

## To Thumb B-Flat or Not to Thumb B-flat by Dr. Lisa Garner Santa

I remember one of my very first teachers declaring her quest to bring the Thumb B-Flat to her remote part of Texas. She certainly convinced me of the advantages of knowing how to use all three of the fingerings for B-flat and now, over a decade later, I have vowed to continue to disseminate this information. When I suggest to students that a passage may be easier for them if they use Thumb b-flat or lever instead of 1&1 B-flat, I often get the following responses:

“1&1 B-flat is easier for me.”

“I was taught the ‘real’ fingering for B-flat.”

“I use 1&1 B-flat to discipline my technique. It keeps me from going *too* fast.”

“What is Thumb B-flat?”

“I didn’t even know what the key was for.” (In reference to lever.)

There are actually three very “real” fingerings for B-flat. They are all acoustically equal (actually 1&1 B-flat, may be a tiny bit lower in pitch but almost humanly imperceptible) and they all have their place in flute technique. Think of it as a matter of flute efficiency. As flutist we tend to obsess about efficiency in areas of hand position... “keep those fingers close to the keys!”...breathing... “keep those shoulder’s relaxed”...and practicing... “slow practice = fast learning, fast practice = slow learning, no practice = no learning”...but I still run into students and professionals alike who haven’t discovered or experienced the advantages of utilizing all three fingerings for B-flat.

Take a moment to observe how the mechanism of the flute works. It’s actually quite simple and yet remarkable. If you finger middle *c#* and move slowly down the chromatic scale while watching the mechanism, you will notice that the tone holes or vents will close from top to bottom, one tone hole per half step. Try fingering G to F, a whole step, notice that two vents close. (Two half-steps = a whole step.) Well let’s look at moving between B-natural and B-flat. Finger B-natural and with your left hand and use your

right hand to move the Thumb B-flat key (located just to the left of your left thumb) up and down. Which vent closes when you do this? That's right, the one just below the lowest closed vent for the B-natural. This is what we call our "B-flat" key. If your repairman tells you that you have a leak in your B-flat, it would be in this key. There are actually three ways to get this vent to close. You've already tried one, the Thumb B-flat.

Now try fingering the B-natural with your left hand while moving the Lever key located on the back side of the rods, a very small key to the left of where your right hand index finger would be when fingering F-natural, not to be confused with the first and second trill keys which are even smaller. Which key moves? Right, the same key that moved when you pressed down the Thumb B-flat! These two fingerings are acoustically exactly the same.

Now try fingering B-natural and move your right hand index finger up and down on the F-key, the key you would press in the right hand to produce an F-natural, and the same finger and key you use when fingering 1&1 B-flat. Which key(s) move(s)? Right the same B-flat key we noticed with the Thumb and Lever fingerings as well as two additional keys, known as our F# and F keys. Because there are still many open vents, three to be exact, between our B-Flat key and the closed F# and F vents, the pitch of the B-flat is unnoticeably affected. But why do we need three fingerings that each produce an equally great sounding B-flat? Here's where the concept of technical efficiency comes into play.

As flutist we are required to perform with great technical facility, whether it's our solo repertoire, chamber music, orchestral repertoire, or symphonic wind ensemble repertoire. Composers know that we are the acrobats of the wind instruments and use our technical abilities to add virtuosic energy and sparkle to their compositions. Just like an olympic runner, not only must we train for proper form and endurance, but also for speed. Knowing how to apply the three different fingerings for B-flat greatly enhances our technical facility, allowing for cleaner as well as more fluid technique. If you follow the guidelines below, you will increase your technical efficiency. This is achieved by utilizing the minimal number of fingers and closing the minimal number of vents required for various technical combinations.

Use **Thumb B-flat** as your first choice for B-flat or A#. This is possible in any passage where B-flat and B-natural are not adjacent. This is particularly desirable in flat keys, with the exception of G-flat Major and E-flat minor

due to the adjacent B-flat and C-flat (enharmonically B-natural). Occasionally I will see students who are utilizing the Thumb B-flat but sliding off of the B-flat key for all other notes, such as D, E, F etc. This is not necessary. You can leave the Thumb B-flat key down on every note except for B-natural, of course, middle and upper register C and C#, where our left hand thumb is not employed anyway, and our third octave high F#. (Third octave fingerings require a combination of overblowing fundamentals and opening additional vents. For the high F# we overblow the low f# fundamental while opening the B-flat and A vents. Leaving the Thumb B-flat down on this note causes the B-flat vent to close and the pitch of the high F# to be extremely flat.)

