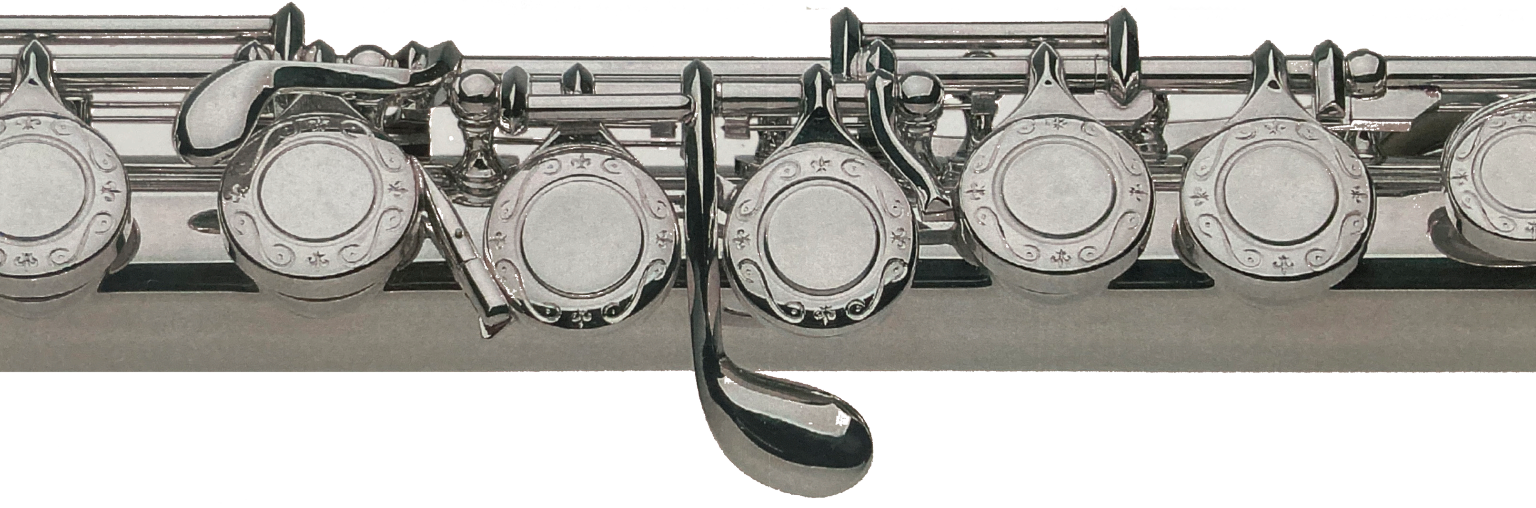
The Murray Flute Companion

A practical guide to learning and playing



by Lynne Lasser

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about the Murray Mechanism/Lasewski Scale flute

what's the difference between the Murray flute and the standard Boehm flute?

In short, more than 55 years of experimentation and development by Alexander Murray geared toward making the flute that Boehm dreamed of making: A flute that is better in tune, more natural to play, simple in design and mechanically reliable.

what's the difference between the final Murray flute design (2004) and its predecessors?

Even the early Murray flutes of the 1970s were better in tune and easier to play than the most commonly used Boehm flutes (with closed g# and Briccialdo thumb, although neither were Boehm's preference). There are variations in the acoustic scale, trill key placements, design of the f# touch and d# crescent, and foot joint design over the years, and the mechanism overall became ever more sleek. Standard features of the Murray mechanism include Coltman C#, reverse thumb, open g#, open d#, Murray trills, f# touch, d# crescent. Flutes in the Lasewski scale (late 1990s) also have a tapered head joint and go down to low C (not B). See page 4 for visual reference.

Players benefit from:

- lighter, more reliable mechanisms and better venting because all keys are sprung open
- logical fingerings that move up and down the flute in a natural order based on the pitch ascending and descending (see Patterns)
- trill fingerings playable as regular notes, with new trills and tremolos made viable
- no breaks in tone color throughout the range
- quick, even response and tremendous carrying power
- many alternate fingerings for facility, speed, and dynamics (see Basic Fingering Options)
- better weight distribution to balance the flute in your hands instead of grip it
- a lightweight, elegant design that is simple and mechanically reliable
- a tapered head joint and half-hole mechanism (automatic and optional) which combine to facilitate excellent octaves (Lasewski)

about the Lasewski scale

In the 1990s, Alex Murray adopted the Lasewski scale for his flutes. Ron Lasewski was a mathematician/physicist, Baroque flute enthusiast, and longtime colleague and friend of Alex Murray. Lasewski wanted to know what physical characteristics made his Baroque flutes sound the way they did. He studied their acoustic characteristics — especially, the distance between the first and second partials and the third and fourth partials of each note — and recorded corresponding physical measurements.

Over time, he programmed a computer to model what the acoustic result would be in pitch and timbre to any physical adjustment to hole size, placement, venting or bore dimensions. He made some thirty-odd Baroque flutes using his "Traverso" program, studying and learning from the results.

Now applied to Murray's flute in C, the program's ability to predict how one change to the flute could affect every note in the range took Murray light years ahead in his ability to experiment for optimal results. Even with the aid of Traverso, it still took 13 tries to make the Lasewski scale head joint, according to Murray. Jack Moore made most of the artisanal Murray flutes over the years, along with master craftsmen like Tom Green and David WImberley. If you try to play the Murray Lasewski flutes with a regular (cylindrical) head joint, it won't work, the octaves will be out of tune. There were some very early Murray prototypes made by Armstrong intended for students.

who is making the Murray flute?

Jack Moore (deceased) and David Wimberley made Murray flutes as well as Tom Green. Tom is retired now, but he gave his tools and Murray flute schematics to Miguel Arista.

is anyone making a murray piccolo?

Keefe makes a Murray piccolo. I have also seen Murray piccolos from Seaman and Opperman that may be available secondhand. Adam Pettry (Pettry Piccolos) is willing to make a Murray piccolo. Bulgheroni makes an open g#, reverse thumb piccolo at no extra charge. It should be said, open g# mitigates the need for other standard popular mechanisms to help facilitate high e and g#.

my story

I switched to the Murray flute during my Master's studies at U of I, studying with Alex Murray. I don't know why it took me so long; I guess I figured plenty of great players played the standard flute and if I just practiced a little harder... And like many others, I was afraid to change, thinking I would lose years of practice. But in the end, I found my technique at a standstill and decided to try the Murray flute to see where it would take me.

Alex never foisted his designs on anyone, but if you asked, he supported you generously. I started on an open g# model and quickly recognized the benefits. All things told, it took about six weeks of daily practice to become reliable on the full Murray flute and my technique improved a ton after that. I was also far less inclined to back pain and issues with my hands.

When I committed to playing Murray flute, Alex managed to arrange the sale of my old Muramatsu so I could buy Jack Moore #33 — the flute Nancy Toff left off with in Development of the Modern Flute. I played that flute from 1985 - 1998, when Tom Green made my Murray/Lasewski scale flute. Alex bought back JM #33 some years after for another Murray flutist.

I charted my journey as I transitioned to the Murray flute, noting both the fingering exercises and physical exercises I did to balance the flute between my hands now that gripping was simply out of the question. These notes became a practical guide I created for my Master's thesis.

It's worth noting that I continued playing my old, standard system Haynes piccolo while I was transitioning to Murray flute and afterwards. I thought it would be hard to go back and forth but surprisingly, it really wasn't.

meet the murray flute

The tapered headjoint (narrowed at the top) was designed with the Lasewski scale to bring the octaves in tune.

2004

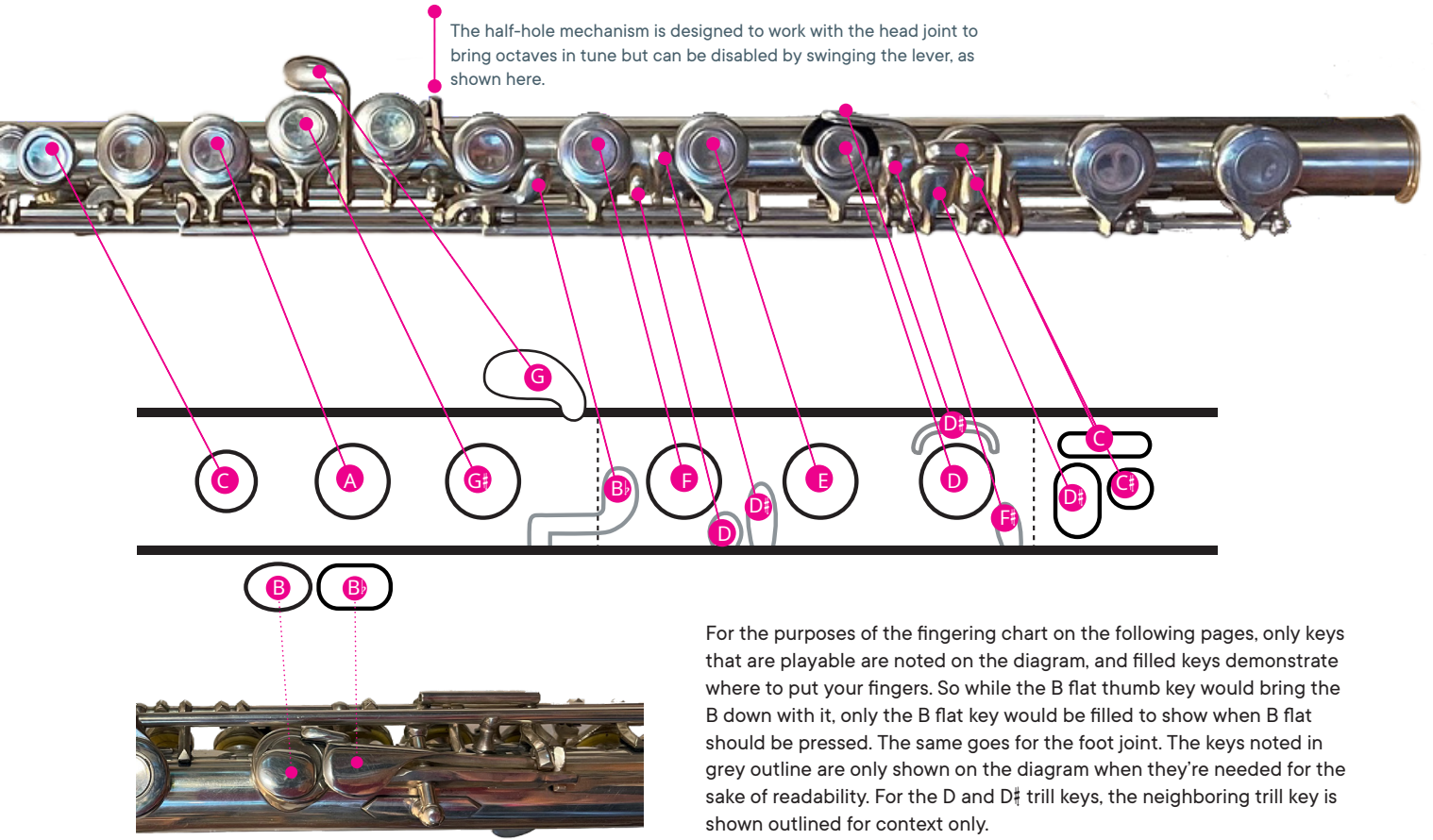
1998

At top, the last flute Alex Murray had made in 2004 (Murray - Lasewski - Moore) and its playable keys as they correspond to the fingering diagram in this guide.

