

Intonation and Resonance Fingerings for Wind Instruments

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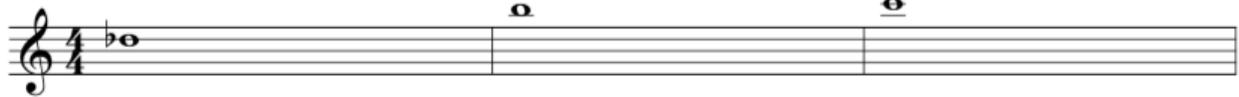
Piccolo

Helpful Fingerings

Helps resonance, and
brings pitch down a little

Pianissimo fingering for
B (note: no pinky)

Pianissimo fingering for C
(note: no pinky)



Pianissimo fingering for
C# - Db

STANDARD piccolo
fingering for Ab

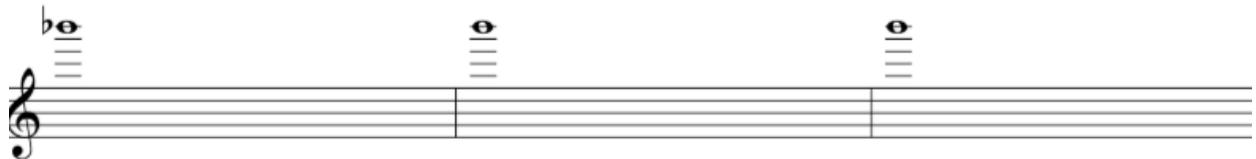
Standard fingering for Bb
(no pinky!)



Optional Bb fingering

Standard fingering for B

Optional fingering for B



Flute

Notes that tend to be flat, especially in diminuendo

Fingerings solutions to raise pitch

Note: solutions shown are not standard fingerings

(raise airstream--use corners of embouchure)

advanced: can vent r.h. 3 ring

advanced: can vent r.h. 2 ring

advanced: can vent r.h. 1 ring

advanced: can vent r.h. 3 ring

1. advanced: can vent r.h. 2 ring

2. *pp* fingering, won't drop to low octave:

1. advanced: can vent r.h. 1 ring
2. *pp* fingering, won't drop to low octave:



3. Same as above, but use 1st trill instead of 2nd--this will RAISE pitch a bit

(may be flat in softer dynamics)

(may be a little flat)

advanced: can vent l.h. 3 ring

1. Use 2nd trill instead of 1st:



2. Use both trill keys:



3. Another option:



Flute

Notes that tend to be sharp, especially in *ff*

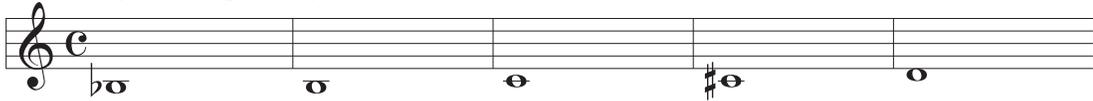
Fingerings solutions to lower pitch
Note: solutions shown are not standard fingerings

| | | |
|--|---|---|
| <p>(Upper octave more likely, not usually a big problem)</p> <p>Aim air down if sharp (use embouchure corners)</p> | <p>(Any combination of these four keys)</p> <p>(my favorite)</p> | |
| <p>Aim air down if sharp (use embouchure corners)</p> | <p>1. Good for tongued start (won't crack)</p> <p>2. Sensitive fingering: won't crack, but still sharp Excellent in slurred approach or pp: (with or without r.h. 4)</p> | |
| | <p>Aim air down if sharp (use embouchure corners)</p> | <p>Better response, not much change in pitch. This is the STANDARD way to play this note on Piccolo!</p> |
| <p>Usually NOT sharp. If so, aim air down.</p> | <p>not quite so sharp</p> | <p>1. Add low B (or gizmo)</p> <p>2. If no B foot, add low C</p> <p>3. Lowers pitch, REALLY fuzzy. Only use in ensemble.</p> <p>4. Sensitive fingering: Add r.h. ring 2 (middle finger)</p> |

Oboe Intonation

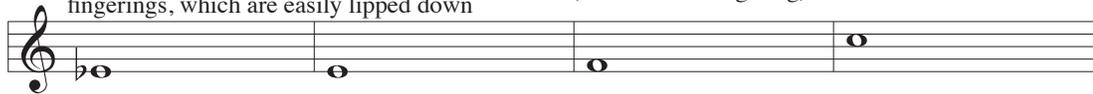
(oboes are usually able to lip up a little,
and lip down a little more)

