

# LinnStrument

## Charts & Diagrams

1				
5			b7	7
	b3	3		
			1	

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v.1.4

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For more documents on *Scales*, click here : [Docs, Charts & Diagrams \[Google Drive\]](#)



# LinnStrument - Overview

## Chords (Maj & Min)

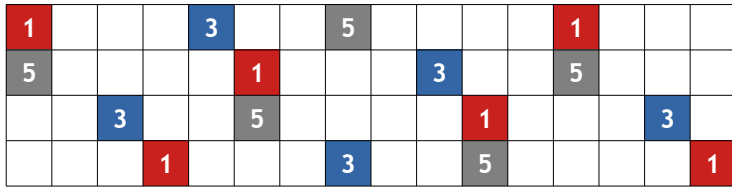
The image displays 48 guitar chord diagrams for major and minor chords, arranged in a grid. Each diagram shows a 6-string guitar fretboard with notes indicated by numbers and colors: red for the root (1), blue for the third (3) and fifth (5), and green for the seventh (7). Some diagrams also show a flat seventh (b7) in green. The diagrams are organized into rows and columns, showing various voicings for major and minor triads and dyads.

The diagrams are arranged in a grid of approximately 4 rows and 12 columns. The first row contains 5 diagrams, the second row contains 6 diagrams, the third row contains 6 diagrams, the fourth row contains 6 diagrams, the fifth row contains 6 diagrams, and the sixth row contains 5 diagrams. The diagrams show various voicings for major and minor chords, including triads and dyads, across different fret positions on the guitar neck.

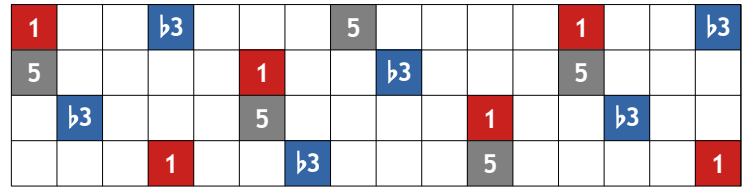
# LinnStrument - Overview

## Triads & Tetrads [4x16 Grid]

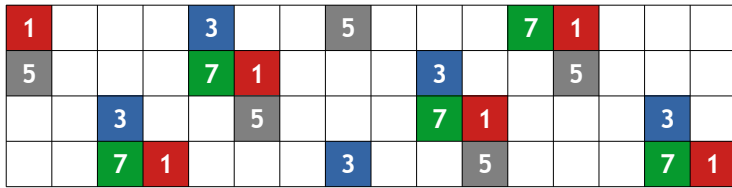
Maj



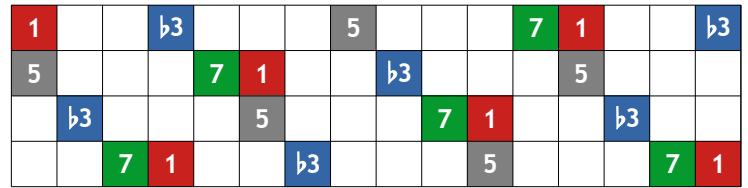
Min



M7



mM7



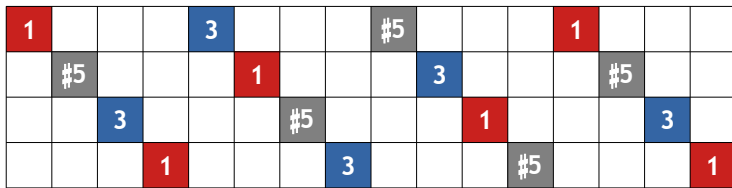
7



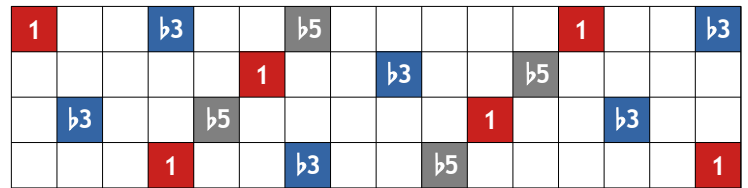
m7



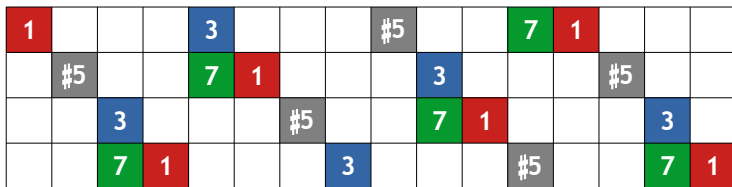
Aug



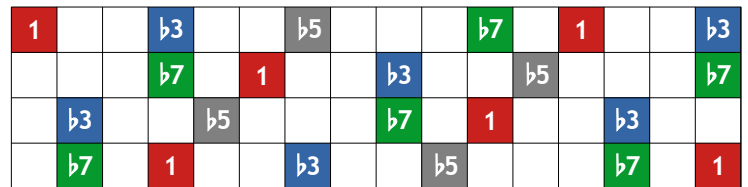
Dim



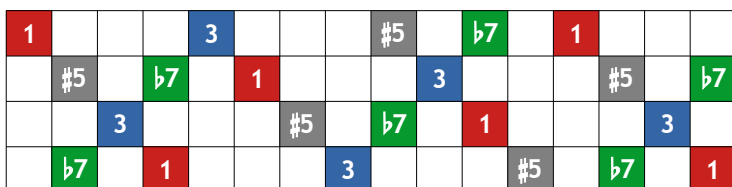
M7#5



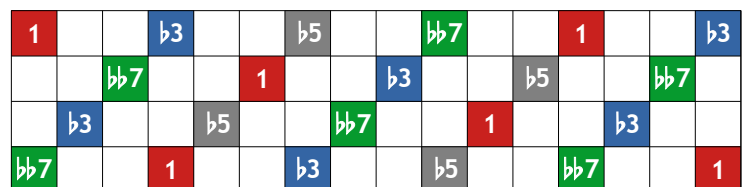
m7b5



7#5



dim7



# LinnStrument - Overview

## Triads & Tetrads [8x16 Grid]

Maj

			1			3		5							
	3		5				1			3					
		1			3		5					1			
		5				1			3		5				
1			3		5				1			5			
5				1		3		5							
	3		5				1			3					
		1			3		5						1		

Min

			1			b3		5							
	b3		5				1			b3					
		1			b3		5					1			
		5				1			b3				5		
1			b3		5					1			b3		
5				1		b3		5							
	b3			5					1			b3			
		1			b3		5							1	

M7

			7	1			3		5						7
	3		5				7	1			3				
		7	1			3		5				7	1		
		5				7	1			3		5			
1			3		5				7	1					
5				7	1		3		5						
	3		5				7	1				3			
		7	1			3		5					7	1	

mM7

			7	1			b3		5						7
	b3		5					7	1			b3			
		7	1			b3		5					7	1	
		5				7	1			b3				5	
1			b3		5						7	1		b3	
5				7	1		b3		5						
	b3			5					7	1			b3		
		7	1			b3		5						7	1

7

			b7	1			3		5						b7
	3		5				b7	1			3				
		b7	1			3		5				b7	1		
		5				b7	1			3		5			
1			3		5				b7	1					
5				b7	1		3		5					b7	
	3		5				b7	1				3			
		b7	1			3		5					b7	1	

m7

			b7	1			b3		5						b7
	b3		5					b7	1			b3			
		b7	1			b3		5					b7	1	
		5				b7	1			b3				5	
1			b3		5						b7	1		b3	
5				b7	1		b3		5						b7
	b3			5					b7	1			b3		
		b7	1			b3		5						b7	1

# LinnStrument - Overview

## Triads & Tetrads [8x16 Grid]

Aug

#5				1				3				#5			
	3				#5			1				3			
		1				3			#5				1		
			#5			1			3					#5	
1			3			#5			1						
	#5			1			3			#5					
		3			#5			1				3			
			1			3			#5					1	

Dim

				1				b3				b5			
b3			b5						1			b3			b5
		1			b3			b5					1		
	b5					1			b3			b5			
1			b3			b5				1			1		b3
				1			b3			b5					
	b3			b5					1				b3		
			1			b3			b5						1

M7 #5

#5			7	1				3				#5			7
	3				#5			1				3			
	7	1				3			#5			7	1		
			#5			7	1			3				#5	
1			3			#5			7	1					
	#5			7	1			3			#5				
		3			#5			7	1			3			
		7	1			3			#5				7	1	

m7 b5

		b7		1				b3				b5			b7
b3			b5					b7		1		b3			b5
		1			b3			b5				b7		1	
	b5				b7		1			b3			b5		
1			b3			b5				b7		1			b3
			b7		1			b3			b5				b7
	b3			b5				b7		1			b3		
		b7		1		b3			b5				b7		1

7 #5

#5		b7		1				3				#5		b7	
	3				#5		b7		1				3		
b7		1				3			#5		b7		1		
			#5		b7		1			3				5#	
1			3			#5		b7		1					
	#5		b7		1			3			#5			b7	
		3			#5		b7		1			3			
	b7		1			3			#5			b7		1	

dim7

		bb7		1				b3				b5			bb7
b3			b5					bb7		1		b3			b5
		1			b3			b5				bb7		1	
	b5				bb7		1			b3			b5		
1			b3			b5				bb7		1			b3
		bb7		1			b3			b5				bb7	
	b3			b5			bb7		1			b3			
bb7		1			b3			b5				bb7			1

# LinnStrument - Overview

## Triads & Tetrads [8x8 Grid]

Maj

				1			
	3			5			
		1				3	
		5					1
1				3			5
5				1			
		3		5			
			1				3

7M

			7	1			
	3			5			
		7	1			3	
		5				7	1
1				3			5
5				7	1		
		3		5			
		7	1				3

7

			b7	1			
	3			5			b7
		1				3	
		5				b7	1
1				3			5
5				b7	1		
		3		5			
		b7	1				3

Min

				1			b3
	b3			5			
		1				b3	
		5					1
1				b3			5
5				1			
		b3		5			
			1				b3

mM7

			7	1			b3
	b3			5			
		7	1			b3	
		5				7	1
1				b3			5
5				7	1		
		b3		5			
		7	1				b3

m7

			b7	1			b3
	b3			5			b7
		1				b3	
		5				b7	1
1				b3			5
5				b7	1		
		b3		5			
		b7	1				b3

Dim

				1			b3
	b3			b5			
		1				b3	
		b5					1
1				b3			b5
				1			
		b3		b5			
			1				b3

m7b5

			bb7	1			b3
	b3			b5			bb7
		bb7	1			b3	
		b5				bb7	1
1				b3			b5
				bb7	1		
		b3		b5			
		bb7	1				b3

dim7

			bb7	1			b3
	b3			b5			bb7
		1				b3	
		b5				bb7	1
1				b3			b5
				bb7	1		
		b3		b5			bb7
		bb7	1				b3

Aug

#5				1			
	3			#5			
		1				3	
		#5					1
1				3			
		#5		1			
		3		#5			
			1				3

7M #5

#5			7	1			
	3			#5			
		7	1			3	
		#5				7	1
1				3			
		#5		7	1		
		3		#5			
		7	1				3

7 #5

#5			b7	1			
	3			#5			b7
		1				3	
		#5				b7	1
1				3			
		#5		b7	1		
		3		#5			
		b7	1				3



# LinnStrument - Chords & Arpeggios

## Arpeggios 1 (Maj - M7 - 7)

**Maj**

**Maj**

**Maj**

**M7**  
7

**M7**  
7

**M7**  
7

**M7**  
7

# LinnStrument - Chords & Arpeggios

## Chords 1 (Maj - M7 - 7)

The diagrams are arranged in a grid-like fashion across the page. Each diagram represents a specific chord voicing on a guitar fretboard. The fretboard is shown as a 5x5 grid of boxes representing frets and strings. The strings are numbered 1 to 6 from bottom to top. The frets are numbered 1 to 5 from left to right. The notes are indicated by numbers in colored boxes: red for the root (1), blue for the 3rd, grey for the 5th, and green for the 7th. Some diagrams also include a flat 7th (b7) in green. The diagrams show various voicings for Major, Major 7, and Dominant 7 chords across different fret positions.