The work in later years focused on the foot joint: Left, the 2004 “Finale” — the D# lever lays slightly over the D key, bringing it closer for the fourth finger, and the D key is lightly felted to accommodate it. Moreover, the foot joint is merged with the body of the flute, all one piece, requiring a larger case but streamlining the mechanism.

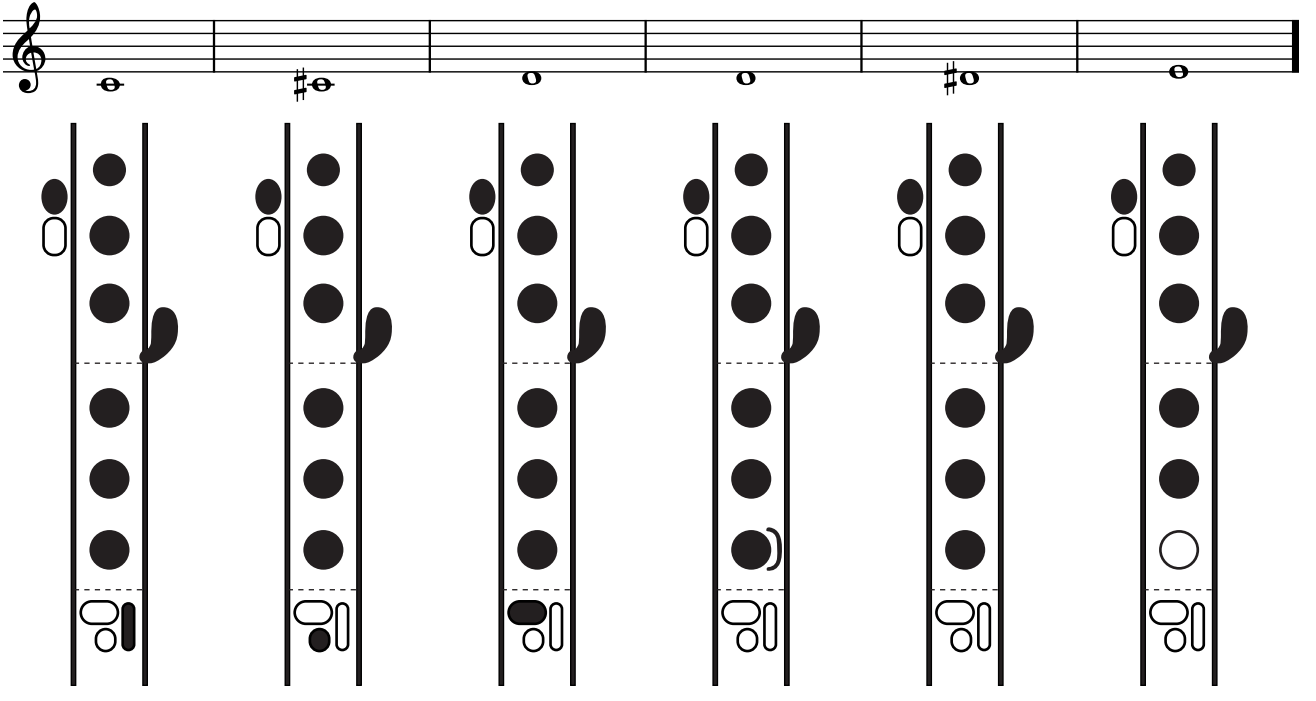
In my 1998 model (Murray - Lasewski - Green) and many preceding it, the foot joint is still separate and the D# lever hovers around the outer edge of the D key. Its position is somewhat adjustable by the player via rotation of the entire foot joint relative to the body but the D# lever cannot be placed directly over the D key as in the later model.

“The multiplicity of touchpieces at the lower end owe their existence to the very fact that the right little finger has been released from its bondage and set free to make use of them,”– Philip Bate, The Alex Murray Flute, The Galpin Society Journal, 973.

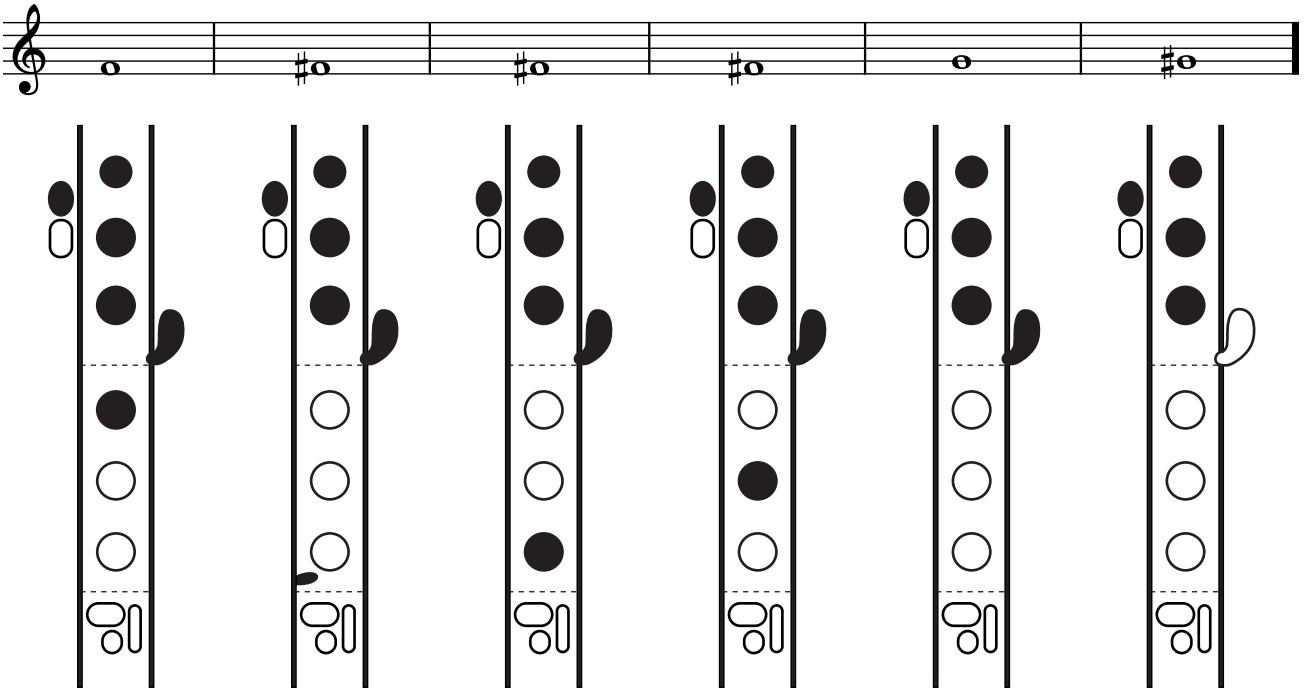


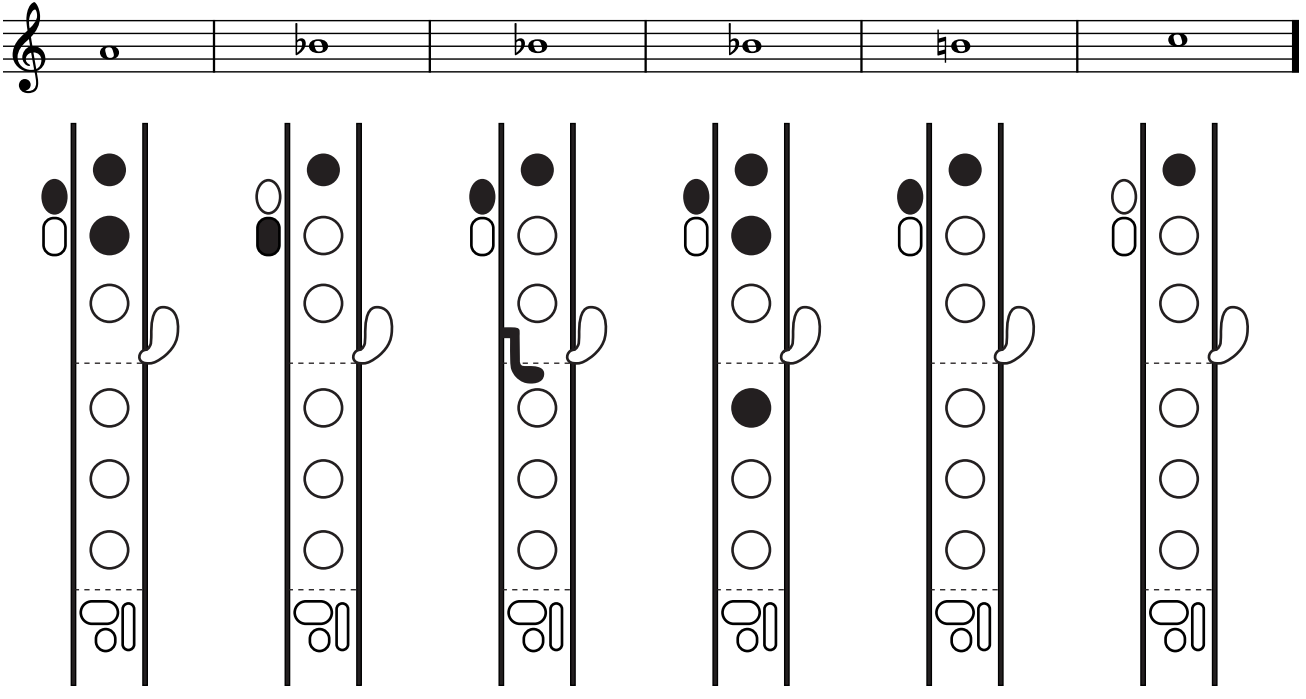
For the purposes of the fingering chart on the following pages, only keys that are playable are noted on the diagram, and filled keys demonstrate where to put your fingers. So while the B flat thumb key would bring the B down with it, only the B flat key would be filled to show when B flat should be pressed. The same goes for the foot joint. The keys noted in grey outline are only shown on the diagram when they're needed for the sake of readability. For the D and D♯ trill keys, the neighboring trill key is shown outlined for context only.