Usually flat (especially in forte):

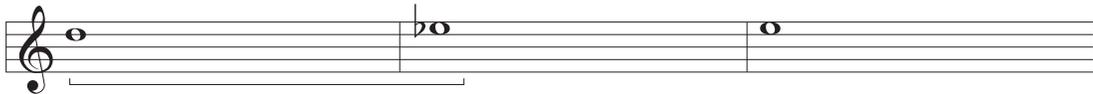


Usually sharp:

These two notes use "half hole" fingerings, which are easily lipped down (avoid "fork" fingering)



All notes above the staff need special attention.
Fortunately, they are easy to lip in tune.



There are multiple sites with fingering alterations online!

Bassoon Intonation: Problem notes

Usually flat:

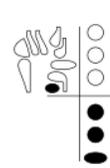
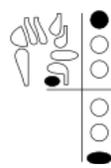
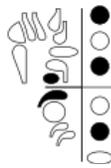


Alternate fingering:

For resonance and stability:

For resonance:

Can be used for stability:



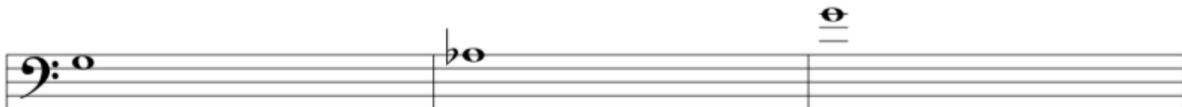
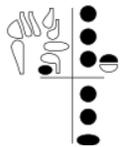
(All flat notes can usually be lipped up to a degree)

Usually sharp:



For resonance, and possibly, intonation:

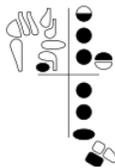
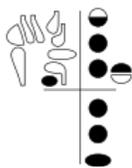
For resonance, and possibly, intonation:



For resonance, and possibly, intonation:

For resonance, and possibly, intonation:

a little



(All sharp notes can be lipped down until tone degrades.)

Clarinet Intonation

problems and some solutions

NOTES THAT TEND TO BE FLAT (can only be lipped up a little)

Can be flat in forte

Fingering diagrams for B1, Bb1, B2, and Bb2. The diagrams for B2 and Bb2 show the right hand pinky being used to adjust the pitch.

NOTES THAT TEND TO BE SHARP (can be lipped down some until tone degrades)

Usually sharp, especially in pianissimo:

affects tone a bit, but not as noticeable in pianissimo

"shade" by fingering close to open holes

improves tone and intonation

Fingering diagrams for B1, Bb1, and B2. The diagram for B1 shows a fingering that affects tone. The diagram for Bb1 shows a fingering that shades the note. The diagram for B2 shows a fingering that improves tone and intonation.

improves tone and intonation

improves tone and intonation

Do NOT use r. h. pinky on this note!
That vent is used on notes above this.

Fingering diagrams for B1, Bb1, and B2. The diagrams for B1 and Bb1 show fingerings that improve tone and intonation. The diagram for B2 shows a fingering that does not use the right hand pinky and is used for venting on notes above it.

ALTISSIMO CAN BE FLAT OR SHARP (OR IN TUNE!)

Sharp: If player pinches.

Flat: If embouchure/air is not developed, and in forte and when articulated heavily. These notes will often sound low if in unison with flutes or an octave above trumpets.

My favorite, and no one knows this one!
No pinky. (finger 6 is ring only)

This one articulates well, especially on Eb soprano clarinet.

Detailed description: This section shows a musical staff with four notes: a natural F, a sharp F, a flat F, and another natural F. Below the staff are four pairs of fingering charts. The first pair is for the natural F, the second for the sharp F, the third for the flat F, and the fourth for the second natural F. The text annotations provide specific performance tips for each note.

"Long" F:
especially nice in pp

Detailed description: This section shows a musical staff with two notes: a sharp F and a flat F. Below the staff are five pairs of fingering charts. The first pair is for the sharp F, and the next four pairs are for the flat F. The text annotation highlights the sharp F as a 'Long' F that is particularly good in piano (pp).

