

# **A Simple Guide to Learning Jazz Harmony**

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# Forward

Understanding jazz theory is a must for any developing improviser. Without it, the player simply regurgitates what they are told without understanding the why and how, aspects of playing which are vital for analyzing others' playing and furthering one's own creativity. Jazz theory is the connective tissue that reinforces the learning process for all instrumentalists and is the magic ingredient that leads to quick and thorough growth for the developing musician.

This guide is the culmination of many hours of work and experiments in lessons. It is not meant to be an extensive resource of jazz harmony but simply an introduction. The format laid out in the guide is meant to introduce concepts and examples in a gradual, building block like manner – the previous section should be **mastered** first before moving on to the next section as the former helps contextualizes the latter. My definition of **mastery** is being able to **know, play, feel, and hear** the answer instantly if questioned.

It is important to understand the process by which we efficiently learn. Many of us are different and certainly have unique ways of processing information, but I truly believe the learning process is very similar for each of us. It requires tactile movement, slow speed, repetitive learning sessions over many days/weeks, and connecting new information to previous understandings. While a subject may first be learned through a link to previous information (i.e. FC Barcelona won the Champions League the same year my brother was born – 2011), it is important the student begins to learn the new information as a new primary source (i.e. FC Barcelona won the Champions League in 2011). Until this process occurs, it will be impossible to progress through the other sections as every new piece of information will be processed through five or six different links instead of just one. **Learn** and **master** one topic at a time and then develop from there.

I hope this guide will be beneficial to you in your musical journey! Cheers!

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## The Major Scale

The first and most crucial step to learning jazz harmony is learning your major scales. As the first building block, it is really the only step that requires in depth memorization and learning without using any previous links.

## Learning the Scales

Below you will find all 12 major scales in one octave. Play each of these slowly, feel the horn vibrate, hear the pitch, and know the note's placement in the scale. Please feel free to extend the range of these scales throughout the full range of the instrument – the better you know your instrument and hear the notes, the less limited you will be in executing your ideas when improvising.

### Bb Major:

A musical staff in G clef and 4/4 time. The scale consists of eight notes: B-flat, C, D, E-flat, F, G, A-flat, and B-flat. Below the staff, the notes are numbered 1 through 8 under each note head. The notes are: B-flat (1), C (2), D (3), E-flat (4), F (5), G (6), A-flat (7), and B-flat (8).

### B Major:

A musical staff in G clef and 4/4 time. The scale consists of eight notes: B, C-sharp, D-sharp, E, F-sharp, G, A-sharp, and B. Below the staff, the notes are numbered 1 through 8 under each note head. The notes are: B (1), C-sharp (2), D-sharp (3), E (4), F-sharp (5), G (6), A-sharp (7), and B (8).

### C Major:

A musical staff in G clef and 4/4 time. The scale consists of eight notes: C, D, E, F, G, A, B, and C. Below the staff, the notes are numbered 1 through 8 under each note head. The notes are: C (1), D (2), E (3), F (4), G (5), A (6), B (7), and C (8).

### D<sub>b</sub> Major:

A musical staff in G clef and 4/4 time. The scale consists of eight notes: D-flat, E, F, G, A-flat, B-flat, C, and D-flat. Below the staff, the notes are numbered 1 through 8 under each note head. The notes are: D-flat (1), E (2), F (3), G (4), A-flat (5), B-flat (6), C (7), and D-flat (8).

### D Major:

A musical staff in G clef and 4/4 time. The scale consists of eight notes: D, E, F-sharp, G, A, B, C-sharp, and D. Below the staff, the notes are numbered 1 through 8 under each note head. The notes are: D (1), E (2), F-sharp (3), G (4), A (5), B (6), C-sharp (7), and D (8).

### E<sub>b</sub> Major:

A musical staff in G clef and common time. It shows the notes of the E Major scale: E, F#, G, A, B, C, D, E. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**E Major:**

A musical staff in G clef and common time. It shows the notes of the E Major scale with sharps: E, F#, G, A, B, C, D, E. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**F Major:**

A musical staff in G clef and common time. It shows the notes of the F Major scale: F, G, A, B, C, D, E, F. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**F# Major:**

A musical staff in G clef and common time. It shows the notes of the F# Major scale with sharps: F#, G, A, B, C, D, E, F#. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**G Major:**

A musical staff in G clef and common time. It shows the notes of the G Major scale: G, A, B, C, D, E, F#, G. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**Ab Major:**

A musical staff in G clef and common time. It shows the notes of the Ab Major scale: A, B, C, D, E, F, G, A. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

**A Major:**

A musical staff in G clef and common time. It shows the notes of the A Major scale: A, B, C, D, E, F#, G, A. Below the staff are the numbers 1 through 1, indicating the fingerings for each note.

## Intervals

Scales are the essential building block for all of jazz theory, but they are horizontal shapes. Intervals are the distances between notes and are the foundation of vertical shapes.

It is important to note that there are five descriptors used to describe intervals: minor, major, perfect, augmented, and diminished. There are two camps that intervals fall into: the minor/major and the perfect. Minor and major intervals are reserved only for 2nds , 3rds, 6ths, and 7ths. Perfect intervals are reserved for 4ths, 5ths, and 8ths/octaves.

A minor interval that is raised a semitone (or half step) becomes a major interval, and a major interval that is flattened a semitone becomes a minor interval. It is only when a major interval is **raised** a semitone that it becomes an augmented interval and when a minor interval is **flattened** a semitone it becomes a diminished interval. Alternatively, if a perfect interval is raised a half step, it is labeled as augmented; if lowered a half step, it is labeled diminished. See the tables below:

#### Minor/Major Interval Camp

Diminished	Minor	Major	Augmented
Raising half steps → → → →		← ← ← ← Lowering half steps	

#### Perfect Interval Camp

Diminished	Perfect	Augmented
Raising half steps → → → →		← ← ← ← Lowering half steps

Once you understand this process, it is important to then know and identify what the minor, major, and perfect intervals are as they are the starting point for identifying diminished and augmented intervals. The good thing is, once you know your major scales, it is easy to find and learn these intervals.

#### Simple Intervals

Below you will find a major scale exercise in all 12 keys that starts on the tonic or root of the scale and gradually leaps up through the different scale degrees. This process will help you see, identify, hear, and learn how simple intervals sound and work. A **simple interval** is an interval that is within an octave (or P8). Please note that “m” signifies minor, “M” signifies major, and “P” signifies perfect.

Notice that when ascending the major scale (first and second stave), all 2nds, 3rds, 6ths, and 7ths are major intervals and when descending they are all minor (third and fourth stave). All 4ths, 5ths, and 8ths are perfect intervals.

### Bb Major:

The image shows four staves of musical notation for Bb Major, illustrating intervals M2, M3, P4, P5, M6, M7, and P8 in various positions on the scale. The staves are arranged vertically, each starting on a different note of the Bb Major scale (Bb, G, D, A).

