



The United States Army Field Band

The Musical Ambassadors of the Army
Washington, DC

French Horn Fundamentals

by

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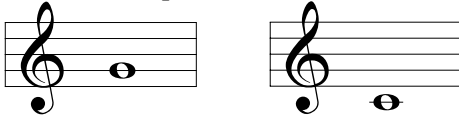
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GENERAL CONCEPTS

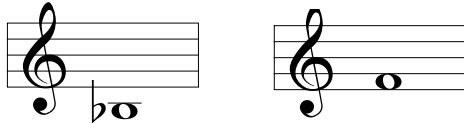
The horn is a transposing instrument. The horn in F sounds a Perfect 5th lower than concert pitch.

Example 1

Horn Transposition



G on the horn sounds like C on the piano



Concert Bb is played as an F on the horn

The French horn is a difficult instrument to play and demands a great amount of concentration and attention to detail. Like a singer, one must hear the note before it can be played correctly. One must train the ear as well as the embouchure by internalizing pitches. There are no tricks or shortcuts. The finest players practice diligently and patiently, paying close attention to basics.

PLACING THE HAND IN THE BELL

A proper hand position is critical for correct tone production and intonation. When seated, players should rest the bell of the horn on the right leg. To properly form the hand, extend the right hand as if shaking hands, with fingers straight and not spread apart. Place the tip of the right thumb onto the middle knuckle of the index finger; this will force the hand to “cup” into the correct shape. Place the hand into the bell of the horn so that the triangle formed by the thumb and knuckle is supporting the weight of the instrument. The entire back of the fingers should be in contact with the bell. This hand position will remain the same while lifting the bell off the lap as many advanced players do, or when standing. Take care to avoid pointing the bell directly into the body, as this will muffle the sound. Remember, unless the right hand is positioned correctly, the location of tuning slides is irrelevant.

FORMING AN EMOUCHURE

The word “embouchure” defines the formation of the lips and their placement on the mouthpiece. The mouthpiece should be centered from left to right, although it is fairly common for the position to be slightly off center because of the unique structure of each individual’s jaw and teeth. Place the mouthpiece on 2/3 upper lip and 1/3 lower lip. The inside rim of the mouthpiece must be above the ridge of the upper lip. Keep the lips pursed, corners firm, with the chin pointed. Avoid puffing the cheeks. It is not correct to “smile” when forming an embouchure. Position the lips as if blowing across a soda bottle.

One exercise for correct embouchure formation is to hold a pencil in the lips (like a straw). Notice how the lips grip the pencil from all angles. This is how the lips should “grip” the air stream as a tone is produced.

When ascending in range, place more lip inside of the mouthpiece. Take care to avoid smiling when moving higher. Also, raise the tongue position in the mouth (think “ee” as in “teeth”).

When descending in range, the jaw should drop slightly. Also, the tongue should be positioned lower in the mouth (think “o” as in “oath”).

BREATHING

Air is a horn player’s fuel. It’s free, so be sure to use plenty of it. Using insufficient air causes many problems for beginning horn students. When playing horn, one cannot breathe normally using shallow breaths that lift the ribs. Instead, take a deep breath moving the diaphragm, the muscle that separates the abdominal cavity from the chest. By pushing out the diaphragm, the lungs fill from the bottom up, expanding the rib cage in the final part of the breath. When playing, the diaphragm and rib cage compress the air, while the throat regulates the amount of air released. Remember to quickly reset the embouchure after taking a breath. Practice this as part of a three-step process: breathe—set—play.

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Example 2

Harmonic Series for Open F Horn



TONGUING

When “attacking” or starting a note, the tongue touches the gum directly above the upper teeth, forming the syllable “ta” for a regular attack or “da” for a softer legato attack. Rapid repeated notes can be articulated “ta-ka, ta-ka” in a duplet pattern or “ta-ta-ka, ta-ta-ka” in a triplet pattern. When “releasing” or ending the note, do not use the tongue or lips; stop the air stream by closing the throat as the diaphragm stops pushing.

DAILY PRACTICE ROUTINE

Good horn playing demands at least a minimum of daily practice. Unfortunately, an ensemble rehearsal is a poor substitute for a structured practice session.

One should cultivate a daily routine that includes some mouthpiece buzzing, long tones, scales, and lip slurs. It is with these basic techniques that one develops endurance, flexibility, and control.

The first step in improving accuracy is to warm up properly before rehearsing in order to be physically and mentally ready to play. This daily routine should take about thirty minutes. *The Art of French Horn Playing* by Philip Farkas includes a great guide for warming up.