# LinnStrument - Chords & Arpeggios

## Chords 2 (Min - mM7 - m7)

The following table lists the chord names and their corresponding fretboard diagrams (row 1-5, column 1-5):

Chord	Diagram 1	Diagram 2	Diagram 3	Diagram 4	Diagram 5
Min	5, b3, 1	b3, 5, 1	1, 5, b3	5, b3, 1, b7, 7	5, b3, 1, b7, 7, 1, 5
mM7	b3, 5, 1, b7, 7	5, b3, b7, 7, 1	b7, 7, 5, b3, 1	b3, 1, 5	b3, b7, 7, 5, 1
m7	1, b3, 5, b7, 7	b3, 1, b7, 7, 5	1, b3, 5, 7, b7	1, b3, 5, 7, b7	1, b3, 5, 7, b7, 1
Min	1, 5, b3	b3, 1, 5	1, 5, b3, 1	1, 5, b7, 7, b3	1, 5, b3, b7, 7, 1
mM7	b3, 1, 5, b7, 7	1, b3, 5, b7, 7, 1	1, 5, b3, 7, b7	1, 5, b3, 7, b7	1, b3, 5, b7, 7, 1
m7	1, 5, b3, 7, b7	1, 5, b3, 7, b7, 1	1, 5, b3, 7, b7, 1	1, 5, b3, 7, b7, 1	1, 5, b3, 7, b7, 1
Min	b3, 1, 5	1, b3, 5	b3, 1, 5, b7, 7	1, b3, 5, 7, b7	b3, 1, 5, b7, 7, 1
mM7	b3, 1, 5, b7, 7	1, b3, 5, b7, 7, 1	b3, 1, 5, 7, b7	1, b3, 5, 7, b7	b3, 1, 5, b7, 7, 1
m7	1, b3, 5, 7, b7	1, b3, 5, 7, b7, 1	1, b3, 5, 7, b7, 1	1, b3, 5, 7, b7, 1	1, b3, 5, 7, b7, 1
Min	1, 5, b3, 1	1, 5, b3, 1	5, b3, 1, 5	b3, 1, 5, b3	b3, 1, 5, b3
mM7	1, 5, b3, 1, b7, 7	1, 5, b3, 1, b7, 7	5, b3, 1, 5, b7, 7	b3, 1, 5, b3, b7, 7	b3, 1, 5, b3, b7, 7
m7	1, 5, b3, 1, b7, 7	1, 5, b3, 1, b7, 7	5, b3, 1, 5, b7, 7	b3, 1, 5, b3, b7, 7	b3, 1, 5, b3, b7, 7

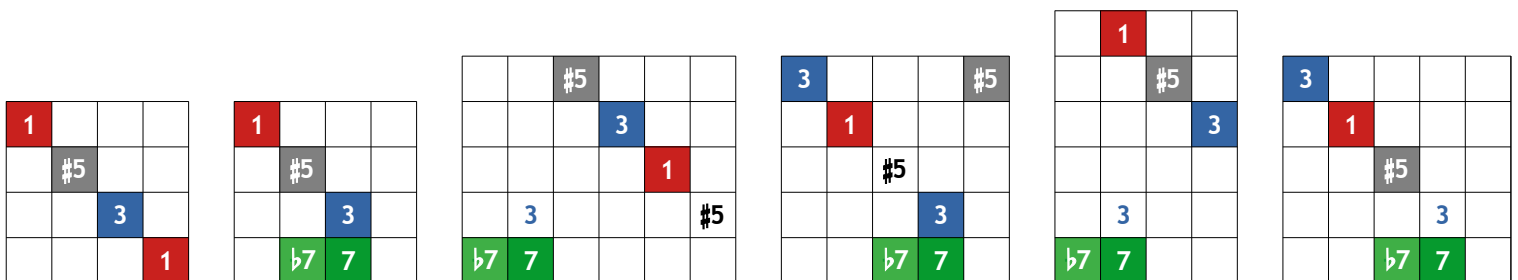
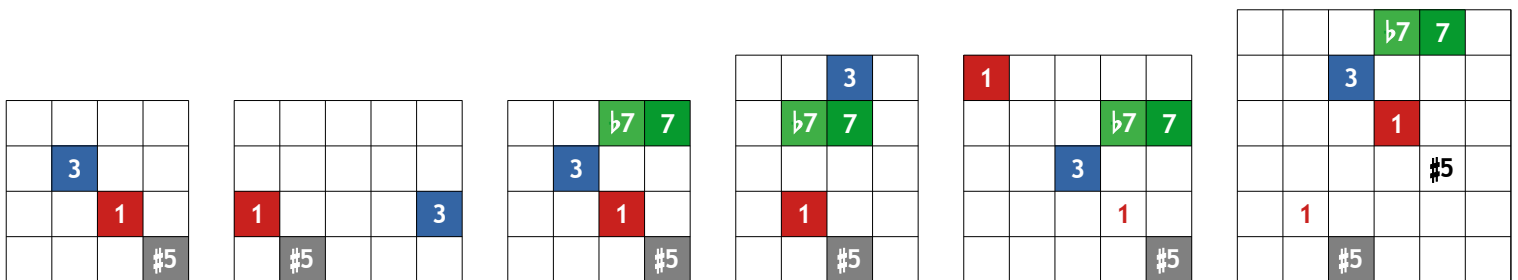
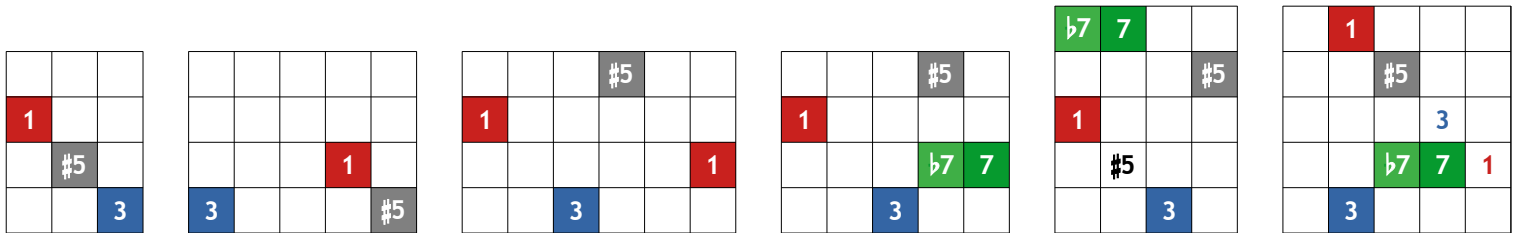
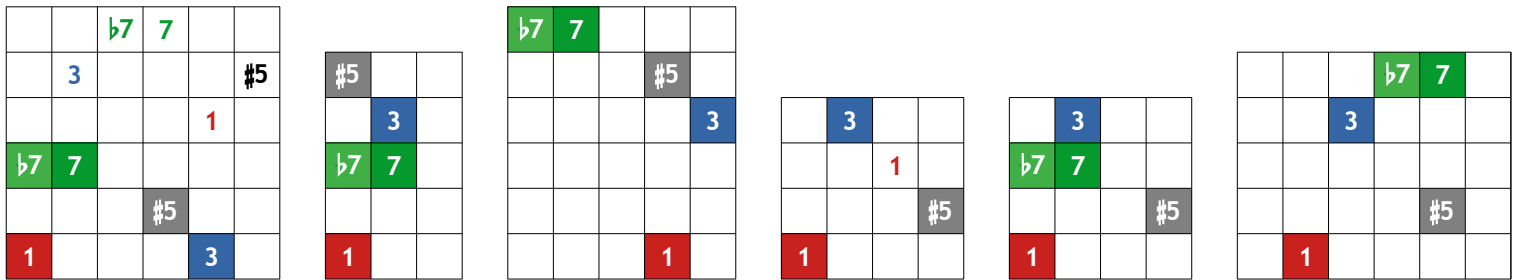
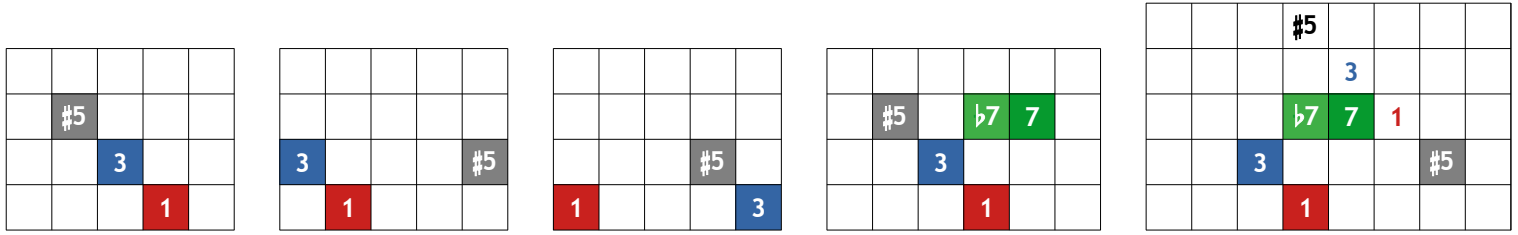






# LinnStrument - Chords & Arpeggios

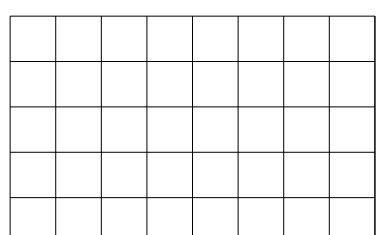
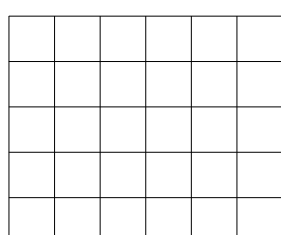
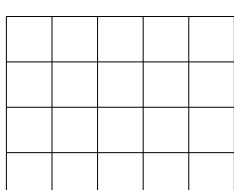
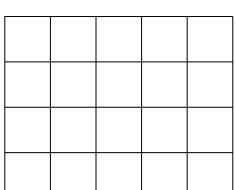
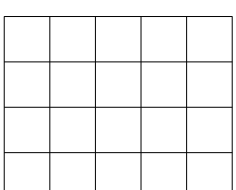
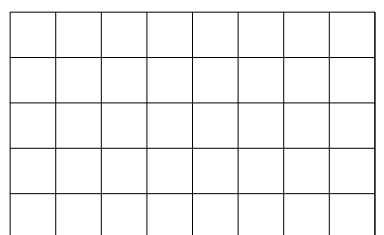
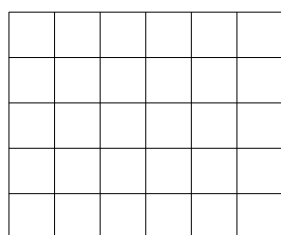
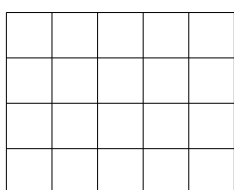
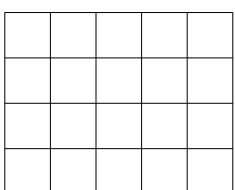
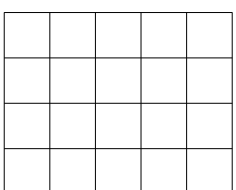
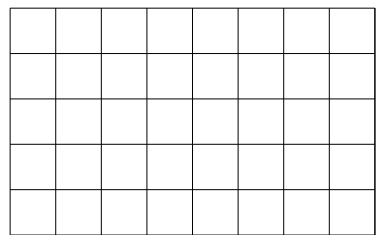
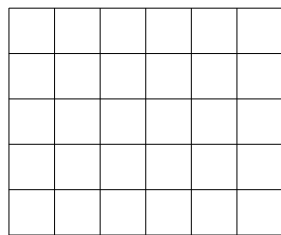
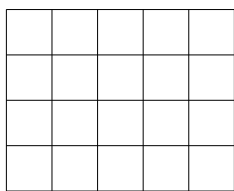
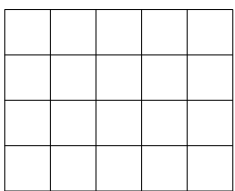
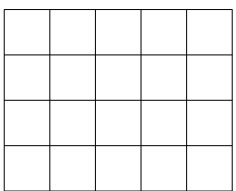
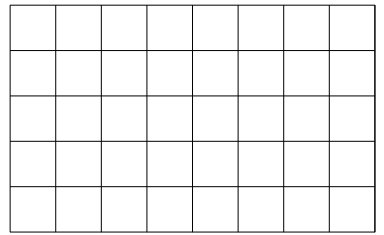
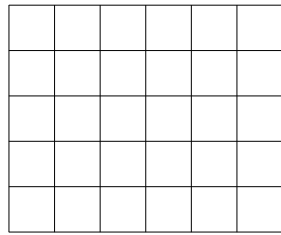
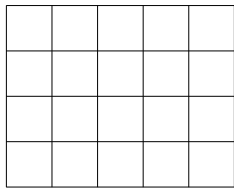
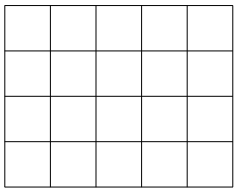
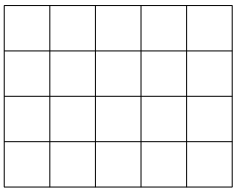
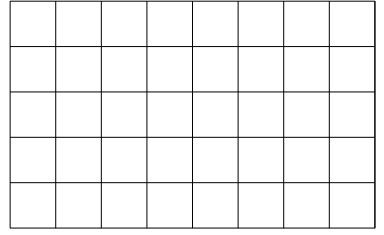
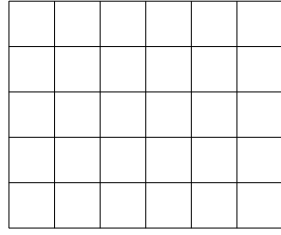
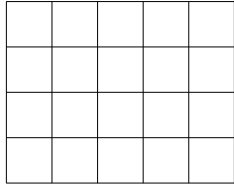
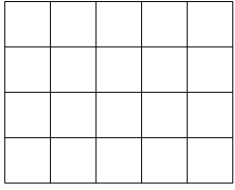
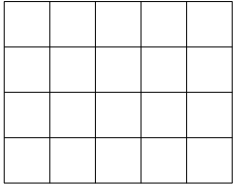
## Chords 4 (Aug - M7 #5 - 7 #5)