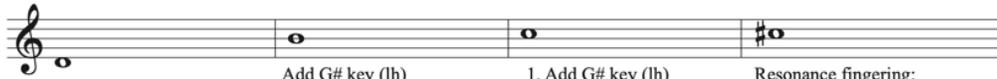
All of these are better in tune than the one usually shown in charts

An easy alternative to ones usually shown in charts

Detailed description: This section shows a musical staff with two notes: a sharp F and a flat F. Below the staff are four pairs of fingering charts. The first three pairs are for the sharp F, and the fourth pair is for the flat F. The text annotations compare these fingerings to standard ones, claiming they are better in tune or easier alternatives.

Saxophone Intonation: Problem Notes

Flat, especially in forte (lipping up is only slightly possible):



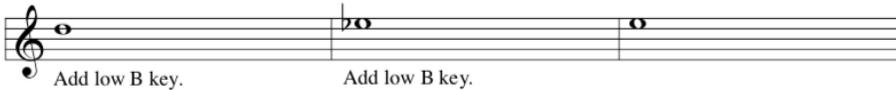
Add G# key (lh)
or Bb side key (rh)

1. Add G# key (lh)
or Bb side key (rh)
2. Use chro. fingering:

Resonance fingering:

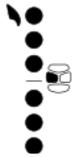


Usually sharp (all can be lipped down):



Add low B key.

Add low B key.



Trumpet Intonation

Usually flat:

5th partials, slightly flat.....

2-3 valve comb., lip up

Can use 6th partial alternates:
1-3 2-3 1-2

Can be lipped up-----

Usually sharp:

1-2-3 valve comb.
(usually not difficult to center)

1-3 valve comb.
(usually not difficult to center)

Learn KICK OUT 3rd valve slide as normal fingering
1-2-3 valve comb. 1-3 valve comb.

1. Lip down.
2. Kick 1st valve slide.
3. Use 3rd valve, kick 3rd slide.

6th partials--sharp.....

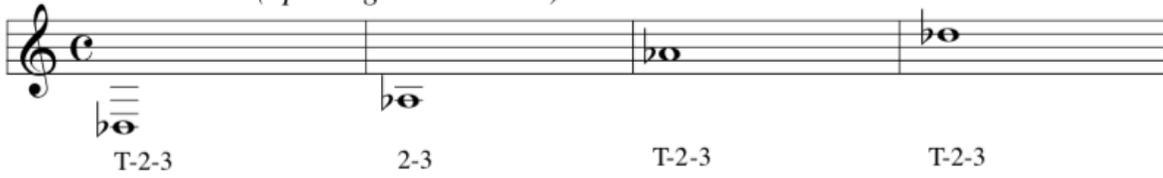
Kick 1st valve slide

Can use 7th partial 1-2
(or 3 alone)

Can be lipped down-----

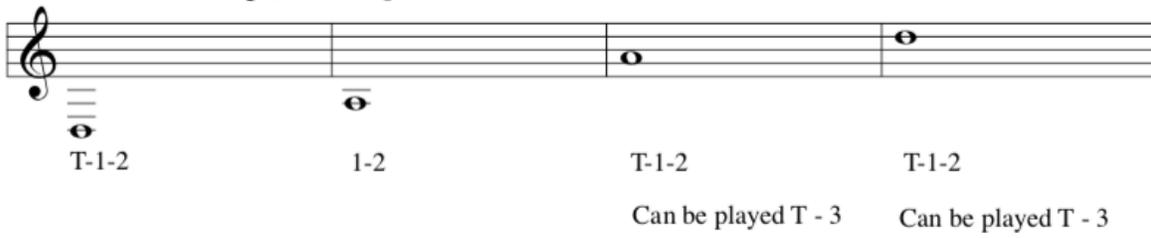
Horn Intonation

Could be flat (*open right hand a bit*):



Musical notation for flat intonation. The staff shows four measures. The first measure has a treble clef, a common time signature 'C', and a whole note on the second line (F4) with a flat sign and a slur above it. Below it is the fingering 'T-2-3'. The second measure has a whole note on the second line (F4) with a flat sign and a slur above it. Below it is the fingering '2-3'. The third measure has a whole note on the second space (G4) with a flat sign and a slur above it. Below it is the fingering 'T-2-3'. The fourth measure has a whole note on the second space (G4) with a flat sign and a slur above it. Below it is the fingering 'T-2-3'.