basic fingering options

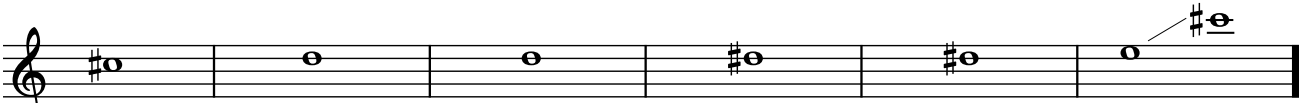


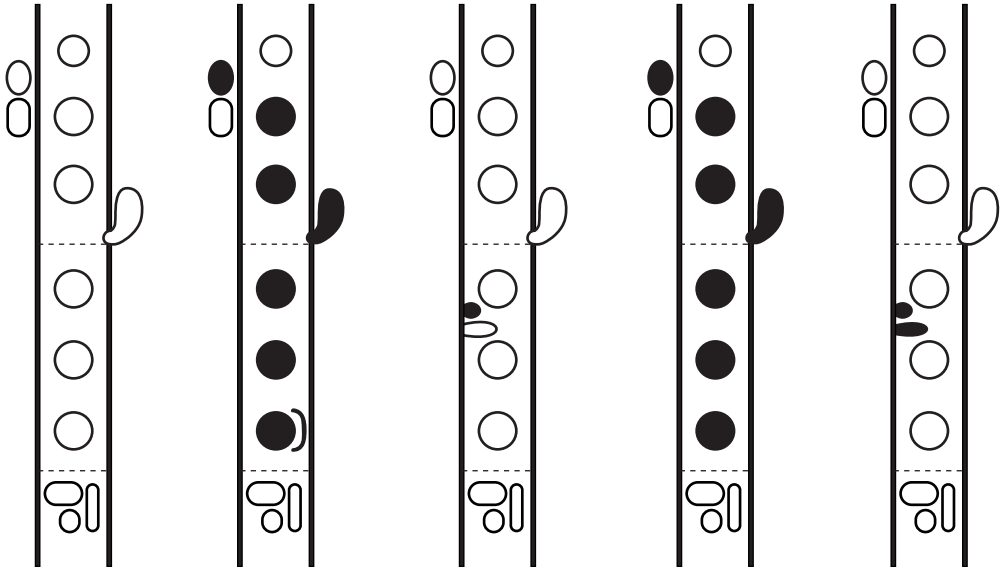
low register: C - G♯



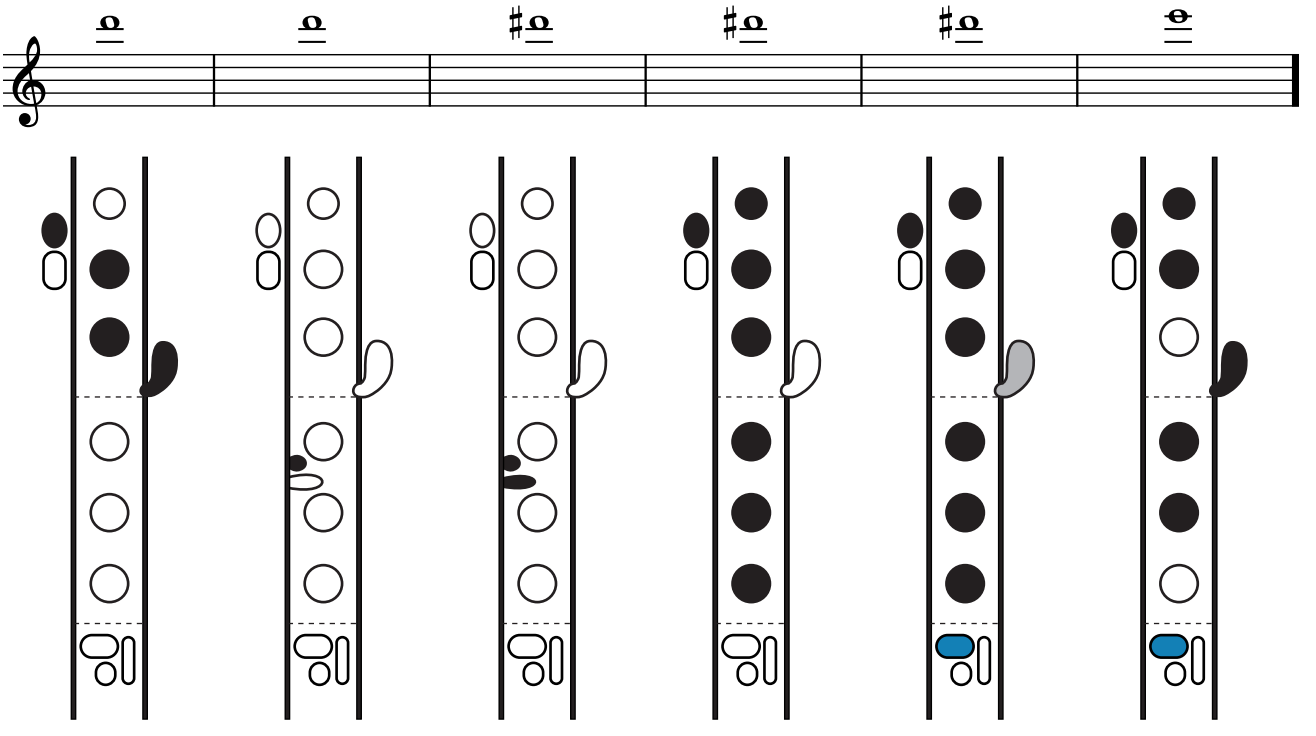


middle register: A -E



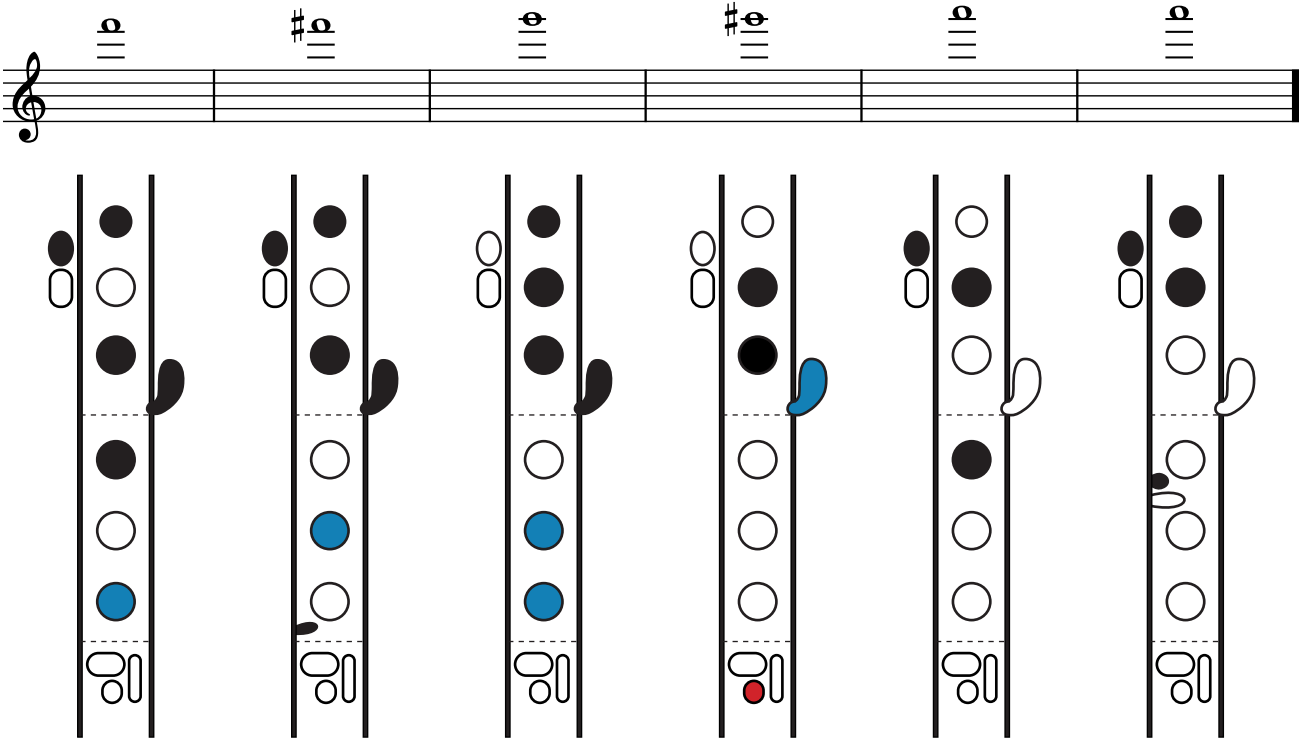


see
lower
octave



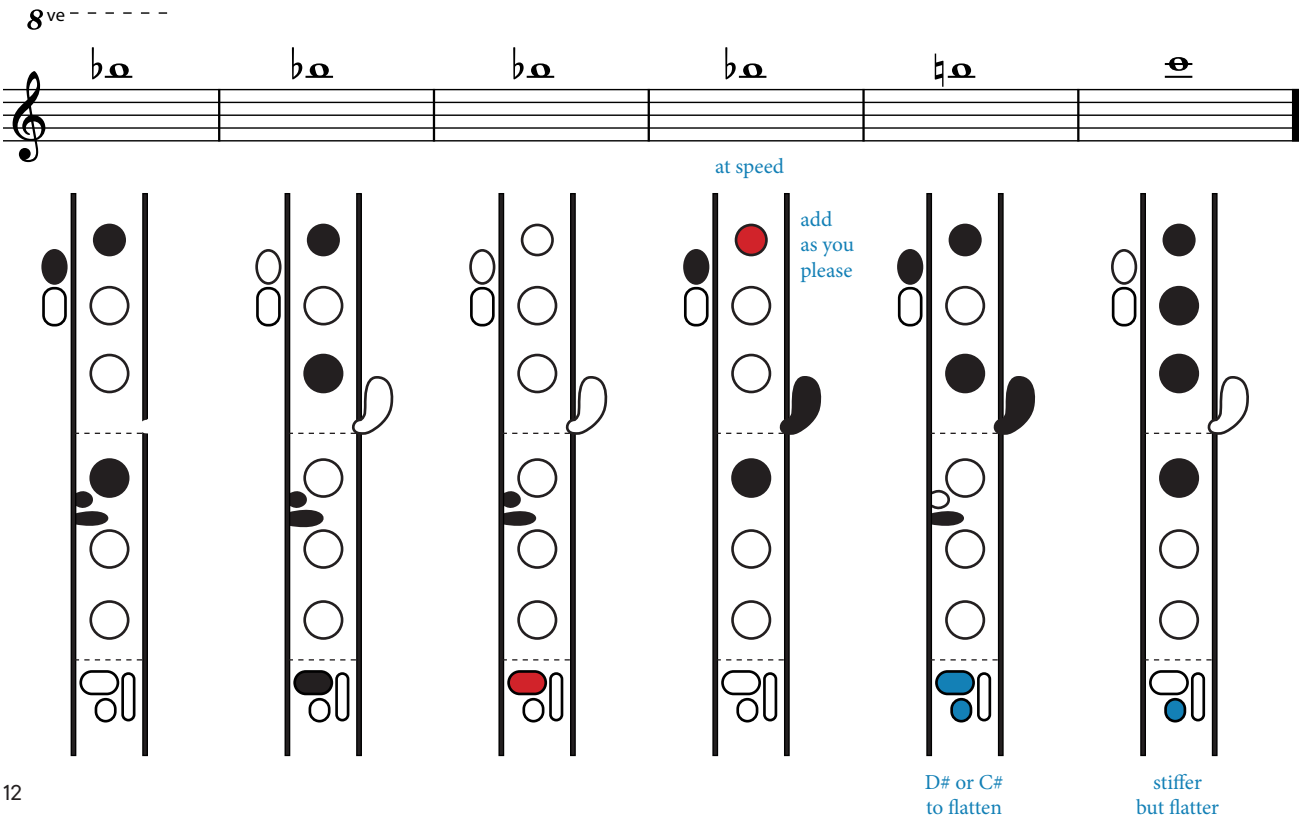
either flattens

high register: D-A

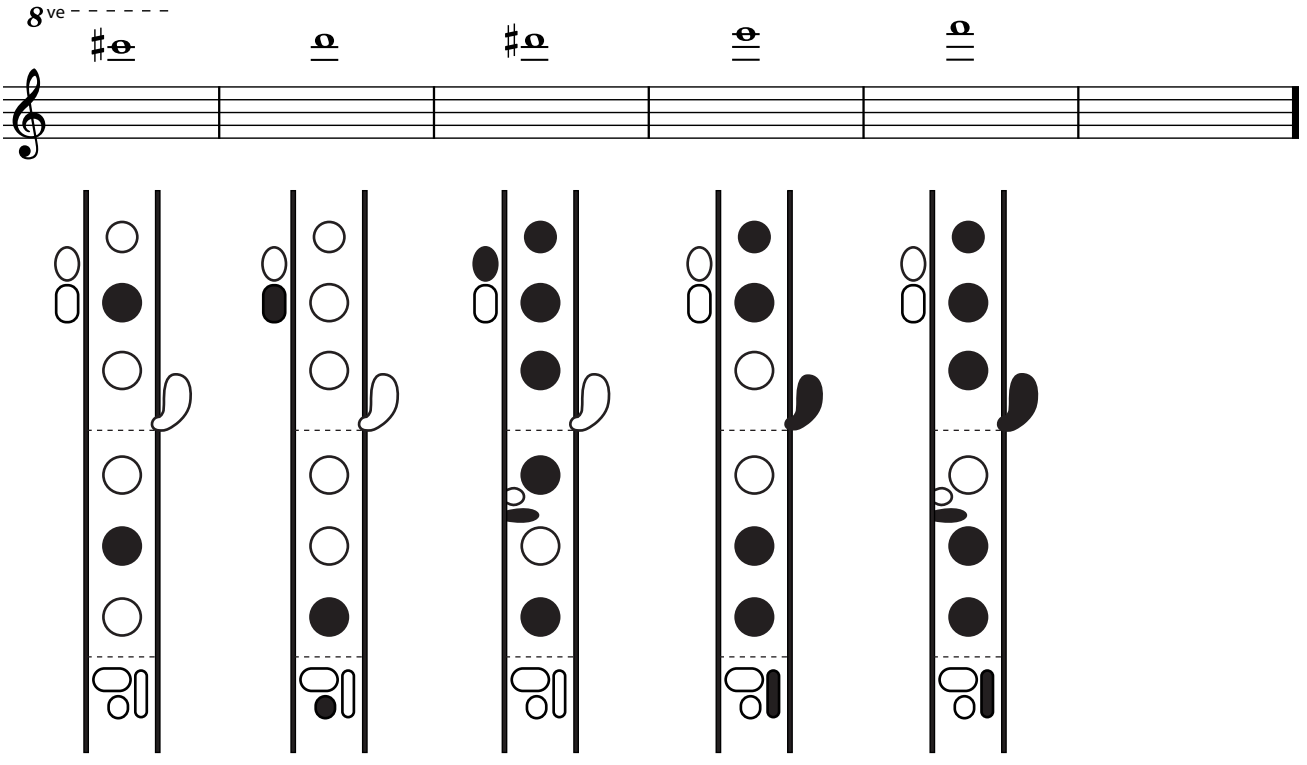