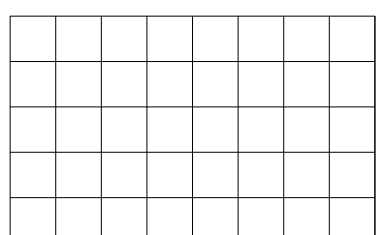
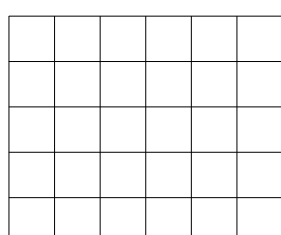
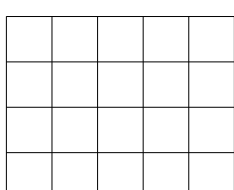
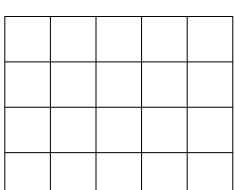
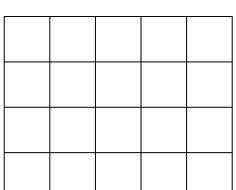
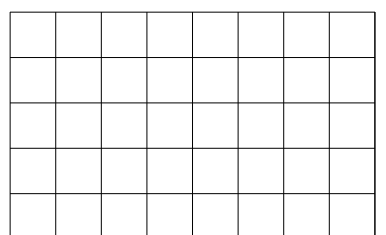
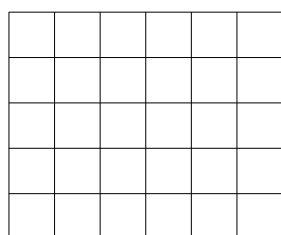
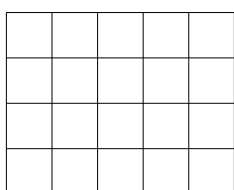
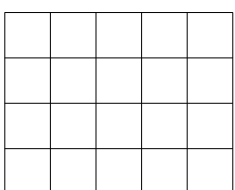
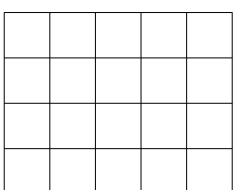
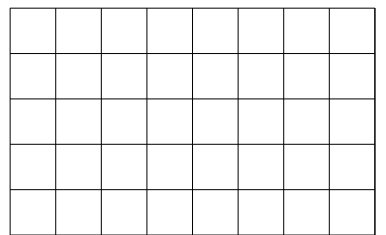
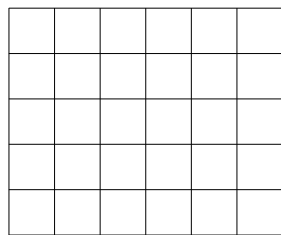
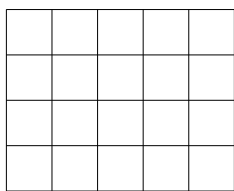
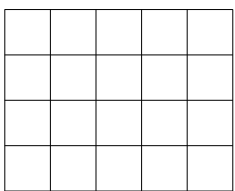
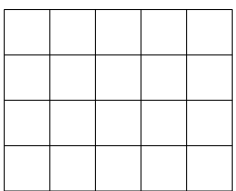
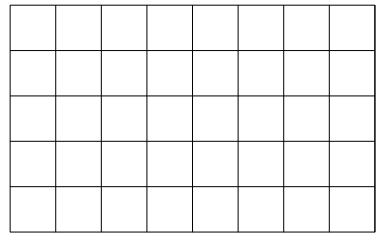
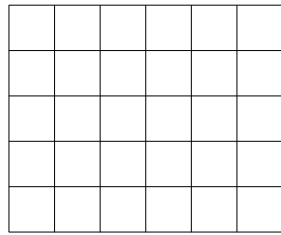
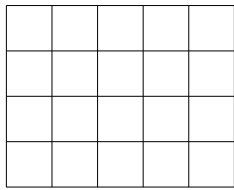
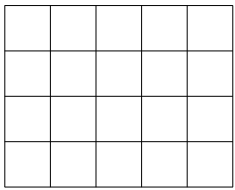
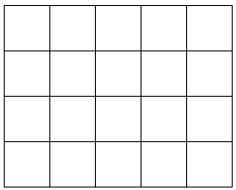
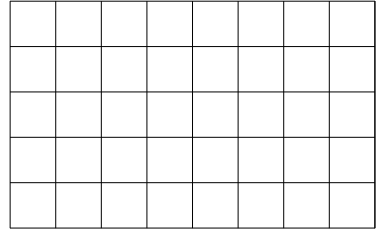
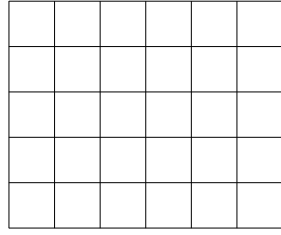
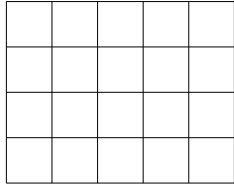
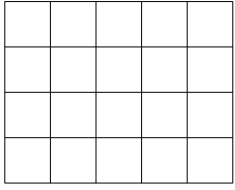
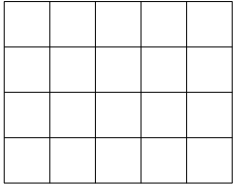
# LinnStrument - Chords & Arpeggios

## Extended chords



# LinnStrument - Chords & Arpeggios

## Extended chords





# LinnStrument - Intervals

5
1

			1					5			
			5				1				
		1					5			1	
		5				1				5	
1						5				1	
5				1					5		
			5					1			
			1					5			1

1				
5				

		1		
		5		
1				

9
5
1

			1		9			5			
			5				1		9		
		1		9			5			1	
		5				1		9		5	
1		9				5			1	9	
5				1		9			5		
			5					1		9	
			1		9			5			1

1		9		
5				
9				

		1		9
		5		
1		9		

11
5
1

			1				11		5		
			5				1				11
		11					5				11
		1				11					1
11		5				1				11	5
1				11		5				1	
5				1				11		5	
			11		5			1			11
			1			11		5			1

		11		
		1		
11		5		
1				


13
5
1

	13		1					5		13	
			5		13			1			
			1					5		13	
			5		13					1	
1						1				5	
5				13		1					13
				5		13				1	
				1				5		13	
13			1					5		13	
								1			1

1				
5		13		


# LinnStrument - Voicings

## II - V - I - IV (Triads)

II Min

		1			b3			5					1			b3		
		5					1			b3			5					1
1			b3			5					1		b3			5		
5				1		b3				5				1				

V 7

		5			b7		1			3			5			b7		1
1				3			5			b7		1			3			5
5			b7		1			3			5		b7		1			
		3			5		b7		1			3			5			

I Maj

1				3			5					1				3		5
5					1			3			5					1		
		3			5				1			3			5			
			1			3			5				1					3

IV Maj

5					1				3			5					1	
		3			5					1			3			5		
			1			3			5					1				3
3			5				1				3			5				

## Resolutions

V	(I)	I
3	7	b7
1	5	5
b7	4	3
5	2	1

V	(I)	I
5	2	1
3	7	b7
1	5	5
b7	4	3

V	(I)	I
b7	4	3
5	2	1
3	7	b7
1	5	5

V	(I)	I
1	5	5
b7	4	3
5	2	1
3	7	b7

V	(I)	I
b7	4	3
3	7	1

# LinnStrument - Voicings

## II - V - I - IV (Triads)

II Min

		1		b3			5					1		b3		
		5				1		b3				5				1
1			b3			5				1		b3			5	
5				1		b3				5				1		

V 7

		5		b7		1			3			5		b7		1
1			3			5		b7		1			3			5
5			b7		1			3			5		b7		1	
		3			5		b7		1			3			5	

I Min

1			b3			5				1		b3				5
5				1		b3				5			1			
	b3			5				1		b3			5			
		1		b3			5				1		b3			

IV Min

5				1		b3			5				1			
	b3			5				1		b3			5			
		1		b3			5				1		b3			
		5				1		b3			5				1	

## Resolutions

V	(I)	I
3	7	7
1	5	5
b7	4	b3
5	2	1

V	(I)	I
5	2	1
3	7	7
1	5	5
b7	4	b3

V	(I)	I
b7	4	b3
5	2	1
3	7	7
1	5	5

V	(I)	I
1	5	5
b7	4	b3
5	2	1
3	7	7

V	(I)	I
b7	4	b3
3	7	1

# LinnStrument - Voicings

## II - V - I - IV (Tetrads)

II m7

b7	1			b3			5			b7	1			b3		
		5		b7	1			b3			5			b7	1	
1			b3			5		b7	1			b3			5	
5			b7	1		b3			5			b7	1			5

V 7

		5		b7	1			3			5			b7	1	
1			3			5		b7	1			3			5	
5			b7	1			3			5			b7	1		5
		3			5		b7	1			3			5		

I 7M

1			3			5			7	1				3			5
5			7	1			3			5			7	1			
		3			5			7	1			3			5		
		7	1			3			5			7	1				3

IV M7  
IV mM7

5				7	1			b3	3			5				7	1	
	b3	3			5				7	1			b3	3			5	
		7	1			b3	3			5			7	1			b3	3
3			5				7	1			b3	3			5			7

### Alternatives

II m7b5

b7		1			b3			b5			b7	1			b3		
		b5			b7	1			b3			b5			b7	1	
1			b3			b5			b7	1			b3			b5	
			b7	1			b3			b5			b7	1			b5

V 7b5

		b5			b7	1			3			b5			b7	1	
1			3		b5				b7	1			3		b5		
			b7	1			3			b5			b7	1			b5
		3		b5			b7	1			3		b5				b7

# LinnStrument - Voicings

## II - V - I - IV (Tetrads)

II m7

b7	1			b3			5			b7	1			b3		
		5		b7	1			b3			5			b7	1	
1			b3			5		b7	1			b3			5	
5			b7	1		b3			5			b7	1			5

V 7

		5		b7	1			3			5			b7	1	
1			3			5		b7	1			3			5	
5			b7	1			3			5			b7	1		5
		3			5		b7	1			3			5		

I mM7

1			b3			5			7	1			b3			5
5				7	1		b3			5			7	1		
	b3				5			7	1			b3			5	
		7	1			b3			5			7	1			b3

IV m7  
IV 7

5			b7	1			b3	3			5			b7	1		
	b3	3			5		b7	1			b3	3			5		
			1			b3	3			5			b7	1		b3	3
3			5			b7	1			b3	3			5			b7

### Alternatives

II m7b5

b7		1			b3			b5			b7	1			b3		
		b5			b7	1			b3			b5			b7	1	
1			b3			b5			b7	1			b3			b5	
			b7	1			b3			b5			b7	1			b5

V 7b5

		b5			b7	1			3			b5			b7	1	
1				3		b5			b7	1			3			b5	
			b7	1			3			b5			b7	1			b5
		3			b5			b7	1			3			b5		



# LinnStrument - Voicings

## VII - III - VI - II - V - I - IV (Diatonic major scale)

VII m7 $\flat$ 5  
Locrian

		$\flat 3$			$\flat 5$			$\flat 7$	1			$\flat 3$			$\flat 5$		
		$\flat 7$		1			$\flat 3$		$\flat 5$			$\flat 7$		1			$\flat 3$
$\flat 3$			$\flat 5$			$\flat 7$	1			$\flat 3$			$\flat 5$			$\flat 7$	
$\flat 7$	1			$\flat 3$		$\flat 5$				$\flat 7$	1			$\flat 3$			

III m7  
Phrygian

		$\flat 7$		1			$\flat 3$			5			$\flat 7$		1		$\flat 3$
$\flat 3$				5			$\flat 7$	1			$\flat 3$			5			$\flat 7$
$\flat 7$	1			$\flat 3$			5			$\flat 7$	1			$\flat 3$			
		5			$\flat 7$	1			$\flat 3$			5			$\flat 7$	1	

VI m7  
Aeolian

$\flat 3$				5			$\flat 7$	1			$\flat 3$			5			$\flat 7$
$\flat 7$	1			$\flat 3$			5			$\flat 7$	1			$\flat 3$			
		5			$\flat 7$	1			$\flat 3$			5			$\flat 7$	1	
1		$\flat 3$			5			$\flat 7$	1			$\flat 3$			5		

II m7  
Dorian

$\flat 7$	1			$\flat 3$			5			$\flat 7$	1			$\flat 3$			
		5			$\flat 7$	1			$\flat 3$			5			$\flat 7$	1	
1		$\flat 3$			5			$\flat 7$	1			$\flat 3$			5		
5		$\flat 7$	1			$\flat 3$			5			$\flat 7$	1				

V 7  
Mixolydian

		5			$\flat 7$	1			3			5			$\flat 7$	1	
1				3			5			$\flat 7$	1			3			5
5			$\flat 7$	1			3			5			$\flat 7$	1			
		3			5			$\flat 7$	1			3			5		