- Staff 1 (Top):** Starts on Bb. Intervals: M2 (Bb to C), M3 (C to D), P4 (D to E), P5 (E to F#), M6 (F# to G), M7 (G to A), P8 (A to Bb).
- Staff 2:** Starts on G. Intervals: M2 (G to A), M3 (A to Bb), P4 (Bb to C), P5 (C to D), M6 (D to E), M7 (E to F#), P8 (F# to G).
- Staff 3:** Starts on D. Intervals: m2 (D to E), m3 (E to F#), P4 (F# to G), P5 (G to A), m6 (A to Bb), m7 (Bb to C), P8 (C to D).
- Staff 4 (Bottom):** Starts on A. Intervals: m2 (A to Bb), m3 (Bb to C), P4 (C to D), P5 (D to E), m6 (E to F#), m7 (F# to G), P8 (G to A).

Each staff has a treble clef and a key signature of one flat (Bb). The notes are represented by open circles with stems, and the intervals are labeled above the staff. The numbers 1 through 8 are placed below the notes to indicate the position of each note in the Bb Major scale.

**B Major:**

The sheet music consists of seven staves of musical notation for B Major. Each staff begins with a treble clef and a key signature of one sharp (F#). The notes are represented by open circles. Fingerings are indicated below each note: M2 (1, 2), M3 (1, 3), P4 (1, 4), P5 (1, 5), M6 (1, 6), M7 (1, 7), and P8 (1, 8) for the first staff; M2 (2, 1), M3 (3, 1), P4 (4, 1), P5 (5, 1), M6 (6, 1), M7 (7, 1), and P8 (8, 1) for the second staff; m2 (7, 8), m3 (6, 8), P4 (5, 8), P5 (4, 8), m6 (3, 8), m7 (2, 8), and P8 (1, 8) for the third staff; m2 (8, 7), m3 (8, 6), P4 (8, 5), P5 (8, 4), m6 (8, 3), m7 (8, 2), and P8 (1, 8) for the fourth staff.

**C Major:**

The sheet music consists of seven staves of musical notation for C Major. Each staff begins with a treble clef and a key signature of no sharps or flats. The notes are represented by open circles. Fingerings are indicated below each note: M2 (1, 2), M3 (1, 3), P4 (1, 4), P5 (1, 5), M6 (1, 6), M7 (1, 7), and P8 (1, 8) for the first staff; M2 (2, 1), M3 (3, 1), P4 (4, 1), P5 (5, 1), M6 (6, 1), M7 (7, 1), and P8 (8, 1) for the second staff; m2 (7, 8), m3 (6, 8), P4 (5, 8), P5 (4, 8), m6 (3, 8), m7 (2, 8), and P8 (1, 8) for the third staff; m2 (8, 7), m3 (8, 6), P4 (8, 5), P5 (8, 4), m6 (8, 3), m7 (8, 2), and P8 (1, 8) for the fourth staff.

**D<sub>b</sub> Major:**

The image shows four staves of musical notation for D-flat major (D<sub>b</sub> major). Each staff consists of a treble clef, a 1/4 time signature, and a 5-line staff. The notes are represented by vertical stems with small circles at the top. Intervals are labeled above each staff: M2, M3, P4, P5, M6, M7, and P8. Below each staff, the note heads are numbered sequentially from 1 to 8. The first staff starts with a note at the bottom line (1), followed by a note at the middle line (2), then a note at the top line (3), and so on. The second staff follows a similar pattern but with some variations in pitch. The third and fourth staves show different permutations of the same sequence, maintaining the same interval labels and note head numbering.

**D Major:**

The image shows four staves of musical notation for D major. Each staff consists of a treble clef, a 1/4 time signature, and a 5-line staff. The notes are represented by vertical stems with small circles at the top. Intervals are labeled above each staff: M2, M3, P4, P5, M6, M7, and P8. Below each staff, the note heads are numbered sequentially from 1 to 8. The first staff starts with a note at the bottom line (1), followed by a note at the middle line (2), then a note at the top line (3), and so on. The second staff follows a similar pattern but with some variations in pitch. The third and fourth staves show different permutations of the same sequence, maintaining the same interval labels and note head numbering.

**Eb Major:**

The image shows four staves of musical notation for Eb Major. Each staff consists of a treble clef, a 16th-note time signature, and a five-line staff. The notes are represented by open circles with stems. Above each staff, the intervals M2, M3, P4, P5, M6, M7, and P8 are labeled. Below each staff, a sequence of numbers from 1 to 8 indicates specific fingerings for each note. The first staff starts with a note at the 1st fret. The second staff starts with a note at the 2nd fret. The third staff starts with a note at the 7th fret. The fourth staff starts with a note at the 8th fret.

**E Major:**

The image shows four staves of musical notation for E Major. Each staff consists of a treble clef, a 16th-note time signature, and a five-line staff. The notes are represented by open circles with stems. Above each staff, the intervals M2, M3, P4, P5, M6, M7, and P8 are labeled. Below each staff, a sequence of numbers from 1 to 8 indicates specific fingerings for each note. The first staff starts with a note at the 1st fret. The second staff starts with a note at the 2nd fret. The third staff starts with a note at the 7th fret. The fourth staff starts with a note at the 8th fret.

**F Major:**

The image shows four staves of musical notation for F Major. Each staff consists of a treble clef, a 16th-note time signature, and a five-line staff. The notes are represented by open circles. Fingerings are indicated below each note:

- Staff 1:** M2 (1 2), M3 (1 3), P4 (1 4), P5 (1 5), M6 (1 6), M7 (1 7), P8 (1 8)
- Staff 2:** M2 (2 1), M3 (3 1), P4 (4 1), P5 (5 1), M6 (6 1), M7 (7 1), P8 (8 1)
- Staff 3:** m2 (7 8), m3 (6 8), P4 (5 8), P5 (4 8), m6 (3 8), m7 (2 8), P8 (1 8)
- Staff 4:** m2 (8 7), m3 (8 6), P4 (8 5), P5 (8 4), m6 (8 3), m7 (8 2), P8 (8 1)

**F# Major:**

The image shows four staves of musical notation for F# Major. Each staff consists of a treble clef, a 16th-note time signature, and a five-line staff. The notes are represented by open circles with sharp symbols. Fingerings are indicated below each note:

- Staff 1:** M2 (1 2), M3 (1 3), P4 (1 4), P5 (1 5), M6 (1 6), M7 (1 7), P8 (1 8)
- Staff 2:** M2 (2 1), M3 (3 1), P4 (4 1), P5 (5 1), M6 (6 1), M7 (7 1), P8 (8 1)
- Staff 3:** m2 (7 8), m3 (6 8), P4 (5 8), P5 (4 8), m6 (3 8), m7 (2 8), P8 (1 8)
- Staff 4:** m2 (8 7), m3 (8 6), P4 (8 5), P5 (8 4), m6 (8 3), m7 (8 2), P8 (8 1)

### G Major:

The image shows four staves of musical notation for G Major, each with a treble clef and a key signature of one sharp (F#). The staves are divided into measures by vertical bar lines. The notes are represented by open circles. Below each note is a number indicating the finger used to play it. The intervals shown are: M2, M3, P4, P5, M6, M7, and P8. The first staff starts at the 1st fret. The second staff starts at the 2nd fret. The third staff starts at the 7th fret. The fourth staff starts at the 8th fret.