sharpens slightly
but facilitates

add to flatten add to sharpen crack slightly

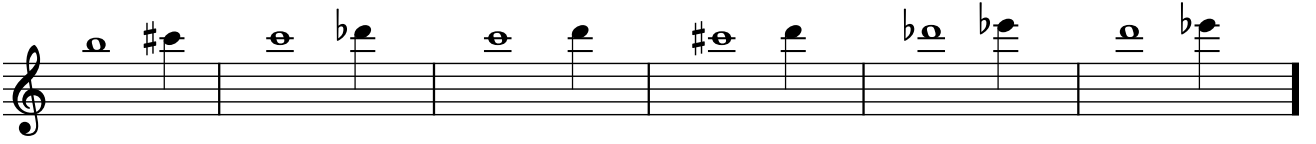


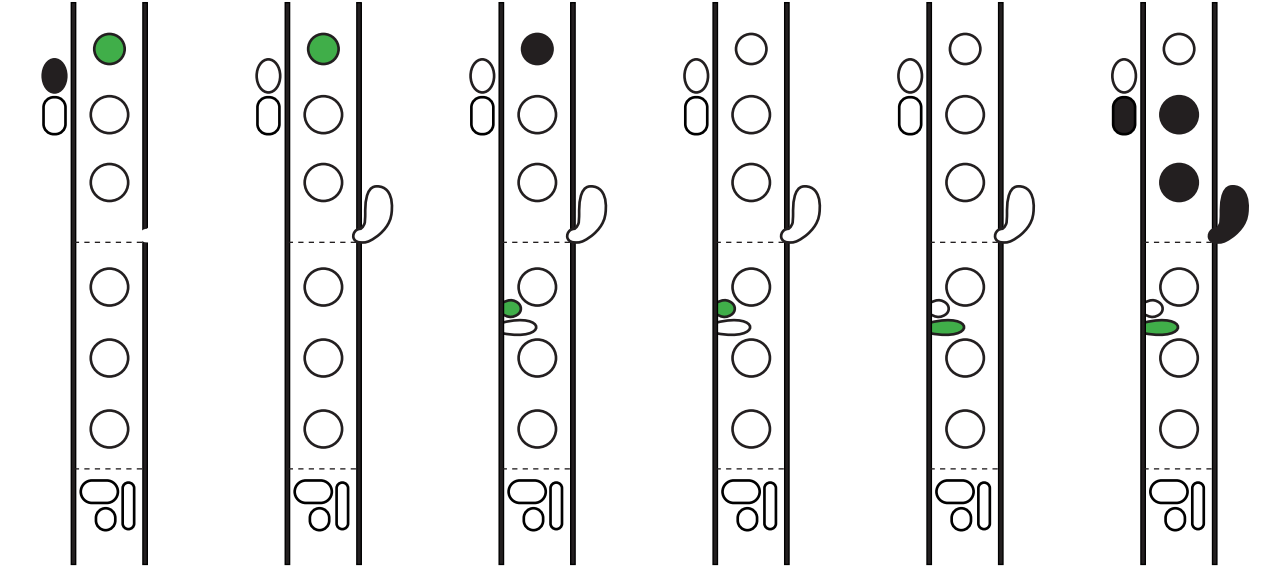
high register B♭ - F

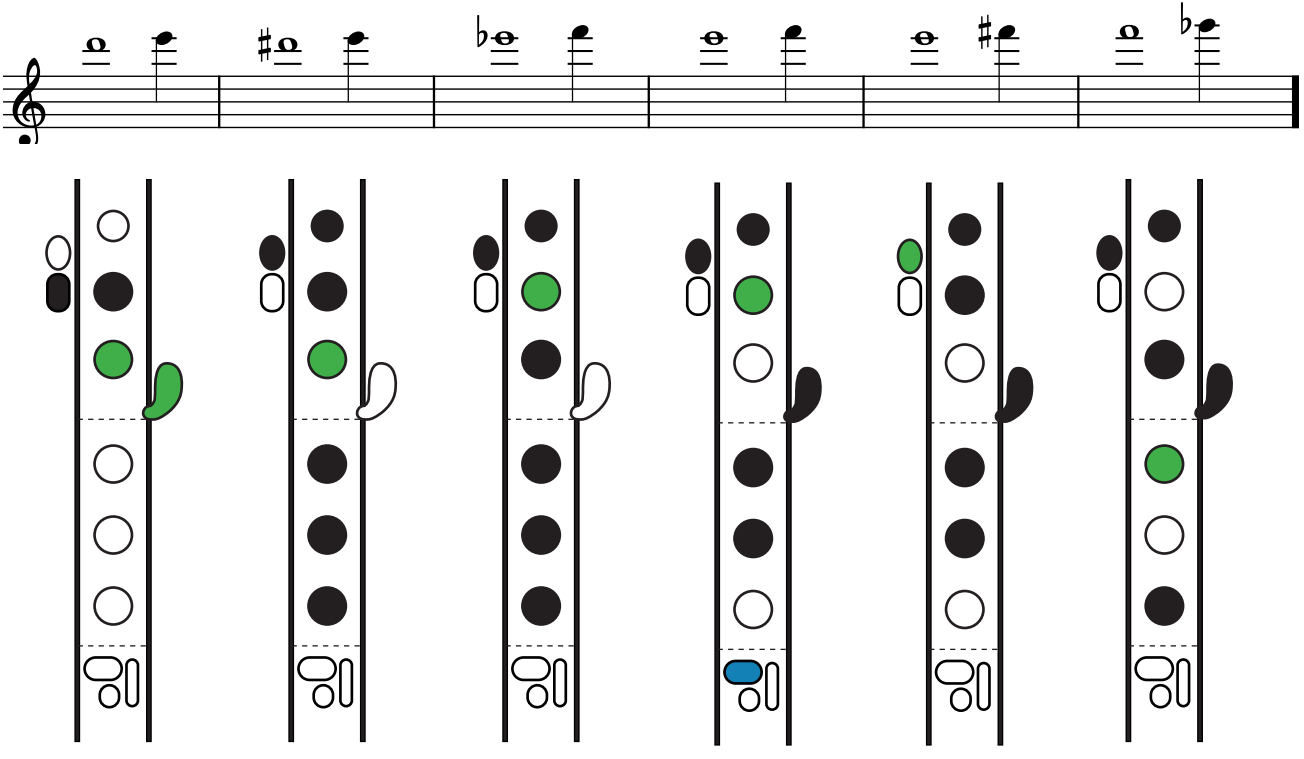


selected trills

add to flatten add to sharpen trill

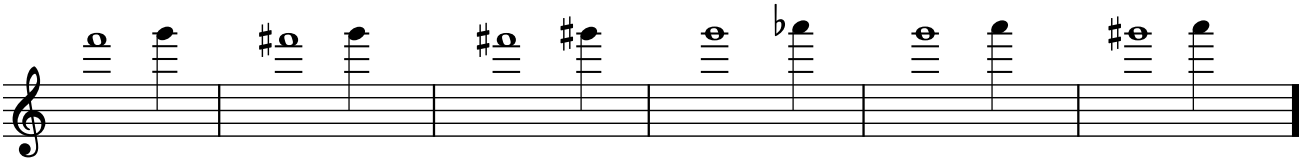


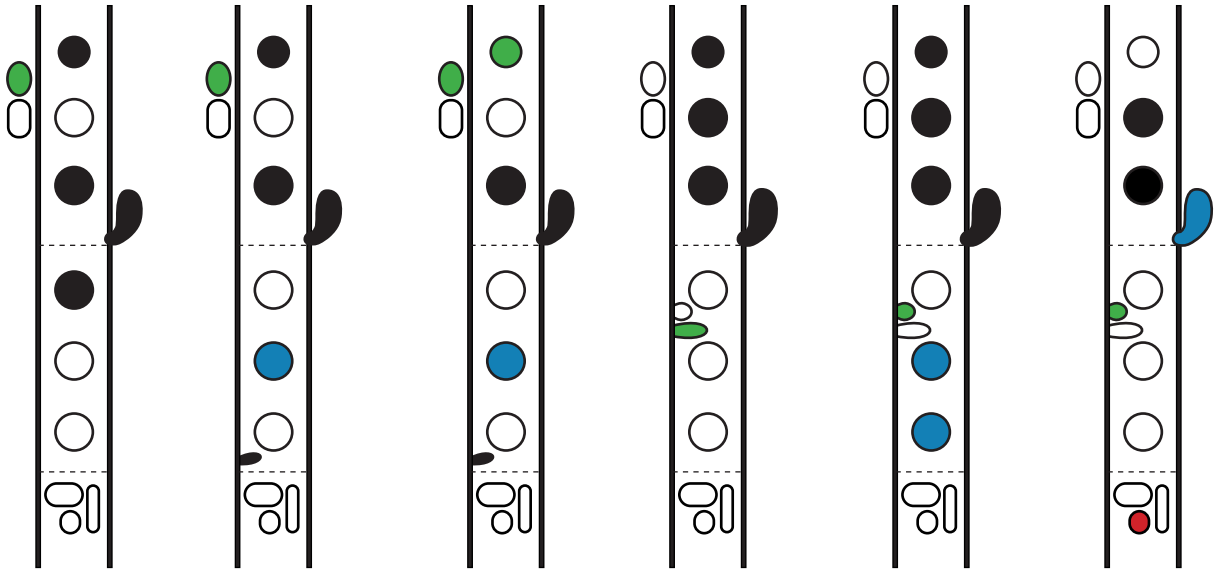