I M7  
Ionian

1				3			5			7	1			3			5
5				7	1			3			5			7	1		
		3			5			7	1				3			5	
		7	1			3			5				7	1			3

IV M7  
Lydian

5				7	1			3			5			7	1		
		3			5			7	1				3			5	
		7	1			3			5				7	1			3
3			5			7	1			3			5				7

# LinnStrument - Chord progressions (Cadences)

## Chord progressions (Circle of Fifths/ Forths)

<b>Melodic major</b> (Diatonic major scale)	Degrees	VII	III	VI	II	V	I	IV
	Chords	m7 $\flat$ 5	m7	m7	m7	7	M7	M7
<b>Harmonic major</b>	Degrees	-	-	-	II	V	I	IV
	Chords	-	-	-	m7 $\flat$ 5	7	M7	mM7
<b>Melodic minor</b>	Degrees	-	-	VI	II	V	I	IV
	Chords	-	-	m7 $\flat$ 5	m7	7	mM7	7
<b>Harmonic minor</b>	Degrees	-	-	-	II	V	I	IV
	Chords	-	-	-	m7 $\flat$ 5	7	mM7	m7
<b>Melodic major <math>\flat</math>2</b>	Degrees	-	-	-	-	V	I	IV
	Chords	-	-	-	-	7 $\flat$ 5	M7	M7
<b>Harmonic major <math>\flat</math>2</b> (Byzantine Mode)	Degrees	-	-	-	-	V	I	IV
	Chords	-	-	-	-	7 $\flat$ 5	7M	mM7
<b>Melodic minor <math>\flat</math>2</b> (Neapolitan major mode)	Degrees	-	-	-	-	V	I	IV
	Chords	-	-	-	-	7 $\flat$ 5	mM7	7
<b>Harmonic minor <math>\flat</math>2</b> (Neapolitan minor mode)	Degrees	-	-	-	-	V	I	IV
	Chords	-	-	-	-	7 $\flat$ 5	mM7	m7

# LinnStrument - Scales

## A1. Melodic major (Diatonic major modes / Greek modes)

**I M7**  
Ionian  
Diatonic major scale

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

**II m7**  
Dorian

1		2	b3		4		5		6	b7		1		2	b3
5		6	b7		1		2	b3		4		5		6	b7
2	b3		4		5		6	b7		1		2	b3		4
6	b7		1		2	b3		4		5		6	b7		1

**III m7**  
Phrygian

1	b2		b3		4		5	b6		b7		1	b2		b3
5	b6		b7		1	b2		b3		4		5	b6		b7
	b3		4		5	b6		b7		1	b2		b3		4
	b7		1	b2		b3		4		5	b6		b7		1

**IV M7**  
Lydian

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

**V 7**  
Mixolydian

1		2		3	4		5		6	b7		1		2	
5		6	b7		1		2		3	4		5		6	b7
2		3	4		5		6	b7		1		2		3	4
6	b7		1		2		3	4		5		6	b7		1

**VI m7**  
Aeolian  
Natural minor / Relative minor scale  
Descending melodic minor scale

1		2	b3		4		5	b6		b7		1		2	b3
5	b6		b7		1		2	b3		4		5	b6		b7
2	b3		4		5	b6		b7		1		2	b3		4
	b7		1		2	b3		4		5	b6		b7		1

**VII m7b5**  
Locrian

1	b2		b3		4	b5		b6		b7		1	b2		b3
	b6		b7		1	b2		b3		4	b5		b6		b7
	b3		4	b5		b6		b7		1	b2		b3		4
	b7		1	b2		b3		4	b5		b6		b7		1

# LinnStrument - Scales

## A2. Melodic major $\flat 2$

I M7  
Melodic major  $\flat 2$   
Ionian  $\flat 2$

1	$\flat 2$			3	4		5		6		7	1	$\flat 2$		
5		6		7	1	$\flat 2$			3	4		5		6	
		3	4		5		6		7	1	$\flat 2$			3	4
6		7	1	$\flat 2$			3	4		5		6		7	1

IV M7  
Lydian  $\flat 6$

1		2		3		$\#4$	5	$\flat 6$			7	1		2	
5	$\flat 6$			7	1		2		3		$\#4$	5	$\flat 6$		
2		3		$\#4$	5	$\flat 6$			7	1		2		3	
		7	1		2		3		$\#4$	5	$\flat 6$			7	1

V  $7\flat 5$   
Mixolydian  $\flat 5$

1		2		3	4	$\flat 5$			6	$\flat 7$		1		2	
		6	$\flat 7$		1		2		3	4	$\flat 5$			6	$\flat 7$
2		3	4	$\flat 5$			6	$\flat 7$		1		2		3	4
6	$\flat 7$		1		2		3	4	$\flat 5$			6	$\flat 7$		1

## A3. Melodic major $\flat 5$

IV M7  
Lydian  $\flat 2$

1	$\flat 2$			3		$\#4$	5		6		7	1	$\flat 2$		
5		6		7	1	$\flat 2$			3		$\#4$	5		6	
		3		$\#4$	5		6		7	1	$\flat 2$			3	
6		7	1	$\flat 2$			3		$\#4$	5		6		7	1

## A4. Melodic major $\flat 2 \flat 5$

IV M7  
Lydian  $\flat 2 \flat 6$

1	$\flat 2$			3		$\#4$	5	$\flat 6$			7	1	$\flat 2$		
5	$\flat 6$			7	1	$\flat 2$			3		$\#4$	5	$\flat 6$		
		3		$\#4$	5	$\flat 6$			7	1	$\flat 2$			3	
		7	1	$\flat 2$			3		$\#4$	5	$\flat 6$			7	1

# LinnStrument - Scales

## B1. Harmonic major

**I M7**  
Harmonic major  
Ionien  $\flat 6$

1		2		3	4		5	$\flat 6$			7	1		2	
5	$\flat 6$			7	1		2		3	4		5	$\flat 6$		
2		3	4		5	$\flat 6$			7	1		2		3	4
		7	1		2		3	4		5	$\flat 6$			7	1

**II m7 $\flat 5$**   
Dorian  $\flat 5$

1		2	$\flat 3$		4	$\flat 5$			6	$\flat 7$		1		2	$\flat 3$
		6	$\flat 7$		1		2	$\flat 3$		4	$\flat 5$			6	$\flat 7$
2	$\flat 3$		4	$\flat 5$			6	$\flat 7$		1		2	$\flat 3$		4
6	$\flat 7$		1		2	$\flat 3$		4	$\flat 5$			6	$\flat 7$		1

**III m7 (7)**  
Phrygian  $\flat 4$

1	$\flat 2$		$\flat 3$	$\flat 4$			5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$
5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$	$\flat 4$			5	$\flat 6$		$\flat 7$
	$\flat 3$	$\flat 4$			5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$	$\flat 4$	
	$\flat 7$		1	$\flat 2$		$\flat 3$	$\flat 4$			5	$\flat 6$		$\flat 7$		1

**IV mM7**  
Lydian  $\flat 3$

1		2	$\flat 3$		$\sharp 4$	5		6		7	1		2	$\flat 3$
5		6		7	1		2	$\flat 3$		$\sharp 4$	5		6	
2	$\flat 3$			$\sharp 4$	5		6	7 $M$	1		2	$\flat 3$		
6		7	1		2	$\flat 3$		$\sharp 4$	5		6		7	1

**V 7**  
Mixolydian  $\flat 2$

1	$\flat 2$			3	4		5		6	$\flat 7$		1	$\flat 2$		
5		6	$\flat 7$		1	$\flat 2$			3	4		5		6	$\flat 7$
		3	4		5		6	$\flat 7$		1	$\flat 2$			3	4
6	$\flat 7$		1	$\flat 2$			3	4		5		6	$\flat 7$		1

$\flat$ VI M7  $\sharp 5$   
Lydian  $\sharp 2$   $\sharp 5$

1			$\sharp 2$	3		$\sharp 4$		$\sharp 5$	6		7	1			$\sharp 2$
	$\sharp 5$	6		7	1			$\sharp 2$	3		$\sharp 4$		$\sharp 5$	6	
	$\sharp 2$	3		$\sharp 4$		$\sharp 5$	6		7	1			$\sharp 2$	3	
6		7	1			$\sharp 2$	3		$\sharp 4$		$\sharp 5$	6		7	1

**VII dim7**  
Locrian  $\flat \flat 7$

1	$\flat 2$		$\flat 3$		4	$\flat 5$		$\flat 2$	$\flat \flat 7$			1	$\flat 2$		$\flat 3$
	$\flat 6$	$\flat \flat 7$			1	$\flat 2$		$\flat 6$		4	$\flat 5$		$\flat 6$	$\flat \flat 7$	
	$\flat 3$		4	$\flat 5$		$\flat 6$	$\flat \flat 7$			1	$\flat 2$		$\flat 3$		4
$\flat \flat 7$			1	$\flat 2$		$\flat 3$		4	$\flat 5$		$\flat 6$	$\flat \flat 7$			1

# LinnStrument - Scales

## B2. Harmonic major $\flat 2$ (Byzantine mode)

**I M7**  
 Harmonic major  $\flat 2$   
 Ionian  $\flat 2 \flat 6$   
 Byzantine scale / Double harmonic

1	$\flat 2$			3	4		5	$\flat 6$			7	1	$\flat 2$		
5	$\flat 6$			7	1	$\flat 2$			3	4		5	$\flat 6$		
		3	4		5	$\flat 6$			7	1	$\flat 2$			3	4
		7	1	$\flat 2$			3	4		5	$\flat 6$			7	1

**IV mM7**  
 Lydian  $\flat 3 \flat 6$   
 Hungarian / Gypsy minor  
 Double harmonic minor

1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1		2	$\flat 3$
5	$\flat 6$			7	1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$		
2	$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1		2	$\flat 3$		
		7	1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1

**V 7  $\flat 5$**   
 Mixolydian  $\flat 2 \flat 5$   
 Oriental scale

1	$\flat 2$			3	4	$\flat 5$			6	$\flat 7$		1	$\flat 2$		
		6	$\flat 7$		1	$\flat 2$			3	4	$\flat 5$			6	$\flat 7$
		3	4	$\flat 5$			6	$\flat 7$		1	$\flat 2$			3	4
6	$\flat 7$		1	$\flat 2$			3	4	$\flat 5$			6	$\flat 7$		1

## B3. Majeur harmonique 5b

**IV mM7**  
 Lydian  $\flat 2 \flat 3$

1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6		7	1	$\flat 2$		$\flat 3$
5		6		7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6	
	$\flat 3$			$\sharp 4$	5		6		7	1	$\flat 2$		$\flat 3$		
6		7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6		7	1

## B4. Majeur harmonique 2m/5b

**IV mM7**  
 Phrygian  $\sharp 4 \flat 7$

1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1	$\flat 2$		$\flat 3$
5	$\flat 6$			7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$		
	$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1	$\flat 2$		$\flat 3$		
		7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1

# LinnStrument - Scales

## C1. Melodic minor

**I mM7**  
 Melodic minor  
 Ionian  $\flat 3$  / Dorian  $\flat 7$   
 Ascending melodic minor scale

1		2	$\flat 3$	4		5		6		7	1		2	$\flat 3$	
5		6		7	1		2	$\flat 3$		4		5	6		
2	$\flat 3$		4		5		6		7	1		2	$\flat 3$	4	
6		7	1		2	$\flat 3$		4		5		6		7	1

**II m7**  
 Dorian  $\flat 2$  / Phrygian  $\flat 6$   
 Cappadocian scale

1	$\flat 2$		$\flat 3$	4		5		6	$\flat 7$	1	$\flat 2$		$\flat 3$	
5		6	$\flat 7$	1	$\flat 2$		$\flat 3$		4		5		6	$\flat 7$
	$\flat 3$		4		5		6	$\flat 7$	1	$\flat 2$		$\flat 3$		4
6	$\flat 7$	1	$\flat 2$		$\flat 3$		4		5		6	$\flat 7$	1	

**$\flat$ III M7  $\sharp 5$**   
 Lydian  $\sharp 5$

1		2		3		$\sharp 4$		$\sharp 5$	6		7	1		2	
	$\sharp 5$	6		7	1		2		3		$\sharp 4$		$\sharp 5$	6	
2		3		$\sharp 4$		$\sharp 5$	6		7	1		2		3	
6		7	1		2		3		$\sharp 4$		$\sharp 5$	6		7	1

**IV 7**  
 Lydian  $\flat 7$   
 Mixolydian  $\sharp 4$   
 Acoustic scale / Bartok

1		2		3		$\sharp 4$	5		6	$\flat 7$	1		2	
5		6	$\flat 7$	1		2		3		$\sharp 4$	5		6	$\flat 7$
2		3		$\sharp 4$	5		6	$\flat 7$	1		2		3	
6	$\flat 7$	1		2		3		$\sharp 4$	5		6	$\flat 7$	1	

**V 7**  
 Mixolydian  $\flat 6$   
 Aeolian  $\flat 3$

1		2		3	4		5	$\flat 6$		$\flat 7$	1		2	
5	$\flat 6$		$\flat 7$	1		2		3	4		5	$\flat 6$		$\flat 7$
2		3	4		5	$\flat 6$		$\flat 7$	1		2		3	4
	$\flat 7$	1		2		3	4		5	$\flat 6$		$\flat 7$	1	