Practice and master all intervals, scales, and arpeggios. These are the building blocks of technique from which all music is made. Practicing two octaves at a time will also help the embouchure learn to smoothly shift from one register to another.

When working on an etude, solo, or ensemble excerpt, attempt to utilize an efficient problem-solving approach. To do this, simply locate and isolate difficult spots. Try to avoid the “sightreading approach,” where one repeatedly plays through a piece from top to bottom while glossing over problem spots. It is important to practice what cannot be played, not just what sounds good.

Finally, remember to push the limits of range and dynamics by working on playing extremes. Avoid playing only in the comfortable middle range at a moderate dynamic level.

HORN FINGERINGS

The harmonic series consists of all the possible pitches for each fingering or valve combination (*see Example 2 above*). Each of the seven different valve combinations shown in *Example 2* can produce the same sequence of pitches, with each series starting a half-step lower.

Memorize these valve combinations in the order shown in *Example 3*. They form a chromatic scale down from any open note, and are the basis for all horn fingerings.

Example 3

Valve Combinations

0 2 1 12 23 13 123

PRIVATE LESSONS

There are many great books on horn playing, but there is no substitute for a good teacher. Many horn players get to college without having had a lesson, only to learn that they will never be able to play professionally because of long-term problems which cannot be overcome. Avoid this tragedy by taking private lessons as soon as possible.

The beginning horn player does not need to pay top dollar to a virtuoso in a major symphony orchestra to get a good lesson, although the advanced student should be advised to do so. There are wonderful horn teachers who charge much less and will provide a solid foundation in horn basics. Some sources for finding good horn instructors are referrals from symphony orchestras, military bands, advanced students of professional players, and graduate students in music colleges or conservatories.

EQUIPMENT

If the school provides a French horn, use it! Delay buying a horn until more advanced, when a good decision about which horn to buy can be made. Horns are very expensive to purchase—a good horn can range from \$2,000 to over \$7,000. Excellent horns for both the advanced student and the pro-

fessional artist include a Conn 8D or a Holton 179. Avoid old, dented, and odd-sized school mouthpieces, which will hamper sound or tone quality. Purchase a new medium-range mouthpiece, avoiding extremes in depth, size, or shape. Good brands of mouthpieces include Holton, Giardinelli, and Bach. These should cost around \$35.

Example 4

Horn Fingering Chart—Fingerings for Bb horn are shown above each staff and F horn fingerings are shown below. Valve combinations in parentheses are optional fingerings which are less desirable.

Bb	23	12	1	2	0	(123)	
F	123	13	23	12	1	2	
Bb	(13)	(23)	(12)	(1)	(2)		
F	0	23	12	1	2		
Bb	0	23	12	1	2	0 (23)	
F	0	12	1	2	0	1	
Bb	12	1	23	12	1	2	0
F	2	0	23	12	1	2	0
Bb	23	12	1	2	0	2	
F:	12	1	2	0	1	2	
Bb	0	23	12	1	2	0	
F	0	23	12	1	2	0	

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RECOMMENDED RESOURCES

Method Books and References

- The Art of French Horn Playing* Philip Farkas (Summy-Birchard, Inc.)
- 335 Selected Melodious Progressive Studies* Max Pottag (Southern Music Co.)
- On Playing the Horn* Farquharson Cousins (Caron Publications)
- Anthology of French Horn Music* Moore & Ettore (Mel Bay Publications)

Recordings on Compact Disc

- Baroque Horn Concertos* Barry Tuckwell (London 417 406-2)
- Haydn Concertos for Horn* Hermann Baumann (Philips 422 346-2)
- Czech Horn Concertos* Zdenek & Bedrich Tylsar (Maxos 8.550459)
- Adagio and Allegro* David Jolley (Arabesque Z6641)
- Horn Quartette* Detmolder Hornquartett (DGLC6768)
- Schumann Konzertstück* Seattle Symphony (Delos DE3084)
- Dragons in the Sky* Thomas Bacon (Summit DCD 135)
- Richard Strauss 2 Horn Concertos* Dennis Brain (EMI CDC7478342)
- Mozart Horn Concertos* Dale Clevenger (CBS MK 42324)
- Richard Strauss Symphonic Music* Berlin Philharmonic (SONY SK 47197)

Scale Supplement

The fifteen major and minor scales make up our musical “ABCs.” Just as a person wishing to read learns the alphabet first, a musician cannot expect to master an instrument without first learning the basic set of scales. By diligently practicing the major scales and all three forms of the minor scales, they will become automatic, just like reading the alphabet. This will make playing, especially sight reading, much easier so that the musician can concentrate towards the ultimate goal—making music!