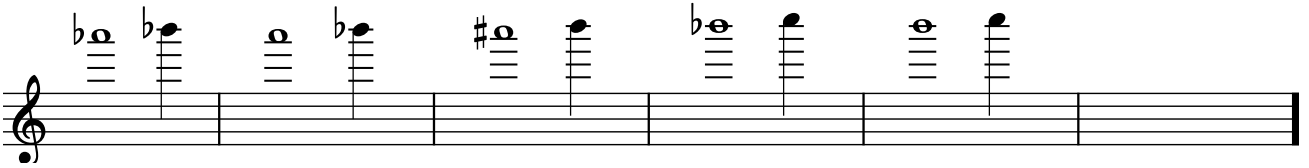
selected trills

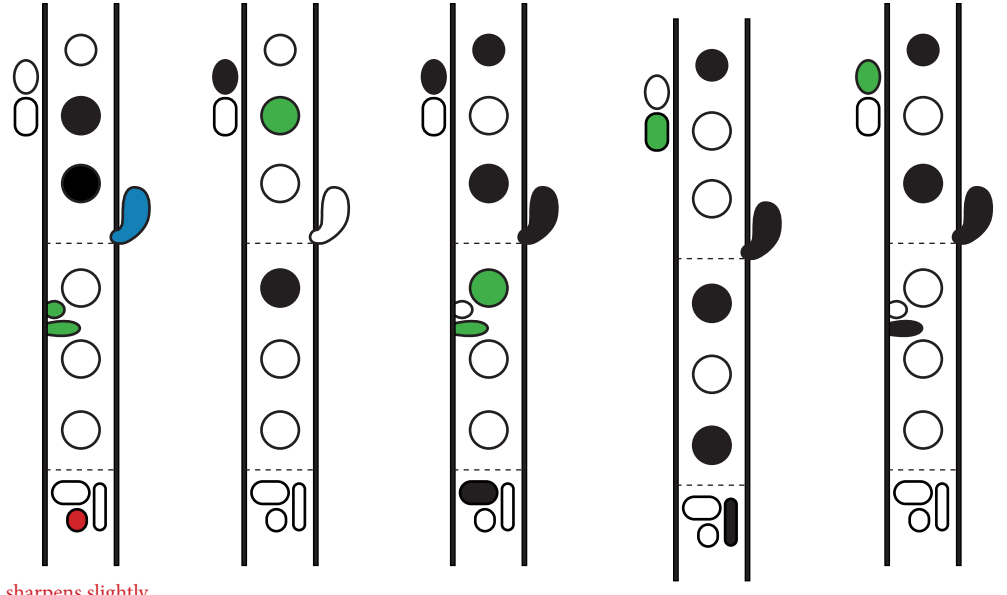
add to flatten add to sharpen trill





sharpens slightly
but facilitates

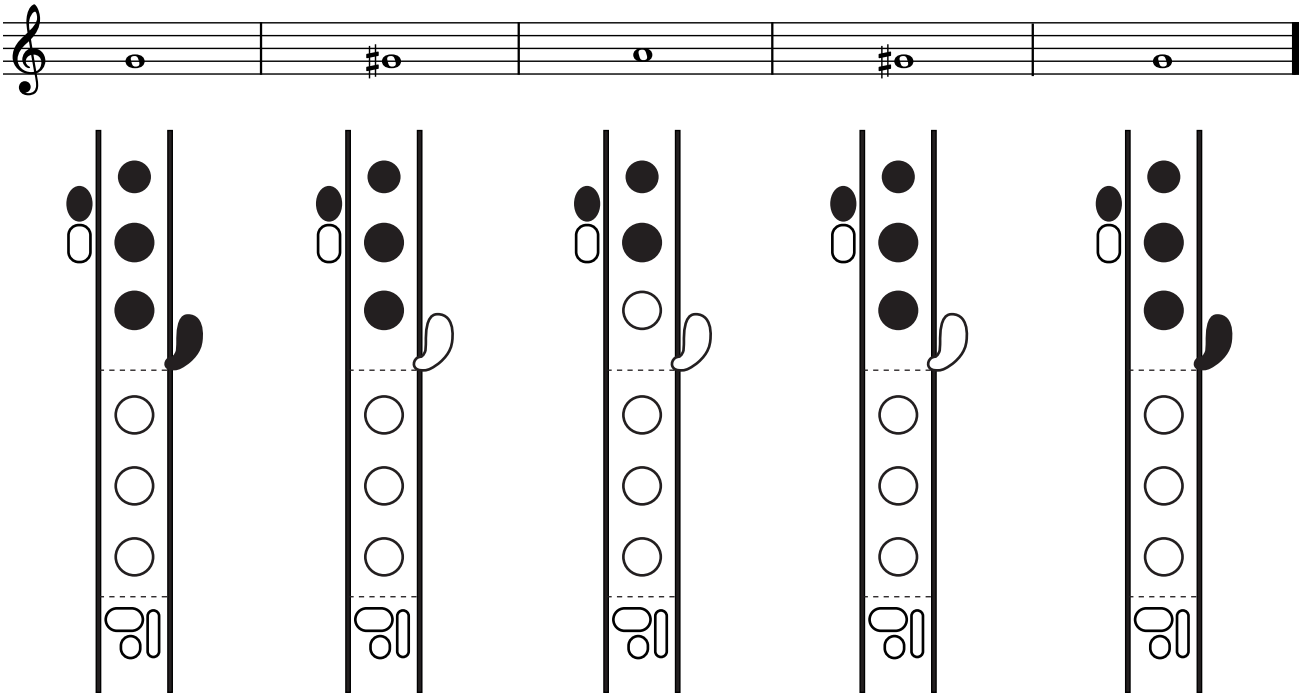




sharpens slightly
but facilitates

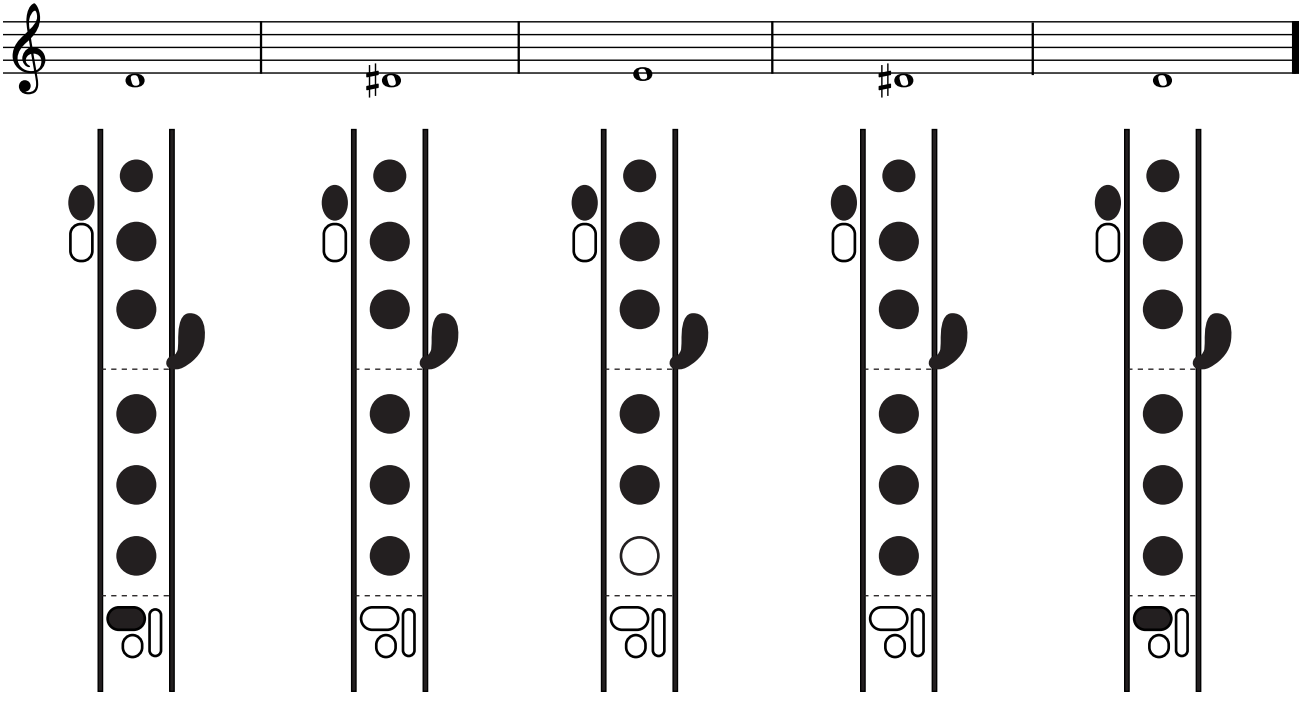
open g♯

To demonstrate the difference between open and closed g#, repeat rapidly.