**VI m7  $\flat 5$**   
 Aeolian  $\flat 5$   
 Locrian  $\flat 2$

1		2	$\flat 3$		4	$\flat 5$		$\flat 6$		$\flat 7$	1		2	$\flat 3$
	$\flat 6$		$\flat 7$	1		2	$\flat 3$		4	$\flat 5$		$\flat 6$		$\flat 7$
2	$\flat 3$		4	$\flat 5$		$\flat 6$		$\flat 7$	1		2	$\flat 3$		4
	$\flat 7$	1		2	$\flat 3$		4	$\flat 5$		$\flat 6$		$\flat 7$	1	

**VII m7  $\flat 5$**   
 Locrian  $\flat 4$   
 Dim. Ionian  
 Altered Scale / Superlocrian

1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$		$\flat 7$	1	$\flat 2$		$\flat 3$
	$\flat 6$		$\flat 7$	1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$		$\flat 7$
	$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$		$\flat 7$	1	$\flat 2$		$\flat 3$	$\flat 4$	
	$\flat 7$	1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$		$\flat 7$	1	

# LinnStrument - Scales

## C2. Melodic minor $\flat 2$ (Neapolitan major mode)

I mM7  
 Melodic minor  $\flat 2$   
 Ionien  $\flat 2 \flat 3$   
 Neapolitan major scale

1	$\flat 2$		$\flat 3$		4		5		6		7	1	$\flat 2$		$\flat 3$
5		6		7	1	$\flat 2$		$\flat 3$		4		5		6	
	$\flat 3$		4		5		6		7	1	$\flat 2$		$\flat 3$		4
6		7	1	$\flat 2$		$\flat 3$		4		5		6		7	1

IV 7  
 Lydian  $\flat 6 \flat 7$

1		2		3		$\#4$	5	$\flat 6$		$\flat 7$		1		2	
5	$\flat 6$		$\flat 7$		1		2		3		$\#4$	5	$\flat 6$		$\flat 7$
2		3		$\#4$	5	$\flat 6$		$\flat 7$		1		2		3	
	$\flat 7$		1		2		3		$\#4$	5	$\flat 6$		$\flat 7$		1

V  $7 \flat 5$   
 Mixolydian  $\flat 5 \flat 6$

1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	$\flat 2$		
	$\flat 6$		$\flat 7$		1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$
		3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	$\flat 2$			3	4
	$\flat 7$		1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$		1

## C3. Melodic minor $\flat 5$

IV 7  
 Mixolydian  $\flat 2 \#4$

1	$\flat 2$			3		$\#4$	5		6	$\flat 7$		1	$\flat 2$		
5		6	$\flat 7$		1	$\flat 2$			3		$\#4$	5		6	$\flat 7$
		3		$\#4$	5		6	$\flat 7$		1	$\flat 2$			3	
6	$\flat 7$		1	$\flat 2$			3		$\#4$	5		6	$\flat 7$		1

## C4. Melodic minor $\flat 2 \flat 5$

IV 7  
 Phrygian  $\flat 3 \#4$

1	$\flat 2$			3		$\#4$	5	$\flat 6$		$\flat 7$		1	$\flat 2$		
5	$\flat 6$		$\flat 7$		1	$\flat 2$			3		$\#4$	5	$\flat 6$		$\flat 7$
		3		$\#4$	5	$\flat 6$		$\flat 7$		1	$\flat 2$			3	
	$\flat 7$		1	$\flat 2$			3		$\#4$	5	$\flat 6$		$\flat 7$		1



# LinnStrument - Scales

## D1. Harmonic minor

**I mM7**  
Harmonic minor  
Aeolian  $\flat 7$

1		2	$\flat 3$	4		5	$\flat 6$		7	1		2	$\flat 3$	
5	$\flat 6$			7	1		2	$\flat 3$	4		5	$\flat 6$		
2	$\flat 3$		4		5	$\flat 6$		7	1		2	$\flat 3$	4	
		7	1		2	$\flat 3$		4		5	$\flat 6$		7	1

**II m7 $\flat 5$**   
Locrian  $\flat 6$

1	$\flat 2$		$\flat 3$		4	$\flat 5$		6	$\flat 7$		1	$\flat 2$		$\flat 3$
		6	$\flat 7$		1	$\flat 2$		$\flat 3$		4	$\flat 5$		6	$\flat 7$
	$\flat 3$		4	$\flat 5$			6	$\flat 7$		1	$\flat 2$		$\flat 3$	4
6	$\flat 7$		1	$\flat 2$		$\flat 3$		4	$\flat 5$		6	$\flat 7$		1

**$\flat$ III M7 $\sharp 5$**   
Ionian  $\sharp 5$

1		2		3	4			$\sharp 5$	6		7	1		2	
	$\sharp 5$	6		7	1		2		3	4			$\sharp 5$	6	
2		3	4			$\sharp 5$	6		7	1		2		3	4
6		7	1		2		3	4			$\sharp 5$	6		7	1

**IV m7**  
Dorian  $\sharp 4$   
Romanian scale

1		2	$\flat 3$		$\sharp 4$	5		6	$\flat 7$		1		2	$\flat 3$
5		6	$\flat 7$		1		2	$\flat 3$		$\sharp 4$	5		6	$\flat 7$
2	$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1		2	$\flat 3$	
6	$\flat 7$		1		2	$\flat 3$		$\sharp 4$	5		6	$\flat 7$		1

**V 7**  
Phrygian  $\flat 3$   
Phrygian dominant / Spanish Phrygian  
Spanish Gypsy / Jewish scale

1	$\flat 2$			3	4		5	$\flat 6$		$\flat 7$		1	$\flat 2$		
5	$\flat 6$		$\flat 7$		1	$\flat 2$			3	4		5	$\flat 6$		$\flat 7$
		3	4		5	$\flat 6$		$\flat 7$		1	$\flat 2$			3	4
	$\flat 7$		1	$\flat 2$			3	4		5	$\flat 6$		$\flat 7$		1

**$\flat$ VI M7**  
Lydian  $\sharp 2$

1			$\sharp 2$	3		$\sharp 4$	5		6		7	1			$\sharp 2$
5		6		7	1			$\sharp 2$	3		$\sharp 4$	5		6	
	$\sharp 2$	3		$\sharp 4$	5		6		7	1			$\sharp 2$	3	
6		7	1			$\sharp 2$	3		$\sharp 4$	5		6		7	1

**VII dim7**  
Locrian  $\flat 4$   $\flat \flat 7$   
Dim. Mixolydian

1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$	$\flat \flat 7$			1	$\flat 2$		$\flat 3$
	$\flat 6$	$\flat \flat 7$			1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$	$\flat \flat 7$	
	$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$	$\flat \flat 7$			1	$\flat 2$		$\flat 3$	$\flat 4$	
$\flat \flat 7$			1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$	$\flat \flat 7$			1

# LinnStrument - Scales

## D2. Harmonic minor $\flat 2$ (Neapolitan minor mode)

I mM7  
 Harmonic minor  $\flat 2$   
 Phrygian  $\flat 7$   
 Neapolitan minor scale

1	$\flat 2$		$\flat 3$		4		5	$\flat 6$			7	1	$\flat 2$		$\flat 3$
5	$\flat 6$			7	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$		
	$\flat 3$		4		5	$\flat 6$			7	1	$\flat 2$		$\flat 3$		4
		7	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$			7	1

IV m7  
 Aeolian  $\sharp 4$   
 Hungarian Gypsy scale

1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1		2	$\flat 3$
5	$\flat 6$		$\flat 7$		1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$
2	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1		2	$\flat 3$		
	$\flat 7$		1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1

V  $7\flat 5$   
 Locrian  $\flat 3$

1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	$\flat 2$		
	$\flat 6$		$\flat 7$		1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$
		3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	$\flat 2$			3	4
	$\flat 7$		1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$		1

## D3. Harmonic minor $\flat 5$

IV m7  
 Dorian  $\flat 2$   $\sharp 4$

1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1	$\flat 2$		$\flat 3$
5		6	$\flat 7$		1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6	$\flat 7$
	$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1	$\flat 2$		$\flat 3$		
6	$\flat 7$		1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1

## D4. Harmonic minor $\flat 2$ $\flat 5$

IV m7  
 Phrygian  $\sharp 4$

1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$
5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$
	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1	$\flat 2$		$\flat 3$		
	$\flat 7$		1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1

# LinnStrument - Scales

## Diatonic major scale / Ionian mode

3 shapes

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

	2		3	4
	6		7	1
	3	4		5
		1		2

1		2		3
5		6		7
2		3	4	
			1	

Overview  
[4x20 Grid]

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

Overview  
[8x20 Grid]

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

4 octave range

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



# LinnStrument - Scales

## 2 Pentatonic scales

### Major pentatonic

2		3		
6			1	
3			5	
	1		2	

3			5	
	1		2	
	5		6	
	2		3	

5		6M		
2			3	
6				
3			5	

6			1	
3			5	
	1		2	
	5		6	

1		2		3
5		6		
2		3		
6			1	

Overview  
[4x20 Grid]

1		2		3		5		6		1		2		3		5
5		6		1		2		3		5		6		1		2
2		3		5		6		1		2		3		5		6
6		1		2		3		5		6		1		2		3

### Minor pentatonic

b3		4		
b7		1		
4		5		
1			b3	

4		5		
1			b3	
5			b7	
	b3		4	

5			b7	
	b3		4	
	b7		1	
	4		5	

b7		1		
4		5		
1			b3	
5			b7	

1			b3	
5			b7	
	b3		4	
	b7		1	

Overview  
[4x20 Grid]

1		b3		4		5		b7		1		b3		4		5
5		b7		1		b3		4		5		b7		1		
	b3		4		5		b7		1		b3		4		5	
	b7		1		b3		4		5		b7		1		b3	



# LinnStrument 200 - Tunings

## Standard tuning (Fourths)

MIDI	I	III	V	VII	X	XII	XV	XX	XXV
F3	F	G	A	B	C4	D	E	F	G
C3	C3	D	E	F	G	A	B	C4	D
G2	G	A	B	C3	D	E	F	G	A
D2	D	E	F	G	A	B	C3	D	E
A1	A	B	C2	D	E	F	G	A	B
E1	E	F	G	A	B	C2	D	E	F
B0	B	C1	D	E	F	G	A	B	C2
F#0	G	A	B	C1	D	E	F	G	A

## Standard tuning (Fifths)

MIDI	I	III	V	VII	X	XII	XV	XX	XXV
F#4	G	A	B	C5	D	E	F	G	A
B3	B	C4	D	E	F	G	A	B	C5
E3	E	F	G	A	B	C4	D	E	F
A2	A	B	C3	D	E	F	G	A	B
D2	D	E	F	G	A	B	C3	D	E
G1	G	A	B	C2	D	E	F	G	A
C1	C1	D	E	F	G	A	B	C2	D
F0	F	G	A	B	C1	D	E	F	G

## Tritone tuning

MIDI	I	III	V	VII	X	XII	XV	XX	XXV
A#3	B	C4	D	E	F	G	A	B	C5
E3	E	F	G	A	B	C4	D	E	F
A#2	B	C3	D	E	F	G	A	B	C4
E2	E	F	G	A	B	C3	D	E	F
A#1	B	C2	D	E	F	G	A	B	C3
E1	E	F	G	A	B	C2	D	E	F
A#0	B	C1	D	E	F	G	A	B	C2
E0	E	F	G	A	B	C1	D	E	F

# LinnStrument 128 - Tunings

MIDI
F3
C3
G2
D2
A1
E1
B0
F#0

Standard tuning  
(Fourths)

	I	III	V	VII	X	XII	XV
F		G	A	B	C4	D	E F G
C3	C3	D	E F	G	A	B	C4 D
G2	G	A	B	C3	D	E F	G A
D2	D	E F	G	A	B	C3	D E F
A1	A	B	C2	D	E F	G	A B C3
E1	E F	G	A	B	C2	D	E F G
B0	B	C1	D	E F	G	A	B C2 D
F#0		G	A	B	C1	D	E F G A

MIDI
F#4
B3
E3
A2
D2
G1
C1
F0

Standard tuning  
(Fifths)

	I	III	V	VII	X	XII	XV
F#4		G	A	B	C5	D	E F G A
B3	B	C4	D	E F	G	A	B C5 D
E3	E F	G	A	B	C4	D	E F G
A2	A	B	C3	D	E F	G	A B C4
D2	D	E F	G	A	B	C3	D E F
G1	G	A	B	C2	D	E F	G A
C1	C1	D	E F	G	A	B	C2 D
F0	F	G	A	B	C1	D	E F G

MIDI
A#3
E3
A#2
E2
A#1
E1
A#0
E0

Tritone tuning

	I	III	V	VII	X	XII	XV
A#3		B	C4	D	E F	G	A B C5
E3	E F	G	A	B	C4	D	E F G
A#2		B	C3	D	E F	G	A B C4
E2	E F	G	A	B	C3	D	E F G
A#1		B	C2	D	E F	G	A B C3
E1	E F	G	A	B	C2	D	E F G
A#0		B	C1	D	E F	G	A B C2
E0	E F	G	A	B	C1	D	E F G