Each scale below should be played slowly at first, ensuring that each note is played correctly. Gradually work for speed, but do not rush. Use a metronome whenever possible to guarantee evenness and a steady tempo. The player should practice difficult scales twice as often as easy ones to develop competence in all keys. As skills increase, change rhythmic patterns and increase tempos. Advanced players can still use scales to work on intonation, technique, range, and dynamics.

Use the following patterns one at a time or in combination to get even more benefit from scale practice:

<div data-bbox="183 810 779 966"> <p>A</p> </div> <div data-bbox="183 966 779 1123"> <p>B</p> </div> <div data-bbox="183 1123 779 1276"> <p>C</p> </div>	<div data-bbox="876 810 1482 966"> <p>D</p> </div> <div data-bbox="876 966 1482 1123"> <p>E</p> </div> <div data-bbox="876 1123 1482 1276"> <p>F</p> </div>
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C Major

<p>A natural minor</p>	<p>A harmonic minor</p>
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A melodic minor

Scale Supplement

G Major



E natural minor

E harmonic minor



E melodic minor



F Major

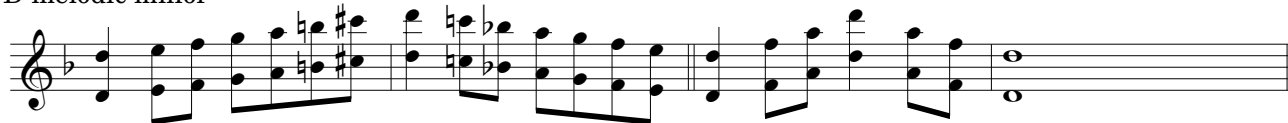


D natural minor

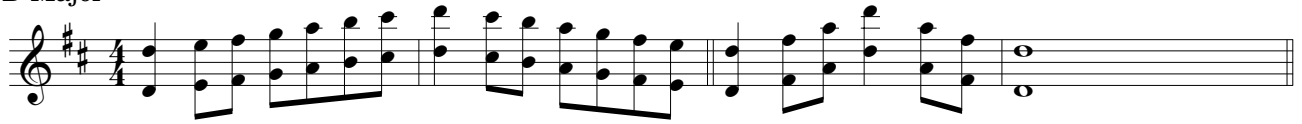
D harmonic minor



D melodic minor



D Major