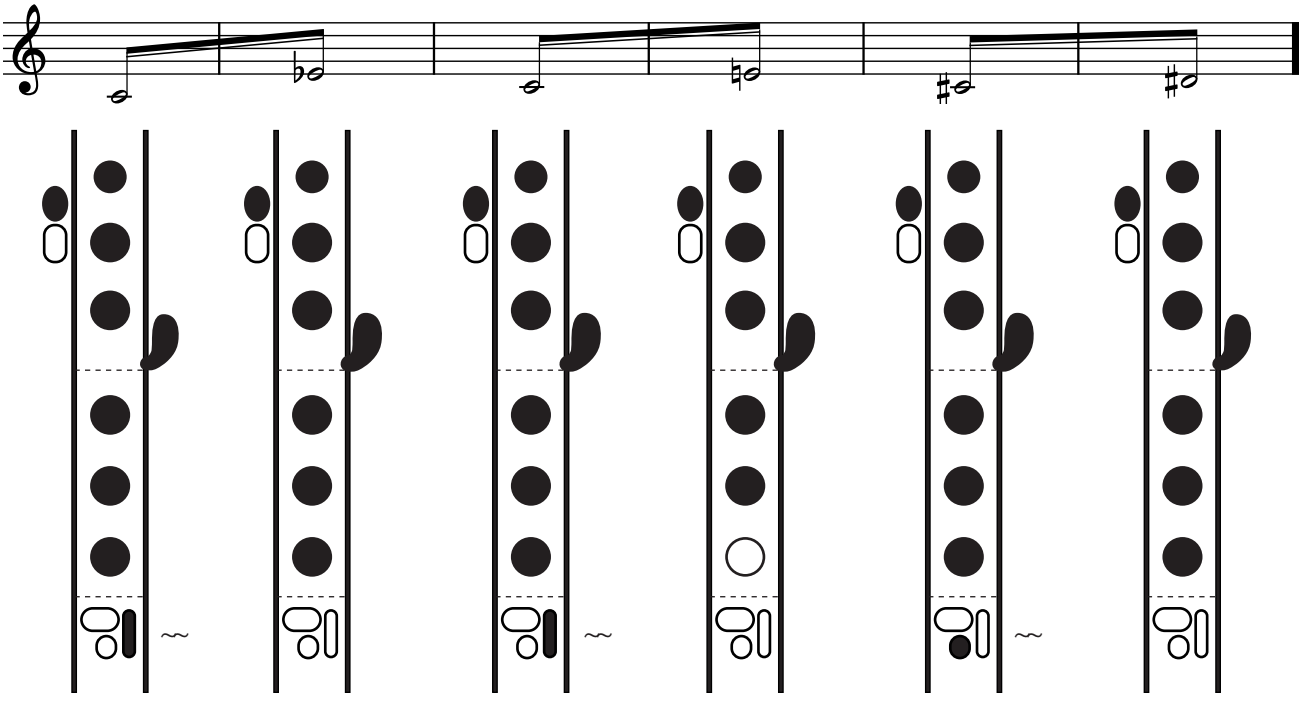
open d♯

To demonstrate the difference between open and closed d#, repeat rapidly.



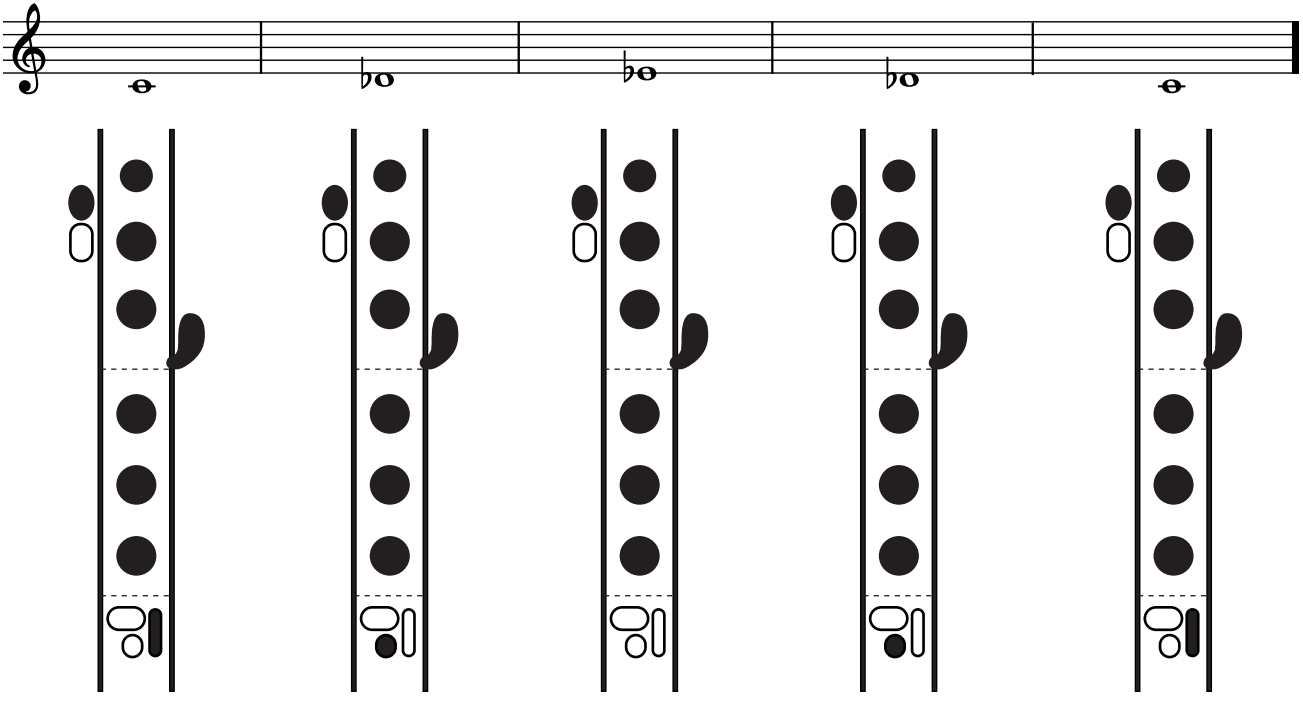
open d♯

Tremolos made possible.



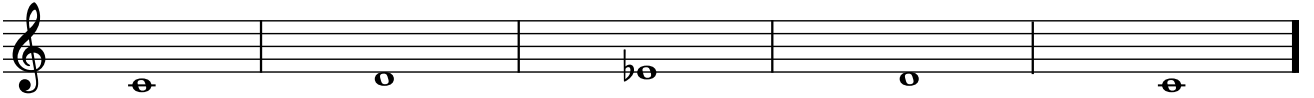
The more logical and natural the fingerings, the easier they are to retain.

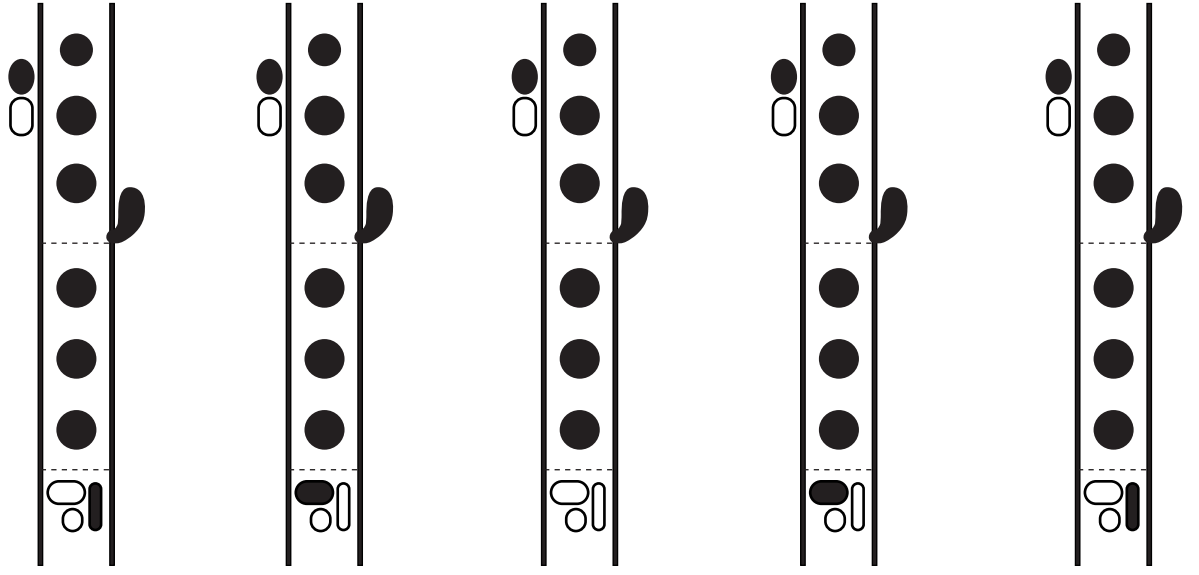
(D♭)