MIDI
E3
B3
G2
D2
A1
E1
B0
G0

Guitar tuning

	I	III	V	VII	X	XII	XV
E3	E F	G	A	B	C4	D	E F G
B3	B	C3	D	E F	G	A	B C4 D
G2	G	A	B	C3	D	E F	G A
D2	D	E F	G	A	B	C3	D E F
A1	A	B	C2	D	E F	G	A B C3
E1	E F	G	A	B	C2	D	E F G
B0	B	C1	D	E F	G	A	B C2 D
G0	G	A	B	C1	D	E F	G A



# LinnStrument 128 - Tunings

Standard tuning  
(Fourths)

Maj  
Min

				1			b3	3			5				
b3	3			5					1			b3	3		
		1			b3	3			5					1	
		5					1			b3	3			5	
1			b3	3			5					1			b3
5					1			b3	3			5			
	b3	3			5				1				b3	3	
			1			b3	3			5					1

Standard tuning  
(Fifths)

Maj  
Min

		1			b3	3			5						1
b3	3			5					1			b3	3		
			1			b3	3			5					
		b3	3			5				1			b3	3	
	5					1			b3	3			5		
1			b3	3			5					1			
3			5					1			b3	3			5
			1			b3	3			5					1

Tritone tuning

Maj  
Min

b3	3			5					1			b3	3		
			1			b3	3			5					1
b3	3			5					1			b3	3		
			1			b3	3			5					1
b3	3			5					1			b3	3		
			1			b3	3			5					1
b3	3			5					1			b3	3		
			1			b3	3			5					1

Guitar tuning

Maj  
Min

	5					1			b3	3			5		
		b3	3			5				1			b3	3	
			1			b3	3			5					1
3			5					1			b3	3			5
	1			b3	3			5				1			
	5				1			b3	3			5			
		b3	3			5				1			b3	3	
			1			b3	3			5					1

# LinnStrument 128 - Vertical tuning (Fourths)

MIDI							
A#5	XV		B	C6		D	E F
F5		F		G		A	B C6
C5		C5		D		E F	G
G4	XII	G		A		B	C5
D4		D		E F		G	A
A3	X	A		B		C4	D E
E3		E F		G		A	B
B2				C3		D	E F
F#2	VII		G			A	B C3
C#2			D			E F	G
G#1	V		A			B	C2
D#1			E F			G	A
A#0	III		B			C1	D E F
F0		F		G		A	B C1
C0	I	C0		D		E F	G

			1			b3	3	
		5						1
1				b3	3			5
5						1		
	b3	3				5		
			1			b3	3	
3			5					
	1			b3	3			
	5					1		
		b3	3			5		
				1			b3	
b3	3			5				
		1			b3	3		
		5						1
1			b3	3				5

Further information on this topic :

Harpejji Tuning : <https://www.rogerlinndesign.com/support/support-linnstrument-linnstrument-tips-tricks>

KVR Audio Forum : [A firmware modification for playing LinnStrument "vertically"](#)

## Frequency Chart - Equal temperament (Hz)

Octaves MIDI / Latin	-1	0	1	2	3	4	5	6	7	8	Factor
C	16.35	32.70	65.41	130.81	261.63	523.25	1046.5	2093.0	4186.0	8372.0	1.000
C# / Db	17.32	34.65	69.30	138.59	277.18	554.37	1108.7	2217.5	4434.9	8869.8	1.059
D	18.35	36.71	73.42	146.83	293.66	587.33	1174.7	2349.3	4698.6	9397.3	1.122
D# / Eb	19.45	38.89	77.78	155.56	311.13	622.25	1244.5	2489.0	4978.0	9956.1	1.189
E	20.60	41.20	82.41	164.81	329.63	659.26	1318.5	2637.0	5274.0	10548	1.260
F	21.83	43.65	87.31	174.61	349.23	698.46	1396.9	2793.8	5587.7	11175	1.335
F# / Gb	23.12	46.25	92.50	185.00	369.99	739.99	1480.0	2960.0	5919.9	11840	1.414
G	24.50	49.00	98.00	196.00	392.00	783.99	1568.0	3136.0	6271.9	12544	1.498
G# / Ab	25.96	51.91	103.83	207.65	415.30	830.61	1661.2	3322.4	6644.9	13290	1.587
A	27.50	55.00	110.00	220.00	440.00	880.00	1760.0	3520.0	7040.0	14080	1.682
A# / Bb	29.14	58.27	116.54	233.08	466.16	932.33	1864.7	3729.3	7458.6	14917	1.782
B	30.87	61.74	123.47	246.94	493.88	987.77	1975.5	3951.1	7902.1	15804	1.888

# 16 Heptatonic scales / 56 modes

## Overview (1)

### A. Melodic Major Modes

4 scales (14 modes)

Scale / Mode	Scale													
A1/I Melodic major (Diatonic major modes)	1		2		3	4		5		6		7	1	
A2/I Melodic major $\flat 2$	1	$\flat 2$			3	4		5		6		7	1	
A3/I Melodic major $\flat 5$	1		2		3	4	$\flat 5$			6		7	1	
A4/I Melodic major $\flat 2 \flat 5$	1	$\flat 2$			3	4	$\flat 5$			6		7	1	

A1. 7 modes (I-VII) - A2. 3 modes (I, IV, V) - A3. 2 modes (I, IV) - A4. 2 modes (I, IV)

### B. Harmonic Major Modes

4 scales (14 modes)

Scale / Mode	Scale													
B1/I Harmonic major	1		2		3	4		5	$\flat 6$			7	1	
B2/I Harmonic major $\flat 2$ (Byzantine scale)	1	$\flat 2$			3	4		5	$\flat 6$			7	1	
B3/I Harmonic major $\flat 5$	1		2		3	4	$\flat 5$		$\flat 6$			7	1	
B4/I Harmonic major $\flat 2 \flat 5$	1	$\flat 2$			3	4	$\flat 5$		$\flat 6$			7	1	

B1. 7 modes (I-VII) - B2. 3 modes (I, IV, V) - B3. 2 modes (I, IV) - B4. 2 modes (I, IV)

### C. Melodic Minor Modes

4 scales (14 modes)

Scale / Mode	Scale													
C1/I Melodic minor	1		2	$\flat 3$		4		5		6		7	1	
C2/I Melodic minor $\flat 2$ (Neapolitan major scale)	1	$\flat 2$		$\flat 3$		4		5		6		7	1	
C3/I Melodic minor $\flat 5$	1		2	$\flat 3$		4	$\flat 5$			6		7	1	
C4/I Melodic minor $\flat 2 \flat 5$	1	$\flat 2$		$\flat 3$		4	$\flat 5$			6		7	1	

C1. 7 modes (I-VII) - C2. 3 modes (I, IV, V) - C3. 2 modes (I, IV) - C4. 2 modes (I, IV)

### D. Harmonic Minor Modes

4 scales (14 modes)

Scale / Mode	Scale													
D1/I Harmonic minor	1		2	$\flat 3$		4		5	$\flat 6$			7	1	
D2/I Harmonic minor $\flat 2$ (Neapolitan mainor scale)	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$			7	1	
D3/I Harmonic minor $\flat 5$	1		2	$\flat 3$		4	$\flat 5$		$\flat 6$			7	1	
D4/I Harmonic minor $\flat 2 \flat 5$	1	$\flat 2$		$\flat 3$		4	$\flat 5$		$\flat 6$			7	1	

D1. 7 modes (I-VII) - D2. 3 modes (I, IV, V) - D3. 2 modes (I, IV) - D4. 2 modes (I, IV)

## Common notes

Basic Modes

2	5
---	---

Major Modes

3	4
---	---

Melodic Modes

6
---

Altered  $\flat 2$  Modes

$\flat 2$	5
-----------	---

Minor Modes

$\flat 3$	4
-----------	---

Harmonic Modes

$\flat 6$
-----------

Altered  $\flat 5$  Modes

2	$\flat 5$
---	-----------

Altered  $\flat 2 \flat 5$  Modes

$\flat 2$	$\flat 5$
-----------	-----------

All Modes

7
---

# 16 Heptatonic scales / 56 modes

## Overview (2)

### A. 4 Melodic major scales (14 modes)

#### A1. Melodic major (Diatonic major modes)

- I Ionian (*Melodic major*)
- II Dorian
- III Phrygian
- IV Lydian
- V Mixolydian
- VI Aeolian (*Natural minor scale*)
- VII Locrian

#### A2. Melodic major ♭2

- I Melodic major ♭2 (Ionian ♭2)
- IV Lydian ♭6
- V Mixolydian ♭5

#### A3. Melodic major ♭5

- I Melodic major ♭5 (Ionian ♭5)
- IV Lydian ♭2

#### A4. Melodic major ♭2 ♭5

- I Melodic major ♭2 ♭5
- IV Lydian ♭2 ♭6

### B. 4 Harmonic major scales (14 modes)

#### B1. Harmonic major

- I Harmonic major (Ionian ♭6)
- II Dorian ♭5
- III Phrygian ♭4
- IV Lydian ♭3
- V Mixolydian ♭2
- ♭VI Lydian ♯2 ♭5 (Aug. Aeolian)
- VII Locrian ♭♭7

#### B2. Harmonic major ♭2 (Byzantine mode)

- I Harmonic major ♭2 (Ionian ♭2 ♭6)
- IV Lydian ♭3 ♭6
- V Mixolydian ♭2 ♭5

#### B3. Harmonic major ♭5

- I Harmonic major ♭5 (Ionian ♭5 ♭6)
- IV Lydian ♭2 ♭3

#### B4. Majeur harmonique 2m/5b

- I Harmonic major ♭2 ♭5 (*Persian scale*)
- IV Phrygian ♯4 ♯7

### C. 4 Melodic minor scales (14 modes)

#### C1. Melodic minor

- I Melodic minor (Ionian ♭3/Dorian ♯7)
- II Dorian ♭2 (Phrygian ♯6)
- ♭III Lydian ♯5 (Aug. Phrygian)
- IV Lydian ♭7 (Mixolydian ♯4)
- V Mixolydian ♭6 (Aeolian ♯3)
- VI Aeolian ♭5 (Locrian ♯2)
- VII Locrian ♭4 (Dim. Ionian)

#### C2. Melodic minor ♭2 (Neapolitan major)

- I Melodic minor ♭2 (Ionian ♭2 ♭3)
- IV Lydian ♭6 ♭7
- V Mixolydian ♭5 ♭6

#### C3. Melodic minor ♭5

- I Melodic minor ♭5 (Ionian ♭3 ♭5)
- IV Mixolydian ♭2 ♯4 (Lydian ♭2 ♭7)

#### C4. Melodic minor ♭2 ♭5

- I Melodic minor ♭2 ♭5 (Locrian ♯6 ♯7)
- IV Phrygian ♯3 ♯4

### D. 4 Harmonic minor scales (14 modes)

#### D1. Harmonic minor

- I Harmonic minor (Aeolian ♯7)
- II Locrian ♯6
- ♭III Ionian ♯5
- IV Dorian ♯4
- V Phrygian ♯3
- ♭VI Lydian ♯2
- VII Locrian ♭4 ♭♭7 (Dim. Mixolydian)

#### D2. Harmonic minor ♭2 (Neapolitan minor)

- I Harmonic minor ♭2 (Phrygian ♯7)
- IV Aeolian ♯4
- V Locrian ♯3

#### D3. Harmonic minor ♭5

- I Harmonic minor ♭5 (Aeolian ♭5 ♯7)
- IV Dorian ♭2 ♯4 (Phrygian ♯4 ♯6)

#### D4. Harmonic minor ♭2 ♭5

- I Harmonic minor ♭2 ♭5 (Locrian ♯7)
- IV Phrygian ♯4

# 16 Heptatonic scales / 56 modes

## 12 Tetrachords

2 Tones		1st (Lower)						2nd (Upper)				
Phrygian	1-2-1	2T Phry	1	b2	-	b3	b4	#5	6	-	7	1

2½ Tones		1st (Lower)						2nd (Upper)						
Phrygian	1-2-2	2T½ Phry	1	b2	-	b3	-	4	5	b6	-	b7	-	1
Harmonic	1-3-1	2T½ Harm	1	b2	-	-	3	4	5	b6	-	-	7	1
Minor	2-1-2	2T½ Min	1	-	2	b3	-	4	5	-	6	b7	-	1
Major	2-2-1	2T½ Maj	1	-	2	-	3	4	5	-	6	-	7	1

3 Tones		1st (Lower)						2nd (Upper)								
Phrygian	1-2-3	3T Phry	1	b2	-	b3	-	-	#4	b5	bb6	-	bb7	-	-	1
Harmonic	1-3-2	3T Harm	1	b2	-	-	3	-	#4	b5	bb6	-	-	b7	-	1
Minor	2-1-3	3T Min	1	-	2	b3	-	-	#4	b5	-	b6	bb7	-	-	1
Major	2-2-2	3T Maj	1	-	2	-	3	-	#4	b5	-	b6	-	b7	-	1
Major +	2-3-1	3T Maj+	1	-	2	-	-	#3	#4	b5	-	b6	-	-	7	1
Augmented 1	3-1-2	3T Aug1	1	-	-	#2	3	-	#4	b5	-	-	6	b7	-	1
Augmented 2	3-2-1	3T Aug2	1	-	-	#2	-	#3	#4	b5	-	-	6	-	7	1

