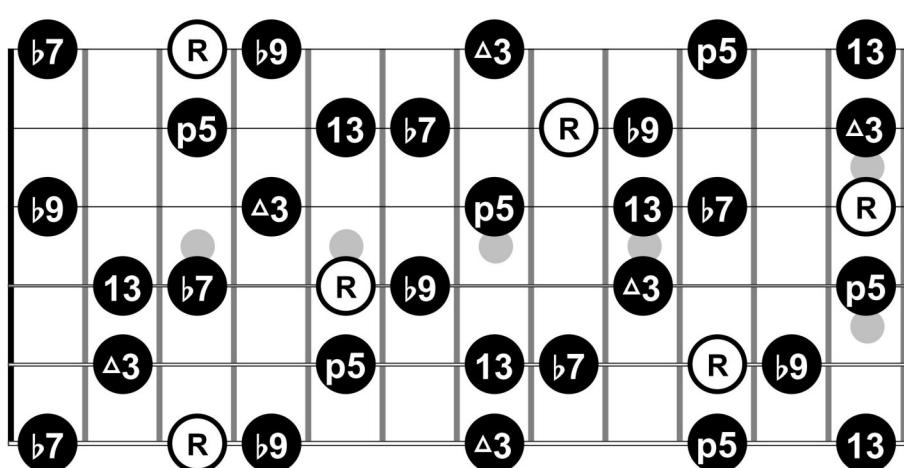


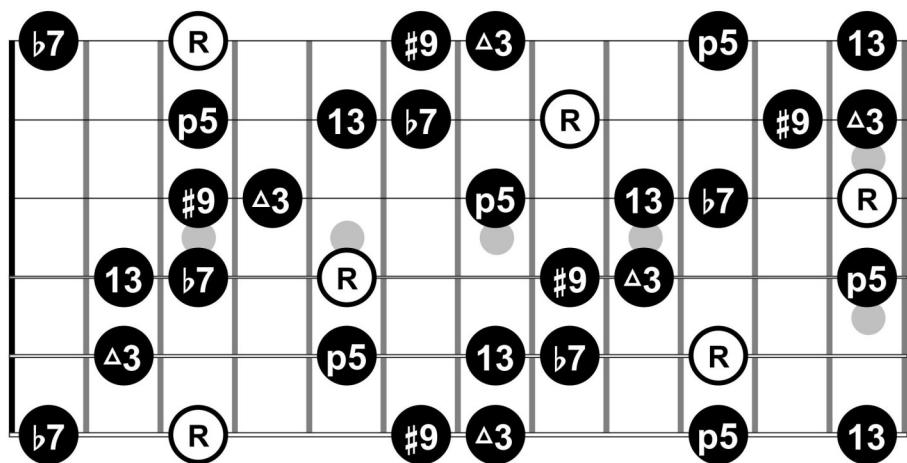
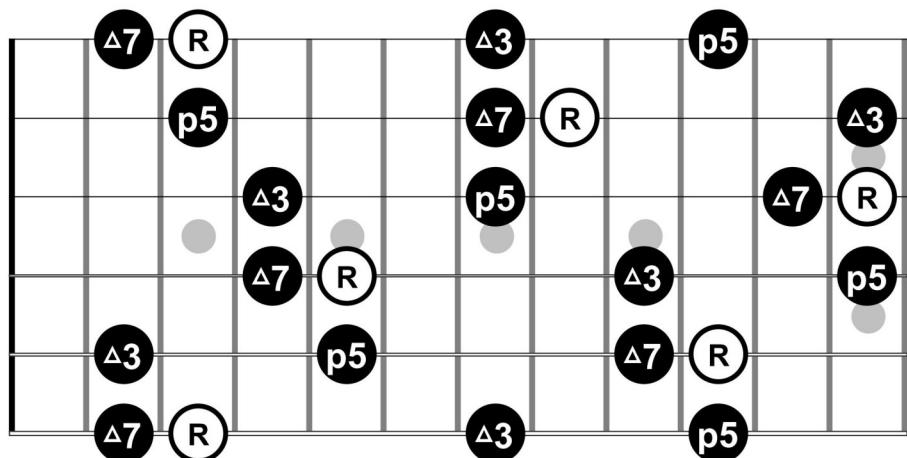
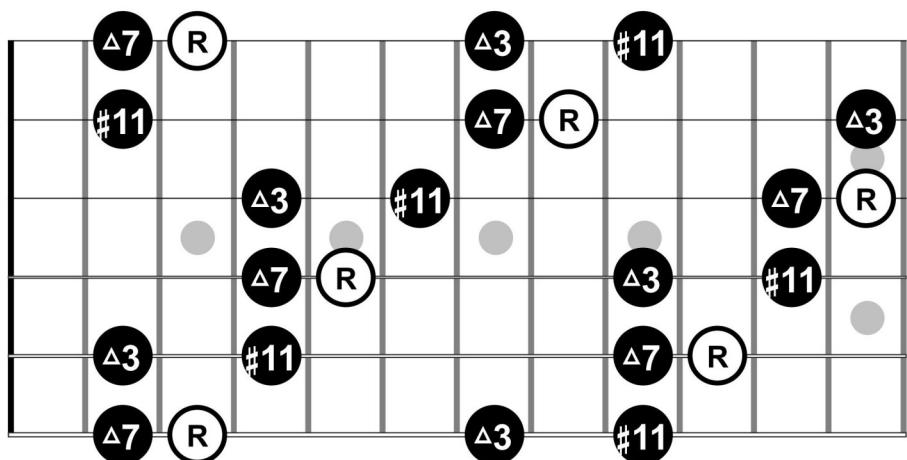
G7(#9)

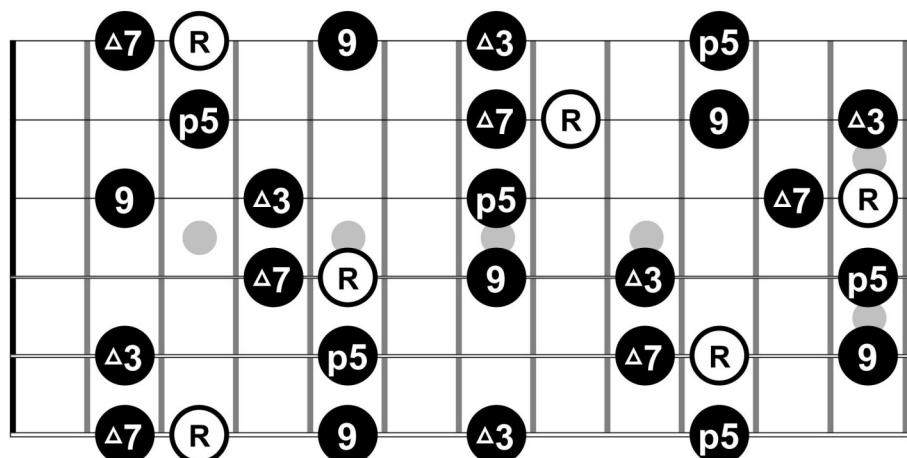
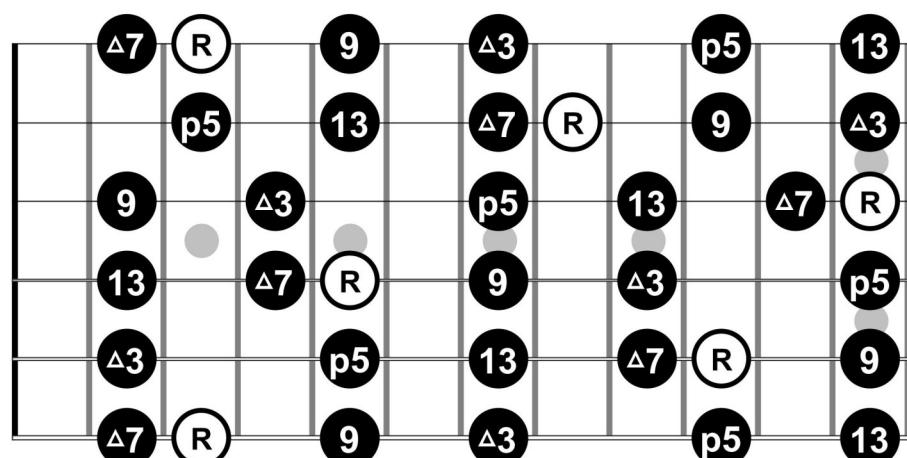
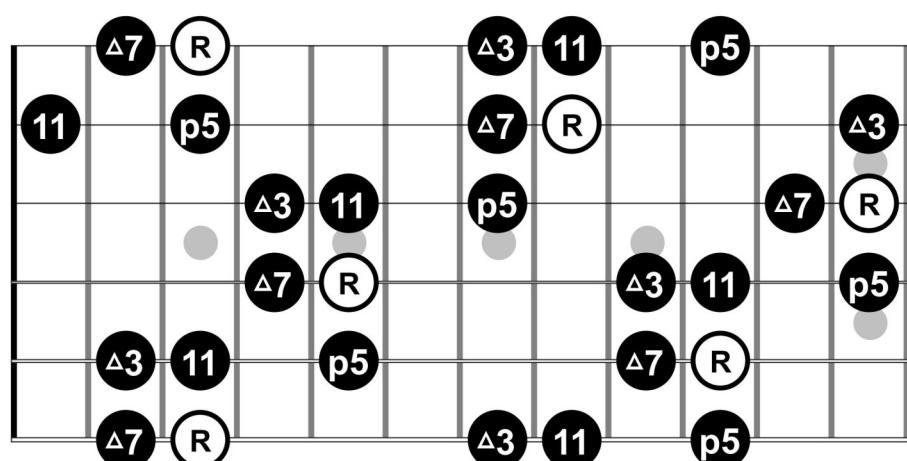
1, 3, 5, b7, #9

G, B, D, F, A#



G9(b5)**1, 3, b5, b7, 9****G, B, C#, F, A****G9(#5)****1, 3, #5, b7, 9****G, B, D#, F, A****G13(b9)****1, 3, 5, b7, b9, 13****G, B, D, F, G#, E**

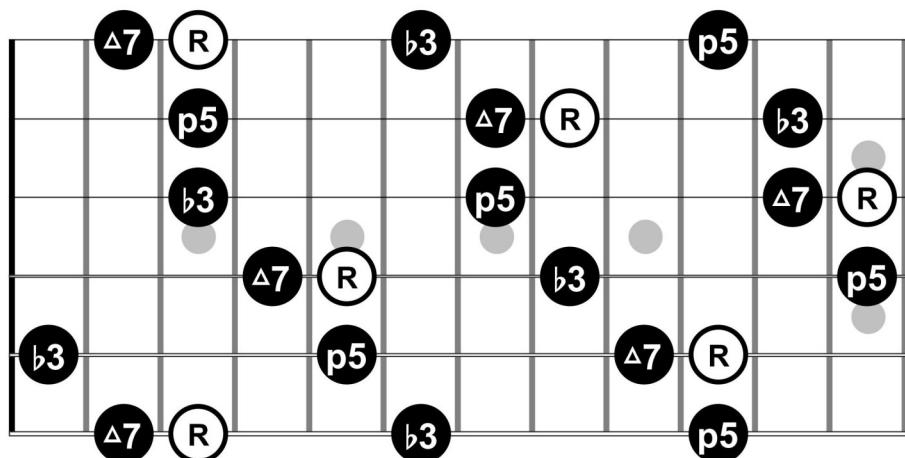
G13(#9)**1, 3, 5, b7, #9, 13****G, B, D, F, A#, E****Gmaj7****1, 3, 5, 7****G, B, D, F#****Gmaj7(#11)****1, 3, 7, #11****G, B, F#, C#**

Gmaj9**1, 3, 5, 7, 9****G, B, D, F#, A****Gmaj13****1, 3, 5, 7, 9, 13****G, B, D, F#, A, E****Gmaj11****1, 3, 5, 7, 11****G, B, D, F#, C**