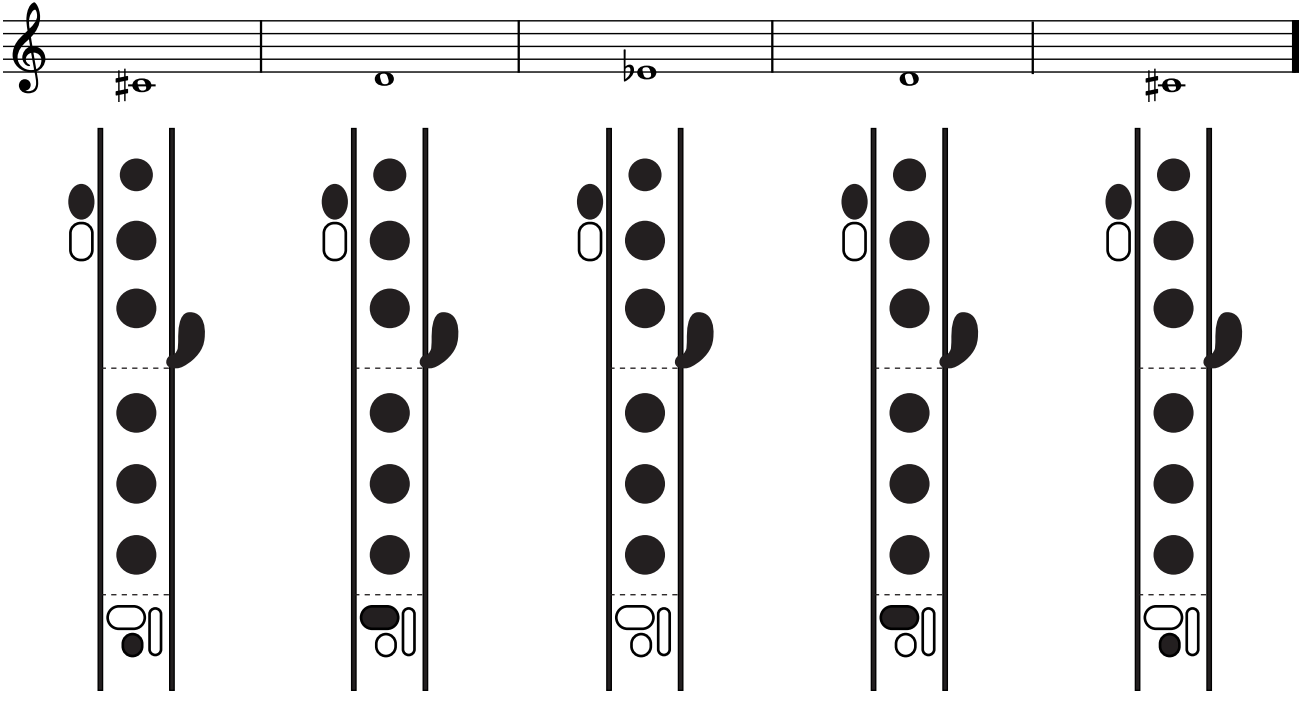
patterns

(E♭)

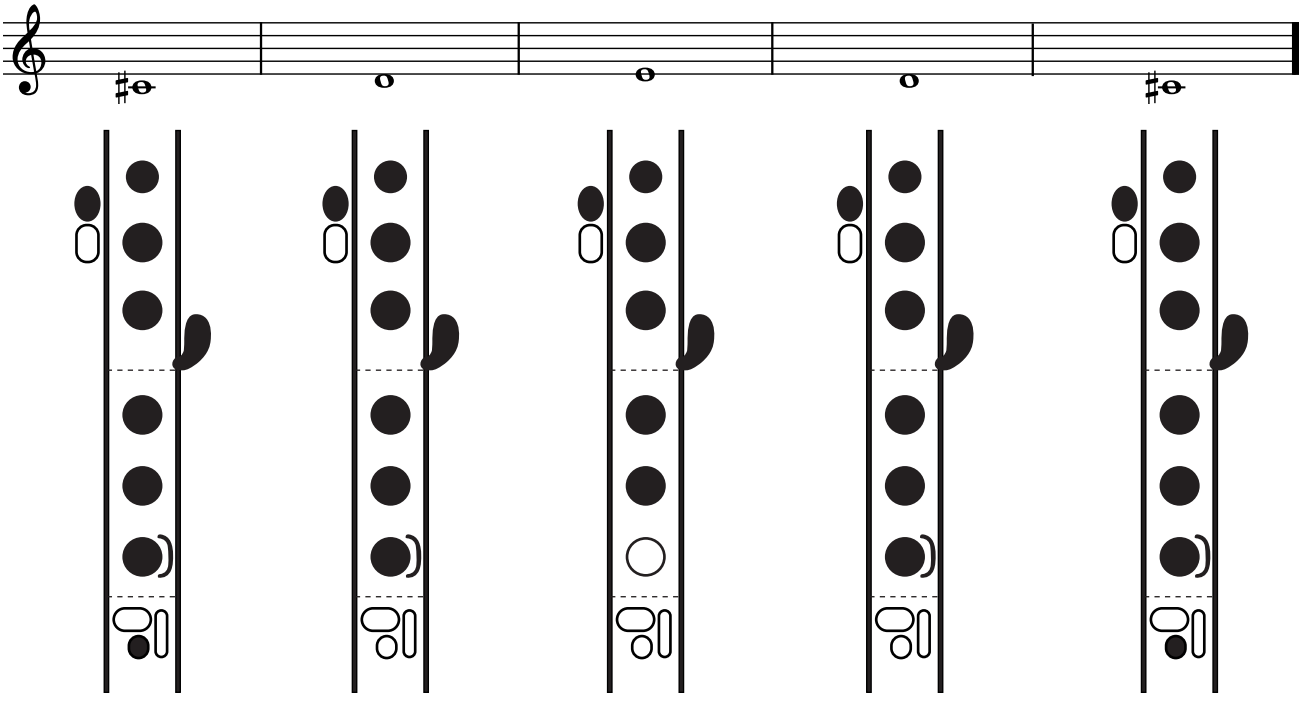




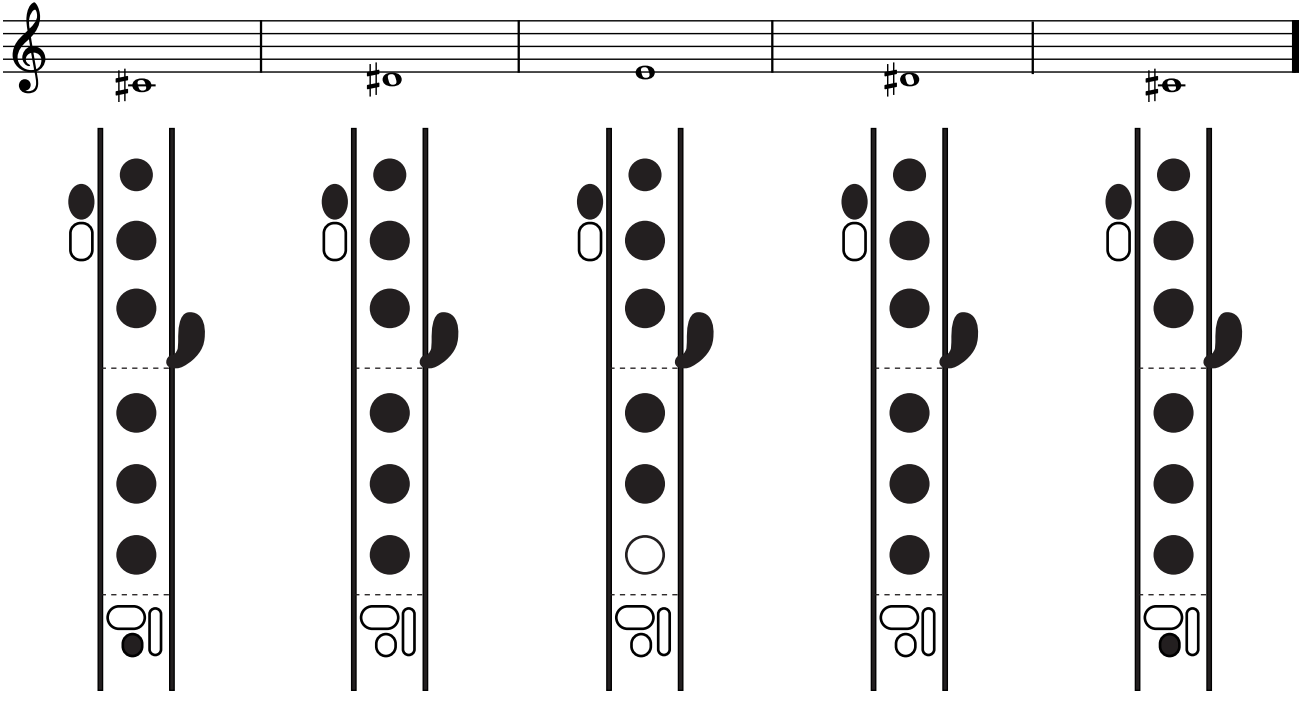
(Chromatic)



(A)

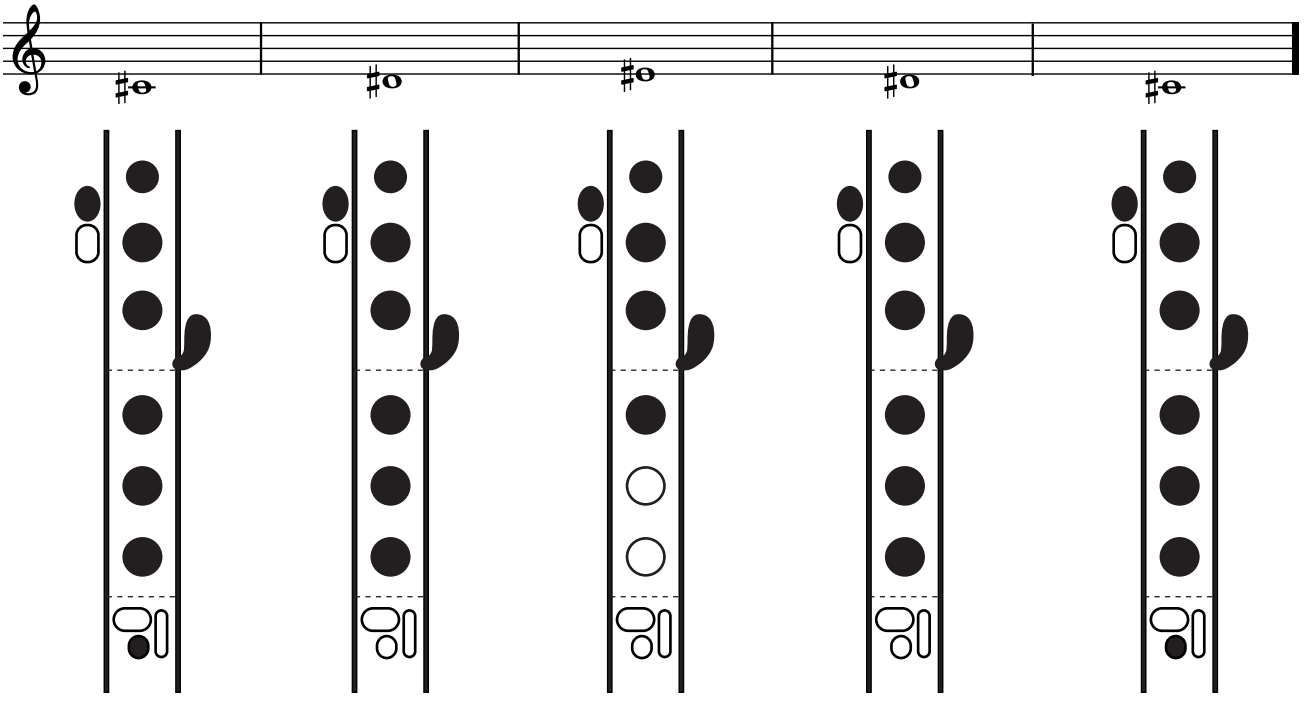


(E)

