



The United States Army Field Band

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Clarinet Techniques

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TONE AND ARTICULATION

For clear staccato playing and tone production, clarinet students need to have the proper tongue position, visualizing the oral cavity's shape when saying "ee" or "hee." Blowing air through a straw with the tongue in this position is a good beginning exercise for proper air stream. Studying clarinet harmonics (the sounds produced when overblowing a note) further develops this shape and tongue position. The following exercise will help achieve this.

First, hold an open G at a comfortable volume; then overblow the G, producing a D6. Reach D6 by arching the tongue slightly higher in the back of the mouth while keeping the throat open and relaxed. Sometimes it helps to play D6 with the proper fingering for four counts to hear the pitch. After hearing the pitch and feeling the proper tongue position, once again overblow G to play D6 and overblow D6 to play Bb6. Then descend chromatically from G to E3, one tone after the next, holding the fundamental and the two overblown harmonics for four counts each (see *Example 1*). Students should have a good feel for the proper oral cavity shape after learning the pitches in this exercise; they can only be played if the air stream is full and the oral cavity is shaped correctly.

Example 1

Musical notation for Example 1: A chromatic scale from G4 to E3. The notes are G4, F#4, F4, E4, D4, C4, B3, A3, G3, F3, E3. The notes G4, F#4, and F4 are shown with two additional notes above them representing overblown harmonics. The notes D4, C4, B3, A3, G3, F3, and E3 are shown with two additional notes below them representing overblown harmonics. The notation is in treble clef with a key signature of one sharp (F#).

Begin staccato studies by placing the tip of the tongue on the reed tip, maintaining proper position and shape of the oral cavity—especially at the back of the tongue. Finger an open G. While the tongue depresses the tip of the reed against the mouthpiece, blow the air and remove the tongue on signal. Prior to removing the tongue, the student will be blowing, but no sound should come from the clarinet since the tongue is on the reed. Remove only the tip of the tongue, keeping

the back in the arched, or "ee" position. Fluctuations in the soft under-chin area when removing the tongue indicate that the entire tongue, not just the tip, is moving.

Usually it takes several tries and some encouragement to move only the tip of the tongue. The next step is to finger an open G and, with the tongue on the reed, begin to blow. Release the tongue to play the G on signal, then try to stop the tone with the tongue on signal (see *Example 2*). Although the tone will stop, the air pressure should remain full. To see if the air pressure is being maintained, leak a little air from the corner of the embouchure while blowing. Though playing with an air leak is not recommended, this will verify if the air pressure is constant or choked off when the tongue returns to the reed.

Example 2

Musical notation for Example 2: A single G note in treble clef with a key signature of one sharp (F#). The note is held for four counts. Below the staff, the word "Air" is written with a horizontal line underneath it, indicating that the air stream should be maintained throughout the exercise.

Once this can be accomplished moving only the tip of the tongue while maintaining air pressure, shorten the rhythmic values (see *Examples 3 and 4*).

Example 3 ♩ = 60

Musical notation for Example 3: A single G note in treble clef with a key signature of one sharp (F#). The note is held for four counts. Below the staff, the word "Air" is written with a horizontal line underneath it, indicating that the air stream should be maintained throughout the exercise.

Example 4 ♩ = 60

Musical notation for Example 4: A single G note in treble clef with a key signature of one sharp (F#). The note is held for four counts. Below the staff, the word "Air" is written with a horizontal line underneath it, indicating that the air stream should be maintained throughout the exercise.

Most players accomplish this lesson in twenty minutes, although it helps to continue to review harmonic exercises for proper tongue position. Use the phrase "breathe-blow-release" to encourage blowing a full amount of air before the attack. Articulation occurs as the tongue moves away from the reed,

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not as it moves toward the reed. Release the tip of the tongue from the reed with the syllable “tee.”

Beginning with *Example 5* from the *Rose 32 Studies*, breathe, blow, and release the first A, playing the note as short as possible at a comfortable volume. With the tongue on the reed, change to the following C# on signal. Release the C# and play the grace notes, quickly stopping the tone with the tongue after the second C#. Move to the E, release it, and play it as short as possible. Complete the exercise at a comfortable tempo, then play the entire etude at $\text{♩} = 44$, quickly moving the fingers to the next note. There should be no tongue sounds, grunts, or subtones as notes are released.

Example 5 $\text{♩} = 60$

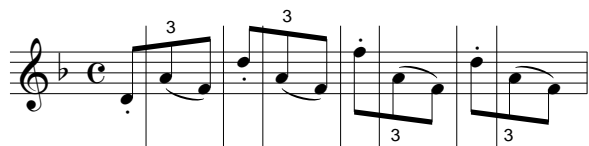


Solid line indicates fingers moving ahead

Keep the air pressure steady when the tongue is on the reed, moving only the tip of the tongue. Keep the back of the tongue arched and stable, fingering notes just ahead of the tongue. Play each staccato note with perfect clarity. This is achieved only when the tongue, air speed, and tongue pressure are correct.

