Pitch Tendencies for Notes in Primary Positions

<table>
<thead>
<tr>
<th>Note</th>
<th>5th Partial</th>
<th>6th Partial</th>
<th>7th Partial</th>
<th>7th Partial</th>
<th>Primary Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slightly Flat</td>
<td>Slightly Sharp</td>
<td>Extremely Flat</td>
<td>Extremely Flat</td>
<td>for flat 7th Partial in First Position</td>
</tr>
</tbody>
</table>

Pitch Tendencies for Notes in Common Alternate Positions

Notes in series based on **Fifth Partial**. The fifth partial blows slightly flat. Correct by using syllable "TEE" through 4th Position. Shorten position 5, 6 & 7 (indicated with "-").

Notes in series based on **Sixth Partial**. The Sixth partial blows slightly sharp. Correct by using syllable "TOH" through 3rd position. Lengthen position 4, 5, 6 & 7 (indicated with "+").

Notes in series based on **Seventh Partial**. The seventh partial blows extremely flat. Correct by using syllable "TEE" through 4th Position. Correct by using shortened positions except 1st position. Use A flat in first position only in fast lip slurs.

Examples of Frequently Used Alternate Positions

<table>
<thead>
<tr>
<th>Note</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+4</td>
<td>3</td>
<td>-4</td>
<td>3</td>
<td>-4</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>-5</td>
<td>4</td>
<td>4</td>
<td>+5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>-5</td>
<td>4</td>
<td>5</td>
<td>-5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>-5</td>
<td>5</td>
<td>6</td>
<td>-6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>-7</td>
<td>7</td>
</tr>
</tbody>
</table>
TROMBONE

Tune The Instrument

When tuning to one note only, approach the tuning note from below.

Intonation Discrepancies and Tendencies:

Beware of the tendency to play sharp on fifth, sixth and seventh positions and flat on second and third positions.

Causes and Remedies for Bad Notes:

E - Euchure - Center the tone. The accurate brass player develops a muscular memory.
- Syllables.
- TEE sharpen the pitch.
- TOO and TAH flatten the pitch.

Dynamics - Crescendos may blow sharp. To correct: Maintain a firm embouchure throughout crescendo.
- Diminuendos may blow flat. To correct: Maintain sufficient breath support throughout the diminuendo.

Slide - Because of the nature of the trombone slide, the trombone is considered the most flexible.
- The trombonist should adjust the pitch with the slide as much as possible.
- The trombonist should be aware of the tendency to play sharp on fifth, sixth and seventh positions and flat on second and third positions.

F-Attachment - After adjusting the B flat tuning slide, then match the F slide to the B flat on Fourth line F.

Listen - Check your buzzing of the chromatic scale on the strobe-tuner.
- Also play long tones and scales frequently check with the tuner.
Pitch Tendencies & Adjustments

**Trombone**

\[ \text{Notes not addressed are generally acceptable} \]

```
<table>
<thead>
<tr>
<th>Pitch Tendency</th>
<th>S</th>
<th>S</th>
<th>S</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustment</td>
<td>Use trigger and lower 2nd position. (May still be very sharp if trigger is not properly tuned.)</td>
<td>Use trigger and lower 1st position</td>
<td>Lower 1st position</td>
<td>Use 4th position</td>
</tr>
</tbody>
</table>
```

```
VS | VF | VF | S |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower 1st position</td>
<td>Raise 3rd position</td>
<td>Raise 2nd position</td>
<td>Lower 1st position</td>
</tr>
</tbody>
</table>
```

Pitch Tendencies & Adjustments

**Tuba**

```
<table>
<thead>
<tr>
<th>Pitch Tendency</th>
<th>VVS</th>
<th>VS</th>
<th>S</th>
<th>VVS</th>
<th>VS</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustment</td>
<td>Use 2nd &amp; 4th valve Drop jaw</td>
<td>Use 4th valve or pull 1st valve slide</td>
<td>Use 3rd valve or pull 1st slide</td>
<td>Use 2nd &amp; 4th valve Drop jaw</td>
<td>Use 4th valve or pull 1st slide</td>
<td>Use 3rd valve or pull 1st slide</td>
</tr>
</tbody>
</table>
```

```
S | F | F | S | VS | F |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use 3rd valve or pull 1st slide</td>
<td>Use 1st &amp; 3rd or 4th valve</td>
<td>Use 1st and 2nd</td>
<td>Pull 1st slide</td>
<td>Use 3rd valve</td>
<td>Play open</td>
</tr>
</tbody>
</table>
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TROMBONE TUNING GUIDE

Procedures for Tuning the Instrument
1. Warm up thoroughly before tuning.
2. Tune at a mezzo-forte dynamic level and do not use vibrato.
3. Tune to a reliable frequency (electronic tuner, etc.) using the recommended tuning note below.
4. Do not humor the tuning note; play it straight. Adjust the main tuning slide if the pitch is sharp or flat.

BASIC TUNING NOTE

The tuning pitch is indicated with a half note; quarter note pitches are used to help "groove" the tuning note by approaching it from below.

Tuning Mechanism: Tuning Slide. Pull out the main slide to lower the overall pitch of the instrument; push it in to raise the pitch.

To tune the F attachment on a trombone so equipped, play fourth line F in first position on the open horn, then engage the F attachment and match the pitch. If the pitch played with the F attachment is sharp or flat, pull out or push in the F attachment tuning slide.

Note: The F attachment when engaged lengthens the overall tubing of the instrument a perfect fourth, thus extending the low range downward as well as providing additional alternate slide positions.

Techniques for Adjusting Pitches While Playing
1. Slide Adjustment
2. Alternate Slide Positions
3. Lipping (Rare)

INHERENT INTONATION FLAWS* 

a) This note should not be played in first position because it is extremely flat; use third position.
b) These notes are normally played in sharp second and sharp third positions respectively. Don't be afraid to adjust the slide inward to play the notes in tune.
c) Most alternate slide positions have to be slightly adjusted inward or outward for good intonation.

Trombones equipped with an F attachment can play the following notes with the valve engaged:

* Arrows pointing up indicate that the notes tend to be sharp; arrows pointing down indicate that the notes tend to be flat.
Carefully follow the procedures outlined in the Tuning Guide for your instrument before beginning to chart your intonation with a friend. Your teacher should provide an Intonation Charting Guidesheet with instructions on how to use an electronic tuner. Mark intonation discrepancies for lower octave scales below the staff.