Staff	M2	M3	P4	P5	M6	M7	P8
1	1	2	1	3	1	4	1
2	2	1	3	1	4	1	
7	7	8	6	8	5	8	1
8	8	7	8	6	8	5	1

### Ab Major:

The image shows four staves of musical notation for Ab Major, each with a treble clef and a key signature of one flat (B-flat). The staves are divided into measures by vertical bar lines. The notes are represented by open circles with a small 'b' symbol. Below each note is a number indicating the finger used to play it. The intervals shown are: M2, M3, P4, P5, M6, M7, and P8. The first staff starts at the 1st fret. The second staff starts at the 2nd fret. The third staff starts at the 7th fret. The fourth staff starts at the 8th fret.

Staff	M2	M3	P4	P5	M6	M7	P8
1	1	2	1	3	1	4	1
2	2	1	3	1	4	1	
7	7	8	6	8	5	8	1
8	8	7	8	6	8	5	1

**A Major:**

The image shows four staves of musical notation for A Major intervals. Each staff consists of five horizontal lines and four spaces. The notes are represented by open circles. Above each staff, the interval names are written: M2, M3, P4, P5, M6, M7, and P8. Below each staff, the corresponding fingerings are indicated: 1 2, 1 3, 1 4, 1 5, 1 6, 1 7, 1 8 for the first staff; 2 1, 3 1, 4 1, 5 1, 6 1, 7 1, 8 1 for the second staff; 7 8, 6 8, 5 8, 4 8, 3 8, 2 8, 1 8 for the third staff; and 8 7, 8 6, 8 5, 8 4, 8 3, 8 2, 8 1 for the fourth staff.

Compound Intervals – Expanding the Distance

**Compound intervals** are taking the simple intervals listed above and adding an octave between both notes. Because a major scale has **seven diatonic** notes in an octave, arithmetically a compound interval is the same as adding seven to a simple interval. Note that compound intervals **do not** change the quality of the simple interval from which they are derived (i.e. minor, major, diminished, etc.). For example, a simple interval of a perfect fourth (P4) displaced by an octave is a perfect eleventh (P4 + 7 = P11).

This idea begins to introduce an idea of extensions, a concept we will learn more about later. It is extremely important to remember the compound intervals of 9ths, 11ths, and 13ths as this will be critical in forming chords in the future. Some of these notes may extend beyond your range and that is fine – do your best and play as high/low as possible.

### Bb Major:

The image displays four staves of musical notation for Bb Major, illustrating compound intervals. The first staff shows M9, M10, P11, P12, M13, M14, and P15. The second staff shows M9, M10, P11, P12, M13, M14, and P15. The third staff shows m9, m10, P11, P12, m13, m14, and P15. The fourth staff shows m9, m10, P11, P12, m13, m14, and P15. Each staff has note heads with a 'b' and a circled 'o' below them, indicating a flattened note. Below each staff are numerical values representing the note's position in the Bb Major scale: 1, 9, 10, 11, 12, 13, 14, 15 for the first two staves; 9, 1, 10, 1, 11, 1, 12, 1, 13, 1, 14, 1, 15 for the third; and 7, 15, 6, 15, 5, 15, 4, 15, 3, 15, 2, 15, 1, 15 for the fourth.

### B Major:

M9      M10      P11      P12      M13      M14      P15

### C Major:

M9      M10      P11      P12      M13      M14      P15

### D<sub>b</sub> Major:

M9      M10      P11      P12      M13      M14      P15

1    9      1    10      1    11      1    12      1    13      1    14      1    15

M9      M10      P11      P12      M13      M14      P15

9    1      10    1      11    1      12    1      13    1      14    1      15    1

m9      m10      P11      P12      m13      m14      P15

7    15      6    15      5    15      4    15      3    15      2    15      1    15

b<sub>2</sub> m9      b<sub>2</sub> m10      b<sub>2</sub> P11      b<sub>2</sub> P12      b<sub>2</sub> m13      b<sub>2</sub> m14      b<sub>2</sub> P15

15    7      15    6      15    5      15    4      15    3      15    2      15    1

### D Major:

M9      M10      P11      P12      M13      M14      P15

1    9      1    10      1    11      1    12      1    13      1    14      1    15

M9      M10      P11      P12      M13      M14      P15

9    1      10    1      11    1      12    1      13    1      14    1      15    1

m9      m10      P11      P12      m13      m14      P15

7    15      6    15      5    15      4    15      3    15      2    15      1    15

b<sub>2</sub> m9      b<sub>2</sub> m10      b<sub>2</sub> P11      b<sub>2</sub> P12      b<sub>2</sub> m13      b<sub>2</sub> m14      b<sub>2</sub> P15

15    7      15    6      15    5      15    4      15    3      15    2      15    1

### Eb Major:

Musical staff showing notes for E minor chords across seven octaves. The staff consists of seven staves, each representing an octave. The notes are labeled with chord names and specific note heads (e.g., M9, M10, P11, P12, M13, M14, P15) and corresponding numerical values below them.

Octave	Chord	Notes
1	M9	1 9
2	M10	1 10
3	P11	1 11
4	P12	1 12
5	M13	1 13
6	M14	1 14
7	P15	1 15

Octave	Chord	Notes
1	M9	9 1
2	M10	10 1
3	P11	11 1
4	P12	12 1
5	M13	13 1
6	M14	14 1
7	P15	15 1

Octave	Chord	Notes
1	m9	15 7
2	m10	15 6
3	P11	15 5
4	P12	15 4
5	m13	15 3
6	m14	15 2
7	P15	15 1

### E Major:

Musical staff showing notes for E major chords across seven octaves. The staff consists of seven staves, each representing an octave. The notes are labeled with chord names and specific note heads (e.g., M9, M10, P11, P12, M13, M14, P15) and corresponding numerical values below them.

Octave	Chord	Notes
1	M9	1 9
2	M10	1 10
3	P11	1 11
4	P12	1 12
5	M13	1 13
6	M14	1 14
7	P15	1 15

Octave	Chord	Notes
1	M9	9 1
2	M10	10 1
3	P11	11 1
4	P12	12 1
5	M13	13 1
6	M14	14 1
7	P15	15 1

Octave	Chord	Notes
1	m9	15 7
2	m10	15 6
3	P11	15 5
4	P12	15 4
5	m13	15 3
6	m14	15 2
7	P15	15 1

### F Major:

M9      M10      P11      P12      M13      M14      P15

1      9      1      10      1      11      1      12      1      13      1      14      1      15

M9      M10      P11      P12      M13      M14      P15

9      1      10      1      11      1      12      1      13      1      14      1      15      1

m9      m10      P11      P12      m13      m14      P15

7      15      6      15      5      15      4      15      3      15      2      15      1      15

m9      m10      P11      P12      m13      m14      P15

15      7      15      6      15      5      15      4      15      3      15      2      15      1

### F# Major:

M9      M10      P11      P12      M13      M14      P15

1      9      1      10      1      11      1      12      1      13      1      14      1      15