Example 6 from the *Rose 40 Studies* combines slurred and staccato notes. Practice by releasing the D, maintaining the air pressure and moving the fingers ahead to the A. Then release it and slur down to the F; clip the F short and move the fingers immediately ahead to the D during the silence between the notes. All of the notes preceding the staccato notes should be clipped so the fingers move ahead to the next notes.

Example 6



If some upper articulations do not sound immediately, review the harmonic study based on the fundamental of the note causing the problem. For example, if B5 does not sound, review the harmonic for E4 (E4, B5, G6) and try the measure again.

Begin practicing *Example 6* by playing each triplet eighth-note at 60 beats per minute, gradually increasing to 92. Speed is not as important as properly voicing each note and using a steady air stream. By using correct tonguing, players will learn to articulate as fast as the tempo requires with a good tone.

Proceed to *Example 7* from the *40 Studies*, playing slowly to carefully evaluate the releases. Playing the thirty-second-note as short as possible and immediately going to the next sixteenth helps the tongue stay close to the reed and move only a short distance. A good starting tempo is $\text{♩} = 46$.

Example 7



Example 8 uses groupings of two notes slurred, one after the other.

Example 8

Very slowly



Clip slurs only if they are followed by a staccato note. When groups of notes are slurred one after the other, the articulated first note should be tongued “tee,” without holding the reed down to create space. Play *Rose etudes* 10, 11, 16, 17, 19, and 20 in the same way, beginning each one slowly and gradually increasing the tempo.

This approach to staccato playing uses the study of harmonics to place the tongue correctly and improve tone. Practicing slowly and producing beautiful staccato notes will help to develop an all-around tone, but the trick is to keep air pressure full and constant, moving only the tip of the tongue to the tip of the reed. Remember, it is the back of the tongue that keeps the tone voiced properly.

CLARINET TECHNIQUE

The development of good technique is one of the most important issues in learning to play the clarinet. Many students, both young and not so

young, take the approach of learning to play fast notes without taking the time to slowly develop good habits. This almost always results in the cultivation of bad habits that eventually hinder the student.

The three most important goals in the pursuit of technical improvement are correct hand position, correct finger motion, and relaxation. Gradual technical improvement should take place when the student takes time each day to practice these aspects. Effort should be made to always practice in front of a mirror, constantly checking for mistakes. And, of course, it is better to practice too slowly than to practice too fast.

CORRECT HAND POSITION

The hands should be in a natural position when placed on the clarinet. To accomplish this, start by letting the hands dangle naturally at the side. Gradually bring them up as if to play the clarinet. The hands should be relaxed and slightly cupped, with the thumbnails facing upward. The arms are fairly close to the body and the wrists should break inward slightly (toward the back of the clarinet). It is important to note that if tension or discomfort results, the wrist angle is probably exaggerated. If an imaginary line were drawn through the back of the clarinet (left to right), it would run through the knuckles.

The right thumb should be at an angle, approximately 35–45° from the imaginary line. There are many commercial thumb rests available to help with thumb position, but the most economical is a one-inch piece of black surgical tubing, which can be purchased at most medical supply stores. It should be stretched over the existing thumb rest and pointed to the left. The fingers should form a continuous curve (each joint should be slightly bent) and the pads of the fingers should be over the tone holes. The Bb/Eb key (lowest right-hand side key) should be just above the second joint of the index finger.

Example 9

The musical notation for Example 9 consists of two staves. The first staff is in treble clef with a common time signature (C). It begins with a half note G4, followed by a half note A4, then a quarter rest. This is followed by a slur over a quarter note G4, a quarter note A4, and a quarter note B4. After a repeat sign, there is a slur over a quarter note G4, a quarter note A4, and a quarter note B4. This is followed by a slur over a quarter note G4, a quarter note A4, a quarter note B4, and a quarter note C5. The second staff also begins with a half note G4, followed by a half note A4, then a quarter rest. It then features four groups of triplets, each marked with a '3' above the notes. The first triplet is G4, A4, B4. The second triplet is G4, A4, B4. The third triplet is G4, A4, B4. The fourth triplet is G4, A4, B4. The piece concludes with a slur over a quarter note G4, a quarter note A4, and a quarter note B4.

The left hand is similar in position to the right hand. The fingers should form a continuous curve, with the pads closing over the holes. The thumb should be angled up to the right at approximately 45°.

CORRECT FINGER MOTION

The fingers should remain curved at all times. When a finger must be moved, it moves only from the back knuckle, leaving the other two knuckles in a nice, relaxed curve. The fingers should never straighten. They should clear the tone holes when lifted, but should still be kept as close as possible to the clarinet.

