Hand Horn Technique

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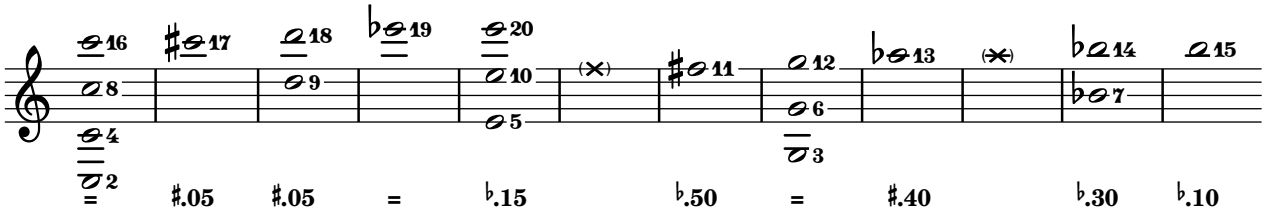
The modern valve horn can trace its origins back to European hunting horns, with written music dating back to the 14th century. These horns lacked valves, and naturally, their music was limited to pitches along the harmonic series. But Classical–era hornists were eager to unlock the chromatic capabilities of the instrument, and in the mid–18th century, they began to develop and master hand horn technique.

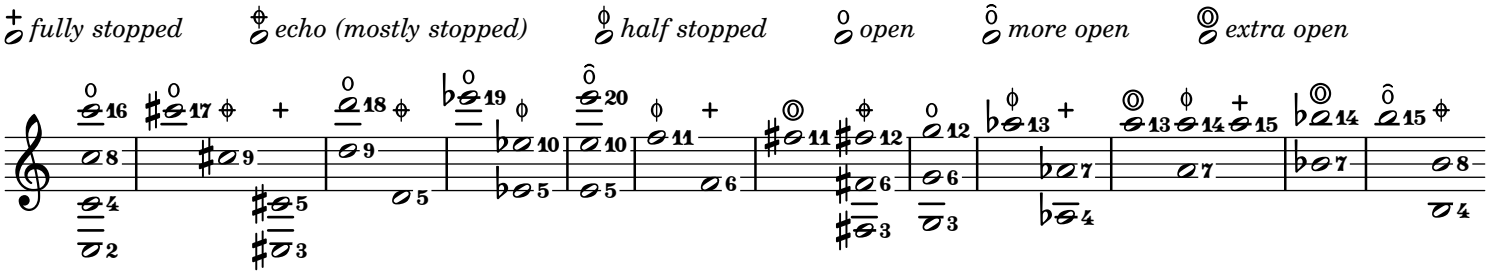
In this period, a hornist would carry around a set of crooks, allowing them to change the transposition of the horn to whatever a piece may call for. This way, players needed not worry about key signatures, and notation would tell them the most relevant information about playing the instrument, regardless of the actual key: which partial to buzz, and how far to bend the pitch with the right hand. By the advent of the Romantic period in the early 19th century, valve horns had become popular in professional orchestras, but some composers, like Brahms, stubbornly resisted the change and continued to write only for natural horn. Others, like Saint-Saëns, experimented with both varieties of horn playing together.

Today, we can change the key of the instrument swiftly and easily with valves, and horn music is almost always written transposed to F. But hand horn technique can still be useful for a number of reasons: to gain more control and flexibility on the instrument, to aid in reading transposed music, or to emulate the sound of a natural horn.

The harmonic series as playable on natural horn is shown here, starting on C and ascending chromatically. Partial numbers are listed to the right of each pitch, and deviation from the written pitch (in twelve–tone equal temperament) is shown below, rounded to the nearest 5 cents.

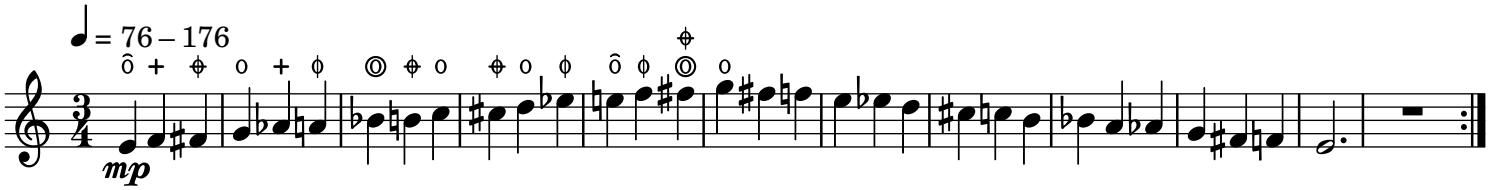


We can use our knowledge of hand stopping to bring some of these pitches into tune and reach additional pitches in between them. The following is a guide to hand positions for the natural horn. Every horn and hand is different, but an *open* position should produce the most desirable horn sound, and a *fully stopped* position should seal off as much of the bell as possible. The *extra open* position might necessitate removing the hand from the bell entirely.