M9      M10      P11      P12      M13      M14      P15

9      1      10      1      11      1      12      1      13      1      14      1      15      1

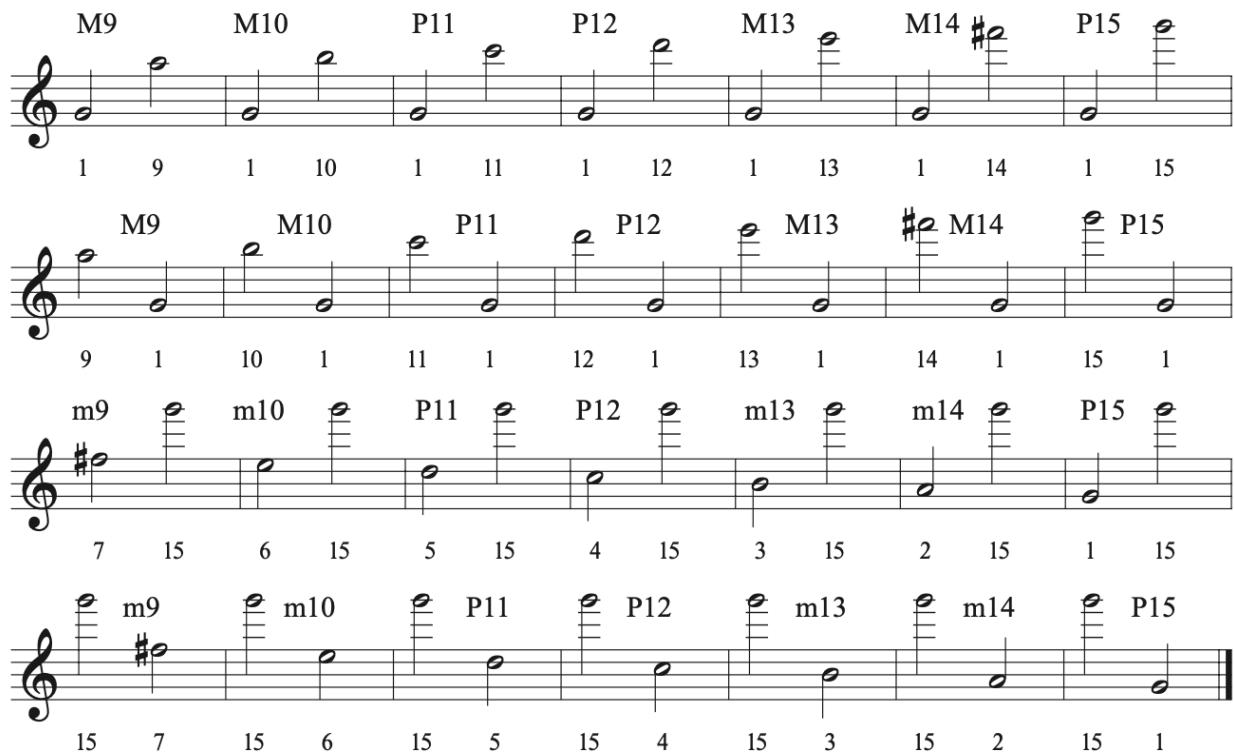
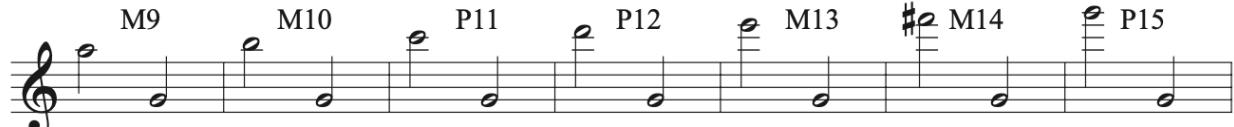
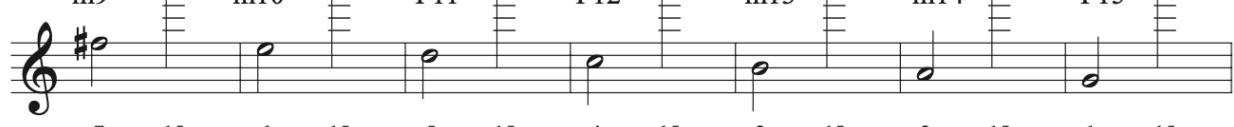
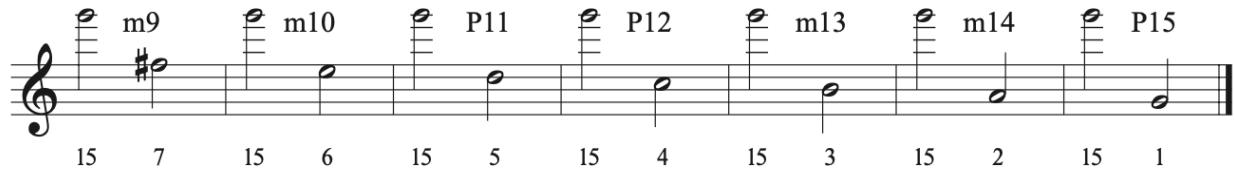
m9      m10      P11      P12      m13      m14      P15

7      15      6      15      5      15      4      15      3      15      2      15      1      15

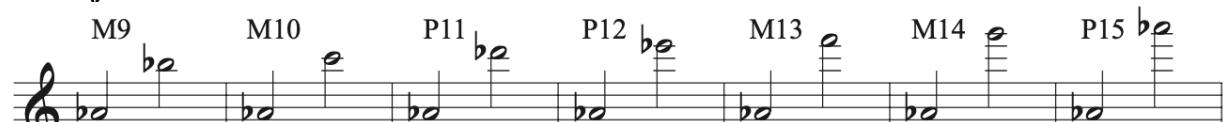
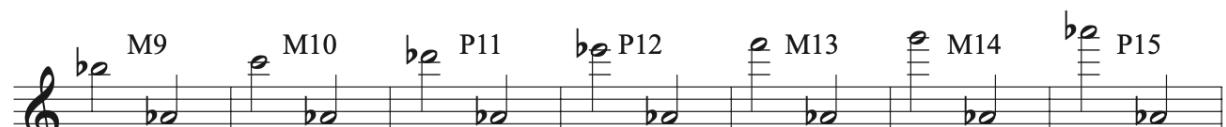
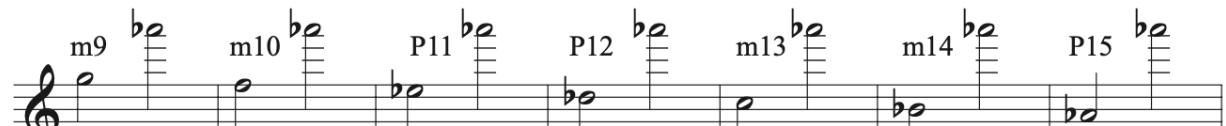
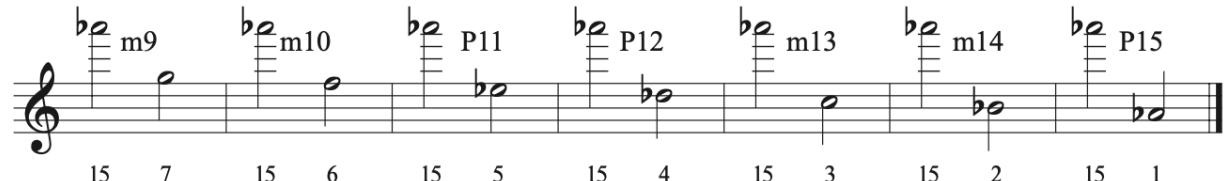
m9      m10      P11      P12      m13      m14      P15