RELAXATION

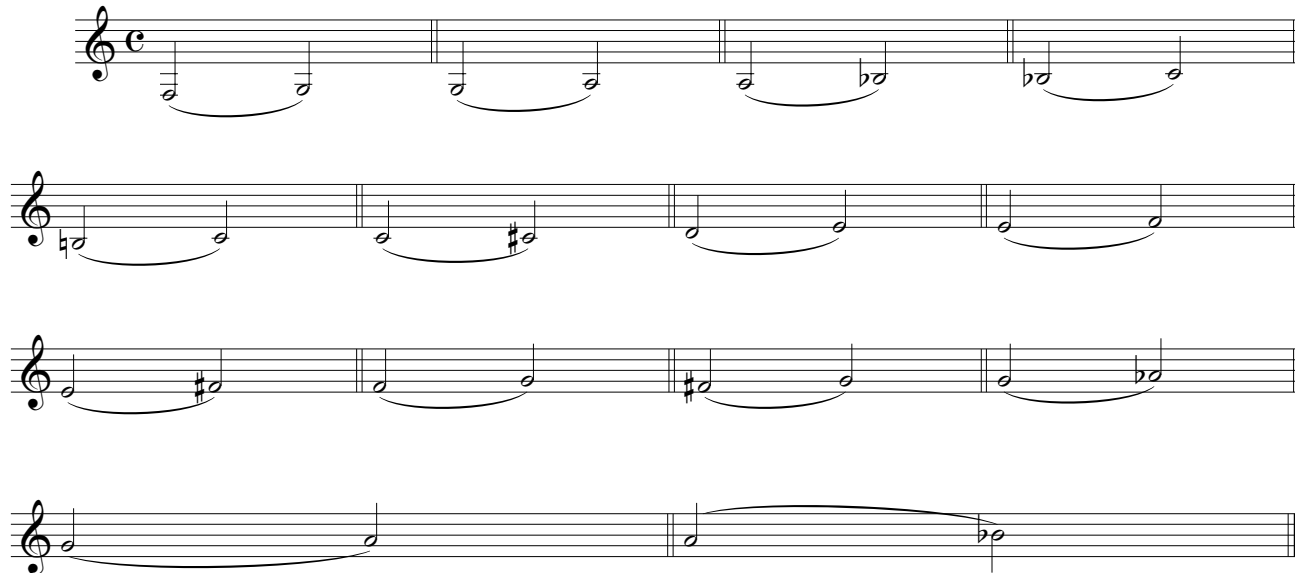
The hands and fingers should always be relaxed. If tension builds up, unevenness develops and the fingers slow down. One of the most common sources of tension occurs when straightening out a finger as it leaves the tone hole. To correct this, let the hand fall relaxed to the side. Lift it, palm upward, noticing that the hand is in a relaxed cup-shape. If one of these fingers is straightened, a slight tension can be felt throughout the palm of the hand. This is an example of the tension that builds when practicing technique incorrectly. The weight of the instrument on the right thumb is also a major source of stress. Frequently drop the hands to the side and shake the tension out to maintain a sense of relaxation.

DAILY TECHNICAL WARM-UP

Each day the student should spend time warming up, making sure that the hand position is correct, the fingers are moving correctly, and tension is eliminated. The following warm-up routine should be performed in front of a mirror, watching to make sure that the fingers maintain their natural curve (see Example 9).

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Example 10



Begin slowly, at $\text{♩} = 60$ or slower. Stop frequently to check hand position and to shake out the tension.

Repeat each measure as many times as possible, checking in a mirror, stopping frequently to check hand position, finger motion, and tension.

Continue the rhythmic patterns from *Example 9* with the notes in *Example 10*, continuing to check for correct hand position, finger motion, and tension.

Increase the tempo slightly each day. If any unevenness or tension develops, decrease the tempo.

By performing the preceding exercises daily, clarinetists will have the chance to slowly train each finger to behave correctly. Eventually the fingers will respond with more accuracy when learning new music.

REEDS

In order to play well, clarinetists must learn to properly choose and adjust reeds to suit their personal needs. Many volumes have been written about working on reeds. The following is an overview of the important concepts to master on this subject.

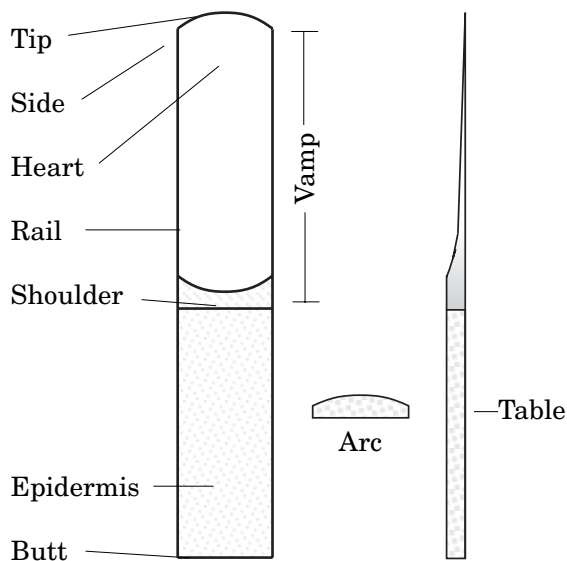
Good reeds share many common traits. The tip must be the same shape as the tip of the mouthpiece (see *Examples 11 and 12*). The cut of the reed needs to be even (regular and uniform on both sides). The tip must not be chipped, nicked, or split. The table of

the reed must be flat to match up with the table of the mouthpiece.