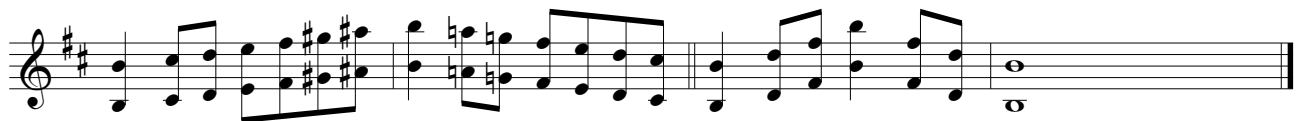


B natural minor

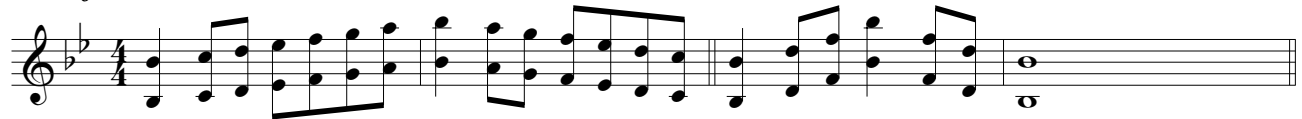
B harmonic minor



B melodic minor



Bb Major



G natural minor

G harmonic minor



G melodic minor



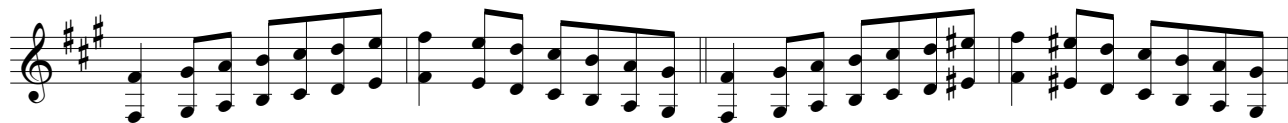
Scale Supplement

A Major



F# natural minor

F# harmonic minor



F# melodic minor

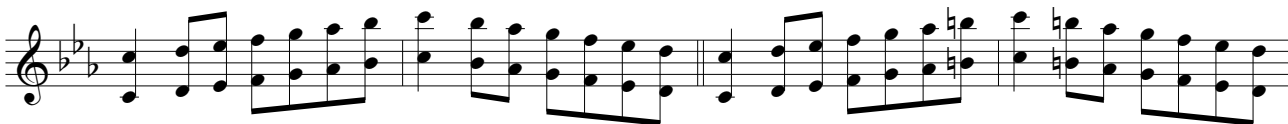


Eb Major

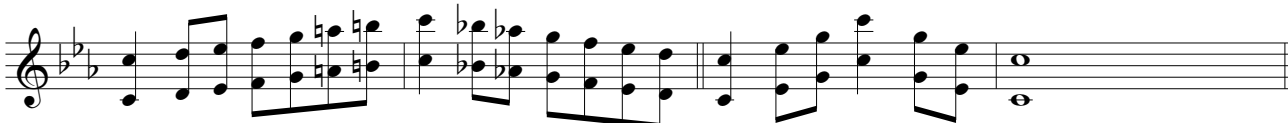


C natural minor

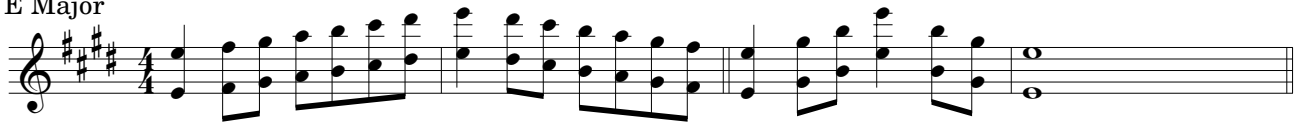
C harmonic minor



C melodic minor

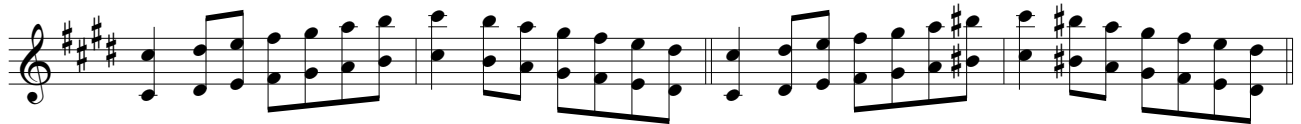


E Major

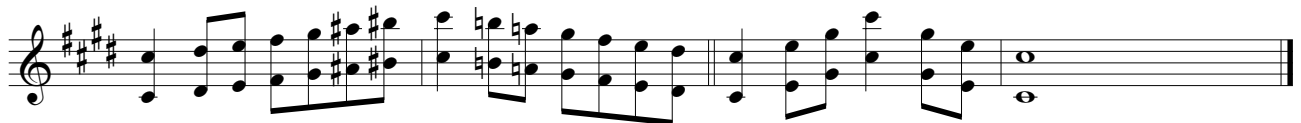


C# natural minor

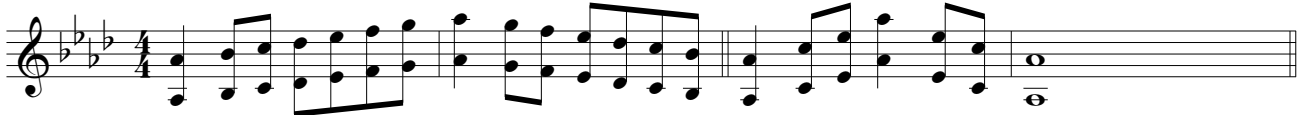
C# harmonic minor



C# melodic minor

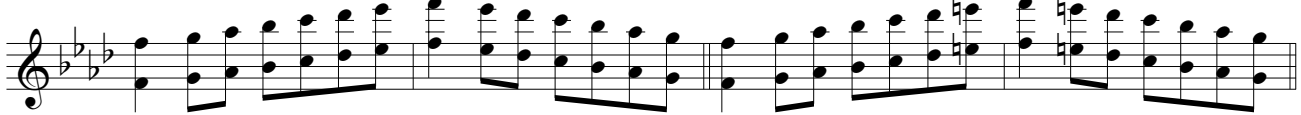


Ab Major



F natural minor

F harmonic minor

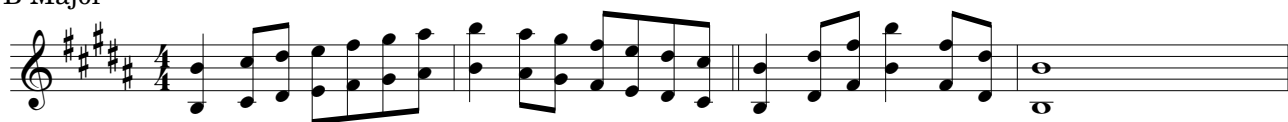


F melodic minor



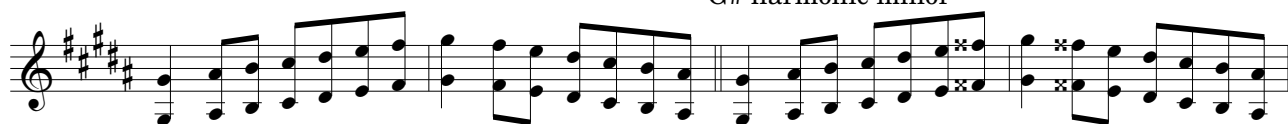
Scale Supplement

B Major



G# natural minor

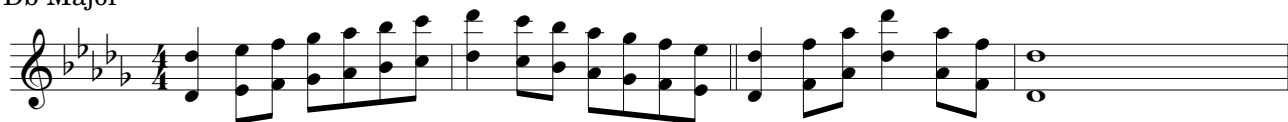
G# harmonic minor



G# melodic minor



Db Major

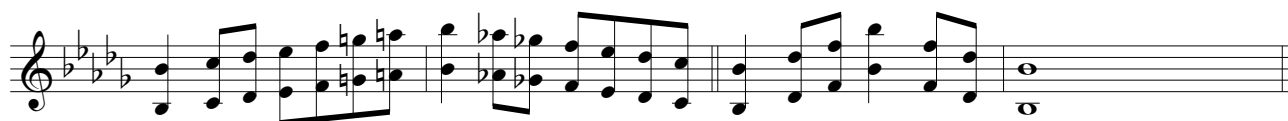


Bb natural minor

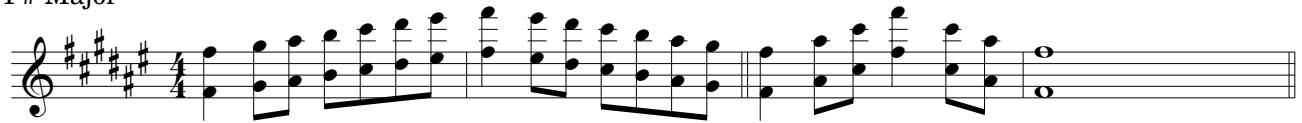
Bb harmonic minor



Bb melodic minor

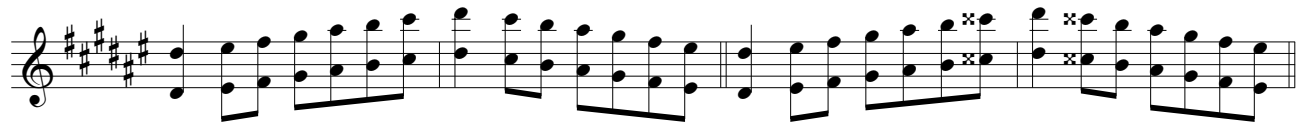


F# Major

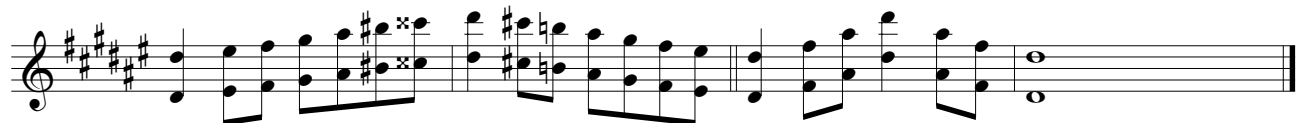


D# natural minor

D# harmonic minor



D# melodic minor



Gb Major