15      7      15      6      15      5      15      4      15      3      15      2      15      1

### G Major:

M9      M10      P11      P12      M13      M14  $\sharp$   

  
M9      M10      P11      P12      M13      M14  $\sharp$   

  
m9      m10      P11      P12      m13      m14      P15  

  
m9      m10      P11      P12      m13      m14      P15  


**Ab Major:**

M9      M10      P11  $\flat$   

  
M9      M10      P11      P12  $\flat$   

  
m9      m10      P11      P12      m13      m14      P15  $\flat$   

  
m9      m10      P11      P12      m13      m14      P15  $\flat$   


**A Major:**

M9      M10      P11      P12      M13      M14      P15

1      9      1      10      1      11      1      12      1      13      1      14      1      15

M9      M10      P11      P12      M13      M14      P15

9      1      10      1      11      1      12      1      13      1      14      1      15

m9      m10      P11      P12      m13      m14      P15

7      15      6      15      5      15      4      15      3      15      2      15      1      15

m9      m10      P11      P12      m13      m14      P15

15      7      15      6      15      5      15      4      15      3      15      2      15      1

### The Tritone – The Most Crucial of All Intervals

Arguably the most essential interval to learn is the tritone, also known as an augmented fourth (A4) or diminished fifth (D5). The tritone symmetrically splits the octave into two sets of **six half steps** and is the primary interval used to determine modes of the major scale (see p. ——).

Below you will see how the tritone perfectly splits the octave into two equal halves:



The tritone interval is found in the major scale between the 4th and 7th scale degree.

C Major

Now that you know the scale degrees of major scales, only the 4th and 7th scale degrees are presented below. If you have difficulty identifying and recognizing the scale degrees, you should go back and review the major scales on p. 4-5).

## Modes of the Major Scale

Modes can be presented in two ways, both of which have their advantages and disadvantages.

The first way to present modes and the easiest way to understand them is through the **moveable bass method**.

### Moveable Bass Method

The **first mode** of the major scale is called **Ionian**. This mode starts on the first scale degree (aka the major scale). Below is C Ionian:

#### C Ionian (C Major Scale)



The **second mode** of the major scale is **Dorian**. This mode starts on the second scale degree.

#### D Dorian (D Major Scale w/ b3, b7)



The **third mode** of the major scale is **Phrygian**. This mode starts on the third scale degree.

#### E Phrygian (E Major Scale w/ b2, b3, b6, b7)



The **fourth mode** of the major scale is **Lydian**. This mode starts on the fourth scale degree.

#### F Lydian (F Major Scale w/ #4)



The **fifth mode** of the major scale is **Mixolydian**. This mode starts on the fifth scale degree.

#### G Mixolydian (G major w/ b7)



The **sixth mode** of the major scale is **Aeolian**. This mode starts on the sixth scale degree and produces the natural minor scale. Since C Major and A Natural Minor share the same key, they have a relative relationship with one another, meaning C Major is the relative major of A Minor and A Minor is the relative minor of C Major.

**A Aeolian** (A Natural Minor Scale; A Major Scale w/ b3, b6, b7)



The **seventh mode** of the major scale is **Locrian**. This mode starts on the seventh scale degree.

**B Locrian** (B Major Scale w/ b2, b3, b5, b6, b7)



## Scale Alteration Method

The second way to learn the modes of the major scale is the **scale alteration method** which alters the major scale. This way is a bit more complicated to understand at first, but it actually helps understand the naming of modes for the other asymmetrical scales which we will discuss later.

The brightest mode of the major scale is the **Lydian mode** as it has the most raised notes. To get the Lydian mode from the major scale, you raise the fourth scale degree.

**C Lydian** (G Major Scale starting on the fourth scale degree)

A musical staff in G major (one sharp). The notes are: G (1), A (2), B (3), C# (4), D (5), E (6), F (7), G (8), F (7), E (6), D (5), C# (4), B (3), A (2), G (1).

As mentioned earlier, the **Ionian mode** is just the major scale so there is no need for alterations.

**C Ionian** (C Major Scale starting on the first scale degree)

A musical staff in C major (no sharps or flats). The notes are: C (1), D (2), E (3), F (4), G (5), A (6), B (7), C (8), B (7), A (6), G (5), F (4), E (3), D (2), C (1).

The Mixolydian mode, the most popular scale in the major blues progression, is just the major scale with a flattened seventh.

**C Mixolydian** (F Major Scale starting on the fifth scale degree)

A musical staff in F major (one flat). The notes are: F (1), G (2), A (3), B (4), C (5), D (6), E (7), Bb (8), C (9), D (10), E (11), F (12), G (13), A (1), B (2), C (3).

The Dorian mode, also known as the most neutral of the modes, is the major scale with a flattened third and seventh.

**C Dorian** (The Bb Major starting on the second scale degree)

A musical staff in Bb major (two flats). The notes are: Bb (1), C (2), D (3), E (4), F (5), G (6), A (7), Bb (8), C (9), D (10), E (11), F (12), G (13), A (1), Bb (2), C (3).

The Aeolian mode is the major scale with a flattened third, sixth, and seventh. As discussed previously, the Aeolian mode produces the natural minor scale. However, since the root is kept the same, the C Natural Minor and C Major scales have a parallel relationship, meaning that C Minor is the parallel minor of C Major and C Major is parallel major of C Minor.

**C Aeolian** (C Natural Minor; Eb Major Scale starting on the sixth scale degree)

The Phrygian mode is the major scale with a flattened second, third, sixth, and seventh.

**C Phrygian** (Ab Major Scale starting on the third scale degree)

The Locrian mode is the major scale with a flattened second, third, fifth, sixth, and seventh. It is the mode with the most flats and is the darkest of all the major scale modes.

**C Locrian** (Db Major Scale starting on the seventh scale degree)

As a review, the chart below summarizes all the information we covered in this section.

Modes of the Major Scale						
Brightest → → → → → Darkest						
Lydian	Ionian	Mixolydian	Dorian	Aeolian	Phrygian	Locrian
4th mode of the major scale	1st mode of the major scale	5th mode of the major scale	2nd mode of the major scale	6th mode of the major scale	3rd mode of the major scale	7th mode of the major scale
OR	OR	OR	OR	OR	OR	OR
major scale w/ #4 (or #11)	major scale w/ No Alt.	major scale w/ b7	major scale w/ b3, b7	major scale w/ b3, b6, b7	major scale w/ b2, b3, b6, b7	major scale w/ b2, b3, b5, b6, b7

## Modes of Major in All 12 Keys

Below you will find all the modes of major transposed. Please first think about the process of how to reach each mode using the two methods above; then look to see if you were correct using the guide below as a reference.