REED SELECTION

After wetting a reed thoroughly with water, press the tip against the table of the mouthpiece to ensure that the tip of the reed is flat. Put the reed on the mouthpiece (making sure it is not off to one side, or above or below the rails). Hold the reed in place with the right thumb and blow an open G.

Example 11

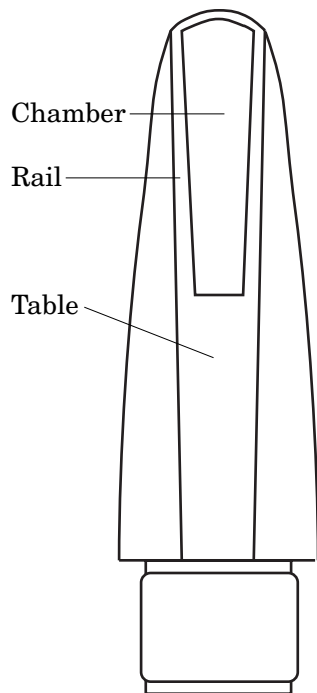


If the reed feels comfortable and sounds good, put the ligature on and play for a short time (no more than ten minutes for a new reed).

ADJUSTING REEDS

If the reed is difficult to play, attempt to find out if it is warped or unbalanced (one side harder than the other). To determine if the reed is unbalanced, do the "tilt test."

Example 12



Place the mouthpiece in the mouth tilting it so that one side of the reed is firmly pressed on the lower lip. Play an open G holding the barrel with the left hand. The side which is up and free of the lower lip is the side being heard. Do this to each side. If one side feels more unresponsive or is harder to blow than the other side, lightly sand the harder side with reed rush or #400 or #600 wet-or-dry sandpaper. When sanding the reed, keep the shape of the resisting part (heart) intact and work on the vibrating portion of the reed (see Example 13). Only when

a reed blows extremely hard should the player thin down the resisting part of the reed.

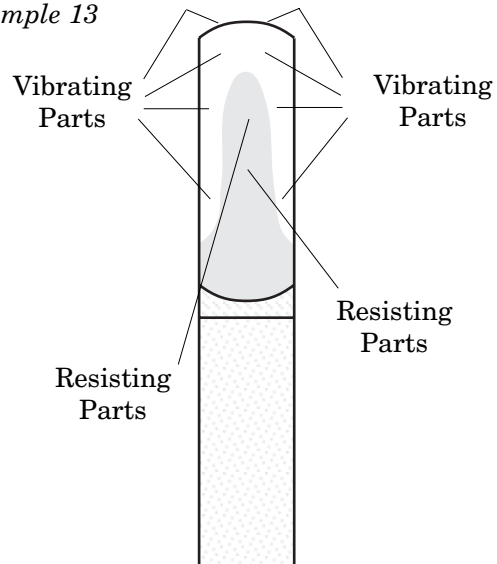
Keep in mind that the tip of the reed must be thin, gradually increasing in thickness toward the resisting part (heart). The sides or edges of the reed should also taper up from side to center.

The register in which a reed is hard to blow will also give clues as to where to work on a reed. The lower third of the vamp corresponds to the lower register; the middle of the vamp corresponds to the middle register; and the top third of the vamp to the upper register (see Example 14).

The table of the reed must be smooth and flat, since it must align with the table of the mouthpiece. In order to carry the vibrations into and through the instrument, no air can leak between the reed and mouthpiece.

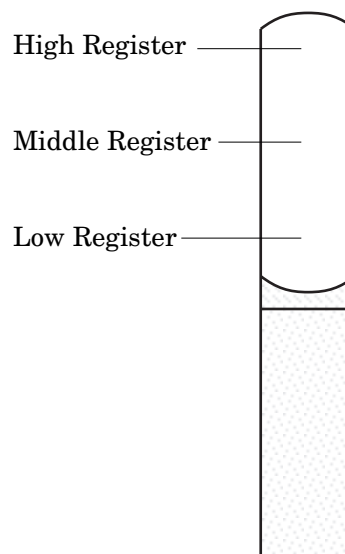
To check if the reed is warped, lay the reed on a flat surface (preferably glass) and alternately press with the fingertips on each side of the reed. If the reed rocks back and forth, it is warped on the bottom.

Example 13



Probably the easiest way to fix the warped bottom of a reed is to place the reed on #600 wet-or-dry sandpaper. Gently sand the back of the reed a few strokes; then try playing it again. When satisfied with the results,

Example 14



polish the back of the reed on the smooth side of the sandpaper or on the glass itself. This will give the reed a smooth, polished finish that is less likely to be affected by moisture again.

