Starting Stopping

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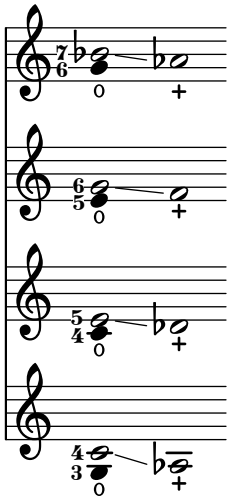
One of the most noticeable differences between the horn and other brass instruments is the movement of the right hand in the bell. Historically, this was done on valveless, or *natural,* horns, to reach pitches in between those along the harmonic series. Nowadays, on valve horns, the right hand is mostly used to make fine adjustments to intonation, as well as playing stopped tones ( ) with a buzzy, muffled timbre. But good hand horn technique is still essential to modern valve horn playing.

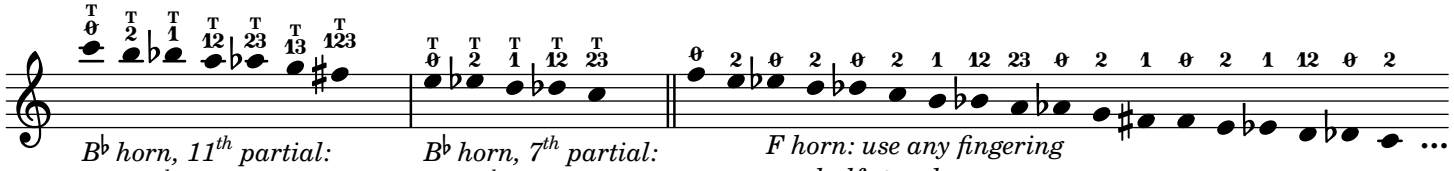


relationship between open and stopped tones, with partial numbers on the left

An everlasting source of confusion for new hornists is whether stopping the bell raises or lowers the pitch produced. By playing a long tone and gradually closing the bell, one may notice that the pitch bends down by a half step or more. But by playing a lip slur exercise on the F horn with an open bell, then repeating it stopped, one may notice that the harmonic series has shifted a half step *upward*.

So what is happening here? Each open tone on the F horn indeed has a corresponding stopped tone a half step up, but the stopped tone actually comes from bending down the next highest partial—a hidden barber pole effect. Closing the bell lowers the pitch, all the way down to *one half step above the next lowest partial* (or, on the B♭ horn, a noticeably out-of-tune ¾ step above it). In the first example on the left, an open B♭ in the 7th partial can be bent down with the hand to a stopped A♭, one half step above the 6th partial's open G.

So, on the F horn, **fingering one half step down while stopped** is a useful mnemonic, though certain fingerings can counteract the out-of-tune 7th and 11th partials and bring the stopped B♭ horn back into tune. Since these partials are rarely used otherwise, mnemonics based on more recognizable fingerings for the 8th and 12th partials, respectively, are more common.



B♭ horn, 11th partial: use 12th partial fingerings for the same pitch

B♭ horn, 7th partial: use 8th partial fingerings one half step up

F horn: use any fingering one half step down

A Stopped Pitch Bends

Gradually transition from open () to stopped ( ) tones and back. In lower partials, add an echo tone ( ) in between.

B Stopped Staccato

Match intonation and dynamics between open and stopped tones.