## Combination of Tetrachords

1st Tetrachord
2T
2T½
3T

2nd Tetrachord		
-	2T½	3T
2T	2T½	3T
2T	2T½	-

## Intervals

1	b2	2	#2	3	4	#4	5	#5	6	#6	7	1
			#2		#3	#4		#5		#6		
1		2		3	4		5		6		7	1
	b2		b3	b4		b5		b6		b7		
		bb3					bb6		bb7			
	b9	9	#9		11	#11		b13	13			

Complementary Intervals						
	b2	2	b3	3	4	#4
	7	b7	6	b6	5	b5

# 16 Heptatonic scales / 56 modes

## Chords (with Extensions)

A. Melodic major			
A1. Melodic major (Diatonic maj. modes)			
I	M7	9 11 13	
II	m7	9 11 13	
III	m7	b9 11 b13	
IV	M7	9 #11 13	
V	7	9 11 13	
VI	m7	9 11 b13	
VII	m7b5	b9 11 b13	
A2. Melodic major b2			
I	M7	b9 11 13	
IV	M7	9 #11 b13	
V	7b5	9 11 13	
A3. Melodic major b5			
I	M7b5	9 11 13	
IV	M7	b9 #11 13	
A4. Melodic major b2 b5			
I	M7b5	b9 11 13	
IV	M7	b9 #11 b13	

B. Harmonic major			
B1. Harmonic major			
I	M7	9 11 b13	
II	m7b5	9 11 13	
III	m7 (7)	b9 - b13	
IV	mM7	9 #11 13	
V	7	b9 11 13	
bVI	M7#5	b9 #11 13	
VII	dim7	- 11 b13	
B2. Harmonic major b2 (Byzantine mode)			
I	M7	b9 11 b13	
IV	mM7	9 #11 b13	
V	7b5	b9 11 13	
B3. Harmonic major b5			
I	M7b5	9 11 b13	
IV	mM7	b9 #11 13	
B4. Harmonic major b2 b5			
I	M7b5	b9 11 b13	
IV	mM7	b9 #11 b13	

C. Melodic minor			
C1. Melodic minor			
I	mM7	9 11 13	
II	m7	b9 11 13	
bIII	M7#5	9 #11 13	
IV	7	9 #11 13	
V	7	9 11 b13	
VI	m7b5	9 11 b13	
VII	m7b5	b9 #11 b13	
C2. Melodic minor b2 (Neapolitan major)			
I	mM7	b9 11 13	
IV	7	9 #11 b13	
V	7b5	b9 11 13	
C3. Melodic minor b5			
I	mM7b5	9 11 13	
IV	7	b9 #11 13	
C4. Melodic minor b2 b5			
I	mM7b5	b9 11 13	
IV	7	b9 #11 b13	

D. Harmonic minor			
D1. Harmonic minor			
I	mM7	9 11 b13	
II	m7b5	b9 11 13	
bIII	M7#5	9 11 13	
IV	m7	9 #11 13	
V	7	b9 11 b13	
bVI	M7	#9 #11 13	
VII	dim7	- - b13	
2. Harmonic minor b2 (Neapolitan minor)			
I	mM7	b9 11 b13	
IV	m7	9 #11 b13	
V	7b5	b9 11 b13	
3. Harmonic minor b5			
I	mM7b5	9 11 b13	
IV	m7	b9 #11 13	
D4. Harmonic minor b2 b5			
I	mM7b5	b9 11 b13	
IV	m7	b9 #11 b13	

# 16 Heptatonic scales / 56 modes

## A. Melodic major modes (14 modes)

### A1. Melodic major (Diatonic major modes / Greek modes)

Name	Degr.	Chord	Scale										Tetrachords				
Ionian ( <i>Melodic major</i> )	I	M7	1		2		3	4		5		6		7	1	2T½ Maj	2T½ Maj
Dorian	II	m7	1		2	♭3		4		5		6	♭7		1	2T½ Min	2T½ Min
Phrygian	III	m7	1	♭2		♭3		4		5	♭6		♭7		1	2T½ Phry	2T½ Phry
Lydian	IV	M7	1		2		3		♯4	5		6		7	1	3T Maj	2T½ Maj
Mixolydian	V	7	1		2		3	4		5		6	♭7		1	2T½ Maj	2T½ Min
Aeolian ( <i>Natural minor scale</i> )	VI	m7	1		2	♭3		4		5	♭6		♭7		1	2T½ Min	2T½ Phry
Locrian	VII	m7♭5	1	♭2		♭3		4	♭5		♭6		♭7		1	2T½ Phry	3T Maj

I. Diatonic major scale - VI. Relative minor scale / Descending melodic minor scale

### A2. Melodic major ♭2

Name	Degr.	Chord	Scale										Tetrachords				
Melodic major ♭2 (Ionian ♭2)	I	M7	1	♭2			3	4		5		6		7	1	2T½ Harm	2T½ Maj
Lydian ♭6	IV	M7	1		2		3		♯4	5	♭6			7	1	3T Maj	2T½ Harm
Mixolydian ♭5	V	7♭5	1		2		3	4	♭5			6	♭7		1	2T½ Maj	3T Aug1

### A3. Melodic major ♭5

Name	Degr.	Chord	Scale										Tetrachords				
Melodic major ♭5 (Ionian ♭5)	I	M7♭5	1		2		3	4	♭5			6		7	1	2T½ Maj	3T Aug2
Lydian ♭2	IV	M7	1	♭2			3		♯4	5		6		7	1	3T Harm	2T½ Maj

### A4. Melodic major ♭2 ♭5

Name	Degr.	Chord	Scale										Tetrachords				
Melodic major ♭2 ♭5	I	M7♭5	1	♭2			3	4	♭5			6		7	1	2T½ Harm	3T Aug2
Lydian ♭2 ♭6	IV	M7	1	♭2			3		♯4	5	♭6			7	1	3T Harm	2T½ Harm

I. Ionian ♭2 ♭5

# 16 Heptatonic scales / 56 modes

## B. Harmonic major modes (14 modes)

### B1. Harmonic major

Name	Degr.	Chord	Scale											Tetrachords			
Harmonic major (Ionian $\flat 6$ )	I	M7	1		2		3	4		5	$\flat 6$			7	1	2T $\frac{1}{2}$ Maj	2T $\frac{1}{2}$ Harm
Dorian $\flat 5$	II	m7 $\flat 5$	1		2	$\flat 3$		4	$\flat 5$			6	$\flat 7$		1	2T $\frac{1}{2}$ Min	3T Aug1
Phrygian $\flat 4$	III	m7 (7)	1	$\flat 2$		$\flat 3$	$\flat 4$			5	$\flat 6$		$\flat 7$		1	2T Phry	2T $\frac{1}{2}$ Phry
Lydian $\flat 3$	IV	mM7	1		2	$\flat 3$			$\sharp 4$	5		6		7	1	3T Min	2T $\frac{1}{2}$ Maj
Mixolydian $\flat 2$	V	7	1	$\flat 2$			3	4		5		6	$\flat 7$		1	2T $\frac{1}{2}$ Harm	2T $\frac{1}{2}$ Min
Lydian $\sharp 2 \flat 5$ (Aug. Aeolian)	$\flat$ VI	M7 $\sharp 5$	1			$\sharp 2$	3		$\sharp 4$		$\sharp 5$	6		7	1	3T Aug1	2T Phry
Locrian $\flat \flat 7$	VII	dim7	1	$\flat 2$		$\flat 3$		4	$\flat 5$		$\flat 6$	$\flat \flat 7$			1	2T $\frac{1}{2}$ Phry	3T Min

### B2. Harmonic major $\flat 2$ (Byzantine mode)

Name	Degr.	Chord	Scale											Tetrachords			
Harmonic major $\flat 2$ (Ionian $\flat 2 \flat 6$ )	I	M7	1	$\flat 2$			3	4		5	$\flat 6$			7	1	2T $\frac{1}{2}$ Harm	2T $\frac{1}{2}$ Harm
Lydian $\flat 3 \flat 6$	IV	mM7	1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1	3T Min	2T $\frac{1}{2}$ Harm
Mixolydian $\flat 2 \flat 5$	V	7 $\flat 5$	1	$\flat 2$			3	4	$\flat 5$			6	$\flat 7$		1	2T $\frac{1}{2}$ Harm	3T Aug1

I. Byzantine scale / Double harmonic major - IV. Hungarian / Gypsy minor / Double harmonic minor - V. Oriental scale

### B3. Harmonic major $\flat 5$

Name	Degr.	Chord	Scale											Tetrachords			
Harmonic major $\flat 5$ (Ionian $\flat 5 \flat 6$ )	I	M7 $\flat 5$	1		2		3	4	$\flat 5$		6			7	1	2T $\frac{1}{2}$ Maj	3T Maj+
Lydian $\flat 2 \flat 3$	IV	mM7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6		7	1	3T Phry	2T $\frac{1}{2}$ Maj

### B4. Harmonic major $\flat 2 \flat 5$

Name	Degr.	Chord	Scale											Tetrachords			
Harmonic major $\flat 2 \flat 5$	I	M7 $\flat 5$	1	$\flat 2$			3	4	$\flat 5$		$\flat 6$			7	1	2T $\frac{1}{2}$ Harm	3T Maj+
Phrygian $\sharp 4 \flat 7$	IV	mM7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$			7	1	3T Phry	2T $\frac{1}{2}$ Harm

I. Persian scale / Locrian  $\flat 3 \flat 7$



# 16 Heptatonic scales / 56 modes

## C. Melodic minor modes (14 modes)

### C1. Melodic minor

Name	Degr.	Chord	Scale												Tetrachords		
Melodic minor (Ionian $\flat 3$ /Dorian $\natural 7$ )	I	mM7	1		2	$\flat 3$		4		5		6		7	1	2T $\frac{1}{2}$ Min	2T $\frac{1}{2}$ Maj
Dorian $\flat 2$ (Phrygian $\flat 6$ )	II	m7	1	$\flat 2$		$\flat 3$		4		5		6	$\flat 7$		1	2T $\frac{1}{2}$ Phry	2T $\frac{1}{2}$ Min
Lydian $\sharp 5$ (Aug. Phrygian)	$\flat$ III	M7 $\sharp 5$	1		2		3		$\sharp 4$		$\sharp 5$	6		7	1	3T Maj	2T Phry
Lydian $\flat 7$ (Mixolydian $\sharp 4$ )	IV	7	1		2		3		$\sharp 4$	5		6	$\flat 7$		1	3T Maj	2T $\frac{1}{2}$ Min
Mixolydian $\flat 6$ (Aeolian $\flat 3$ )	V	7	1		2		3	4		5	$\flat 6$		$\flat 7$		1	2T $\frac{1}{2}$ Maj	2T $\frac{1}{2}$ Phry
Aeolian $\flat 5$ (Locrian $\natural 2$ )	VI	m7 $\flat 5$	1		2	$\flat 3$		4	$\flat 5$		$\flat 6$		$\flat 7$		1	2T $\frac{1}{2}$ Min	3T Maj
Locrian $\flat 4$ (Dim. Ionian)	VII	m7 $\flat 5$	1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$		$\flat 7$		1	2T Phry	3T Maj

I. Ascending melodic minor scale - II. Cappadocian scale - IV. Acoustic scale / Bartok - VII. Altered Scale / Superlocrian

### C2. Melodic minor $\flat 2$ (Neapolitan major mode)

Name	Degr.	Chord	Scale												Tetrachords		
Melodic minor $\flat 2$ (Ionian $\flat 2$ $\flat 3$ )	I	mM7	1	$\flat 2$		$\flat 3$		4		5		6		7	1	2T $\frac{1}{2}$ Phry	2T $\frac{1}{2}$ Maj
Lydian $\flat 6$ $\flat 7$	IV	7	1		2		3		$\sharp 4$	5	$\flat 6$		$\flat 7$		1	3T Maj	2T $\frac{1}{2}$ Phry
Mixolydian $\flat 5$ $\flat 6$	V	7 $\flat 5$	1		2		3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	2T $\frac{1}{2}$ Maj	3T Maj

I. Neapolitan major scale

### C3. Melodic minor $\flat 5$

Name	Degr.	Chord	Scale												Tetrachords		
Melodic minor $\flat 5$ (Ionian $\flat 3$ $\flat 5$ )	I	mM7 $\flat 5$	1		2	$\flat 3$		4	$\flat 5$			6		7	1	2T $\frac{1}{2}$ Min	3T Aug2
Mixolydian $\flat 2$ $\sharp 4$ (Lydian $\flat 2$ $\flat 7$ )	IV	7	1	$\flat 2$			3		$\sharp 4$	5		6	$\flat 7$		1	3T Harm	2T $\frac{1}{2}$ Min