GmMaj7

1, b3, 5, 7

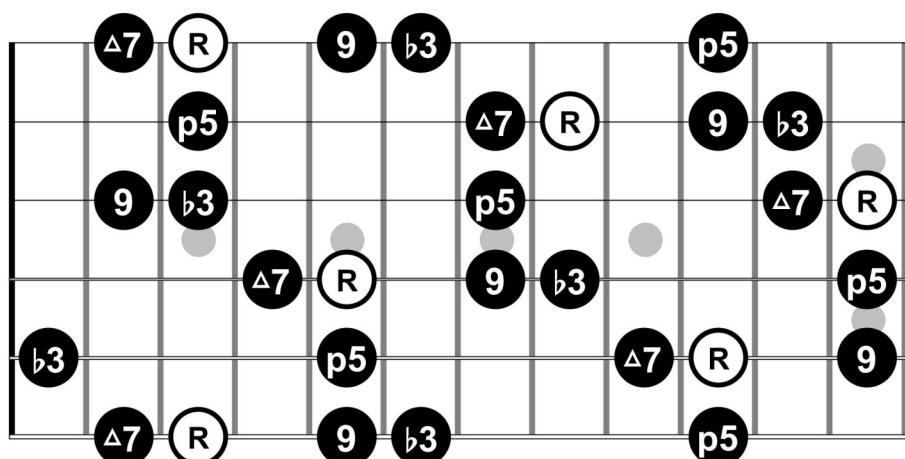
G, Bb, D, F#



GmMaj9

1, b3, 5, 7, 9

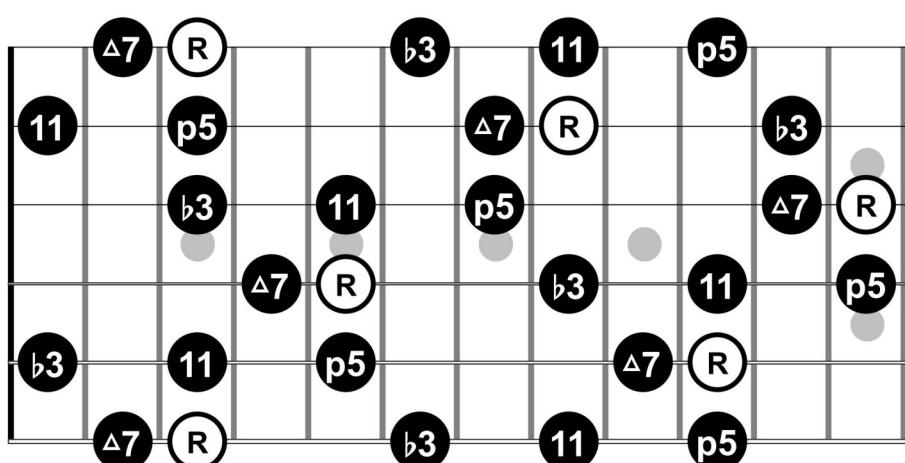
G, Bb, D, F#, A



GmMaj11

1, b3, 5, 7, 11

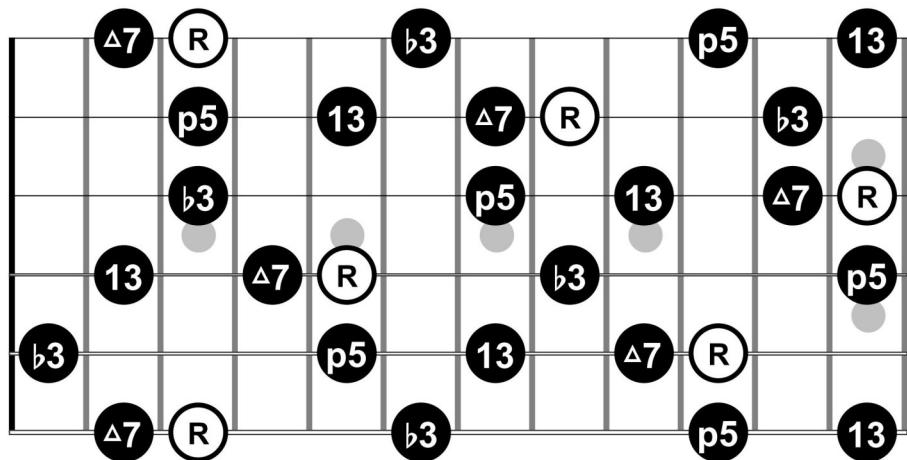
G, Bb, D, F#, C



GmMaj13

1, b3, 5, 7, 13

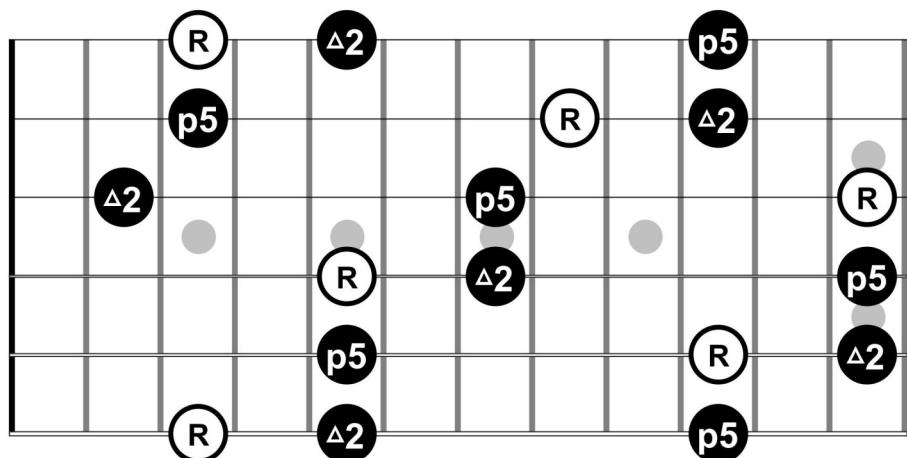
G, Bb, D, F#, E



Gsus2

1, 2, 5

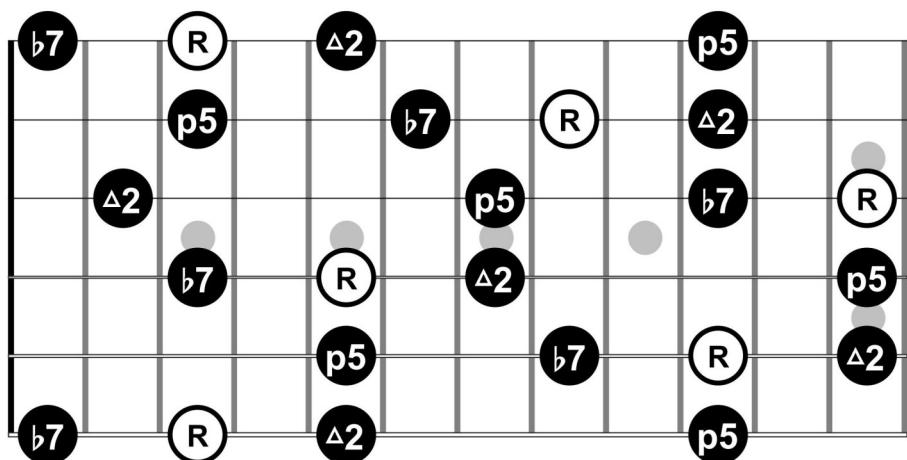
G, A, D

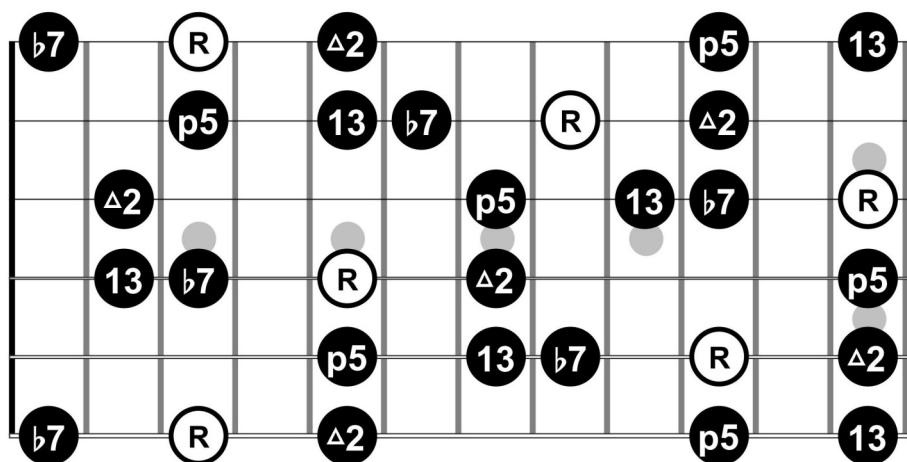
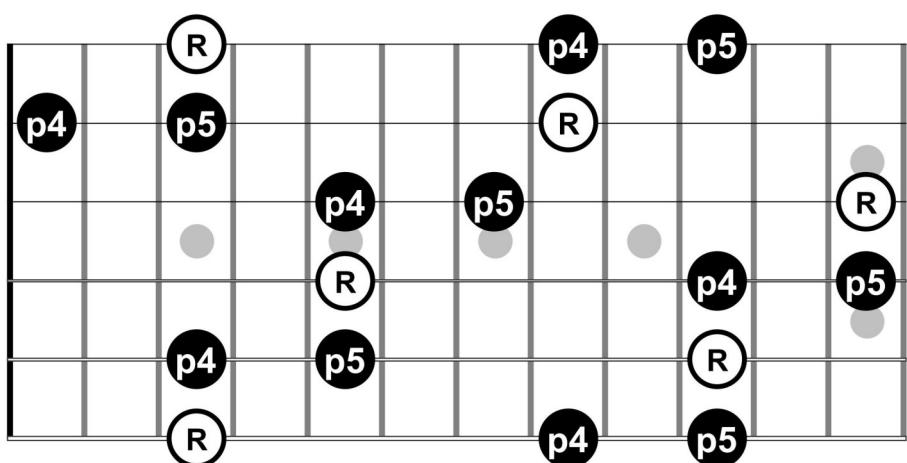
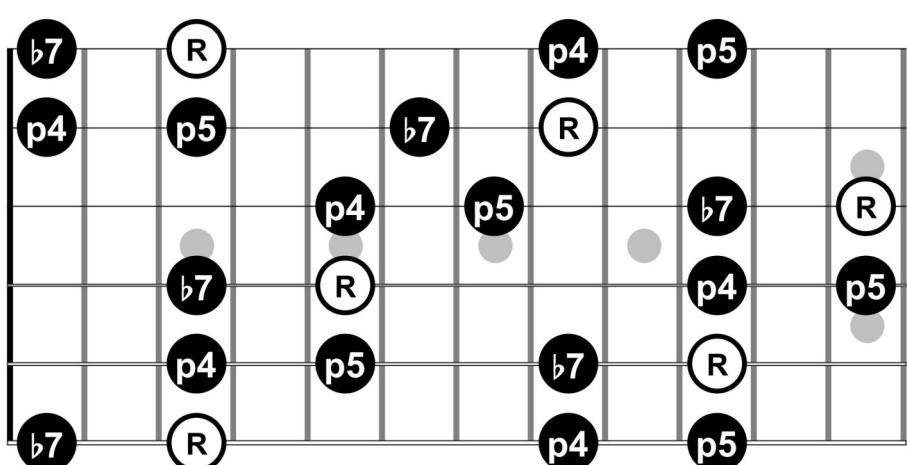


G7sus2

1, 2, 5, b7

G, A, D, F

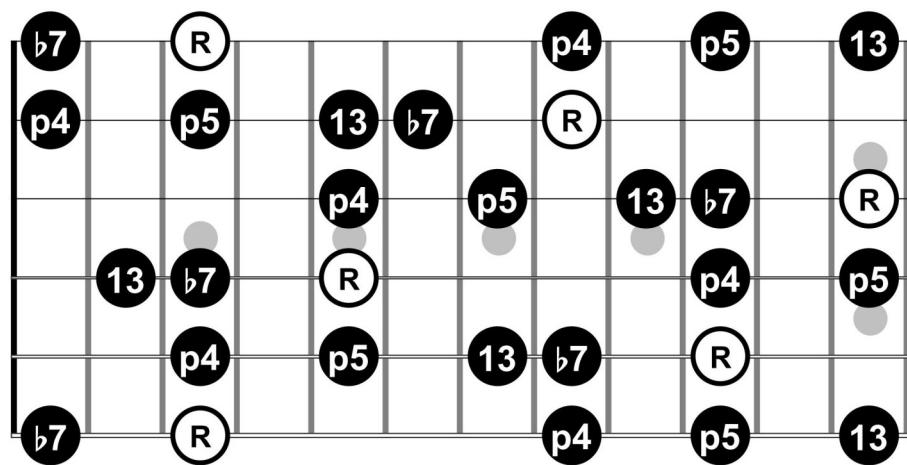


G13sus2**1, 2, 5, b7, 13****G, A, D, F, E****Gsus4****1, 4, 5****G, C, D****G7sus4****1, 4, 5, b7****G, C, D, F**