After adjusting reeds to , store them on a flat surface to minimize warping and protect the tip from chips and splits. Many commercial reed holders and reed cases are designed to meet these needs, including products from La Voz, Vandoren, and Harrison.

RECOMMENDED RESOURCES

Method Books

- 40 Studies, Books 1 and II* Rose (Carl Fischer)
- 32 Studies* Rose (Carl Fischer)
- 20 Grand Studies from the Works of Rose* Rose (Carl Fischer)
- 40 Studies for Clarinet* Blancou (Cundy-Bettoney)
- Celebrated Method for the Clarinet* H. E. Klose (Carl Fischer)
- Thirty Caprices* E. Cavallini (Carl Fischer)
- Method for Clarinet, Book III* Carl Baermann (Carl Fischer)
- Le Vade-Mecum du Clarinettiste* Paul JeanJean (Alphonse Leduc)
- Melodious and Progressive Studies (3 Volumes)* David Hite (Southern)
- Clarinetists Compendium* Daniel Bonade (Leblanc)
- Clarinet Articulation* Allen Sigel (Roncorp)
- Advanced Studies for the Clarinet* V. Polatschek (G. Schirmer)
- Progressive Studies for Clarinet, Books I and II* Chris Allen (Presser)
- Method for Clarinet (3 volumes)* H. Lazarus/Bellison (Carl Fischer)
- Gammes et Exercises (2 volumes)* G. Hamelin (Alphonse Leduc)

Recordings

- Weber, C. M. von, *Concertos #1 and #2* Sabine Meyer, soloist
(EMI #CDC 7 47351 2)
- Debussy, *Premiere Rhapsodie for Clarinet* Gervase de Peyer, soloist
(CBS #D3M 3 2988)
- Debussy, *Premiere Rhapsodie for Clarinet* Reginald Kell, soloist
(Decca #DL 9744)
- Clarinet Connection (The Great Concertos)* Sabine Meyer, soloist
(EMI Classics #CDC 5 55155 2)
- Mozart, *Clarinet Concerto in A* Harold Wright, soloist
(CBS #MP 38786)
- Mozart, *Clarinet Quintet, K. 581* Karl Leister, soloist
(Teldec #2292 46429 2ZK)

Brahms, <i>Sonata in Eb Major</i>	Jonathan Cohler, soloist (Ongaku Records #024-102)
Schumann, <i>Fantasiestucke, Op. 73</i>	Paul Meyer, soloist (Denon #75960)
Brahms, <i>Sonatas in Eb and F minor, Op. 120</i>	Harold Wright, soloist (Boston Records #BR1005CD)
Brahms, <i>Sonatas in Eb and F minor, Op. 120</i>	David Shifrin, soloist (Delos #D/CD 3025)
Mozart, <i>Clarinet Concerto, K 622</i>	David Shifrin, soloist (Delos #3020)
Brahms, <i>Sonata No. 1 in F minor</i>	Karl Leister, soloist (Orfeo Records #C086 841 A)
Weber, <i>Clarinet Concerto No. 1, Op. 73</i>	Karl Leister, soloist (Deutsche Grammophone #136 550)
Mozart, <i>Clarinet Concerto, K. 622</i>	Karl Leister, soloist (Philips #422 390-2)
<i>Solos de Concours - Music from the Premier Prix</i>	Victoria Soames, soloist (Clarinet Classics #CC0011)

Miscellaneous

<i>Solos for Unaccompanied Clarinet</i>	James E. Gillespie (Information Coordinators)
<i>The Clarinetists' Discography (I and II)</i>	Richard Gilbert (Grenadilla Society)
<i>The Index of Clarinet Music</i>	Wayne Wilkins, editor (The Music Register)

Online Resources

http://www.sneezy.org/clarinet/	The Clarinet Page
http://www.sneezy.org/OCR/	The Online Clarinet Resource
http://copper.ucs.indiana.edu/~rspece/clarinet.html	Richard's Clarinet Page
http://www.clarinet.org	International Clarinet Association

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 1481 966"> <p>D</p> </div> <div data-bbox="876 966 1481 1123"> <p>E</p> </div> <div data-bbox="876 1123 1481 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

