

Trombone Troubleshooting

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I. Problem: Equipment

a. Right Horn for the Right Job: Small-Bore vs. Large-Bore

- i. Students typically start on small-bore in elementary or middle school and should move to a large-bore horn in high school
- ii. Large-bore instruments typically allow the student to create a rounder, darker, more resonant sound that is appropriate for most solo and large ensemble playing.
- iii. For jazz/commercial playing, and some solo repertoire, a professional small-bore horn may be more appropriate.

b. Mouthpiece

- i. A good mouthpiece is one that helps the student produce the sound they want, and is comfortable without being detrimental to their range or other aspects of playing.
- ii. Make sure students have the proper shank (small/large) for the horn they are playing on.
- iii. Students typically will start on a Bach 12C or 6.5AL size (or equivalent) and move to a slightly larger Bach 5G (or equivalent) on a large-bore instrument.
- iv. A Bach 1 1.5G is a great starter mouthpiece for bass trombonists.

c. Maintenance

i. Main Slide

1. Outer slide should drop fast and evenly when held vertically or at a slight angle. Watch for hitches.
2. Should be lubricated at least once per week.
 - a. Trombotine
 - b. Yamaha Slide Cream / "Slide Oil"
 - c. Christian Griego – Edwards Instruments
<https://www.youtube.com/watch?v=0-5qYuIIrh0>

ii. Tuning Slide

1. Should move with minimal effort.
2. Typically lubricated every 1-2 months if maintained well.
 - a. Hetmans Tuning Slide Grease Nos. 7, 8, 9, 10

iii. Valves

1. Should operate smoothly and quietly.
2. Typically lubricated 2-3 times per week (or more) depending on use and oil used. Synthetic oils are more expensive but last longer.
 - a. Thinner oils for inside the valve (smoothness).

- i. Hetmans Oil Nos. 11, 12

b. Thicker oils for outside the valve on spindle and linkages (sound).

i. Hetmans Oil Nos. 13, 14, 15

II. Problem: Lack of Knowledge

a. Partials/Harmonic Series

i. Many students know what position a note is but not what partial it is.

ii. Partials are the key to range building

1. Higher partials require faster air

2. Lower partials require slower air

b. "Alternate" positions

i. Many students are not familiar with their entire horn.

ii. Avoid "this note is in ____ position"

iii. Scales are the key! Major, minor, and chromatic!

c. The F-attachment: It can play more than F!

i. Only 6 positions, which are spaced out farther apart.

ii. Where Are They? – The Process

1. Play a 3rd partial Bb horn note (Ex: 3rd line D)

2. While playing, depress F-attachment and stay on the same note. It will be sharp.

3. Glissando outwards, slowly, until back in tune.

4. Drop down the octave
- iii. Check the range of a piece before giving to student without an F-attachment instrument.
 - iv. F-attachment boot camp
 1. Lip slurs down the entire horn (above 2nd partial)
 2. Lyrical etudes that encourage slow/warm air
 3. Challenge bass trombonists with multiple valves. Play etude using only 3 consecutive positions, but any valve combination.
- d. Clefs
- i. Tenor Clef
 1. Most popular secondary clef used for trombones.
 2. Found in music for both tenor/bass trombones, as early as FBA grade 4 solo literature.
 3. Very common in orchestral and solo literature. Becoming more popular in new wind band literature.
 - ii. Alto Clef
 1. Found mostly in orchestral literature. Typically Germanic works before 20th century and Russian works during the 20th century.
- e. Section Instrument
- i. Trombones play three-voice (or more) chords very frequently.
 - ii. Highly encourage even distribution of talent across parts or at least more players on lower parts where tonic pitches

are often located.

- iii. Stacking high parts often create balance issues with too much 3rd/5th

III. Problem: Technique

a. Sound

i. Long Tones

1. Practice in all registers! Practice before they are needed and beyond what is needed.
2. Many students do not have a concept of a world-class trombone sound.

ii. Buzzing the center of the pitch.

b. Air

i. Immediacy of air.

1. The three blows
2. Air Attacks (Hoo-Too)

ii. Compression

1. Ha!
2. Engage abs on the exhale
3. Energized air stream will help keep the pitch down, push tuning slide in, and improve sound quality.

c. Slide Technique

- i. A proper grip is key! Should be like holding a pencil.

1. Thumb + 2 fingers on top. Ring and pinky underneath.
2. Curved fingers. Watch for hitchhiker's thumb.

ii. Straight wrist

iii. Motion initiates from the tips of the fingers. Not the wrist!

iv. Fingers do not leave slide, however, the feeling should be to "push" with the thumb" and "brake" with the fingers to avoid a jerky motion.

v. When playing consecutive notes in different positions, the slide should stop on each note 90% of the time.

1. On very fast passages the technique will change to a gliding motion, only stopping for arrivals and direction changes.

d. Embouchure

i. 90%+ of students should be using a standard embouchure

ii. Slight downward horn angle

iii. No Puffing!

1. If air is going into the cheeks it's not going into the horn.

2. Embouchure strength comes from firm corners.

iv. Multiple embouchures are okay! Goal is to make transitions inside the mouthpiece.

1. Slurring over register breaks helps build strength.

2. Arpeggios/chromatic scales are great tools.

v. Angles matter

1. Airstream angle controlled by the lips. Rolling the lower lip in aims the air down.
The air goes straight out for the pedal register and is aimed lower the higher you play.
2. Tilting horn slightly up (low register) or down (high register) can help in extreme registers.
3. Tongue placement (vowels)
 - a. Oh = low register
 - b. Ah = mid register
 - c. EE = upper register

e. "TWAH" Sound

i. Tongue/Slide coordination issue.

1. Slide is often moving too early.
2. Mime slide motions without buzzing. Line up motions with articulation

ii. Lip Slur

1. Incorrect air speed
2. Mime slide motions with hissing. Listen for faster air on higher partials.

f. Posture

- i. Bring the horn to you, not you to the horn. A slow, deliberate horns up motion is typically eye opening.

- ii. Music stand should be several feet in front and to the right so that the bell does not block the music and the stand does not hit the bell.
- iii. If seated, sitting on the edge of the chair with the knees below the waist greatly aids breathing. This may mean having feet under the chair.

UF Trombone Studio Website

<http://arts.ufl.edu/sites/trombone-studio/home/>

Student Resources Tab

- Developing a Warm-up Routine
- Developing a Sound Concept
- Recommended Trombone Methods