G13sus4

1, 4, 5, b7, 13

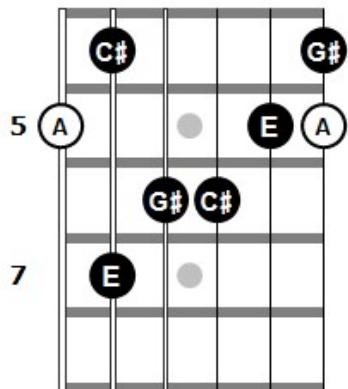
G, C, D, F, E



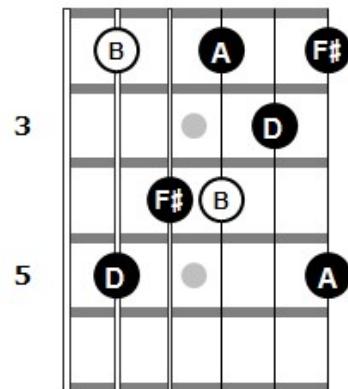
Diatonic Arpeggios in A-Major

Scale: **A - B - C# - D - E - F# - G#**

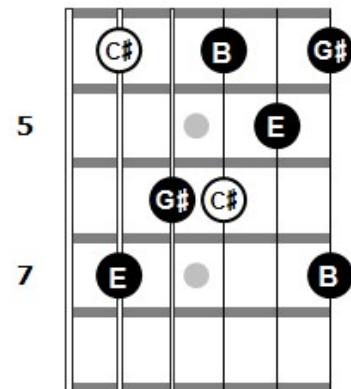
Amaj7 Ionian



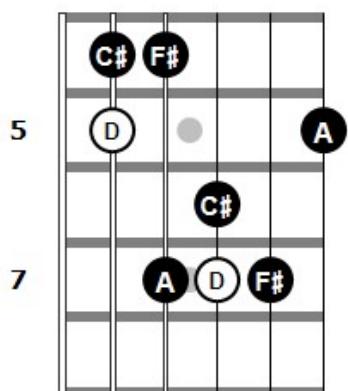
Bm7 Dorian



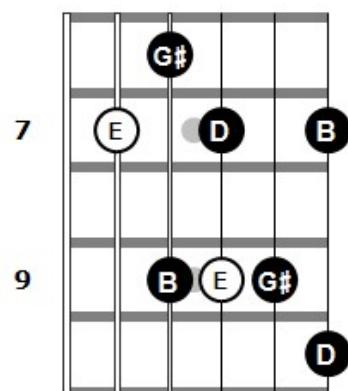
C#m7 Phrygian



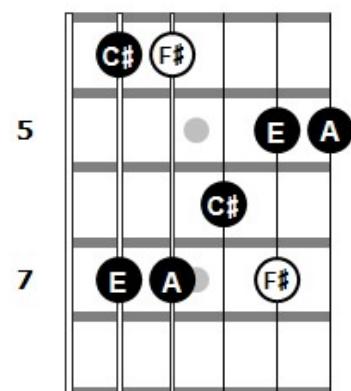
Dmaj7 Lydian



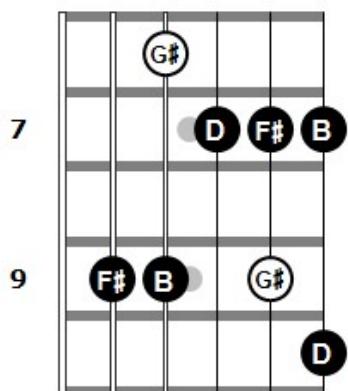
E7 Mixolydian



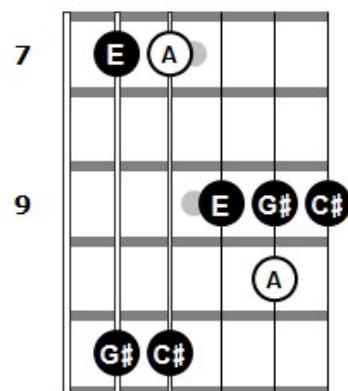
F#m7 Aeolian



G#m7(b5) Locrian



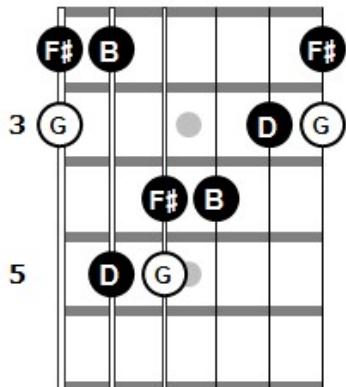
Amaj7 Ionian



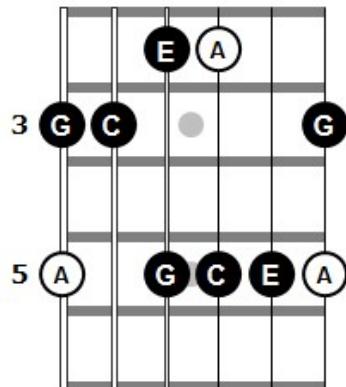
Diatonic Arpeggios in G-Major

Scale: **G - A - B - C - D - E - F# - G**

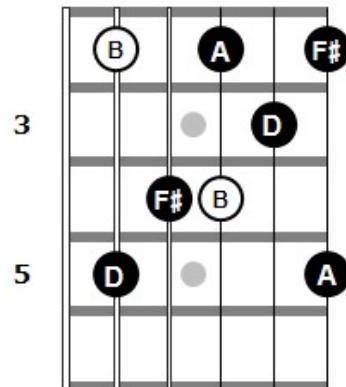
Gmaj7 Ionian



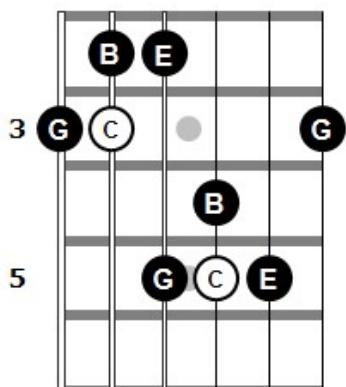
Am7 Dorian



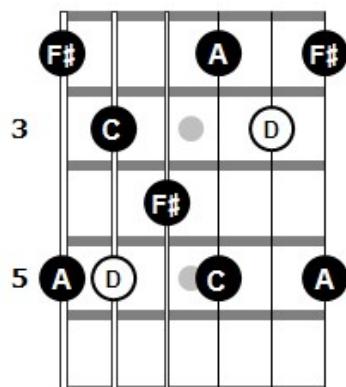
Bm7 Phrygian



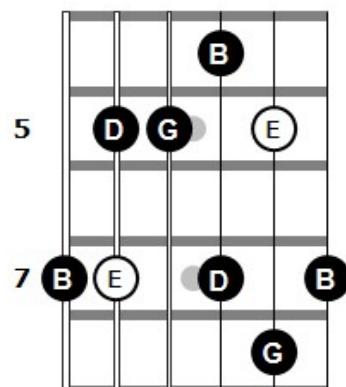
Cmaj7 Lydian



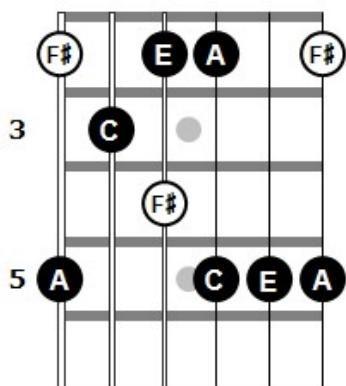
D7 Mixolydian



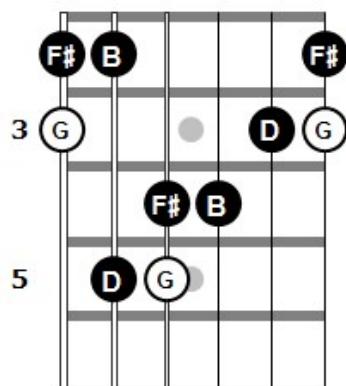
Em7 Aeolian



F#m7(b5) Locrian



Gmaj7 Ionian



In the Beginning

Am

Dm7 DmMaj7 Dm6

Bdim7

E7

Dm6add9

AmMaj13

Chord diagrams are provided for Am, Dm7, DmMaj7, Dm6, Bdim7, Am, AmMaj7, Am7, Am6, E7/G#, E7/B, and AmMaj13.

Superimposing Arpeggios

There are a number of ways for approaching improvisation. The two most common ways are using scales or arpeggios. Superimposing arpeggios is a very useful technique to enrich your improvisation.

You superimpose a chord, by layering an arpeggio on top of the chord.

Superimposing Arpeggios over a G-Dominant 7 chord:

	R	3	5	b7	9	11	13
G7	G	B	D	F	-	-	-
Bdim		B	D	F	-	-	-

	R	3	5	b7	9	11	13
G9	G	B	D	F	A	-	-
Bdim		B	D	F	-	-	-
Bm7(b5)		B	D	F	A	-	-

	R	3	5	b7	9	11	13
G11	G	B	D	F	A	C	-
Bdim		B	D	F	-	-	-
Bm7(b5)		B	D	F	A	-	-
Dm7			D	F	A	C	-

	R	3	5	b7	9	(11)	13
G13	G	B	D	F	A	C	E
Bdim		B	D	F	-	-	-
Bm7(b5)		B	D	F	A	-	-
Bm11(b5)		B	D	F	A	-	E
Dm7			D	F	A	C	-
Fmaj7				F	A	C	E

Superimposing Arpeggios over a Gmaj7 chord:

	R	3	5	7	9	11	13
Gmaj7	G	B	D	F#	-	-	-
Bm		B	D	F#	-	-	-

Superimposing Arpeggios over a Gmaj9 chord:

	R	3	5	7	9	11	13
Gmaj9	G	B	D	F#	A	-	-
Bm7		B	D	F#	A	-	-
D			D	F#	A	-	-

Superimposing Arpeggios over a Gmaj11 chord:

	R	3	5	7	9	11	13
Gmaj11	G	B	D	F#	A	C	-
Bm		B	D	F#	-	-	-
Bm7		B	D	F#	A	-	-
D7			D	F#	A	C	-

Superimposing Arpeggios over a Gmaj13 chord:

	R	3	5	7	9	(11)	13
Gmaj13	G	B	D	F#	A	C	E
Bm		B	D	F#	-	-	-
Bm7		B	D	F#	A	-	-
Bm11		B	D	F#	A	-	E
D7			D	F#	A	C	-

Arpeggios over Dominant chords:

A♭m7

Guitar tablature for A♭m7 chord (4 strings): T 4 4 4 4

D♭7(b9,b5) Arpeggio

Guitar tablature for D♭7(b9,b5) Arpeggio (8 notes): 4 3 5 4 3 5 4 3

G♭maj7

A♭m7

Guitar tablature for A♭m7 chord (4 strings): T 4 4 4 4

G7(#5) Arpeggio

Guitar tablature for G7(#5) Arpeggio (8 notes): 3 5 4 3 4 6 3 2

G♭maj7

A♭m7

Guitar tablature for A♭m7 chord (4 strings): T 4 4 4 4

B♭7 Arpeggio

Guitar tablature for B♭7 Arpeggio (8 notes): 3 3 6 4 6 4 2 3

G♭maj7

A♭m7

E7(b9) Arpeggio

Guitar tablature for E7(b9) Arpeggio (8 notes): 2 1 4 3 1 3 2 3

G♭maj7

Inversions

an inversion is when you change the order of notes

Inversions

Inverting the notes of a chord by moving the lowest note up an octave is known as the basic type of inversion. The lowest note, called the bass note, determines the name of the inversion. Inversions are represented as slash-chords (i.e. **G/B**).

A-Minor:

Intervals	Root (1)	b3	5
Root Position	A	C	E
1st Inversion	C	E	A
2nd Inversion	E	A	C

F-Major:

Intervals	Root (1)	3	5
Root Position	F	A	C
1st Inversion	A	C	F
2nd Inversion	C	F	A

Chords with four notes have three inversions, instead of just two.

G7(b5):

Intervals	Root (1)	3	b5	b7
Root Position	G	B	Db	F
1st Inversion	B	Db	F	G
2nd Inversion	Db	F	G	B
3rd Inversion	F	G	B	Db

The notes after the root can be sorted differently!

Drop2

Drop-2 is a technique commonly used in jazz to harmonize chords. Drop-2 is formed by dropping the second highest note of a chord an octave lower and making that note the bass note of the chord. Drop-2 voicings can be applied to any type of chord, such as major, minor, dominant.

Gmaj7:

Voicings	Intervals	Notes for Gmaj7	Drop-2 Intervals	Dropped Notes
Root Position	1-3-5-7	G-B-D-F#	5-1-3-7	D -G-B-F#
1st Inversion	3-5-7-1	B-D-F#-G	7-3-5-1	F# -B-D-G
2nd Inversion	5-7-1-3	D-F#-G-B	1-5-7-3	G -D-F#-B
3rd Inversion	7-1-3-5	F#-G-B-D	3-7-1-5	B -F#-G-D

Dmaj7:

Voicings	Intervals	Notes for Dmaj7	Drop-2 Intervals	Dropped Notes
Root Position	1-3-5-7	D-F#-A-C#	5-1-3-7	A -D-F#-C#
1st Inversion	3-5-7-1	F#-A-C#-D	7-3-5-1	C# -F#-A-D
2nd Inversion	5-7-1-3	A-C#-D-F#	1-5-7-3	D -A-C#-F#
3rd Inversion	7-1-3-5	C#-D-F#-A	3-7-1-5	F# -C#-D-A

Drop3

The term Drop-3 similar to Drop-2 indicates the lowering of the highest third note of a chord to the bass (i.e an octave lower).

Amaj7:

Voicings	Intervals	Notes for Amaj7	Drop-3 Intervals	Dropped Notes
Root Position	1-3-5-7	A-C#-E-G#	3-1-5-7	C#-A-E-G#
1st Inversion	3-5-7-1	C#-E-G#-A	5-3-7-1	E-C#-G#-A
2nd Inversion	5-7-1-3	E-G#-A-C#	7-5-1-3	G#-E-A-C#
3rd Inversion	7-1-3-5	G#-A-C#-E	1-7-3-5	A-G#-C#-E

Fmaj7:

Voicings	Intervals	Notes for Fmaj7	Drop-3 Intervals	Dropped Notes
Root Position	1-3-5-7	F-A-C-E	3-1-5-7	A-F-C-E
1st Inversion	3-5-7-1	A-C-E-F	5-3-7-1	C-A-E-F
2nd Inversion	5-7-1-3	C-E-F-A	7-5-1-3	E-C-F-A
3rd Inversion	7-1-3-5	E-F-A-C	1-7-3-5	F-E-A-C

The Secondary Dominants

The Secondary Dominants

Each of the 12 major scales have only one Primary Dominant chord (**V7**). After harmonizing the major scale (via stacking in 3rds) you create the dominant chord on the **5th** position (interval). The scale associated with the Primary Dominant chord is also known as the mixolydian scale (see Mixolydian Mode).

The Secondary Dominant chord is always one fifth to the right of your diatonic chord. The Secondary Dominant of "**Dm7**" for example is "**A7**" which is one fifth to the right of "**D**" (see Circle of Fifths).

F-Major

I^{maj}7	II^{m7}	III^{m7}	IV^{maj7}	V7	VI^{m7}	VII^{m7(b5)}
Fmaj7	Gm7	Am7	Bbmaj7	C7	Dm7	Em7b5
The Secondary Dominants						
V7	V7/II	V7/III	V7/IV	V7/V	V7/VI	V7/VII
C7	D7	E7	F7	G7	A7	B7

D-Major

I^{maj}7	II^{m7}	III^{m7}	IV^{maj7}	V7	VI^{m7}	VII^{m7(b5)}
Dmaj7	Em7	F#m7	Gmaj7	A7	Bm7	C#m7(b5)
The Secondary Dominants						
V7	V7/II	V7/III	V7/IV	V7/V	V7/VI	V7/VII
A7	B7	C#7	D7	E7	F#7	G#7

A short improvisation **without** secondary dominants in G major:

The top row shows four guitar chord diagrams: Gmaj7/B (x), Am9 (x o), D9(b9) (x), and Gmaj7 (x x). Below the diagrams is a musical staff in G major (one sharp) with a tempo of 4/4. The first measure starts with a bass note (T=3, A=4, B=2) followed by a Gmaj7/B chord. The second measure shows a melodic line with notes 3, 5, and 7. The third measure shows a D9(b9) chord with notes 2, 4, and 5. The fourth measure shows a Gmaj7 chord with notes 3, 4, and 5. The bottom row lists the chords: Imaj7, IIIm7, V7, and Imaj7.

Imaj7

Gmaj7/B

IIIm7

Am9

V7

D9(b9)

Imaj7

Gmaj7

A short improvisation **with** a secondary dominant:

The top row shows five guitar chord diagrams: Gmaj7/B (x), E9(#5)(b9) (x), Am9 (x o), D9(b9) (x), and Gmaj7 (x x). Below the diagrams is a musical staff in G major (one sharp) with a tempo of 4/4. The first measure starts with a bass note (T=3, A=4, B=2) followed by a Gmaj7/B chord. The second measure shows a melodic line with notes 3, 5, and 8. The third measure shows an E9(#5,b9) chord with notes 6, 7, and 6. The fourth measure shows an Am9 chord with notes 5, 7, and 5. The fifth measure shows a D9(b9) chord with notes 2, 4, and 5. The sixth measure shows a Gmaj7 chord with notes 3, 4, and 5. The bottom row lists the chords: Imaj7, V7/II, IIIm7, V7/I, and Imaj7.

Imaj7

Gmaj7/B

V7/II

E9(#5,b9)

IIIm7

Am9

V7/I

D9(b9)

Imaj7

Gmaj7

The dominant chord E9(#5,b9) is one fifth to the right of "**Am9**".

B-Flat in Love

Guitar chords and tablature for the first section of the song.

Chords:

- Cm11
- F13/A
- F9/A
- B♭maj7
- Gm7
- B♭maj7/F
- Dm7/G
- Gm7

Tablature (T A B):

```

    1   3   6   10  8   5   8   6
T 4   3   6   10  7   3   5   5
A   3   3   11  10  8   6   6   6
B   3   3   10  8   7   3   5   3

```

Guitar chords and tablature for the second section of the song.

Chords:

- Cm7
- Cm7
- Cm7/G
- E♭maj7/B♭
- F9/A
- Dm7
- Gm7

Tablature (T A B):

```

    3   3   11  10  8   13  13  10  11  8   10
T 4   3   3   10  8   10  10  10  10  8   10
A   3   3   10  8   7   10  10  10  10  8   10
B   3   3   10  8   7   10  10  10  10  8   10

```

Guitar chords and tablature for the third section of the song.

Chords:

- Cm7
- F7

Tablature (T A B):

```

    5   11   11   8   10   10   10
T 8   8   8   8   8   8   8
A   8   8   8   8   8   8   8
B   8   8   8   8   8   8   8

```

V7/II = secondary dominant of C-Minor

B_bmaj13

G7(#5)

Am7(b5)

F13

B_badd9

12.

T A B

T A B

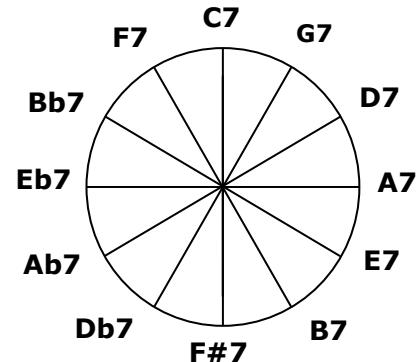
V7/II

G7(#5) => **V7** is the secondary dominant chord of Cm7. The second mode of B-Flat is Cm7 a.k.a (Dorian) => **II**.

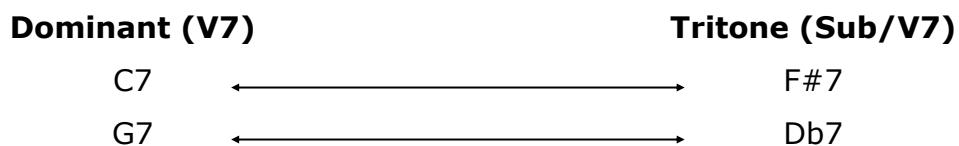
The Tritone Substitution

The Tritone Substitution

The Tritone Substitution (substitute dominant) is usually the replacement of a dominant seventh chord (**V7**) with another dominant seventh chord (**Sub/V7**) whose root is one tritone away, i.e. 6 semitones or 3 whole tones.