Eb natural minor

Eb harmonic minor

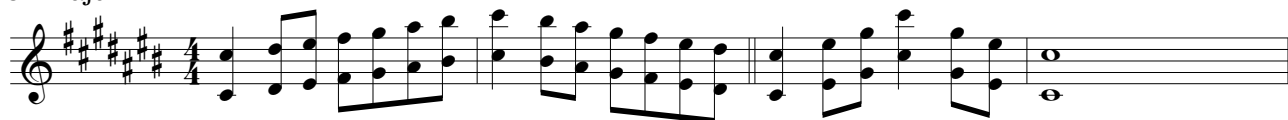


Eb melodic minor



Scale Supplement

C# Major



Musical notation for the C# Major scale in 4/4 time. The scale is written on a single staff in treble clef. It begins with a C#4 octave rest, followed by an ascending eighth-note scale: C#4, D#4, E4, F#4, G#4, A4, B4, C#5. This is followed by a descending eighth-note scale: B4, A4, G#4, F#4, E4, D#4, C#4. The piece concludes with a whole note C#4 octave rest.

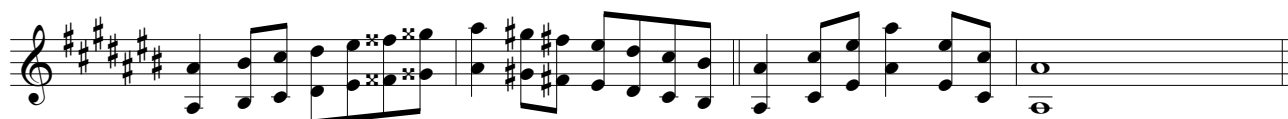
A# natural minor

A# harmonic minor



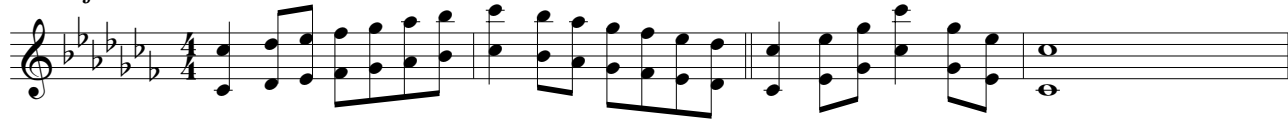
Musical notation for the A# natural and harmonic minor scales in 4/4 time. The A# natural minor scale is written on a single staff in treble clef, starting with an A#4 octave rest, followed by an ascending eighth-note scale: A#4, B4, C#5, D#5, E5, F#5, G#5, A#6. The A# harmonic minor scale is written on a single staff in treble clef, starting with an A#4 octave rest, followed by an ascending eighth-note scale: A#4, B4, C#5, D#5, E5, F#5, G#5, A#6. The piece concludes with a whole note A#4 octave rest.

A# melodic minor



Musical notation for the A# melodic minor scale in 4/4 time. The scale is written on a single staff in treble clef. It begins with an A#4 octave rest, followed by an ascending eighth-note scale: A#4, B4, C#5, D#5, E5, F#5, G#5, A#6. The piece concludes with a whole note A#4 octave rest.