Why is thumb B-flat superior to 1&1 B-flat in the instances noted above? Well, let's use going from A-natural to B-flat as an example. Try going from A to B-flat using the 1&1 fingering for B-flat. How many fingers are involved in this combination? Two. How many vents opening and/or closing are involved? Three. Try moving as quickly as possible between A and B-flat using the 1&1 B-flat. It's not too difficult, but chances are you are getting a bit of a "bloop" (a tiny b-natural) between the notes, especially as you increase your speed. Now let's try alternating between the A and B-flat using Thumb B-flat instead of 1&1 B-flat. How many fingers are involved in this combination? One. How many vents are opening and/or closing? One. Try moving as quickly as possible between and A and B-flat using the Thumb B-flat, now. You can move much more quickly between these notes now, and guess what?! There is absolutely no chance for bloops!

So, in regard to the flutist who responds, "1&1 B-flat is easier for me," it is only because they haven't taken the time to learn an additional fingering. It is easier for them because it is what they know. It's like a secretary who is hesitant to trade her typewriter for a computer. Initially, the computer may take a little more time, but once he/she understands how to utilize it, his/her work will be done much more efficiently.

In regard to the flutist who responds, "I use 1&1 B-flat to keep from going *too* fast," compare the effort required when using the Thumb B-flat to the effort required in a E-F finger combination. This easy finger combination can easily be rushed but the discipline in technique must come from utilizing our ears and our minds, not through choosing an inefficient fingering to slow us down. Can you imagine how uneven a C major scale could be!

Well, if Thumb B-flat is so great why don't we use it all of the time? While Thumb B-flat is superior in passages that don't have an adjacent B-natural and B-flat, it is not the most efficient fingering for passages that do. Take the chromatic scale as an example. It would be possible to slide successfully from Thumb B-flat to B-natural at a slow tempo. One finger is employed in this combination and only one vent opens and/or closes. Now try sliding as quickly as possible between B-natural and Thumb B-flat. It is sure to feel a bit labored and sound a bit uneven. Compare that to fingering B-natural in combination with the Lever B-flat. One finger is employed in the combination and only one vent is opening and/or closing. However, the speed and evenness of technique with this combination greatly outperform sliding.

**Lever B-flat** should be used in passages that contain an adjacent B-flat and B-natural (or their enharmonic equivalents) and when the note preceding or following the B-flat, depending on order of the notes, *does not* employ the right hand index finger. This finger must be free in order to get to the lever in the case of a B-flat to B-natural passage, and must not be required to slide off of the lever in the case of a B-natural to B-flat passage. For example, a passage containing G-B-flat-B-natural (or the reverse) works best utilizing the lever B-flat. A passage containing F-B-flat-B-natural, is not well suited to Lever B-flat because it requires the flutist to slide between the F key and the lever key. This is an example better suited to the final fingering for B-flat, 1&1.

**1&1 B-flat** should be used in passages that contain an adjacent B-Flat and B-natural (or their enharmonic equivalents) and when the note preceding or following the B-flat, depending on the order of the notes, *does* employ the right hand index finger. Examples include combinations such as F-B-flat-B-natural as listed above, D#-A#-B, and B-natural-B-flat-D.

### **Summary of the uses of the 3 B-flats**

1. Use **Thumb B-flat** as your first choice for B-flat or A#. This is possible in any passage where B-flat and B-natural are not adjacent.
2. **Lever B-flat** should be used in passages that contain an adjacent B-flat and B-natural (or their enharmonic equivalents) and when the note preceding or following the B-flat, depending on order of the notes, *does not* employ the right hand index finger.

3. **1&1 B-flat** should be used in passages that contain an adjacent B-Flat and B-natural (or their enharmonic equivalents) and when the note preceding or following the B-flat, depending on the order of the notes, *does* employ the right hand index finger.

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