The dominant seventh chords and the substitutes are exactly opposite to each other in the circle of fifths.



Dominant (V7)				Tritone Substitution (Sub/V7)			
	Root	b7	3		Root	b7	3
G7	G	F	B	Db7	Db	B	F
A7	A	G	C#	Eb7	Eb	Db	G

II-V-I Turnaround in D-Major without and with the tritone substitution.

Chord diagrams for a II-V-I turnaround in D-Major:

- Em9**: 5th fret, 3rd string (B string). X marks at 1st and 2nd strings.
- A7add13**: 5th fret, 3rd string. X marks at 1st and 2nd strings.
- D6add9**: 5th fret, 3rd string. X marks at 1st and 2nd strings.
- Em9**: 5th fret, 3rd string (B string). X marks at 1st and 2nd strings.
- E♭9**: 5th fret, 3rd string. X marks at 1st and 2nd strings.
- D6add9**: 5th fret, 3rd string. X marks at 1st and 2nd strings.

Musical notation for the turnaround:

Measure 1 (Em9): Treble clef, 4/4 time, key of D major. Chords: Em9 (1st), A7add13 (2nd), D6add9 (3rd). Dynamics: *mf*.

Measure 2 (E♭9): Treble clef, 4/4 time, key of D major. Chords: Em9 (1st), E♭9 (2nd), D6add9 (3rd).

A7add13 has been replaced by the tritone chord Eb9. The intervals A und Eb are 6 semitones or 3 whole tones away from each other.

Improvising over a tritone substitution

The mixolydian(#11) scale derived from the melodic minor scale is a good option for improvisation over a tritone substitution. The special thing about this scale is the augmented fourth interval.

Die Db-Mixolydian(#11) - Scale

Scale	Db	Eb	F	G	Ab	Bb	B
Intervals	R(root)	2	3	#4/#11	5	6	b7

The example below shows a short II-V-I improvisation in C major.

II	Sub/V7	I
Dm7	Db9(#11)	Cmaj7

Turnaround

Turnaround

One of the most important progressions in jazz is the turnaround or turnback. A circular movement (loop) of which there are several variants. The turnaround often uses a circle of fifths sequence of chords supported by secondary dominants or tritone substitutions that lead to the beginning of the melody (tonic).

Turnaround:

I	VI	II	V7
Ionian	Aeolian	Dorian	Mixolydian
Cmaj9	Am9	Dm9	G13
Bbmaj7	Gm7	Cm7	F7

Cmaj9/G

Am9

Dm9/A

G13

Chord Progression:

4/4 time, key of G major.

1. Cmaj9/G (G major 7th position)

2. Am9 (open position)

3. Dm9/A (A major 7th position)

4. G13 (G13 position)

Fretboard Diagram:

T A B

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

B♭maj7

Gm7

Cm7

F7

Chord Progression:

4/4 time, key of B♭ major.

1. B♭maj7 (B♭ major 7th position)

2. Gm7 (open position)

3. Cm7 (open position)

4. F7 (F7 position)

Fretboard Diagram:

T A B

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

II-V7-I Turnaround:

II	V7	I
Dorian	Mixolydian	Ionian
Am7	D7(b9)	G6
Cm7	F9	Bbmaj7
Am7	D13(b9)	Gmaj7

Am7

D7(b9)

G6

T A B

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

Cm7

F9

Bbmaj7

T A B

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

Am7

D13(b9)

Gmaj7

T A B

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

II-V7-I Turnaround with Tritone Substitutions:

II	Sub/V7	I
Dorian	Mixolydian	Ionian
Cm9	B9	Bbmaj9
Cm7	B13	Bbmaj7
Am11	Ab7(b5)	Gmaj7

Cm9

B9

B♭maj9

T A B

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

1 8 8

Cm7

B13

B♭maj7

T A B

8 8 8 8
9 8 7
8 7 6

1 8 8

Am11

A♭7(b5)

Gmaj7

T A B

3 5 5 3
5 4 4
5 4 3

1 8 8

Minor II-V7-I:

The minor II-V7-I progressions are based on the Harmonic-Minor-Modes I, II and V.

II	V7	I
Locrian #13	Mixolydian b9/b13	Harmonic Minor
Bm7(b5)	E7	AmMaj7
Bm7(b5)	E7(b9)	AmMaj7
Bm7(b5)	E7(b9,#5)	AmMaj7

Bm7(♭5)

Guitar Tab:

E7

Guitar Tab:

Am(maj7)

Guitar Tab:

Bm7(♭5)

Guitar Tab:

E7(♭9)

Guitar Tab:

Am(maj7)

Guitar Tab:

Bm7(♭5)

Guitar Tab:

E7(♭9, #5)

Guitar Tab:

Am(maj7)

Guitar Tab:

Modal Interchange

Borrowed Chords

Modal Interchange

Modal Interchange is a method of borrowing non-diatonic chords, that belong to modes of the same basic tone (tonic) for example C-Major, C-Dorian, C-Phrygian, etc..

The parallel functions of all 7 modes. The scale degrees are represented in Roman numerals.

Scale	1 (Root)	2	3	4	5	6	7
Ionian	Imaj7	II-7	III-7	IVmaj7	V7	VI-7	VII-7(b5)
Dorian	I-7	II-7	bIIImaj7	IV7	V-7	VI-7(b5)	bVIImaj7
Phygian	I-7	bIIImaj7	bIII7	IV-7	V-7(b5)	bVImaj7	bVII-7
Lydian	Imaj7	II7	III-7	#IV-7(b5)	Vmaj7	VI-7	VII-7
Mixolydian	I7	II-7	III-7(b5)	IVmaj7	V-7	VI-7	bVIImaj7
Aeolian	I-7	II-7(b5)	bIIImaj7	IV-7	V-7	bVImaj7	bVII7
Locrian	I-7(b5)	bIIImaj7	bIII-7	IV-7	bVmaj7	bVI7	bVII-7

C-Ionian (= C-Major)						
I maj7	II m7	III m7	IV maj7	V 7	VI m7	VII m7(b5)
Cmaj7	Dm7	Em7	Fmaj7	G7	Am7	Bm7(b5)

C-Dorian (= Bb-Major)

I m7	II m7	b III maj7	IV 7	V m7	VI m7(b5)	b VII maj7
Cm7	Dm7	Ebmaj7	F7	Gm7	Am7(b5)	Bbmaj7

C-Phrygian (= Ab-Major)

I m7	b II maj7	b III 7	IV m7	V m7(b5)	b VI maj7	b VII m7
Cm7	Dbmaj7	Eb7	Fm7	Gm7b5	Abmaj7	Bbm7

C-Lydian (= G-Major)

I maj7	II 7	III m7	IV m7(b5)	V maj7	VI m7	VII m7
Cmaj7	D7	Em7	F#m7(b5)	Gmaj7	Am7	Bm7

C-Mixolydian (= F-Major)

I 7	II m7	III m7(b5)	IV maj7	V m7	VI m7	b VII maj7
C7	Dm7	Em7(b5)	Fmaj7	Gm7	Am7	Bbmaj7

C-Aeolian (= Eb-Major)

I m7	II m7(b5)	b III maj7	IV m7	V m7	b VI maj7	b VII 7
Cm7	Dm7(b5)	Ebmaj7	Fm7	Gm7	Abmaj7	Bb7

C-Locrian (= Db-Major)

I m7(b5)	b II maj7	b III m7	IV m7	b V maj7	b VI 7	VII m7
Cm7(b5)	Dbmaj7	Ebm7	Fm7	Gbmaj7	Ab7	Bm7

F-Ionian (= F-Major)						
I maj7	II m7	III m7	bIV maj7	V 7	VI m7	VII m7(b5)
Fmaj7	Gm7	Am7	Bbmaj7	C7	Dm7	Em7(b5)

F-Dorian (= Eb-Major)

I m7	II m7	bIII maj7	bIV 7	V m7	VI m7(b5)	bVII maj7
Fm7	Gm7	Abmaj7	Bb7	Cm7	Dm7(b5)	Ebmaj7

F-Phrygian (= Db-Major)

I m7	bII maj7	III 7	IV m7	V m7(b5)	bVI maj7	bVII m7
Fm7	Gbmaj7	Ab7	Bm7	Cm7(b5)	Dbmaj7	Ebm7

F-Lydian (= C-Major)

I maj7	II 7	III m7	IV m7(b5)	V maj7	VI m7	VII m7
Fmaj7	G7	Am7	Bm7(b5)	Cmaj7	Dm7	Em7

F-Mixolydian (= Bb-Major)

I 7	II m7	III m7(b5)	bIV maj7	V m7	VI m7	bVII maj7
F7	Gm7	Am7(b5)	Bbmaj7	Cm7	Dm7	Ebmaj7

F-Aeolian (= Ab-Major)

I m7	II m7(b5)	bIII maj7	IV m7	V m7	bVI maj7	bVII 7
Fm7	Gm7(b5)	Abmaj7	Bbm7	Cm7	Dbmaj7	Eb7

F-Locrian (= Gb-Major)

I m7(b5)	bII maj7	bIII m7	bIV m7	V maj7	bVI 7	bVII m7
Fm7(b5)	Gbmaj7	Abm7	Bbm7	Bmaj7	Db7	Ebm7

G-Ionian (= G-Major)

I maj7	II m7	III m7	IV maj7	V 7	VI m7	VII m7(b5)
Gmaj7	Am7	Bm7	Cmaj7	D7	Em7	F#m7(b5)

G-Dorian (= F-Major)

I m7	II m7	b III maj7	IV 7	V m7	VI m7(b5)	VII maj7
Gm7	Am7	Bbmaj7	C7	Dm7	Em7(b5)	Fmaj7

G-Phrygian (= Eb-Major)

I m7	b II maj7	III 7	IV m7	V m7(b5)	b VI maj7	VII m7
Gm7	Abmaj7	Bb7	Cm7	Dm7(b5)	Ebmaj7	Fm7

G-Lydian (= D-Major)

I maj7	II 7	III m7	IV m7(b5)	V maj7	VI m7	VII m7
Gmaj7	A7	Bm7	C#m7(b5)	Dmaj7	Em7	F#m7

G-Mixolydian (= C-Major)

I 7	II m7	III m7(b5)	IV maj7	V m7	VI m7	VII maj7
G7	Am7	Bm7(b5)	Cmaj7	Dm7	Em7	Fmaj7

G-Aeolian (= Bb-Major)

I m7	II m7(b5)	b III maj7	IV m7	V m7	b VI maj7	VII 7
Gm7	Am7(b5)	Bbmaj7	Cm7	Dm7	Ebmaj7	F7

G-Locrian (= A-Major)

I m7(b5)	b II maj7	b III m7	IV m7	b V maj7	b VI 7	VII m7
Gm7(b5)	Abmaj7	Bbm7	Cm7	Dbmaj7	Eb7	Fm7

G-Melodic Minor

I mmaj7	II m7	b III maj7(#5)	IV 7	V 7	VI -7(b5)	VII -7(b5)
GmMaj7	Am7	Bbmaj7(#5)	C7	D7	Em7(b5)	F#m7(b5)

G-Dorian (b2) (= F-Melodic Minor)

I -7	b II maj7(#5)	b III 7	IV 7	V -7(b5)	VI -7(b5)	VII mmaj7
Gm7	Abmaj7(#5)	Bb7	C7	Dm7(b5)	Em7(b5)	FmMaj7

G-Lydian (#5) (= E-Melodic Minor)

I maj7(#5)	II 7	III 7	IV -7(b5)	V -7(b5)	VI mmaj7	VII -7
Gmaj7(#5)	A7	B7	C#m7(b5)	D#m7(b5)	EmMaj7	F#m7

G-Lydian Dominant (= D-Melodic Minor)

I 7	II 7	III -7(b5)	IV -7(b5)	V mmaj7	VI -7	VII maj7(#5)
G7	A7	Bm7(b5)	C#m7(b5)	DmMaj7	Em7	Fmaj7(#5)

G-Mixolydian (b6) (= C-Melodic Minor)

I 7	II -7(b5)	III -7(b5)	IV mmaj7	V -7	b VI maj7(#5)	VII 7
G7	Am7(b5)	Bm7(b5)	CmMaj7	Dm7	Ebmaj7(#5)	F7

G-Locrian (#2) (= Bb-Melodic Minor)

I -7(b5)	II -7(b5)	b III mmaj7	IV -7	b V maj7(#5)	VI 7	VII 7
Gm7(b5)	Am7(b5)	BbmMaj7	Cm7	Dbmaj7(#5)	Eb7	F7

G-Superlocrian (= Ab-Melodic Minor)

I -7(b5)	II mmaj7	III -7	IV maj7(#5)	V 7	VI 7	VII -7(b5)
Gm7(b5)	AbmMaj7	Bbm7	Bmaj7(#5)	Db7	Eb7	Fm7(b5)

G-Harmonic Minor

I mmaj7	II -7(b5)	bIII maj7(#5)	IV -7	V 7	bVI maj7	VII 07
GmMaj7	Am7(b5)	Bbmaj7(#5)	Cm7	D7	Ebmaj7	F#dim7

G-Locrian (#6) (= F-Harmonic Minor)

I -7(m5)	bII maj7(#5)	bIII -7	IV 7	bV maj7	VI 07	VII mmaj7
Gm7(b5)	Abmaj7(#5)	Bbm7	C7	Dbmaj7	Edim7	FmMaj7

G-Ionian (#5) (= E-Harmonic Minor)

I maj7(#5)	II -7	III 7	IV maj7	bV 07	VI mmaj7	bVII -7(b5)
Gmaj7(#5)	Am7	B7	Cmaj7	Ebdim7	EmMaj7	Gbm7(b5)

G-Dorian (#4) (= D-Harmonic Minor)

I -7	II 7	bIII maj7	bIV 07	V mmaj7	VI -7(b5)	bVII maj7(#5)
Gm7	A7	Bbmaj7	Dbdim7	DmMaj7	Em7(b5)	Fmaj7(#5)

G-Mixolydian (b2/b6) (= C-Harmonic Minor)

I 7	bII maj7	III 07	IV mmaj7	V -7(b5)	bVI maj7(#5)	bVII -7
G7	Abmaj7	Bdim7	CmMaj7	Dm7(b5)	Ebmaj7(#5)	Fm7

G-Lydian (#2) (= B-Harmonic Minor)

I maj7	bII 07	III mmaj7	IV -7(b5)	V maj7(#5)	VI -7	bVII 7
Gmaj7	Bbdim7	BmMaj7	Dbm7(b5)	Dmaj7(#5)	Em7	Gb7

G-altered 6 = bb7 (= Ab-Harmonic Minor)

I 07	bII mmaj7	III -7(b5)	IV maj7(#5)	bV -7	bVI 7	VII maj7
Gdim7	AbmMaj7	Bbm7(b5)	Bmaj7(#5)	Dbm7	Eb7	Emaj7

Chord progression with Modal Interchange in C-Major (1)

The diagram shows six guitar chords with their fingerings:

- Cmaj7**: X-X-X-X (all strings muted)
- Dm7**: X-X-X-X (3rd string muted)
- Em7**: X-X-X-X (5th string muted)
- Fmaj7**: X-X-X-X (8th string muted)
- Cmaj7**: X-X-X-X (all strings muted)
- A♭ maj7**: X-X-X-X (all strings muted)
- C/G**: X-X-X-X (open G string)

Below the chords is a musical staff in 4/4 time with a treble clef. The notes correspond to the chords above them. The first four chords have a dynamic marking *mf*.