Cb Major



Musical notation for the Cb Major scale in 4/4 time. The scale is written on a single staff in treble clef. It begins with a Cb4 octave rest, followed by an ascending eighth-note scale: Cb4, Bb4, Ab4, Gb4, Fb4, Eb4, Db4, Cb5. This is followed by a descending eighth-note scale: Bb4, Ab4, Gb4, Fb4, Eb4, Db4, Cb4. The piece concludes with a whole note Cb4 octave rest.

Ab natural minor

Ab harmonic minor



Musical notation for the Ab natural and harmonic minor scales in 4/4 time. The Ab natural minor scale is written on a single staff in treble clef, starting with an Ab4 octave rest, followed by an ascending eighth-note scale: Ab4, Bb4, Cb5, Db5, Eb5, Fb5, Gb5, Ab6. The Ab harmonic minor scale is written on a single staff in treble clef, starting with an Ab4 octave rest, followed by an ascending eighth-note scale: Ab4, Bb4, Cb5, Db5, Eb5, Fb5, Gb5, Ab6. The piece concludes with a whole note Ab4 octave rest.

Ab melodic minor



Musical notation for the Ab melodic minor scale in 4/4 time. The scale is written on a single staff in treble clef. It begins with an Ab4 octave rest, followed by an ascending eighth-note scale: Ab4, Bb4, Cb5, Db5, Eb5, Fb5, Gb5, Ab6. The piece concludes with a whole note Ab4 octave rest.