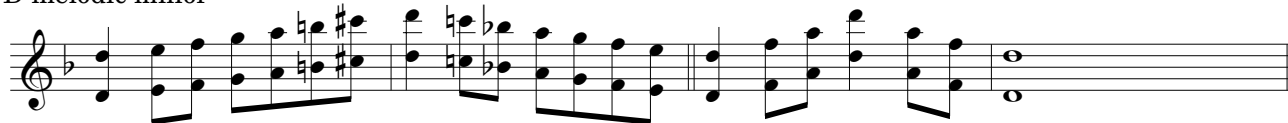


D natural minor

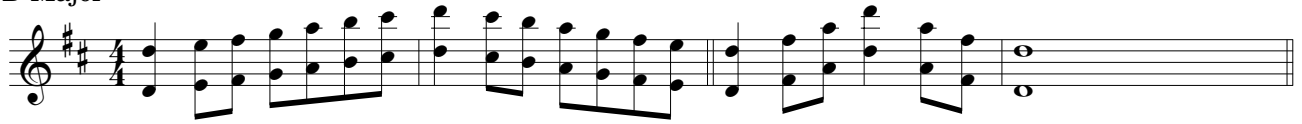
D harmonic minor



D melodic minor



D Major

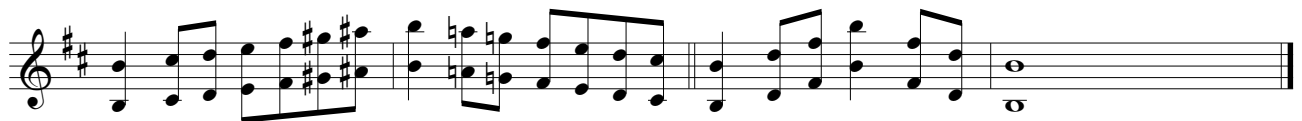


B natural minor

B harmonic minor



B melodic minor



Bb Major



G natural minor

G harmonic minor



G melodic minor



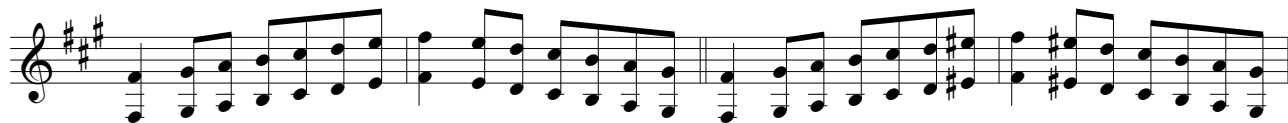
Scale Supplement

A Major



F# natural minor

F# harmonic minor



F# melodic minor

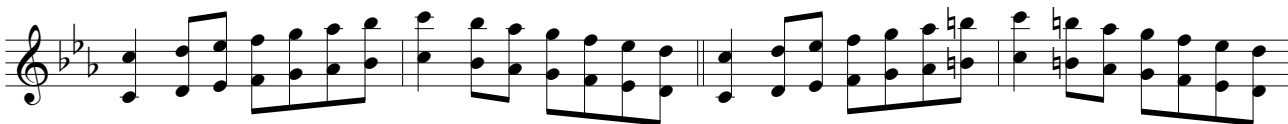


Eb Major

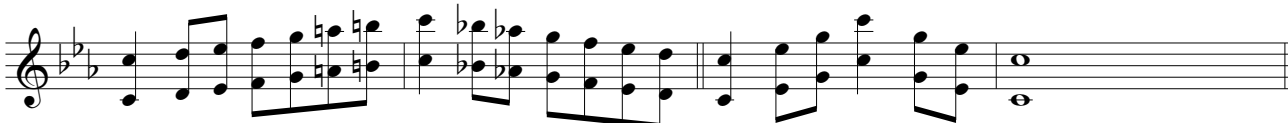


C natural minor

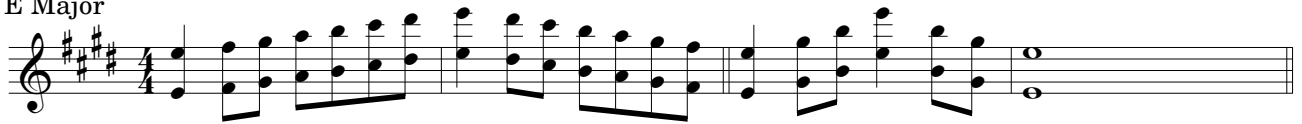
C harmonic minor



C melodic minor

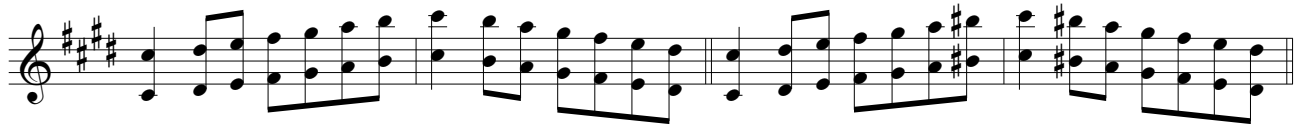


E Major

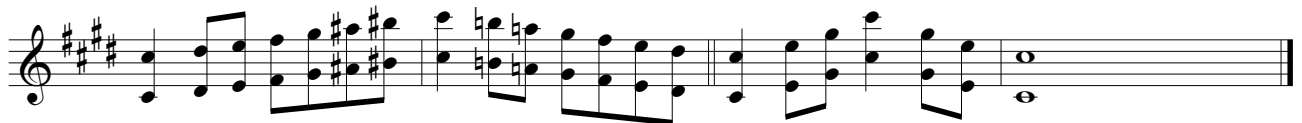


C# natural minor

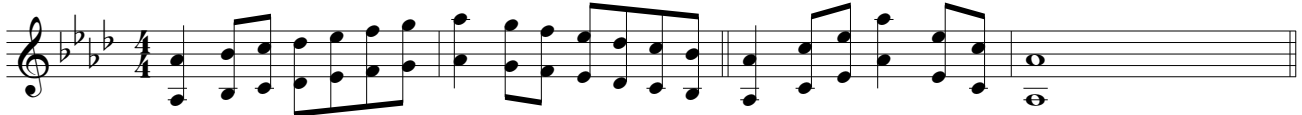
C# harmonic minor