The origin of **Abmaj7** ist C-Phrygian and C-Aeolian -> **VImaj7**

Chord progression with Modal Interchange in C-Major (2)

The diagram shows seven guitar chords with their fingerings:

- Cmaj7**: X-O-O-X
- Dm7**: X-X-O-X (4th string muted)
- Em7**: X-X-X-X
- Fmaj7**: X-X-X-X
- Em7**: X-X-X-X
- Dm7(b5)**: X-X-O-X (4th string muted)
- Cmaj7**: X-O-O-X

Below the chords is a musical staff in 4/4 time with a treble clef. The first five chords have a dynamic marking *mf*.

The origin of **Dm7(b5)** ist C-Aeolian -> **IIm7(b5)**

Chord progression with Modal Interchange in C-Major (3)

The diagram shows four guitar chords with their fingerings:

- Cmaj7**: X-X-X-X (all strings muted)
- G7**: X-X-X-X
- Fmaj7**: X-X-X-X
- B♭ maj7**: X-X-X-X

Below the chords is a musical staff in 4/4 time with a treble clef. The first three chords have a dynamic marking *mf*.

The origin of **Bbmaj7** ist C-Mixolydian -> **bVIIImaj7**

Backdoor Progression

Backdoor II-V-I Progression

Probably the best-known II-V-I progressions come from the major scale, which are sometimes referred to as **frontdoor** progressions.

Within the modal interchange chords there are six other existing II-V-I progressions that are called **backdoor** progressions.

They can be heard very widely in compositions and arrangements. Almost every jazz composition (see Real Book) and many pop songs have backdoor elements.

C-Dorian (= Bb-Major)

I ^m 7/II	I V7/V	b VIImaj7/I
Cm7	F7	Bbmaj7

C-Phrygian (= Ab-Major)

b VII ^m 7/II	b III7/V	b VImaj7/I
Bbm7	Eb7	Abmaj7

C-Lydian (= G-Major)

V I ^m 7/II	II 7/V	V maj7/I
Am7	D7	Gmaj7

C-Mixolydian (= F-Major)

V m7/II	I 7/V	IV maj7/I
Gm7	C7	Fmaj7

C-Aeolian (= Eb-Major)

IV m7/II	b VII7/V	b IIImaj7/I
Fm7	Bb7	Ebmaj7

C-Locrian (= Db-Major)

b III ^m 7/II	b VI7/V	b IImaj7/I
Ebm7	Ab7	Dmaj7

Quartal Voicings

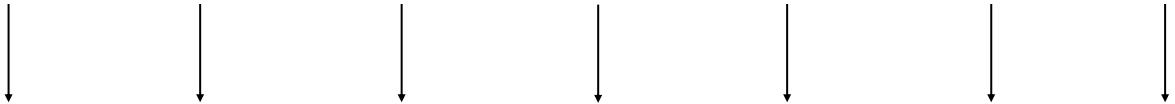
Chords built by stacking fourths are called quartal voicings

Four-Voice Chords stacked in 4ths

Bb-Major Scale						
1	2	3	4	5	6	7
Bb	C	D	Eb	F	G	A



Four-Voice chords after stacking						
Bb,Eb,A,D	C,F,Bb,Eb	D,G,C,F	Eb,A,D,G	F,Bb,Eb,A	G,C,F,Bb	A,D,G,C



Chords and Modes						
Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
I	II	III	IV	V	VI	VII
Bbmaj11	Cm11	Dm11	Ebmaj7(b5)	F7add11	Gm11	Am11

When harmonizing in 4ths you don't always get a **perfect fourth** (4 or 11). Sometimes the 4th interval is augmented (#4 or #11).

Bb-Major Scale in 4ths

Bb-Ionian (Mode I)							
Scale	Bb	C	D	Eb	F	G	A
Intervals	R(oot)	2/9	3	4/11	5	6/13	7

B_bmaj11 Cm11 Dm11 E_bmaj7(5) F7add11 Gm11 Am11

C-Dorian (Mode II)							
Scale	C	D	Eb	F	G	A	Bb
Intervals	R(oot)	2/9	b3	4/11	5	6/13	b7

Cm11 Dm11 E_bmaj7(5) F7add11 Gm11 Am11 B_bmaj11

D-Phrygian (Mode III)							
Scale	D	Eb	F	G	A	Bb	C
Intervals	R(oot)	b2/b9	b3	4/11	5	b6/b13	b7

Dm11 Ebmaj7(b5) F7add11 Gm11 Am11 Bbmaj11 Cm11

T 6 8 10 11 13 10 11
A 5 7 8 10 12 8 10
B 5 6 8 10 12 8 10

Eb-Lydian (Mode IV)							
Scale	Eb	F	G	A	Bb	C	D
Intervals	R(oot)	2/9	3	#4/#11	5	6/13	7

Ebmaj7(b5) F7add11 Gm11 Am11 Bbmaj11 Cm11 Dm11

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

F-Mixolydian (Mode V)							
Scale	F	G	A	Bb	C	D	Eb
Intervals	R(oot)	2/9	3	4/11	5	6/13	b7

F7add11 Gm11 Am11 B♭maj11 Cm11 Dm11 E♭maj7(b5)

Sheet music for F-Mixolydian (Mode V) in 4/4 time. The melody consists of eighth-note chords. Below the staff is a guitar neck diagram showing fingerings for each note.

T A B	5 4 3	6 5 5	8 7 7	10 10 8	11 11 10	13 13 12	15 15 14
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G-Aeolian (Mode VI)							
Scale	G	A	Bb	C	D	Eb	F
Intervals	R(oot)	2/9	b3	4/11	5	b6/b13	b7

Gm11 Am11 B♭maj11 Cm11 Dm11 E♭maj7(b5) F7add1

Sheet music for G-Aeolian (Mode VI) in 4/4 time. The melody consists of eighth-note chords. Below the staff is a guitar neck diagram showing fingerings for each note.

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

A-Locrian (Mode VII)

Scale	A	Bb	C	D	Eb	F	G
Intervals	R(oot)	b2/b9	b3	4/11	b5	b6/b13	b7

Am11 **B_bmaj11** **Cm11** **Dm11** **E_bmaj7(_b5)** **F7add11** **Gm11**

The musical staff below the chords starts with a treble clef, a key signature of one flat (B-flat), and a 4/4 time signature. The notes correspond to the chords above them: Am11, B_bmaj11, Cm11, Dm11, Eb maj7(_b5), F7add11, and Gm11.

Fretboard diagram (T, A, B) across six strings:

T	1	3	4	6	3	5	6
A	0	2	3	5	3	4	6
B	0	1	3	5	1	3	5

G-Melodic Minor in 4ths

G-Melodic Minor (Mode I)							
Scale	G	A	Bb	C	D	E	F#
Intervals	R(oot)	2/9	b3	4/11	5	6/13	7

GmMaj11 Am11 B_bmaj7(b5) C7(b5) Dm11 Em11 F#7(#9)

1 2 3 4 5 6 7

T A B

3	1	3	5	6	3	5
4	0	2	3	5	2	3
3	0	1	3	5	2	4
3						

A-Dorian b2 (Mode II)							
Scale	A	Bb	C	D	E	F#	G
Intervals	R(oot)	b2/b9	b3	4/11	5	6/13	b7

Am11 B_bmaj7(b5) C7(b5) D7add11 Em11 F#7(#9) GmMaj11

1 2 3 4 5 6 7

T A B

5	7	5	7	8	10	11
5	7	4	5	7	9	11
5	7	3	5	7	8	10
5	6					

Bb-Lydian #5 (Mode III)							
Scale	Bb	C	D	E	F#	G	A
Intervals	R(oot)	2/9	3	#4/#11	#5	6/13	7

B_bmaj7(♭5) C7(♭5) D7add11 Em11 F♯7(♯9) GmMaj11 Am11

C-Lydian Dominant (Mode IV)							
Scale	C	D	E	F#	G	A	Bb
Intervals	R(oot)	2/9	3	#4/#11	5	6/13	b7

C7(♭5) D7add11 Em11 F♯7(♯9) GmMaj11 Am11 B_bmaj7(♭5)

D-Mixolydian b6 (Mode V)

Scale	D	E	F#	G	A	Bb	C
Intervals	R(oot)	2/9	3	4/11	5	b6/b13	b7

D7add11 Em11 F#7(#9) GmMaj11 Am11 B♭maj7(b5) C7(b5)

The top row shows seven guitar chord diagrams: D7add11 (x x o o), Em11 (x x), F#7(#9) (x x), GmMaj11 (xx), Am11 (xx), B♭maj7(b5) (xx), and C7(b5) (xx). The bottom row shows a musical staff in 4/4 time with a key signature of one sharp (F#). The staff has seven measures, each starting with a power chord. Below the staff is a fretboard diagram with fingerings: 1, 2, 3, 5, 6, 8, 10, 12. The strings are labeled T (top), A, and B.

E-Locrian #2 (Mode VI)

Scale	E	F#	G	A	Bb	C	D
Intervals	R(oot)	#2/#9	b3	4/11	b5	b6/b13	b7

Em11 F#7(#9) GmMaj11 Am11 B♭maj7(b5) C7(b5) D7add11

The top row shows seven guitar chord diagrams: Em11 (xx), F#7(#9) (xx), GmMaj11 (xx), Am11 (xx), B♭maj7(b5) (xx), C7(b5) (xx), and D7add11 (xx). The bottom row shows a musical staff in 4/4 time with a key signature of one sharp (F#). The staff has seven measures, each starting with a power chord. Below the staff is a fretboard diagram with fingerings: 1, 2, 3, 5, 6, 8, 10, 12, 14. The strings are labeled T (top), A, and B.

F#-Superlocrian "altered" (Mode VII)

Scale	F#	G	A	Bb	C	D	E
Intervals	R(oot)	b2/b9	b3	b4/b11	b5	b6/b13	b7

F#7(#9) **Gmaj11** **Am11** **Bbmaj7(b5)** **C7(b5)** **D7add11** **Em11**

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

T **A** **B**

2	3	5	7	5	7	8
2	4	5	7	4	5	7
1	3	5	7	3	5	7
2	3	5	6			

G-Harmonic Minor in 4ths

G-Harmonic Minor (Mode I)							
Scale	G	A	Bb	C	D	Eb	F#
Intervals	R(oot)	2/9	b3	4/11	5	b6/b13	7

Gmaj9sus4 Am11 B_bmaj11 C^ø D7add11 E_bmaj7(b5) F#6(#9)

1 2 3 4 5 6 7

4/4 Time Signature, Key of G major (F# in the key signature).

T A B

2	5	7	8	11	7	8
4	5	7	8	10	7	8
3	5	6	9	10	6	9
3	5	6	8	10		

A-Locrian #6 (Mode II)							
Scale	A	Bb	C	D	Eb	F#	G
Intervals	R(oot)	b2/b9	b3	4	b5	6	b7

Am11 B_bmaj11 C^ø D7add11 E_bmaj7(b5) B_bmaj7sus4 F#(b5)/G

1 2 3 4 5 6 7

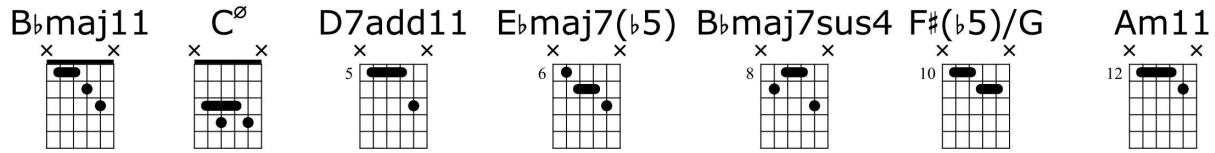
4/4 Time Signature, Key of A minor (no sharps or flats in the key signature).

T A B

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

Bb-Ionian #5 (Mode III)

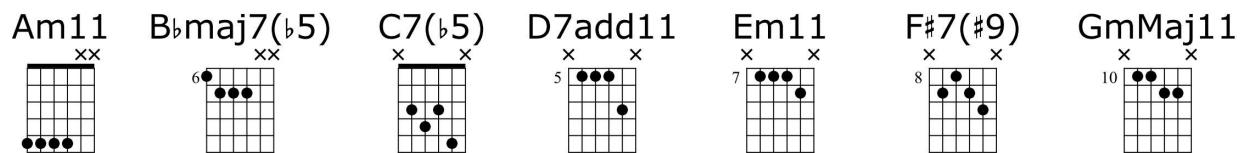
Scale	Bb	C	D	Eb	F#	G	A
Intervals	R(oot)	2/9	3	4	#5	6	7



Musical staff and guitar tab for Bb-Ionian #5 (Mode III) in 4/4 time. The staff shows notes from 1 to 7. The tab shows fingerings (1-3, 2-3, 1-4, 2-3, 5-7, 8-9, 10-11, 11-12, 12-13) and string numbers (T-A-B).

C-Dorian #4 (Mode IV)

Scale	C	D	Eb	F#	G	A	Bb
Intervals	R(oot)	2/9	b3	#4	5	6	b7



Musical staff and guitar tab for C-Dorian #4 (Mode IV) in 4/4 time. The staff shows notes from 1 to 7. The tab shows fingerings (5-7, 7-9, 5-7, 5-7, 5-7, 7-9, 9-10, 10-11) and string numbers (T-A-B).

D-Mixolydian b2/b6 (Mode V)

Scale	D	Eb	F#	G	A	Bb	C
Intervals	R(oot)	b2/b9	3	4	5	b6/b13	b7

D7add11 E♭maj7(b5) B♭maj7sus4 F♯(b5)/G Am11 B♭maj11 C∅

The top section shows seven guitar chord diagrams with fingerings:

- D7add11: x xoo
- E♭maj7(b5): xx
- B♭maj7sus4: xx
- F♯(b5)/G: 5 xx
- Am11: 7 xx
- B♭maj11: 8 xx
- C∅: 10 xx

The bottom section shows a musical staff in 4/4 time with a key signature of one sharp (F#). The tablature below shows the strings T (top), A, and B with note heads and fingerings corresponding to the chords above.