### C4. Melodic minor $\flat 2$ $\flat 5$

Name	Degr.	Chord	Scale												Tetrachords		
Melodic minor $\flat 2$ $\flat 5$ (Locrian $\flat 6$ $\natural 7$ )	I	mM7 $\flat 5$	1	$\flat 2$		$\flat 3$		4	$\flat 5$			6		7	1	2T $\frac{1}{2}$ Phry	3T Aug2
Phrygian $\flat 3$ $\sharp 4$	IV	7	1	$\flat 2$			3		$\sharp 4$	5	$\flat 6$		$\flat 7$		1	3T Harm	2T $\frac{1}{2}$ Phry

I. Persian scale

# 16 Heptatonic scales / 56 modes

## D. Harmonic minor modes (14 modes)

### D1. Harmonic minor

Name	Degr.	Chord	Scale										Tetrachords				
Harmonic minor (Aeolian $\flat 7$ )	I	mM7	1		2	$\flat 3$		4		5	$\flat 6$			7	1	2T½ Min	2T½ Harm
Locrian $\flat 6$	II	m7 $\flat 5$	1	$\flat 2$		$\flat 3$		4	$\flat 5$			6	$\flat 7$		1	2T½ Phry	3T Aug1
Ionian $\sharp 5$	$\flat$ III	M7 $\sharp 5$	1		2		3	4			$\sharp 5$	6		7	1	2T½ Maj	2T Phry
Dorian $\sharp 4$	IV	m7	1		2	$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1	3T Min	2T½ Min
Phrygian $\flat 3$	V	7	1	$\flat 2$			3	4		5	$\flat 6$		$\flat 7$		1	2T½ Harm	2T½ Phry
Lydian $\sharp 2$	$\flat$ VI	M7	1			$\sharp 2$	3		$\sharp 4$	5		6		7	1	3T Aug1	2T½ Maj
Locrian $\flat 4 \flat 7$ (Dim. Mixolydian)	VII	dim7	1	$\flat 2$		$\flat 3$	$\flat 4$		$\flat 5$		$\flat 6$	$\flat 7$			1	2T Phry	3T Min

I. Ionian  $\flat 3 \flat 6$  - IV. Romanian scale - V. Phrygian dominant scale / Spanish Phrygian scale / Spanish Gypsy scale / Jewish scale

### D2. Harmonic minor $\flat 2$ (Neapolitan minor mode)

Name	Degr.	Chord	Scale										Tetrachords				
Harmonic minor $\flat 2$ (Phrygian $\flat 7$ )	I	mM7	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$			7	1	2T½ Phry	2T½ Harm
Aeolian $\sharp 4$	IV	m7	1		2	$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1	3T Min	2T½ Phry
Locrian $\flat 3$	V	7 $\flat 5$	1	$\flat 2$			3	4	$\flat 5$		$\flat 6$		$\flat 7$		1	2T½ Harm	3T Maj

I. Neapolitan minor scale - IV. Hungarian Gypsy scale

### D3. Harmonic minor $\flat 5$

Name	Degr.	Chord	Scale										Tetrachords				
Harmonic minor $\flat 5$ (Aeolian $\flat 5 \flat 7$ )	I	mM7 $\flat 5$	1		2	$\flat 3$		4	$\flat 5$		$\flat 6$			7	1	2T½ Min	3T Maj+
Dorian $\flat 2 \sharp 4$ (Phrygian $\sharp 4 \flat 6$ )	IV	m7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5		6	$\flat 7$		1	3T Phry	2T½ Min

### D4. Harmonic minor $\flat 2 \flat 5$

Name	Degr.	Chord	Scale										Tetrachords				
Harmonic minor $\flat 2 \flat 5$ (Locrian $\flat 7$ )	I	mM7 $\flat 5$	1	$\flat 2$		$\flat 3$		4	$\flat 5$		$\flat 6$			7	1	2T½ Phry	3T Maj+
Phrygian $\sharp 4$	IV	m7	1	$\flat 2$		$\flat 3$			$\sharp 4$	5	$\flat 6$		$\flat 7$		1	3T Phry	2T½ Phry

# 16 Heptatonic scales / 56 modes

## Structure (1)

1	b2	2	#2 b3	3 b4	4	#4 b5	5	#5 b6	6 bb7	b7	7	1	Mode	Name	Tetrachords	
1	b2	-	b3	b4	-	b5	-	b6	bb7	-	-	1	D1 / VII	Locrian b4 bb7 (Dim. Mixolydian)	2T Phry	3T Min
1	b2	-	b3	b4	-	b5	-	b6	-	b7	-	1	C1 / VII	Locrian b4 (Dim. Ionian)	2T Phry	3T Maj
1	b2	-	b3	b4	-	-	5	b6	-	b7	-	1	B1 / III	Phrygian b4	2T Phry	2T½ Phry
1	b2	-	b3	-	4	b5	-	b6	bb7	-	-	1	B1 / VII	Locrian bb7	2T½ Phry	3T Min
1	b2	-	b3	-	4	b5	-	b6	-	b7	-	1	A1 / VII	Locrian	2T½ Phry	3T Maj
1	b2	-	b3	-	4	b5	-	b6	-	-	7	1	D4 / I	Harmonic minor b2 b5 (Locrian b7)	2T½ Phry	3T Maj+
1	b2	-	b3	-	4	b5	-	-	6	b7	-	1	D1 / II	Locrian b6	2T½ Phry	3T Aug1
1	b2	-	b3	-	4	b5	-	-	6	-	7	1	C4 / I	Melodic minor b2 b5 (Locrian b6 b7)	2T½ Phry	3T Aug2
1	b2	-	b3	-	4	-	5	b6	-	b7	-	1	A1 / III	Phrygian	2T½ Phry	2T½ Phry
1	b2	-	b3	-	4	-	5	b6	-	-	7	1	D2 / I	Harmonic minor b2 (Phrygian b7)	2T½ Phry	2T½ Harm
1	b2	-	b3	-	4	-	5	-	6	b7	-	1	C1 / II	Dorian b2 (Phrygian b6)	2T½ Phry	2T½ Min
1	b2	-	b3	-	4	-	5	-	6	-	7	1	C2 / I	Melodic minor b2 (Ionian b2 b3)	2T½ Phry	2T½ Maj
1	b2	-	b3	-	-	#4	5	b6	-	b7	-	1	D4 / IV	Phrygian #4	3T Phry	2T½ Phry
1	b2	-	b3	-	-	#4	5	b6	-	-	7	1	B4 / IV	Phrygian #4 b7	3T Phry	2T½ Harm
1	b2	-	b3	-	-	#4	5	-	6	b7	-	1	D3 / IV	Dorian b2 #4 (Phrygian #4 b6)	3T Phry	2T½ Min
1	b2	-	b3	-	-	#4	5	-	6	-	7	1	B3 / IV	Lydian b2 b3	3T Phry	2T½ Maj
1	b2	-	-	3	4	b5	-	b6	-	b7	-	1	D2 / V	Locrian b3	2T½ Harm	3T Maj
1	b2	-	-	3	4	b5	-	b6	-	-	7	1	B4 / I	Harmonic major b2 b5 (Locrian b3 b7)	2T½ Harm	3T Maj+
1	b2	-	-	3	4	b5	-	-	6	b7	-	1	B2 / V	Mixolydian b2 b5	2T½ Harm	3T Aug1
1	b2	-	-	3	4	b5	-	-	6	-	7	1	A4 / I	Melodic major b2 b5 (Ionian b2 b5)	2T½ Harm	3T Aug2
1	b2	-	-	3	4	-	5	b6	-	b7	-	1	D1 / V	Phrygian b3	2T½ Harm	2T½ Phry
1	b2	-	-	3	4	-	5	b6	-	-	7	1	B2 / I	Harmonic major b2 (Ionian b2 b6)	2T½ Harm	2T½ Harm
1	b2	-	-	3	4	-	5	-	6	b7	-	1	B1 / V	Myxolydian b2	2T½ Harm	2T½ Min
1	b2	-	-	3	4	-	5	-	6	-	7	1	A2 / I	Melodic major b2 (Ionian b2)	2T½ Harm	2T½ Maj
1	b2	-	-	3	-	#4	5	b6	-	b7	-	1	C4 / IV	Phrygian b3 #4	3T Harm	2T½ Phry
1	b2	-	-	3	-	#4	5	b6	-	-	7	1	A4 / IV	Lydian b2 b6	3T Harm	2T½ Harm
1	b2	-	-	3	-	#4	5	-	6	b7	-	1	C3 / IV	Mixolydian b2 #4 (Lydian b2 b7)	3T Harm	2T½ Min
1	b2	-	-	3	-	#4	5	-	6	-	7	1	A3 / IV	Lydian b2	3T Harm	2T½ Maj

# 16 Heptatonic scales / 56 modes

## Structure (2)

1	b2	2	#2 b3	3 b4	4	#4 b5	5	#5 b6	6 bb7	b7	7	1	Mode	Name	Tetrachords	
1	-	2	b3	-	4	b5	-	b6	-	b7	-	1	C1 / VI	Aeolian b5 (Locrian b2)	2T½ Min	3T Maj
1	-	2	b3	-	4	b5	-	b6	-	-	7	1	D3 / I	Harmonic minor b5 (Aeolian b5 b7)	2T½ Min	3T Maj+
1	-	2	b3	-	4	b5	-	-	6	b7	-	1	B1 / II	Dorian b5	2T½ Min	3T Aug1
1	-	2	b3	-	4	b5	-	-	6	-	7	1	C3 / I	Melodic minor b5 (Ionian b3 b5)	2T½ Min	3T Aug2
1	-	2	b3	-	4	-	5	b6	-	b7	-	1	A1 / VI	Aeolian	2T½ Min	2T½ Phry
1	-	2	b3	-	4	-	5	b6	-	-	7	1	D1 / I	Harmonic minor (Aeolian b7)	2T½ Min	2T½ Harm
1	-	2	b3	-	4	-	5	-	6	b7	-	1	A1 / II	Dorian	2T½ Min	2T½ Min
1	-	2	b3	-	4	-	5	-	6	-	7	1	C1 / I	Melodic minor (Ionian b3 / Dorian b7)	2T½ Min	2T½ Maj
1	-	2	b3	-	-	#4	5	b6	-	b7	-	1	D2 / IV	Aeolian #4	3T Min	2T½ Phry
1	-	2	b3	-	-	#4	5	b6	-	-	7	1	B2 / IV	Lydian b3 b6	3T Min	2T½ Harm
1	-	2	b3	-	-	#4	5	-	6	b7	-	1	D1 / IV	Dorian #4	3T Min	2T½ Min
1	-	2	b3	-	-	#4	5	-	6	-	7	1	B1 / IV	Lydian b3	3T Min	2T½ Maj
1	-	2	-	3	4	b5	-	b6	-	b7	-	1	C2 / V	Mixolydian b5 b6	2T½ Maj	3T Maj
1	-	2	-	3	4	b5	-	b6	-	-	7	1	B3 / I	Harmonic major b5 (Ionian b5 b6)	2T½ Maj	3T Maj+
1	-	2	-	3	4	b5	-	-	6	b7	-	1	A2 / V	Mixolydian b5	2T½ Maj	3T Aug1
1	-	2	-	3	4	b5	-	-	6	-	7	1	A3 / I	Melodic major b5 (Ionian b5)	2T½ Maj	3T Aug2
1	-	2	-	3	4	-	5	b6	-	b7	-	1	C1 / V	Mixolydian b6 (Aeolian b3)	2T½ Maj	2T½ Phry
1	-	2	-	3	4	-	5	-	6	b7	-	1	B1 / I	Harmonic major (Ionian b6)	2T½ Maj	2T½ Harm
1	-	2	-	3	4	-	5	-	6	-	7	1	A1 / V	Mixolydian	2T½ Maj	2T½ Min
1	-	2	-	3	4	-	5	-	6	-	7	1	A1 / I	Ionian	2T½ Maj	2T½ Maj
1	-	2	-	3	4	-	-	#5	6	-	7	1	D1 / bIII	Ionian #5	2T½ Maj	2T Phry
1	-	2	-	3	-	#4	5	b6	-	b7	-	1	C2 / IV	Lydian b6 b7	3T Maj	2T½ Phry
1	-	2	-	3	-	#4	5	b6	-	-	7	1	A2 / IV	Lydian b6	3T Maj	2T½ Harm
1	-	2	-	3	-	#4	5	-	6	b7	-	1	C1 / IV	Lydian b7 (Mixolydian #4)	3T Maj	2T½ Min
1	-	2	-	3	-	#4	5	-	6	-	7	1	A1 / IV	Lydian	3T Maj	2T½ Maj
1	-	2	-	3	-	#4	-	#5	6	-	7	1	C1 / bIII	Lydian #5 (Aug. Phrygian)	3T Maj	2T Phry
1	-	-	#2	3	-	#4	5	-	6	-	7	1	D1 / bVI	Lydian #2	3T Aug1	2T½ Maj
1	-	-	#2	3	-	#4	-	#5	6	-	7	1	B1 / bVI	Lydian #2 b5 (Aug. Aeolian)	3T Aug1	2T Phry

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