### **Modes of C**

The image displays six staves of musical notation, each representing a different mode of C major. The modes are labeled above each staff: CLydian, CIonian, CMixolydian, CDorian, CAeolian, and CPhrygian. Each staff is in common time (indicated by a 'C') and uses a treble clef. The notes are represented by solid black dots on the five-line staff. The CLydian staff has one sharp (F#). The CIonian staff has no sharps or flats. The CMixolydian staff has one flat (B-flat). The CDorian staff has two flats (B-flat and D-flat). The CAeolian staff has three flats (B-flat, D-flat, and G-flat). The CPhrygian staff has four flats (B-flat, D-flat, F-flat, and A-flat). The notes are arranged in eighth-note patterns across the six staves.

## Modes of Db

D♭Lydian



D♭Ionian



D♭Mixolydian



C♯Dorian



C♯Aeolian



C♯Phrygian



C♯Locrian



## Modes of D

D Lydian

D Ionian

DMixolydian

DDorian

DAeolian

D Phrygian

D Locrian

The musical staves are all in treble clef and show eight measures of music. The modes are defined by their characteristic note patterns:

- D Lydian:** Notes D, E, F#, G, A, B, C, D.
- D Ionian:** Notes D, E, F#, G, A, B, C, D.
- DMixolydian:** Notes D, E, F#, G, A, B, C, B.
- DDorian:** Notes D, E, F, G, A, B, C, D.
- DAeolian:** Notes D, E, F, G, A, B-flat, C, D.
- D Phrygian:** Notes D, E, F, G, A, B-flat, C, D.
- D Locrian:** Notes D, E, F, G, A, B-flat, C, D.

## Modes of Eb

E♭Lydian



E♭Ionian



E♭Mixolydian



E♭Dorian



E♭Aeolian



D♯Phrygian



D♯Locrian



## Modes of E

ELydian

EIonian

EMixolydian

EDorian

EAeolian

EPhrygian

ELocrian

The image displays six musical staves, each representing a mode based on the key of E. The modes are labeled above each staff: ELydian, EIonian, EMixolydian, EDorian, EAeolian, and EPhrygian. The ELocrian mode is shown below the Phrygian mode. Each staff uses a treble clef and consists of eight measures. The notes are represented by black dots on the five-line staff. The ELydian staff has notes E, F#, G#, A#, B, C#, D#. The EIonian staff has notes E, F#, G#, A#, B, C#, D#. The EMixolydian staff has notes E, F#, G#, A#, B, C#, D. The EDorian staff has notes E, F#, G, A, B, C#, D. The EAeolian staff has notes E, F#, G, A, B, C, D. The EPhrygian staff has notes E, D, C, B, A, G, F#. The ELocrian staff has notes E, D, C, B, A, G, F.

## Modes of F

FLydian



FIonian



FMixolydian



FDorian



FAeolian



FPhrygian



FLocrian



## Modes of F#

F#Lydian



F#Ionian



F#Mixolydian



F#Dorian



F#Aeolian



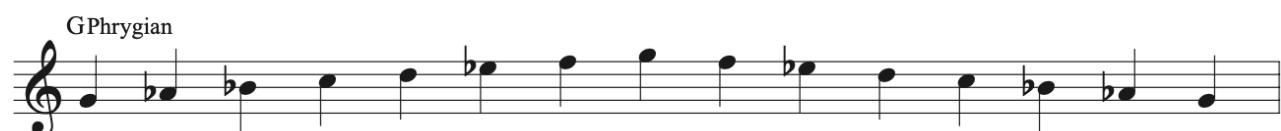
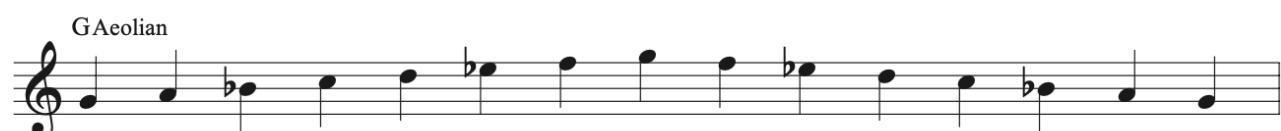
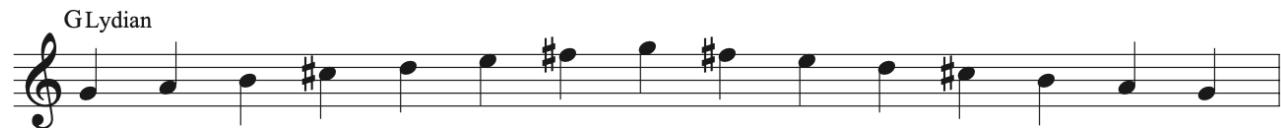
F#Phrygian



F#Locrian



## Modes of G



## Modes of Ab



## Modes of A

ALydian



AIonian



AMixolydian



ADorian



AAeolian



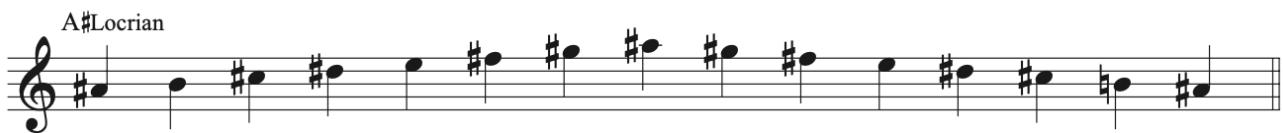
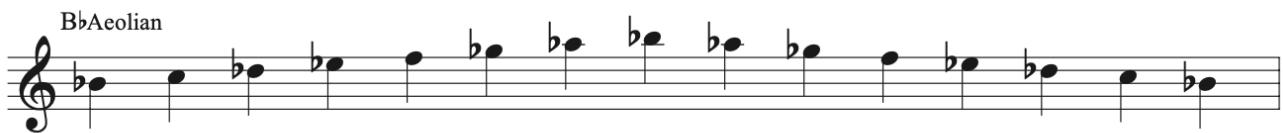
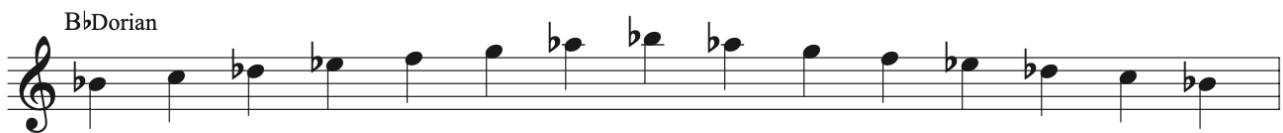
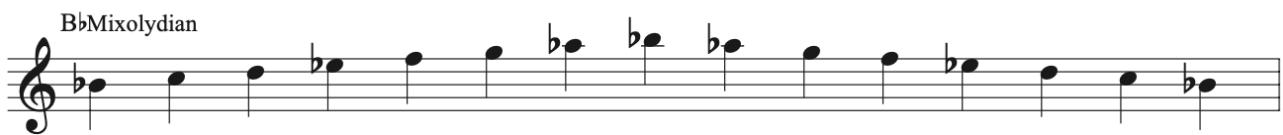
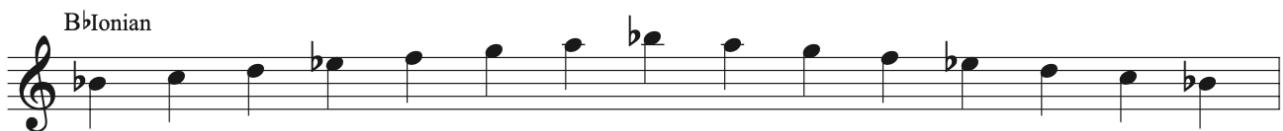
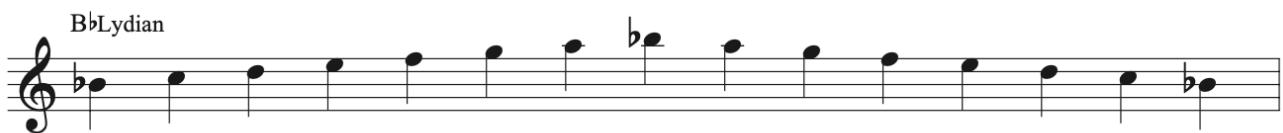
APhrygian