C# melodic minor

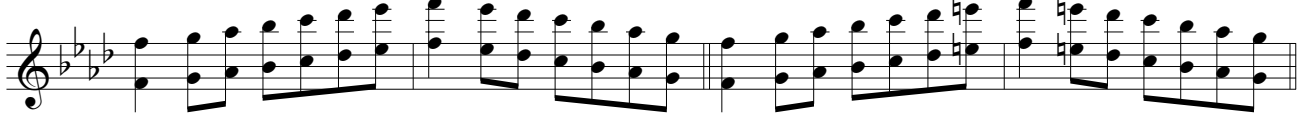


Ab Major

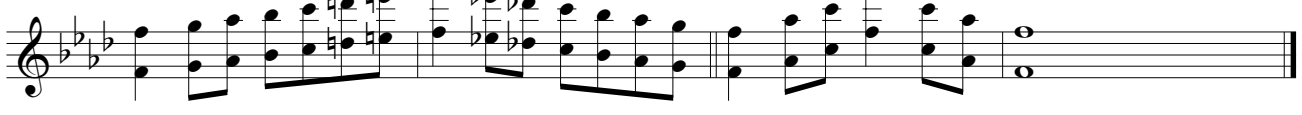


F natural minor

F harmonic minor

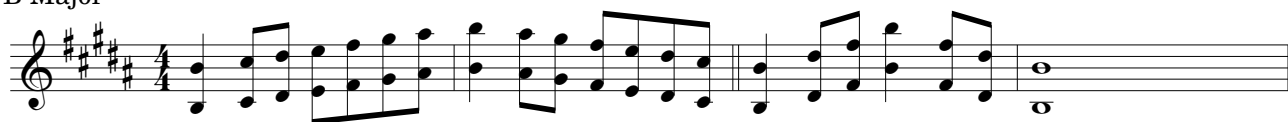


F melodic minor



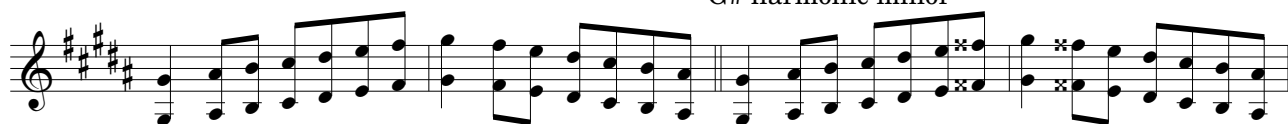
Scale Supplement

B Major



G# natural minor

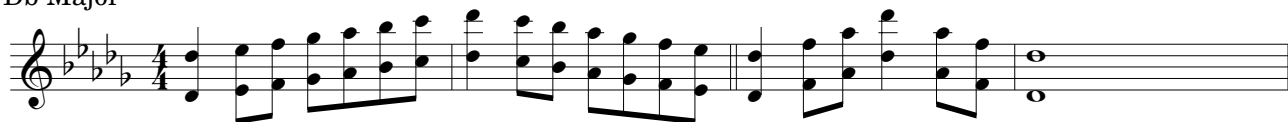
G# harmonic minor



G# melodic minor

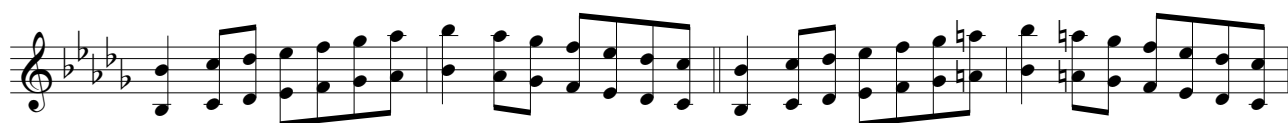


Db Major



Bb natural minor

Bb harmonic minor



Bb melodic minor



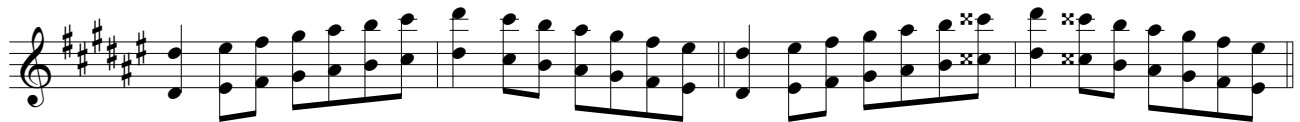
F# Major



Musical notation for the F# Major scale in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of three sharps (F#, C#, G#). The notes are: F#, G#, A, B, C#, D, E, F#, G#, A, B, C#, D, E, F#. The piece concludes with a whole note chord of F# and C#.