1 Hand Horn Chromatic Scale

Repeat this exercise in **F** 0, **E** 2, **E♭** 1, **D** 12 and **C** 13, then **G** 12, **A** 2 and **B♭ alto** 0.



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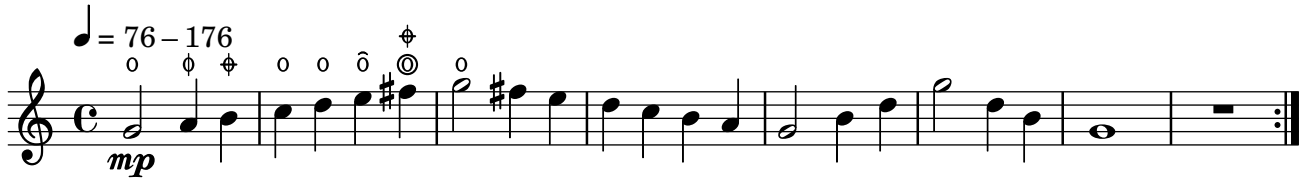
fully stopped *echo (mostly stopped)* *half stopped* *open* *more open* *extra open*

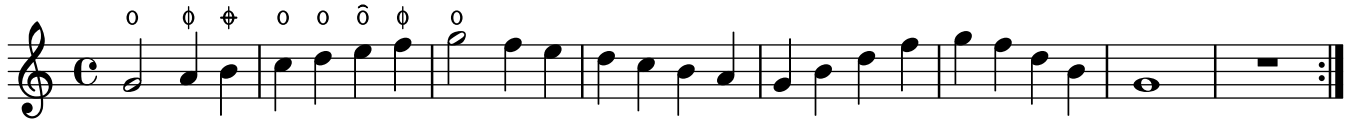
Hand Horn Scales and Arpeggios in the Middle Register

Repeat these exercises in **F** 9, **E** 2, **E♭** 1, **D** 12 and **C** 13, then **G** 12, **A** 2 and **B♭ alto** 6.

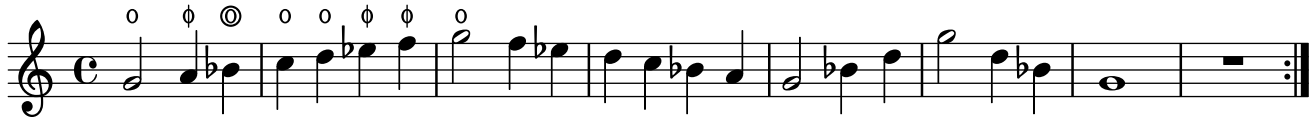
2 G Major



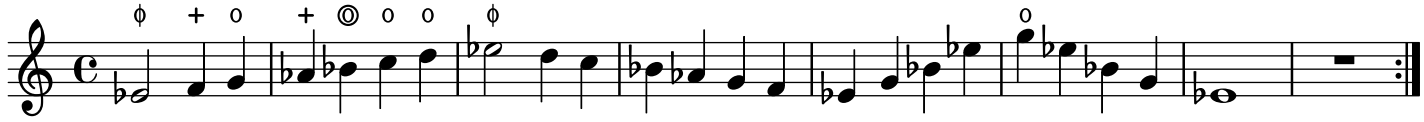
3 G Mixolydian/Dominant 7th



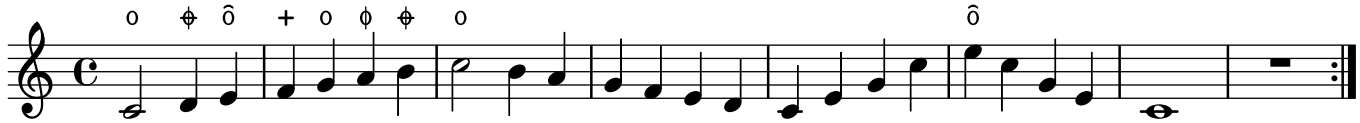
4 G Minor



5 E♭ Major



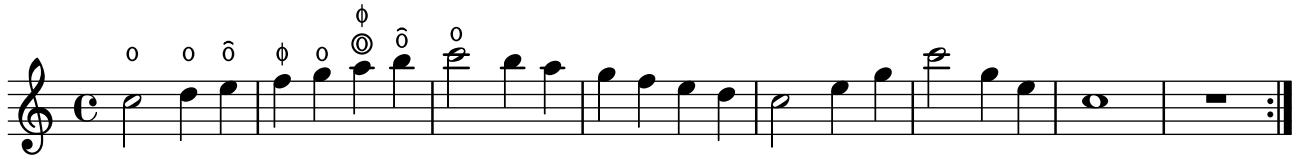
6 C Major



Hand Horn Scales and Arpeggios in the High Register

Repeat these exercises in **F** 9, **E** 2, **E♭** 1, **D** 12 and **C** 13.

7 C Major



8 B♭ Major