1	2	3	4	5	6	7	8	9	10	11	12
T 1	A 0	B 0									
2	3	4	5	6	7	8	9	10	11	12	

Eb-Lydian #2/#9 (Mode VI)

Scale	Eb	F#	G	A	Bb	C	D
Intervals	R(oot)	#2/#9	3	#4/#11	5	6	7

E♭maj7(b5) B♭maj7sus4 F♯(b5)/G Am11 B♭maj11 C∅ D7add11

The top section shows seven guitar chord diagrams with fingerings:

- E♭maj7(b5): x x
- B♭maj7sus4: x x
- F♯(b5)/G: x x
- Am11: 7 xx
- B♭maj11: 8 xx
- C∅: 10 xx
- D7add11: 12 xx

The bottom section shows a musical staff in 4/4 time with a key signature of two sharps (F# and C#). The tablature below shows the strings T (top), A, and B with note heads and fingerings corresponding to the chords above.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
T 8	A 7	B 7											
2	3	4	5	6	7	8	9	10	11	12	13	14	

F#-Mixolydian #1 (Altered dominant bb7) (Mode VII)							
Scale	F#	G	A	Bb	C	D	Eb
Intervals	R(oot)	b2/b9	b3	b4/b11	b5	b6/b13	bb7

B_bmaj7sus4 F_#(_b5)/G Am11 B_bmaj11 C^ø D7add11 E_bmaj7(_b5)

The Bee Bob

A

Guitar chords and bass lines for section A:

- Cm11 (x x)
- Dmaj11 (x x)
- A♭7add11 (x x)
- G♭/A♭ (x x)
- E♭maj7(♭5) (x x)
- Cm11 (x x)
- B♭m11 (x x)
- Fm11 (xx)

Bass lines (T A B strings):

- T: 4, 6, 3, 4, 6, 13, 11
- A: 3, 3, 4, 4, 11, 11
- B: 3, 3, 3, 3, 1

B

Guitar chords and bass lines for section B:

- Cm11 (x x)
- D♭/E♭ (x x)
- A♭maj9 (x x)
- Gmadd11 (xx x)
- Cm11 (x x)

Bass lines (T A B strings):

- T: 4, 6, 3, 4, 6, 8, 9, 6
- A: 3, 3, 3, 3, 8, 8, 8
- B: 3, 3, 3, 3, 1

C

A_b7add11 G_bmaj9 A_b7([#]5) A_bmaj11 Fm11

TAB notation below the staff shows:
 - Measure 1: T (up), A (down), B (up), 4
 - Measure 2: T (up), A (down), B (up), 4
 - Measure 3: T (up), A (down), B (up), 4
 - Measure 4: T (up), A (down), B (up), 4
 - Measure 5: T (up), A (down), B (up), 4

A_b9([#]5) D_bmaj7 A_b/B_b B_b7(_b9)

TAB notation below the staff shows:
 - Measure 6: T (up), A (down), B (up), 4
 - Measure 7: T (up), A (down), B (up), 4
 - Measure 8: T (up), A (down), B (up), 4
 - Measure 9: T (up), A (down), B (up), 4
 - Measure 10: T (up), A (down), B (up), 4

E_bmaj9

TAB notation below the staff shows:
 - Measure 11: T (up), A (down), B (up), 4
 - Measure 12: T (up), A (down), B (up), 4
 - Measure 13: T (up), A (down), B (up), 4
 - Measure 14: T (up), A (down), B (up), 4
 - Measure 15: T (up), A (down), B (up), 4

Comping

an abbreviation of accompaniment ...

Comping

Comping (an abbreviation of accompaniment) is a jazz term. The task of comping is to support the soloist in the background with syncopated rhythm, i.e. the accompaniment is rhythmically shifted.

Sample 1:

(=)

Dm7 5 x x

D♭7(♯5) 9 x

B♭/C 10 xx

E♭7(♭13) 11 xx

1 2 3 4

T 5 8 8 8 10 (9) 10 10 10 12 (12)
A 5 5 5 9 (9) 10 10 10 11 (11)
B 5 9 (9) |

Sample 2:

(=)

Em7 5 x x

E♭7 5 x x

A♭maj7 3 xx

G7(♯5) 5 x

1 2 3 4

T 8 8 8 8 8 (8) 3 3 3 3 (3)
A 5 5 5 6 (6) 6 6 5 4 (4)
B 7 6 (6) |

Sample 3:

(=)

D7sus4 D7sus2 Dm9 G13

Guitar chords shown above the staff:

- D7sus4: 5th string x, 4th string x
- D7sus2: 5th string x, 4th string x
- Dm9: 5th string x, 4th string x
- G13: 5th string x, 4th string x

Staff 1:

4/4 time signature, treble clef.

Chords: D7sus4 (x), D7sus2 (x), Dm9 (x), G13 (x).

Fret positions: T (5), A (5), B (5); T (5), A (5), B (5); T (5), A (5), B (5); T (5), A (5), B (5).

Staff 2:

4/4 time signature, treble clef.

Chords: D7sus4 (x), D7sus2 (x), Dm9 (x), G13 (x).

Fret positions: T (5), A (4), B (3); T (5), A (4), B (3); T (5), A (4), B (3); T (5), A (4), B (3).

Sample 4:

(=)

Fm7 B♭m7 E♭7 A♭maj7 Dm7(♭5) G7 Cmaj7

Guitar chords shown above the staff:

- Fm7: 8th string x, 7th string x
- B♭m7: 8th string xx, 7th string x
- E♭7: 6th string x, 5th string x
- A♭maj7: 6th string xx, 5th string x
- Dm7(♭5): 5th string x, 4th string x
- G7: 3rd string x, 2nd string x
- Cmaj7: 5th string x, 4th string x

Staff 1:

4/4 time signature, treble clef.

Chords: Fm7 (x), B♭m7 (x), E♭7 (x), A♭maj7 (x), Dm7(♭5) (x), G7 (x), Cmaj7 (x).

Fret positions: T (9), A (10), B (10); T (9), A (10), B (10).

Staff 2:

4/4 time signature, treble clef.

Chords: Fm7 (x), B♭m7 (x), E♭7 (x), A♭maj7 (x), Dm7(♭5) (x), G7 (x), Cmaj7 (x).

Fret positions: T (9), A (10), B (10); T (9), A (10), B (10).

Counterpoint Study

Counterpoint Study in F-Major

Counterpoint is a style of musical writing which involves musical lines that unfold at the same time in an organized fashion. The relationship between the voices are harmonically interdependent (polyphony or polyphonic) yet independent in rhythm and contour.

Here is a small and brief attempt to get you closer to the counterpoint topic.

I've chosen the examples in F-Major, since unfortunately most of today's examples are shown in C-Major.

I hope you find my short approach helpful. Good Luck!

The F-Major Scale

A musical staff in F major (one flat) and common time. The notes are: F (1), G (3), A (5), Bb (1), C (3), D (5), E (2), F (3). Below the staff, the fingerings are indicated: T (thumb) at 1, A (index) at 3, B (middle) at 5, and the ring finger at 1, 3, 5, 2, 3 respectively. The staff ends with a double bar line.

The Harmonized F-Major Scale

A musical staff in F major (one flat) and common time. It shows the harmonized F-Major scale with chords above the staff and fingerings below. The chords and their fingerings are:

- Fmaj7: T 1, A 2, B 1
- Gm7: T 2, A 3, B 3
- Am7: T 5, A 5, B 5
- B♭maj7: T 6, A 7, B 6
- C7: T 8, A 8, B 8
- Dm7: T 10, A 10, B 10
- Em7(♭5): T 11, A 11, B 12

The staff ends with a double bar line.

Sample 1:

In the first example, the F-Major scale is played with the low strings plus the third (one octave higher a.k.a the 10th interval) simultaneously to each scale note.

The musical notation consists of two staves. The top staff is a standard staff with a treble clef and a key signature of one flat (B-flat). The bottom staff is a tablature staff for a six-string guitar, with the strings labeled T (top), A, and B from top to bottom. Both staves are in common time (indicated by a '4').

The first staff contains eight notes, with the first note having a '1' above it. The second staff contains eight notes, with the first note having a '2' above it. The notes are distributed across the strings, with some notes being single notes and others being pairs of notes on adjacent strings.

Below the notation is a tablature grid. The first staff's tablature has four columns of numbers: 2, 3, 5, 7; 9, 10, 12, 14. The second staff's tablature has four columns of numbers: 2, 3, 1, 3; 5, 6, 8, 10. The tablature grid corresponds to the notes in the staves above it.

Sample 2:

A small variation to Sample 1.

The musical notation consists of three staves. The top staff is a standard staff with a treble clef and a key signature of one flat (B-flat). The middle staff is a tablature staff for a six-string guitar, with the strings labeled T (top), A, and B from top to bottom. The bottom staff is another tablature staff for a six-string guitar, with the strings labeled T (top), A, and B from top to bottom. All three staves are in common time (indicated by a '4').

The first staff contains six notes, with the first note having a '1' above it. The second staff contains six notes, with the first note having a '2' above it. The third staff contains six notes, with the first note having a '3' above it. The notes are distributed across the strings, with some notes being single notes and others being pairs of notes on adjacent strings.

Below the notation is a tablature grid. The first staff's tablature has three columns of numbers: 2, 3, 5; 3, 5, 7. The middle staff's tablature has three columns of numbers: 5, 7, 9; 7, 9, 10. The bottom staff's tablature has three columns of numbers: 9, 10, 12; 10, 12, 14. The tablature grid corresponds to the notes in the staves above it.

Sample 3:

In the low range the counterpoint plays the F-Major scale accompanied by the intervals of the F-Major scale in thirds.

The image displays five staves of musical notation for guitar, arranged vertically. Each staff includes a treble clef, a key signature of one flat (F major), and a common time signature. The first staff is labeled "Fmaj7" and shows a descending scale pattern (2, 1, 3, 5) with a bass note at the beginning. The second staff is labeled "Gm7" and shows a descending scale pattern (3, 3, 5, 6) with a bass note at the beginning. The third staff is labeled "Am7" and shows a descending scale pattern (5, 6, 8) with a bass note at the beginning. The fourth staff is labeled "Bbmaj7" and shows a descending scale pattern (7, 6, 8, 10) with a bass note at the beginning. The fifth staff is labeled "C7" and shows a descending scale pattern (2, 9, 8, 10, 11) with a bass note at the beginning. The sixth staff is labeled "Dm7" and shows a descending scale pattern (10, 10, 11, 13) with a bass note at the beginning. The seventh staff is labeled "Em7(b5)" and shows a descending scale pattern (8, 6, 8, 10) with a bass note at the beginning. The eighth staff is labeled "Fmaj7" and shows a descending scale pattern (10, 8, 10, 12) with a bass note at the beginning. Each staff also includes a tablature below it, indicating the fingerings for each note. The tabs are labeled T, A, and B, corresponding to the three strings of the guitar.

Sample 4:

A counterpoint variation to sample 3.

1

T 2 3 5 6 3 5 6 8
A
B 1 3

2

T 5 6 8 10 7 9 18 11
A
B 5 6

3

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

4

T 12 10 12 13 13
A
B 12

Sample 5:

The first attempt to set counterpoints to a melodic improvisation. Root and thirds on the bass and above the melody.

The image displays three staves of musical notation for guitar, illustrating harmonic progressions and bass lines. Each staff includes chord diagrams at the top and a sixteenth-note bass line below.

Staff 1:

- Chords: Fmaj7, Am7/E, F6/C, Gm7/B♭, Am7, Gm7.
- Bass line (T-A-B): 2, 5, 8, 7, 6; 3, 10, 8, 7, 6.

Staff 2:

- Chords: Gm7/D, E7/B, Am7, Gm9, B7, B♭maj7.
- Bass line (T-A-B): 5, 13, 10, 8, 7; 6, 10, 8, 7, 6.

Staff 3:

- Chords: Edim, Em7(♭5), C7/B♭, B♭maj7, Edim/D♭, Dm7.
- Bass line (T-A-B): 9, 11, 8, 7, 6; 6, 10, 12, 11, 13.

Chords: C7, Gm7, C7, E♭9, D7(♯9)

 Bass line:
 T 8 8 6 5 | 3 6 2 6
 A 7 3 3 3 | 4 5 3 4
 B 8 3

Chords: G7, G♭maj7, Fmaj9

 Bass line:
 T 9 6 6 | (6) 8
 A 3 3 3 | (4) 8
 B 3 2

Sample 6:

More counterpoints on the bass. Trying to create more motion.

1

Fmaj7 Am7/E F6/C

T A B 2 3 5 5 8 6 6 7 8

2

Gm7/Bb Am7 Gm7

T A B 3 5 7 10 8 10 6 8 5

3

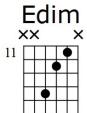
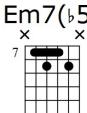
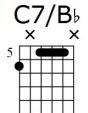
Gm7/D E7/B Am7

T A B 5 7 9 11 12 13 8 10 0

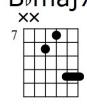
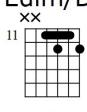
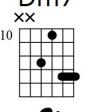
4

Gm9 B7 Bbmaj7

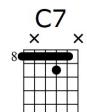
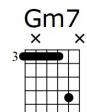
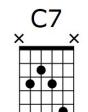
T A B 7 9 10 10 8 10 6 7 6

Edim

Em7(b5)

C7/Bb


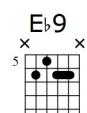
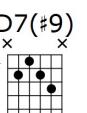
T 9 **A** 10 **B** 8
T 12 **A** 12 **B** 10
T 11 14 **A** 8 **B** 7
T 5 **A** 6 **B** 5

Bbmaj7

Edim/Db

Dm7


T 6 **A** 8 **B** 5
T 10 **A** 10 **B** 8
T 10 12 13 **A** 12 12 13 **B** 8 11 12

C7

Gm7

C7


T 8 **A** 10 **B** 7
T 11 **A** 11 **B** 10
T 8 8 6 **A** 8 8 6 **B** 3 3 5

Eb9

D7(#9)

G7

Gmaj7

Fmaj9


T 5 **A** 6 **B** 6
T 6 **A** 5 **B** 5
T 6 3 2 **A** 3 2 1 **B** 2
T 9 8 7 **A** 8 7 6 **B** 2
T 10 8 7 **A** 8 7 6 **B** 8

Sample 7:

By adding more intervals (counterpoints) and reorganizing the structure of the composition the character and playability of the melody changed.

I hope I could shed some light on this individual approach.

A

Fmaj7 Am7/E F6/C Gm7/B_b Am7 Gm7

T A B 2 8 1 5 7 8 6 7 5 8 10 7 10 8 5 6 5 8 5

1.

Gm7/D E7/B Am7 Bbmaj7 C7

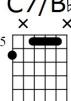
T A B 10 0 12 13 12 10 10 8 0 7 6 10 8 10 8 8 .

2.