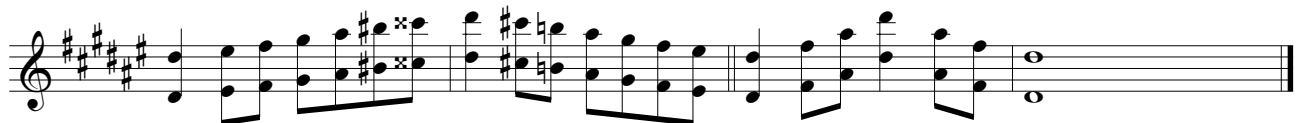
D# natural minor

D# harmonic minor



Musical notation for the D# natural and harmonic minor scales in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of three sharps (F#, C#, G#). The notes for the natural minor scale are: D#, E, F, G, A, B, C, D#. The notes for the harmonic minor scale are: D#, E, F, G, A, B, C, D# (with a double sharp symbol over the C). The piece concludes with a whole note chord of D# and A.

D# melodic minor



Musical notation for the D# melodic minor scale in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of three sharps (F#, C#, G#). The notes are: D#, E, F#, G, A, B, C#, D#. The piece concludes with a whole note chord of D# and A.

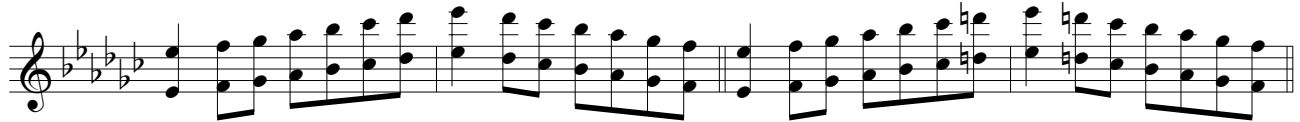
Gb Major



Musical notation for the Gb Major scale in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of five flats (F, C, G, D, A, E). The notes are: Gb, Ab, Bb, Cb, Db, Eb, F, Gb, Ab, Bb, Cb, Db, Eb, F, Gb. The piece concludes with a whole note chord of Gb and Cb.

Eb natural minor

Eb harmonic minor



Musical notation for the Eb natural and harmonic minor scales in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of three flats (F, C, G). The notes for the natural minor scale are: Eb, F, G, Ab, Bb, C, D, Eb. The notes for the harmonic minor scale are: Eb, F, G, Ab, Bb, C, D, Eb (with a double flat symbol over the C). The piece concludes with a whole note chord of Eb and Bb.

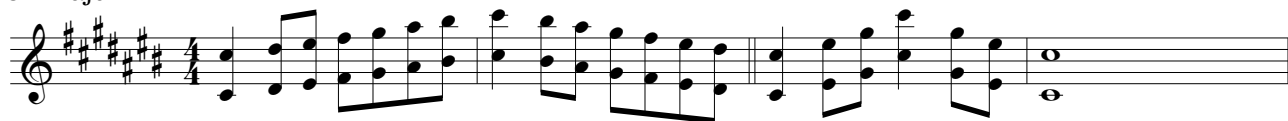
Eb melodic minor



Musical notation for the Eb melodic minor scale in 4/4 time. The scale is written on a single staff with a treble clef and a key signature of three flats (F, C, G). The notes are: Eb, F, G, Ab, Bb, C, D, Eb. The piece concludes with a whole note chord of Eb and Bb.

Scale Supplement

C# Major

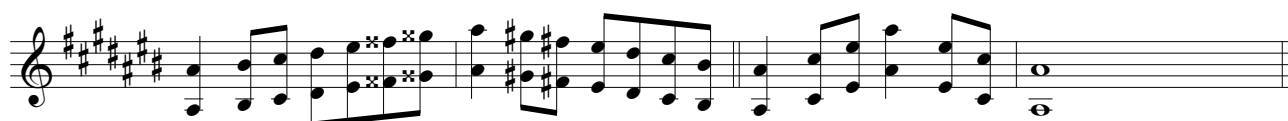


A# natural minor

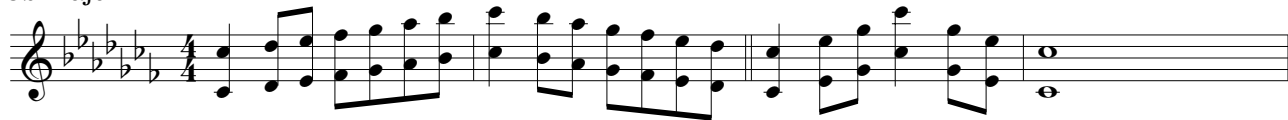
A# harmonic minor



A# melodic minor



Cb Major



Ab natural minor

Ab harmonic minor



Ab melodic minor