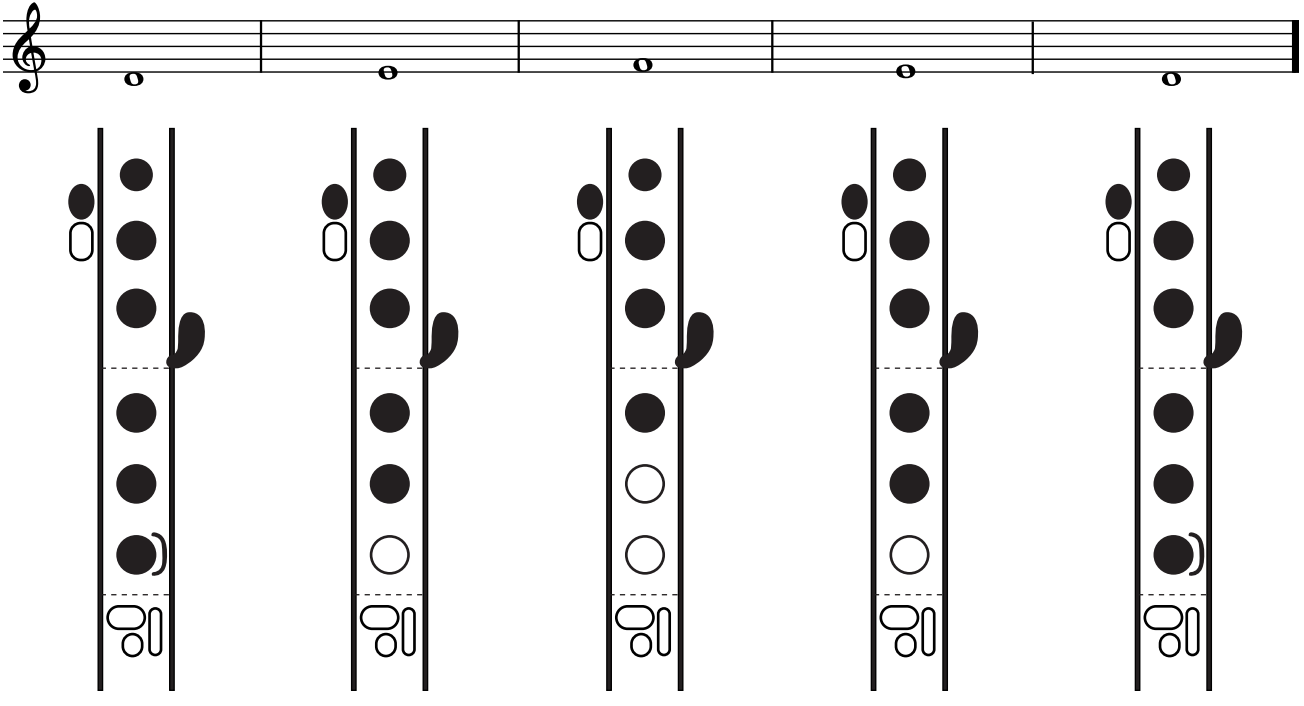


patterns

(C♯♯

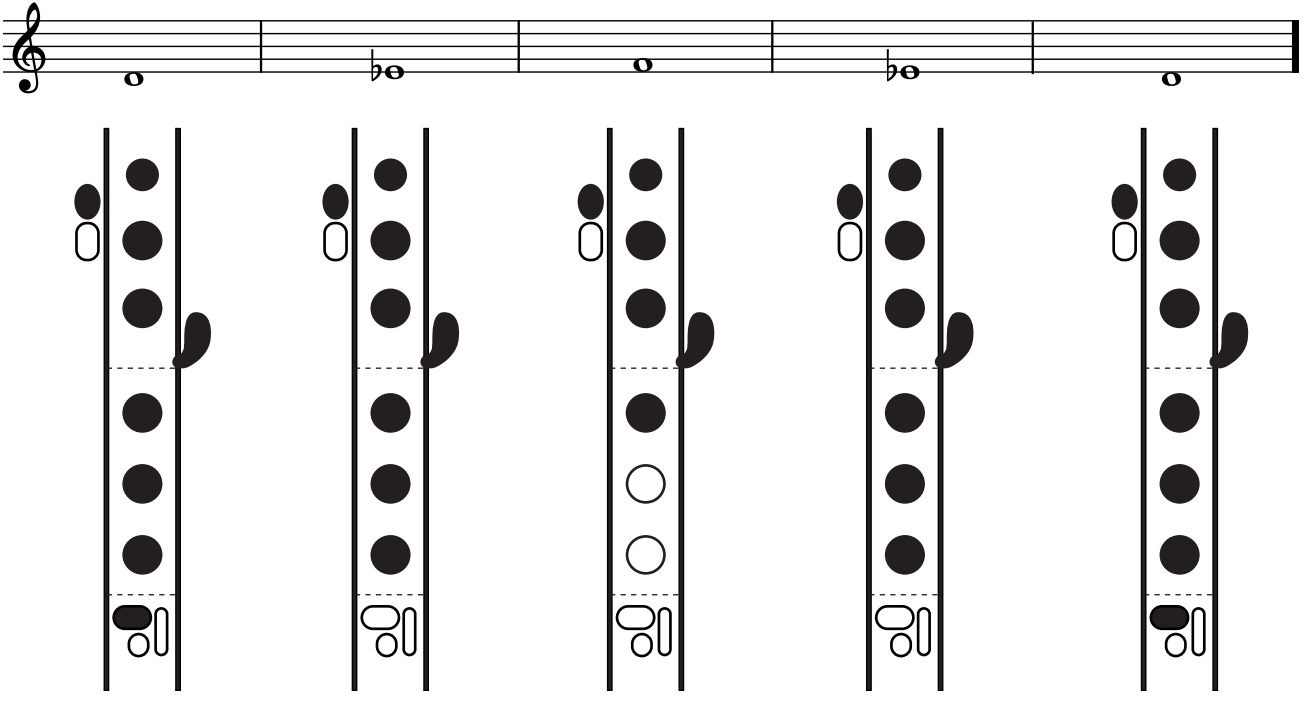


(F)

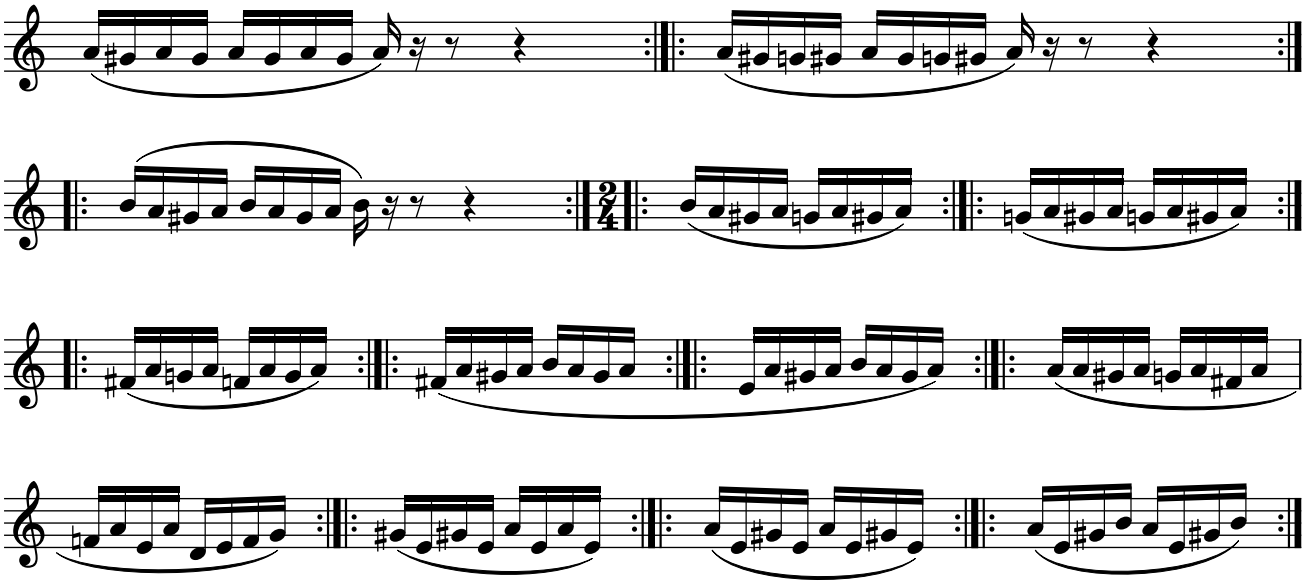


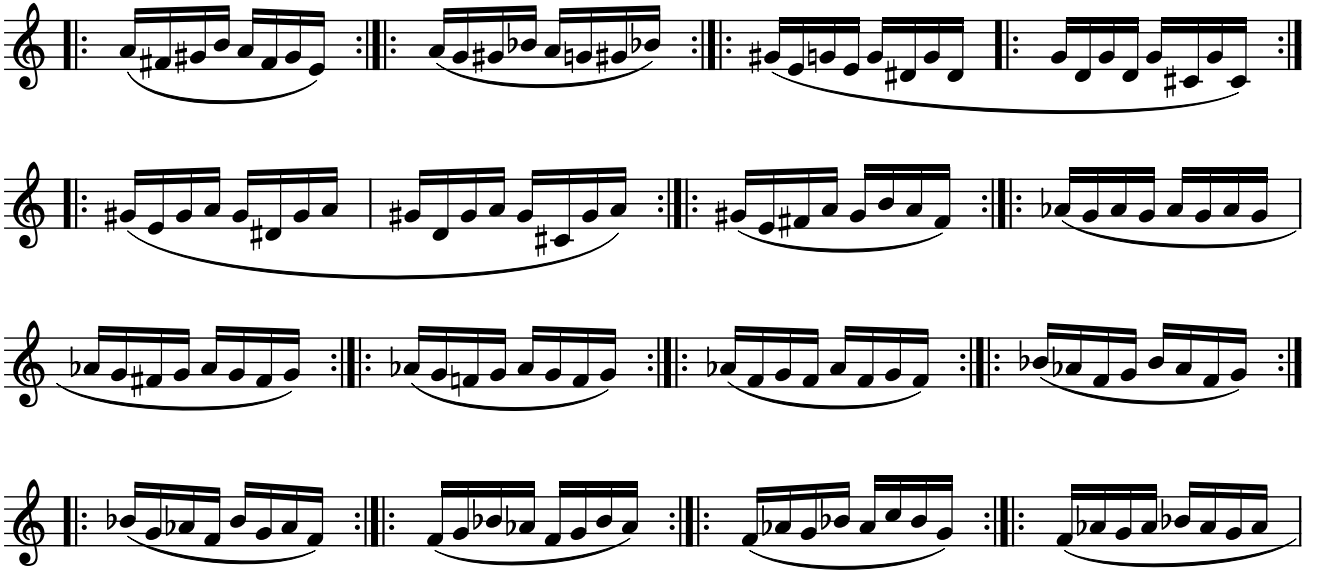
patterns

(E♭)



open g# conversion exercises





open g# conversion exercises