Bbmaj7 Gm7 C7sus2 Bbmaj7 Em7(b5) Em7(b5)

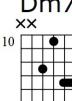
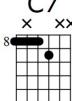
T A B 7 6 10 8 11 10 3 3 3 3 6 6 6 6 6 6 7 7 8 7 8 7 8 7 8

B

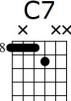
C7/B_b


B_bmaj7

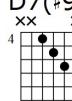
Edim

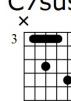
Dm7

C7


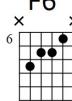
Gm7


C7

Dm7

B_bm6


D7(#9)


C7sus4


F6


T A B
5 5 6 | 10 11 12 | 13 13 13 | 8 7 8 | 9 8
5 7 5 | 8 11 12 | 12 12 12 | 7 7 8 | 8 8
6 | 5 | 8 | 8 | 8 |

T A B
6 5 2 8 | 9 8 8 | 5 2 3 6 | 4 5 6
3 3 7 8 | 8 8 8 | 5 4 5 6 | 8 8 8

T A B
2 6 4 | 5 3 | 6 8 | 7 6
3 4 5 | 3 3 3 | 3 8 | 8 8

Negative Harmony

Negative Harmony is used in modern music as a tool for composers or arrangers. This concept was initially described by the Swiss musician Ernst Levy in his book "A Theory of Harmony".

For deeper explanations please look for further documentations.

Negative Harmony

The basic approach of Negative Harmony is to invert harmonic structure.

All the following examples refer to the C-tonality.

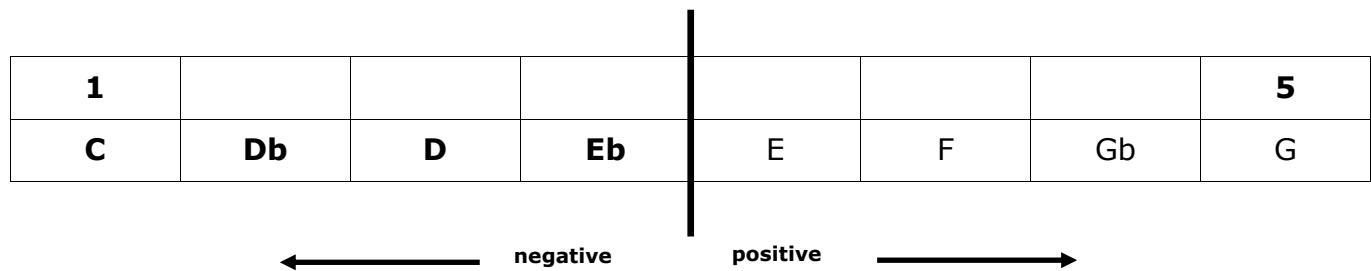
How is Negative Harmony created?

If we look at a major scale, the three intervals tonic (**1**), major third (**3**) or minor third (**b3**) and the fifth (**5**) form a **triad**. The perfect 5th is a very important interval for each of the 12 tonalities (see The Circle of Fifths).

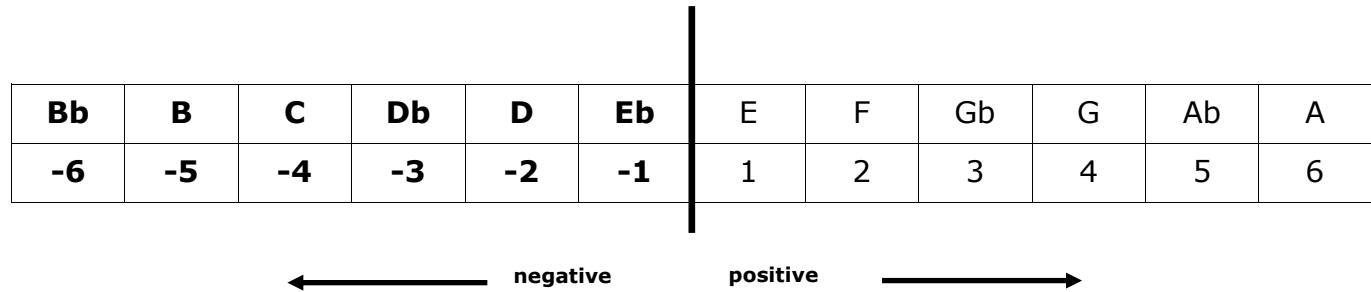
From C to C chromatically:

1				3			5						1=8
C	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B	C	

The interval (**G=5**) is one fifth above the tonic (**C=1**). The center between **C** and **G** is an axis between **Eb** and **E**. The axis is exactly half way between the tonic and the perfect 5th. The intervals to the left of the axis are named negative. The Intervals to the right of the axis are named positive.

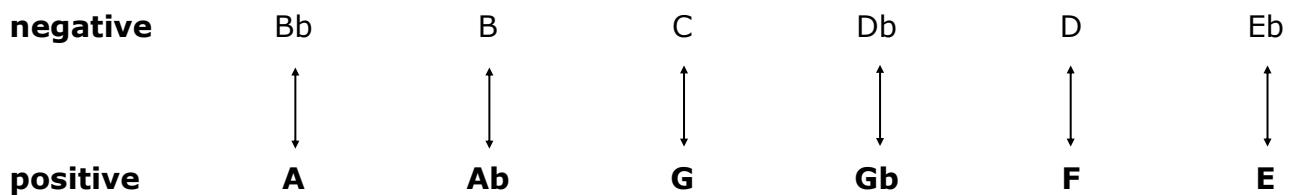


By adding chromatically the missing intervals to the left and to the right of the harmonic axis (the midpoint between the two notes) we create all 12 intervals (keys) in a new order.



To create a transformation table we place to each interval its corresponding mirroring interval.

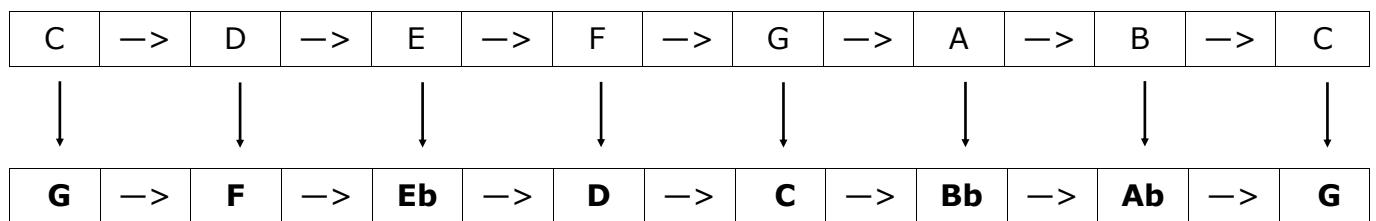
The transformation table in the key of **C**:



The arrows point in both directions, i.e. each note has its mirror image.



Conversion of a C-Major scale to negative.



After conversion two new scales are created. With **C** as root you get the C-Aeolian scale. With **G** as root you get the G-Phrygian scale.

C-Aeolian	C	D	Eb	F	G	Ab	Bb	C
G-Phrygian	G	Ab	Bb	C	D	Eb	F	G

Example 1: Conversion of **Am7** into the negative:

positive

Am7

A

C

E

G

negative

Eb6 or Cm7

Bb

G

Eb

C

Example 2: Conversion of **Dm7** into the negative:

positive

Dm7

D

F

A

C

negative

Bb6 or Gm7

F

D

Bb

G

Example 3: Conversion of **G7** into the negative:

positive

G7

G

B

D

F

negative

Fm6/C

C

Ab

F

D

Example 4: Conversion of **Cmaj7** into the negative:

positive

Cmaj7

C

E

G

B

negative

Abmaj7

G

Eb

C

Ab

Interval transformation mirroring tables (negative to positive) for all 12 keys:

C-Major

Eb	E
D	F
Db	Gb
C	G
B	Ab
Bb	A

G-Major

Bb	B
A	C
Ab	Db
G	D
Gb	Eb
F	E

D-Major

F	Gb
E	G
Eb	Ab
D	A
Db	Bb
C	B

A-Major

C	Db
B	D
Bb	Eb
A	E
Ab	F
G	Gb

E-Major

G	Ab
Gb	A
F	Bb
E	B
Eb	C
D	Db

B-Major

D	Eb
Db	E
C	F
B	Gb
Bb	G
A	Ab

F#/Gb-Major

A	Bb
Ab	B
G	C
Gb	Db
F	D
E	Eb

F-Major

Ab	A
G	Bb
Gb	B
F	C
E	Db
Eb	D

Bb-Major

Db	D
C	Eb
B	E
Bb	F
A	Gb
Ab	G

Eb-Major

Gb	G
F	Ab
E	A
Eb	Bb
D	B
Db	C

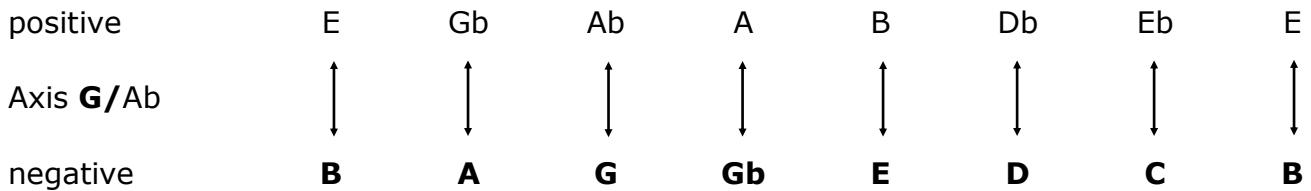
Ab-Major

B	C
Bb	Db
A	D
Ab	Eb
G	E
Gb	F

Db-Major

E	F
Eb	Gb
D	G
Db	Ab
C	A
B	Bb

Example 5: Conversion of a E-Major scale to negative.



After conversion two new scales are created. With **E** as root you get the E-Aeolian scale. With **B** as root you get the B-Phrygian scale.

E-Aeolian E G_b G A B C D E

B-Phrygian B C D E G_b G A B



From Positive to Negative

in the key of G

A

POSITIVE: before converting

Gadd11/D Am7 D7 Gmaj7

The top row shows four guitar chord diagrams: Gadd11/D (x at 5th fret, dot at 6th), Am7 (x at 5th, x at 6th), D7 (x at 5th, dots at 6th and 7th), and Gmaj7 (x at 5th, dots at 6th and 7th). Below each diagram is a corresponding musical note on a staff. The staff has a treble clef, a key signature of one sharp, and a 4/4 time signature. The notes are: G (1), A (2), C (3), E (4), G (5), B (6), D (7), F# (8). The bottom row shows the corresponding tablature for the strings T (Thick), A, and B. The tablature indicates fingerings: 8, 7, 5; 8, 5; 5, 7, 5; and (3), (4), (4), (3).

B

NEGATIVE: after converting

Gmadd9 Dm7 Cm6/G Ebmaj7

The top row shows four guitar chord diagrams: Gmadd9 (xx at 5th fret, dot at 6th), Dm7 (x at 5th, x at 6th), Cm6/G (xx at 5th, dots at 6th and 7th), and Ebmaj7 (x at 5th, dot at 6th). Below each diagram is a corresponding musical note on a staff. The staff has a treble clef, a key signature of one sharp, and a 4/4 time signature. The notes are: G (5), B (6), D (5), F# (5); A (5), C (3), E (5); G (5), B (8), D (4); and E (3), (3), (5), (6). The bottom row shows the corresponding tablature for the strings T (Thick), A, and B. The tablature indicates fingerings: 5, 6; 5, 3; 5, 5; and (3), (3), (5), (6).

Pedal Point - Pedal Note

a note sustained through harmonic changes

Pedal Point - Pedal Note

The term Pedal Point or Pedal Note is originated from pipe organs which are equipped with a set of footpedals to play low, sustaining notes.

The Pedal Point is a sustained note, most of the times a bass note, played for several bars creating melodic or harmonic tensions and sometimes dissonance.

The Pedal Points are usually on either tonic (I) or on the dominant (V).

Sample 1: Pedal Point on tonic (I) in A

Am7 B/A B♭/A A

mf

T A B

0 0 5 0 0 4

0 0 0 0 0 0 3

0 0 0 0 0 0 2

Sample 2: Pedal Point on dominant (V) in A

A9/E B(♭9)/E Bdim/E A6add9/E F(♭9)/E F(♭5)/E Amaj9

mf

T A B

7 5 7 4 7 3 5 6 5 6 5 6 (5) 0

6 5 5 4 3 2 4 3 4 3 3 2 (4) 6

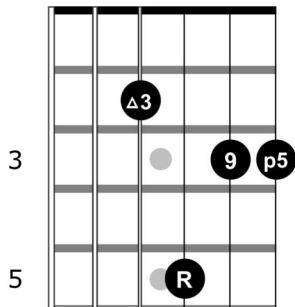
0 0 0 0 0 0 7 5

Extended Voicings

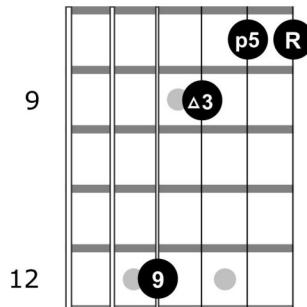
Extended Voicings

R = Root!