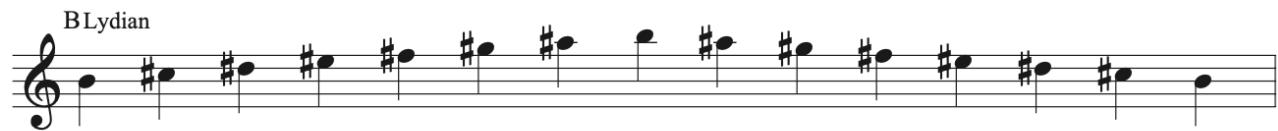
ALocrian



## Modes of Bb



## Modes of B



# Vertical Shapes and Chord Notation

Vertical shapes and chord notation both go together and reinforce each other. As such, these concepts will be presented in tandem with one another. Vertical structures are not disjunct from previous concepts and are derived from horizontal structures as we will see in the next section “Additional Scales and Chord Scale Relationships.” This section will explore learning how to form vertical structures using the intervals discussed previously as a foundation.

## Triads

Triads are the fundamental building block for all tertian (separated by thirds) harmony and is where this section will begin. Triads are formed by stacking three notes on top of each other, each separated by third. Those three notes are the “root” which is point from which the other two notes are derived; the “third” which is a third above the root; and the “fifth” which is a fifth above the “root” and a third above the “third.”

There are four triads that exist in music: *diminished*, *minor*, *major*, and *augmented*. Each triad has a different quality of combination for the third and fifth. As discussed previously, the third can have a minor or major quality and the fifth can have diminished, perfect, or augmented quality. Below is a table and stave with each triad listed:

Diminished	Minor	Major	Augmented
Minor 3rd & Diminished 5 <sup>th</sup>	Minor 3rd & Perfect 5th	Major 3rd & Perfect 5th	Major 3rd & Augmented 5th

Minor 3rd (above C)      Diminished 5th (above C)      C Diminished Triad

Minor 3rd (above C)      Perfect 5th (above C)      C Minor Triad

Major 3rd (above C)      Perfect 5th (above C)      C Major Triad

Major 3rd (above C)      Augmented 5th (above C)      C Augmented Triad

Each triad has three sets of positions which is determined by what note of the triad is in the bass or lowest voice. If the root of the triad is in the bass it is in *root position*; if the third is in the bass, it is in *first inversion*; and if the fifth is in the bass, it is in *second inversion*. Below is the set of positions for a C Major Triad:

Lastly, for each triadic position there are an open and closed voicing. *Closed voicings* are compact by having the least amount of space between each voice in the position; *open voicings* are more spread by creating more space between each voice in the position. Above is an example of closed voicing. To create an open voicing in the same position, simply raise the next voice above the bass up an octave – a method known as “Raise 2” as you are raising the second voice above the bass.

Below you will find each triad position in closed and open voicing using the “Raise 2” and “Drop 2 Method.”

It is worth noting that another method commonly used to achieve an open voicing is the “Drop 2” method which takes the second note below the melody note (highest note) and moves it down an octave. It is basically the complete reverse of the “Raise 2” method with one vital difference – “Drop 2” is done in relation to the melody note, preserving the melody at the top of the voicing and changing the bass; “Raise 2” is in relation to the bass note, preserving the bass at the bottom of the voicing and changing the melody note. See below:

Each quality of triad is accompanied by a chord symbol that communicates quickly to the musician what the harmony is and what note is in the bass. Below is a table with symbols referring to the four qualities of triads in **root position** in C:

<b>Diminished</b>	<b>Minor</b>	<b>Major</b>	<b>Augmented</b>
Cdim, C° Cm <sup>(b5)</sup> , Cmi <sup>(b5)</sup> C min <sup>(b5)</sup> , C- <sup>(b5)</sup>	Cm, Cmi, Cmin, C-	C, CM, Cma Cmaj, CΔ	C <sup>(#5)</sup> , CM <sup>(#5)</sup> Cma <sup>(#5)</sup> , Cmaj <sup>(#5)</sup> C+

If a triad is not in root position, simply state the quality with a chord symbol above followed by a slash and the note in the bass (i.e. a C major triad in second inversion could be written C/G).

Now that you understand triads and the types of qualities, positions, voicings, and chord symbols associated with them, below you will find every triad with its many permutations in all 12 keys.

B♭diminished

B♭°      B♭dim/D♭      B♭mi(b5)/F♭

B♭minor

B♭-      B♭m/D♭      B♭mi/F

B♭major

B♭△      B♭/D      B♭ma/F

B♭augmented

B♭+      B♭(#5)/D      B♭ma(#5)/F♯

B diminished

B°      B dim/D      B mi(b5)/F

B minor

B-      B m/D      B mi/F♯

B major

B△      B/D♯      B ma/F♯

B augmented

B+      B(#5)/D♯      B ma(#5)/G

C diminished

$C^\circ$        $C \text{ dim}/E\flat$        $C \text{ mi}(b5)/G\flat$

C minor

$C^-$        $C \text{ m}/E\flat$        $C \text{ mi}/G$

C major

$C^\Delta$        $C/E$        $C \text{ ma}/G$

C augmented

$C^+$        $C(\#5)/E$        $C \text{ ma}(\#5)/G\sharp$

$C\sharp$  diminished

$C\sharp^\circ$        $C\sharp \text{ dim}/E$        $C\sharp \text{ mi}(b5)/G$

$C\sharp$  minor

$C\sharp^-$        $C\sharp \text{ m}/E$        $C\sharp \text{ mi}/G\sharp$

D $\flat$  major

$D\flat^\Delta$        $D\flat/F$        $D\flat \text{ ma}/A\flat$

D $\flat$  augmented

$D\flat^+$        $D\flat(\#5)/F$        $D\flat \text{ ma}(\#5)/A$

D diminished

D°

Musical staff showing three notes: a root note on the 8th line, a flat note on the 7th line, and another flat note on the 5th line.

