Introducing the F Attachment

Jack Flouer

The F attachment or trigger on a trombone obviously allows the player to add range, and eliminates the need for long position changes; but embouchure correction is another very important advantage that is not well known.

Students can usually obtain a reasonably satisfactory tone quality in the middle register of the trombone, regardless of their embouchure, so embouchure problems often don't appear until register extremes are attempted.

The most common fault in approaching the lower register of the instrument is a tendency to allow the lips to extend into the mouthpiece causing reduced volume, lower pitch, and a nasal tone quality. In order to compensate for the pitch change, an aurally-alert student will shorten the slide. As a result, the tubing length needed for maximum resonance will be incorrect and the tone will not be centered. The illusion created by the presumed necessity to shorten the slide leads to the misconception that the positions on the Bb and F sides of the trombone correspond.

Actually the slide of the Bb-F tenor trombone is designed to take care of the seven chromatic alterations on the Bb side only. When the additional tubing of the F attachment is brought into use by opening the valve or trigger, the slide must be lengthened proportionately in order to lower each pitch a full step. Because the slide is not a sufficient length to maintain its usual seven positions found on the Bb side there are only six usable slide positions with the F attachment. In order to emphasize these differences I recommend to my students that they refer to the positions on the F side with Roman numerals and those on the Bb side with Arabic numerals. This practice helps eliminate a natural tendency to think in terms of a long third, or a slightly short fifth, and it accentuates the concept that slide placement is critical.

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Example 1. Slide Positions

\[
\begin{array}{cccccc}
\text{Bb Side:} & 1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\text{F Side:} & 1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\end{array}
\]

The correct approach in teaching good embouchure for the expanded lower register requires that the jaw move forward and down. It is essential that the lips stay against the teeth and that the corners maintain tension so that the air stream passes over as little area as possible.

How to Begin

My most successful approach in teaching students to deal with the F attachment is to begin on common ground and start in first position on C.

Example 2. F Attachment

\[
\begin{array}{cccccc}
& 1 & 2 & 3 & 4 & 5 & 6 \\
\end{array}
\]

It is important to find the correct slide placement for each position using familiar notes rather than beginning with the F which is new ground for the student. The obvious advantage to this approach is that the student can relate to pitches which he has already played on the Bb tenor trombone. It is also less likely that the pitch will be affected by the embouchure. For example, the student begins with C in first position with the trigger, then Bb in second position, then Bb which can be checked against Bb in first position on the Bb side. He learns that the Bb position III on the F side is much further out on the slide than the normal third position on the Bb side. After following this procedure for the A, Ab, and G, the student has learned the location of the six positions on the F attachment (example 3).

Example 3.

\[
\begin{array}{cccc}
\text{Bb Side:} & 1 & 2 & 3 & 4 \\
\text{F Side:} & 1 & 2 & 3 & 4 \\
\end{array}
\]

The next step in learning to use the F attachment is to expand note production into the instrument's lower range. The student should first locate the correct slide position for the notes he has studied and then play the pitch a perfect fifth lower without allowing the slide to move. This exercise forces the student to bring the lips back against the teeth from their extended posi-

Example 4.

At this point a student may be able to maintain pitch, but may lack good tone quality and flexibility in moving into the lower register. In order to correct these problems the jaw should be allowed to move downward and outward. When the player first attempts this motion it is often exaggerated. To offset this exaggeration use the Bb side of the instrument and have the student lift the slide when playing F (while holding his head stationary), using the point of contact of the mouthpiece on the upper lip as a pivot. If the head is not allowed to tilt backward and the embouchure is maintained, the jaw must follow the lower portion of the mouthpiece in order to maintain a seal. As the lifting continues, the pitch will begin to drop until eventually it will fall in Bb with little or no relaxation of the lips. After working with these harmonics in all positions, the same exercises may be attempted with the F attachment, playing between C and F. This horn tilting is a practice used by many bass trombonists to some degree as a normal procedure. It also works with baritone and tuba but the head is dropped rather than changing the angle of the instrument.

Though flexibility and consistency may be increased by tilting the horn, tone quality is not helped because the jaw does not move downward. Therefore students should watch in a mirror while performing these techniques, concentrating on keeping the skin covering the chin flat and stretched throughout so the jaw will be forced into the necessary downward position as it moves forward.

A degree of security and confidence can be achieved this way, and a properly-formed embouchure should be evident. Continued use of lip slurs encompassing all positions on both sides of the instrument will help maintain this embouchure formation and a noticeable improvement in playing should result.