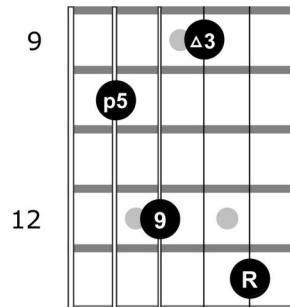
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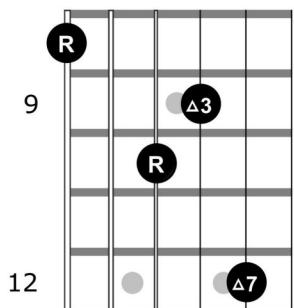
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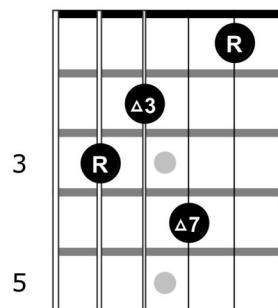
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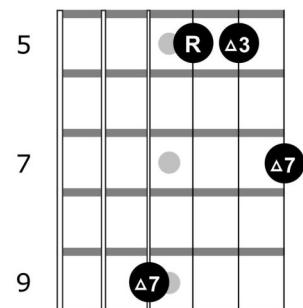
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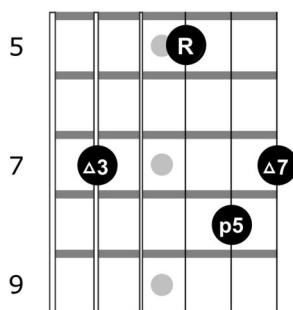
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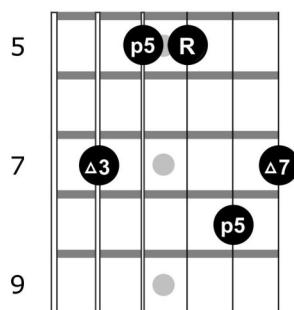
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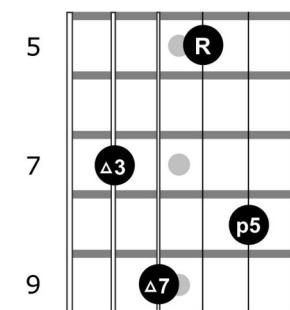
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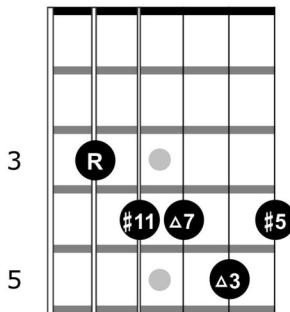
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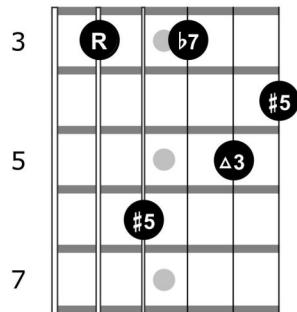
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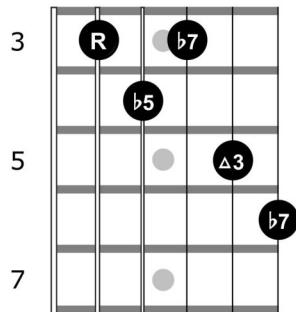
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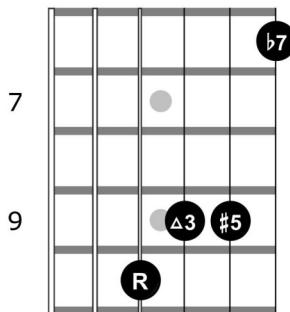
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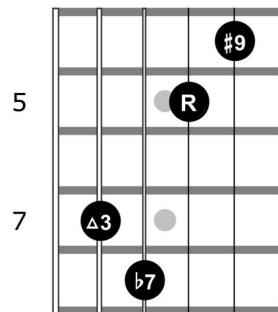
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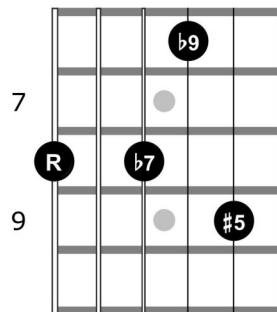
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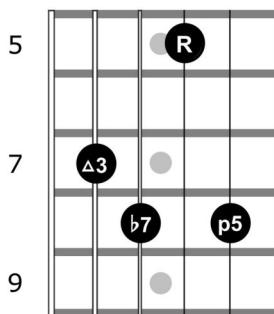
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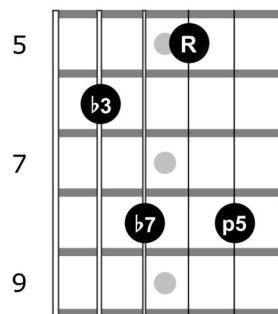
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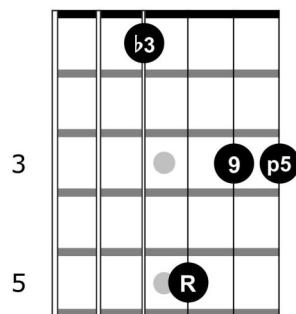
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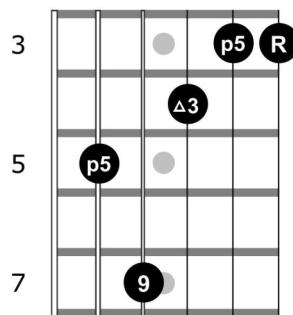
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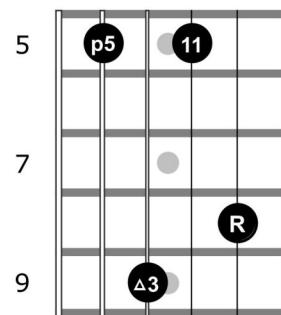
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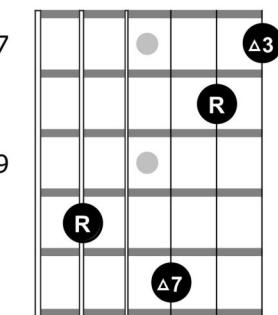
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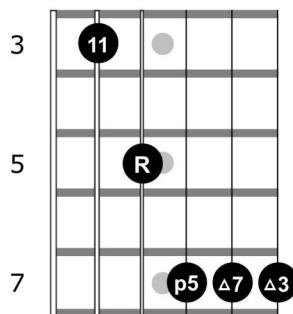
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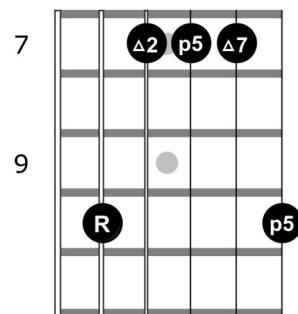
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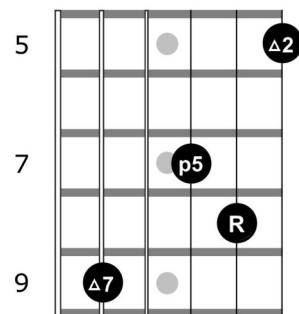
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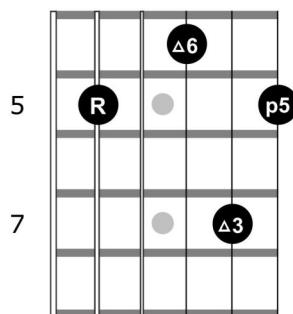
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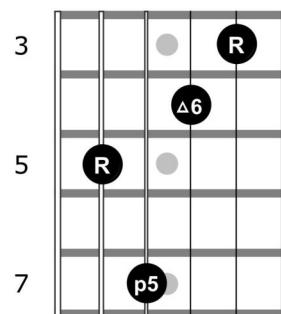
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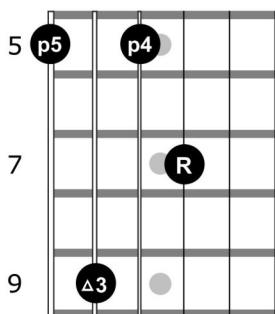
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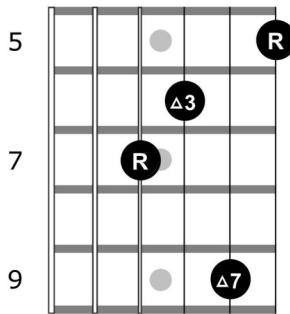
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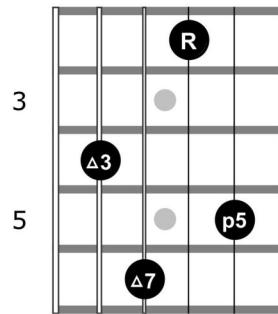
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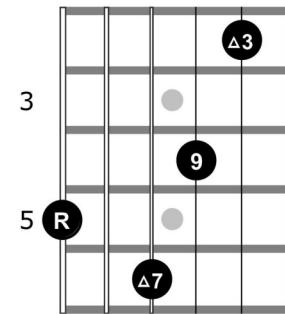
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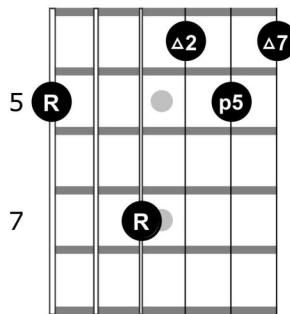
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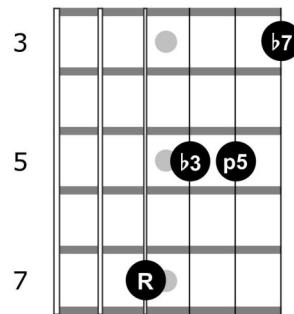
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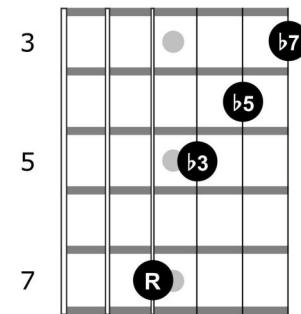
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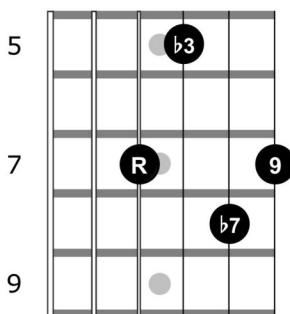
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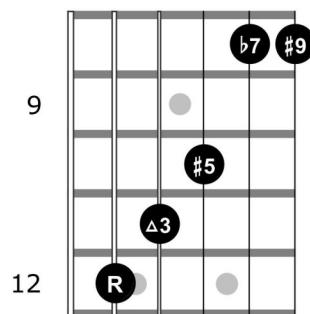
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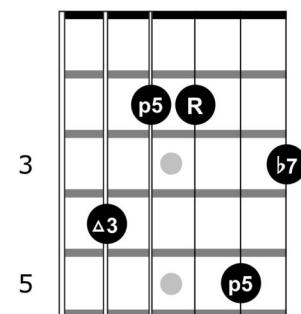
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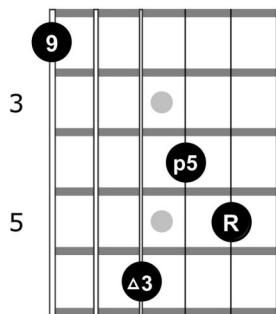
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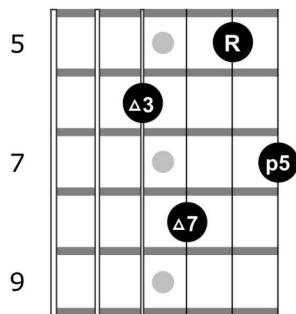
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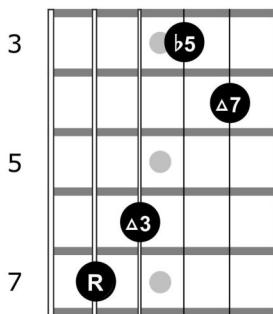
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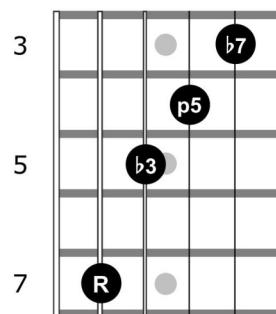
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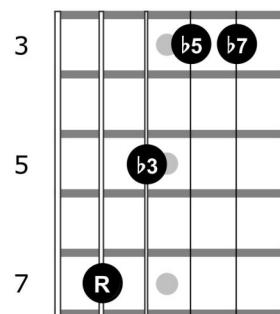
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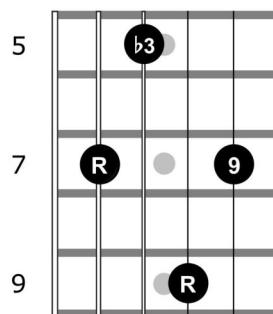
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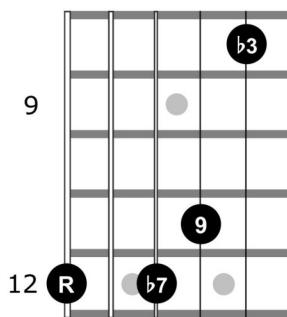
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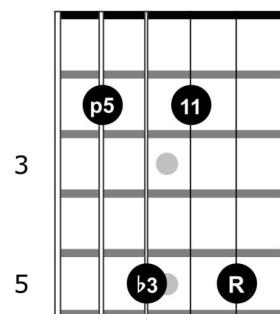
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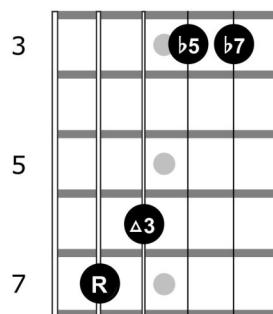
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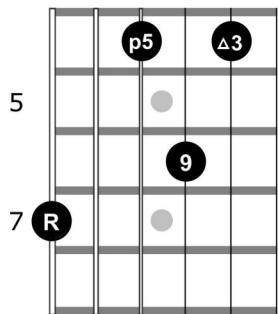
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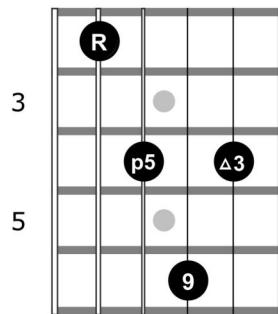
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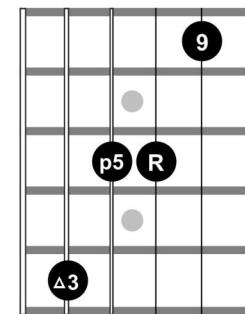
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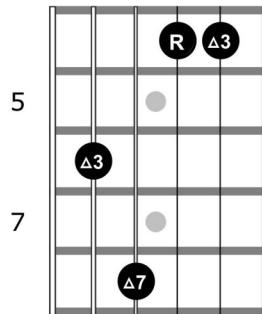
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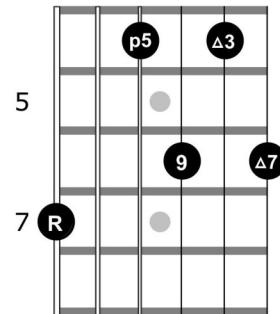
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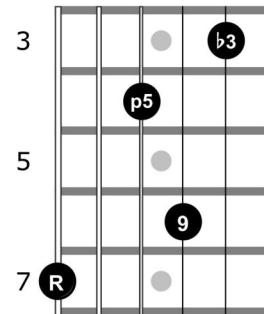
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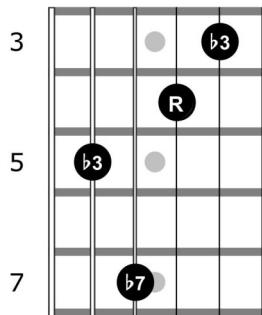
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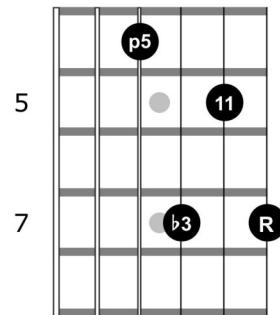
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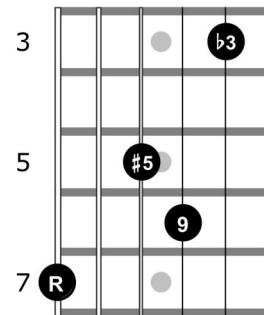
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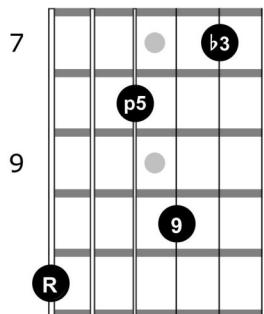
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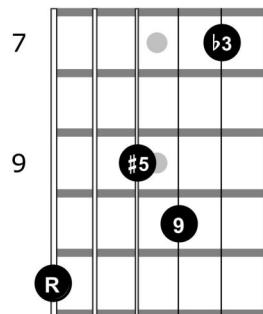
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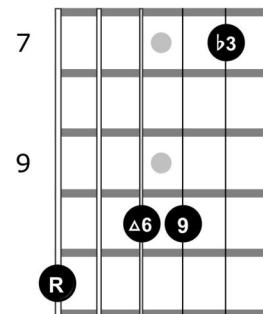
Ebmadd9



Ebm(♯5)add9



Ebm6add9



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