Could be sharp (*close right hand a bit*):



Musical notation for sharp intonation. The staff shows four measures. The first measure has a treble clef and a whole note on the second line (F4) with a slur above it. Below it is the fingering 'T-1-2'. The second measure has a whole note on the second line (F4) with a slur above it. Below it is the fingering '1-2'. The third measure has a whole note on the second space (G4) with a slur above it. Below it is the fingering 'T-1-2' and the text 'Can be played T - 3'. The fourth measure has a whole note on the second space (G4) with a slur above it. Below it is the fingering 'T-1-2' and the text 'Can be played T - 3'.

Trombone Intonation

5th pos.--often misplaced by young players

Detailed description: A single musical staff in bass clef with a common time signature. It contains three measures. The first measure has a whole note with a flat (Bb). The second measure has a whole note with a natural (B). The third measure has a whole note with a flat (Bb). A bracket spans all three measures.

2nd position, often played out too far

Detailed description: A single musical staff in bass clef. It contains two measures. The first measure has a whole note with a natural (B). The second measure has a whole note with a flat (Bb). A bracket spans both measures.

6th pos.--often misplaced by young players
Use T-1 (F attachment) Use T-1 plus a little (F attachment)

7th pos.--often misplaced by young players
Use T-2 (F attach.) Use T-2 plus a little (F attach.)

Detailed description: A single musical staff in bass clef divided into four measures. The first measure has a whole note with a flat (Bb). The second measure has a whole note with a natural (B). The third measure has a whole note with a flat (Bb). The fourth measure has a whole note with a natural (B). Brackets are placed above the first two measures and the last two measures.

5th partials (pull slide in)

Play in 4th pos. instead of 1st

Detailed description: A single musical staff in bass clef with a common time signature. It contains three measures. The first measure has a whole note with a flat (Bb). The second measure has a whole note with a flat (Bb). The third measure has a whole note with a natural (B). A bracket spans all three measures.

6th partials (push slide out)

Detailed description: A single musical staff in bass clef with a common time signature. It contains three measures. The first measure has a whole note with a flat (Bb). The second measure has a whole note with a natural (B). The third measure has a whole note with a flat (Bb). A bracket spans all three measures.

Euphonium Intonation

Usually flat:

5th partials, slightly flat.....

2-3 valve comb., lip up

Can use 4th valve

Can use 6th partial alternates:
2-3 1-2

(can be lipped up-----)

Usually sharp:

1-2-3 valve comb. on 3-valve
(usually not as bad as B & C)
(use 2-4 on 4-valve)
Lip up if no 4th valve

1-3 valve comb. on 3-valve
(usually not as bad as B & C)
(use 4 on 4-valve)
Lip up if no 4th valve

(1-2-3 valve comb.)
(use 2-4 on 4-valve)
Lip up if no 4th valve

1-3 valve comb.
(use 4 on 4-valve)
Lip up if no 4th valve

1. Lip down.
2. Use 3rd valve.
Lip up if no 4th valve

6th partials, slightly sharp.....

Can use 7th partial 1-2
(or 3 alone)

Lip down-----

Tuba Intonation

Usually flat:

5th partials, slightly flat.....

2-3 valve comb., lip up

(push 1st slide in)
Can use 4th valve

Can use 6th partial alternates:
2-3 1-2

Usually sharp:

1-2-3 valve comb.
(usually not as bad as B & C)
(use 2-4 on 4-valve)

1-3 valve comb.
(usually not as bad as B & C)
(use 4 on 4-valve)

(1-2-3 valve comb.)
(use 2-4 on 4-valve)

1-3 valve comb.
(use 4 on 4-valve)

1. Lip down.
2. Pull first valve slide.
3. Use 3rd valve.

6th partials, slightly sharp.....

(pull 1st slide)

Lip down-----

Can use 7th partial 1-2 (or 3 alone)

Good Tuning Notes

by Fred J. Allen

These aren't the only tuning notes players can use!
These are just suggestions for anyone searching for a starting place.

Flute (or) (check for flatness)

Oboe (or) for oboists who tend to pinch, this is good

Bassoon (or) (check for flatness)

Clarinet (tune barrel) (pull at middle joint) (check for flatness)

Saxophone (or) (check for flatness)

Trumpet young player older player puts it in context some do this

Horn tune Bb side first, tune main slide tune F side, tune F slide check Bb side again some do this

Trombone young player older player puts it in context to tune F attachment

Euphonium young player older player puts it in context some do this

Tuba young player older player puts it in context some do this