D minor

D-

D dim/F

D mi(b5)/A♭

o

Musical staff showing three notes: a root note on the 8th line, a flat note on the 7th line, and a flat note on the 5th line.

D major

D△

D/F♯

D mi/A

o

Musical staff showing three notes: a root note on the 8th line, a sharp note on the 7th line, and a sharp note on the 5th line.

D augmented

D+

D(#5)/F♯

D ma(#5)/B♭

o

Musical staff showing three notes: a root note on the 8th line, a sharp note on the 7th line, and a flat note on the 5th line.

D♯ diminished

D♯°

D♯dim/F♯

D♯mi(b5)/A

#o

Musical staff showing three notes: a root note on the 8th line, a sharp note on the 7th line, and a sharp note on the 5th line.

E♭ minor

E♭-

E♭m/G♭

E♭mi/B♭

b

Musical staff showing three notes: a root note on the 8th line, a flat note on the 7th line, and a flat note on the 5th line.

E♭ major

E♭△

E♭/G

E♭ma/B♭

b

Musical staff showing three notes: a root note on the 8th line, a flat note on the 7th line, and a flat note on the 5th line.

E♭ augmented

E♭+

E♭(#5)/G

E♭ma(#5)/B

b

Musical staff showing three notes: a root note on the 8th line, a flat note on the 7th line, and a flat note on the 5th line.

E diminished

E°                    E dim/G                    Emi(b5)/B♭

The staff shows four measures. Measure 1: E° (E, G, B). Measure 2: E dim/G (E, G, B-flat). Measure 3: Emi(b5)/B♭ (E, G, B-flat). Measure 4: E mi(B) (E, G, B).

E minor

E-                    Em/G                    Emi/B

The staff shows three measures. Measure 1: E- (E, G, B). Measure 2: Em/G (E, G, B). Measure 3: Emi/B (E, G, B).

E major

E△                    E/G♯                    Ema/B

The staff shows three measures. Measure 1: E△ (E, G-sharp, B). Measure 2: E/G♯ (E, G-sharp, B). Measure 3: Ema/B (E, G-sharp, B).

E augmented

E+                    E(#5)/G♯                    Ema(#5)/C

The staff shows three measures. Measure 1: E+ (E, G-sharp, C-sharp). Measure 2: E(#5)/G♯ (E, G-sharp, C-sharp). Measure 3: Ema(#5)/C (E, G-sharp, C-sharp).

F diminished

F°                    F dim/A♭                    Fmi(b5)/C♭

The staff shows three measures. Measure 1: F° (F, A-flat, C). Measure 2: F dim/A♭ (F, A-flat, C). Measure 3: Fmi(b5)/C♭ (F, A-flat, C).

F minor

F-                    Fm/A♭                    Fmi/C

The staff shows three measures. Measure 1: F- (F, A-flat, C). Measure 2: Fm/A♭ (F, A-flat, C). Measure 3: Fmi/C (F, A-flat, C).

F major

F△                    F/A                    Fma/C

The staff shows three measures. Measure 1: F△ (F, A, C). Measure 2: F/A (F, A, C). Measure 3: Fma/C (F, A, C).

F augmented

F+                    F(#5)/A                    Fma(#5)/C♯

The staff shows three measures. Measure 1: F+ (F, A-sharp, C-sharp). Measure 2: F(#5)/A (F, A-sharp, C-sharp). Measure 3: Fma(#5)/C♯ (F, A-sharp, C-sharp).

F#diminished

F#°

A musical staff in treble clef with four measures. The first measure shows an open position F# diminished chord (F#-A#-C#). The second measure shows a first-inversion F# dim/A chord (E#-G#-C#). The third measure shows a second-inversion F# dim/A chord (D#-F#-C#). The fourth measure shows a first-inversion F# mi(b5)/C chord (B#-D#-G#).

F#minor

F#-

A musical staff in treble clef with four measures. The first measure shows an open position F# minor chord (F#-A#-C#). The second measure shows a first-inversion F# m/A chord (E#-G#-C#). The third measure shows a second-inversion F# m/A chord (D#-F#-C#). The fourth measure shows a first-inversion F# mi/C# chord (B#-D#-G#).

F#major

F#△

A musical staff in treble clef with four measures. The first measure shows an open position F# major chord (F#-A#-C#). The second measure shows a first-inversion F# A# chord (E#-G#-C#). The third measure shows a second-inversion F# A# chord (D#-F#-C#). The fourth measure shows a first-inversion F# ma/C# chord (B#-D#-G#).

F#augmented

F#+

A musical staff in treble clef with four measures. The first measure shows an open position F# augmented chord (F#-A#-C#). The second measure shows a first-inversion F# (#5)/A# chord (E#-G#-C#). The third measure shows a second-inversion F# (#5)/A# chord (D#-F#-C#). The fourth measure shows a first-inversion F# ma(#5)/D chord (B#-D#-G#).

G diminished

G°

A musical staff in treble clef with four measures. The first measure shows an open position G diminished chord (G-B-D). The second measure shows a first-inversion G dim/B♭ chord (E-B-D). The third measure shows a second-inversion G dim/B♭ chord (D-B-D). The fourth measure shows a first-inversion G mi(b5)/D♭ chord (A-B-D).

G minor

G-

A musical staff in treble clef with four measures. The first measure shows an open position G minor chord (G-B-D). The second measure shows a first-inversion G m/B♭ chord (E-B-D). The third measure shows a second-inversion G m/B♭ chord (D-B-D). The fourth measure shows a first-inversion G mi/D chord (A-B-D).

G major

G△

A musical staff in treble clef with four measures. The first measure shows an open position G major chord (G-B-D). The second measure shows a first-inversion G/B chord (E-B-D). The third measure shows a second-inversion G/B chord (D-B-D). The fourth measure shows a first-inversion G ma/D chord (A-B-D).

G augmented

G+

A musical staff in treble clef with four measures. The first measure shows an open position G augmented chord (G-B-D). The second measure shows a first-inversion G (#5)/B chord (E-B-D). The third measure shows a second-inversion G (#5)/B chord (D-B-D). The fourth measure shows a first-inversion G ma(#5)/D♯ chord (A-B-D).

G $\sharp$ diminished

G $\sharp$   
G $\sharp$ °

G $\sharp$ dim/B

G $\sharp$ mi(b5)/D

A $\flat$ minor

A $\flat$ -

A $\flat$ m/C $\flat$

A $\flat$ mi/E $\flat$

A $\flat$ major

A $\flat$  $\Delta$

A $\flat$ /C

A $\flat$ ma/E $\flat$

A $\flat$ augmented

A $\flat$  $+$

A $\flat$ (#5)/C

A $\flat$ ma(#5)/E

A diminished

A°

A dim/C

A mi(b5)/E $\flat$

A minor

A-

A m/C

A mi/E

A major

A $\Delta$

A/C $\sharp$

A ma/E

A augmented

A $+$

A(#5)/C $\sharp$

A ma(#5)/F