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Assembly and dis-assembly of the Bassoon (Jun 2022)

The correct assembly and dis-assembly of the Bassoon is the most important measure the player can take to protect the instrument. When assembling and dis-assembling the instrument it is important to keep contact with the keys to a minimum because they are easily bent. Ensure the tenons are greased with cork grease before assembly, not only does this make the assembly easier, it also helps make the joints air-tight (because over time the tenons tend to distort from a circle shape to an oval shape).

Assembly of the bell and long-joint

Before deciding which is the safest (and easiest) way for you to assemble this part of the Bassoon you must examine the correspondence between the Bb key on the bell and the bridge key on the long-joint. Refer to photos A and B. If the bridge keys have been manufactured properly, and the Bell Bb key has a heel cork (1), then when long-joint tenon is twisted into bell socket, the bridge key (2) should slide underneath the bell Bb key (3) without damaging the regulation cork (4).

PHOTO A

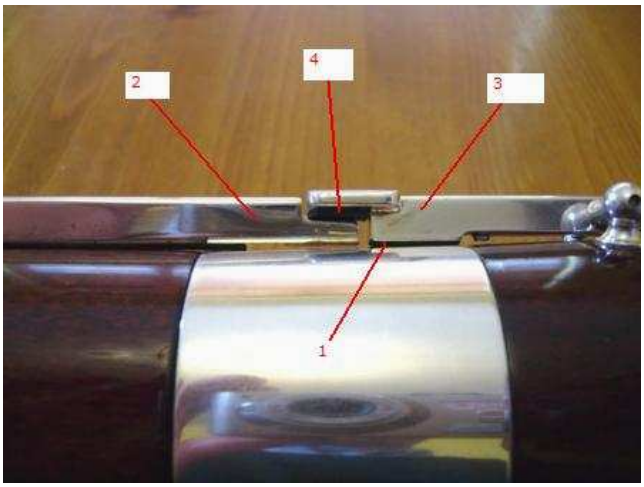


PHOTO B

Photo A) The long-joint bridge key locates under the bell Bb key.

Photo B) The bridge keys are aligned: notice that the 'spine' of the long-joint bridge key (1) is in alignment with the 'spine' of the bell Bb key (2).

If the keys *do* correspond correctly as described above then use method 1 (below) to assemble the two joints (this method avoids any pressure being placed on the mechanism at all). If the keys *do not* correspond as described (and therefore the lower bridge key will scrape off the regulation cork rather than slide under it) then use method 2 as described below.

Method 1

1. Grip the bell in your left hand without touching the Bb key.

2. Grip the long-joint with your right hand in the area of the joint locking pin avoiding touching any key work.

3. Work the two joints together with a twisting motion.

Method 2

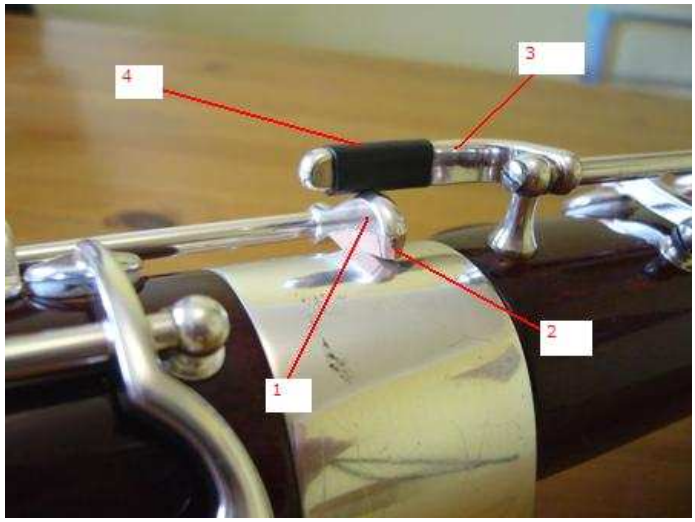
1. Grip the bell in your left hand with your fingers holding the Bb key closed.

2. Grip the long-joint with your right hand with your palm resting on the D key guard and your fingers arching over the D key to rest on the wood.

3. Work the two joints together with a twisting motion.

Assembly of the wing-joint and the boot-joint

Unless either or both of the bridge keys on the wing-joint and the boot-joint are damaged they should correspond properly (if the corks or plastic sleeving have fallen off the keys will still correspond but the instrument will not play properly). Refer to the photo below: (1) boot-joint bridge key, (2) bridge key cork, (3) wing-joint bridge key, (4) bridge key sleeve.



1. Grip the wing-joint in your left hand with your palm resting in the concave area of the wing and your 2nd and 3rd fingers arching over the finger II trill key to rest on the front of the joint.

2. Grip the boot-joint in your right hand with your thumb and fingers gripping the metal sleeve at the top of the joint and arching over the bridge key (the E pancake key).

Gripping the wing-joint.

Gripping the boot-joint.

3. Whilst resting the boot-joint on a steady surface, work the wing-joint tenon into the boot-joint socket - align the concave side of the wing-joint so that it follows the curve of the socket for the long-joint.

Assembly of the long-joint and the boot-joint

1.

2.

3.

1. Rest the assembled boot-joint and wing-joint on a steady surface holding it vertical with the thumb and fingers of your right hand with your thumb and fingers gripping the metal sleeve at the top of the joint and arching over the bridge key (the E pancake key).

2. Grip the assembled bell and long-joint with your left hand on the metal sleeve of the bell.

3. Push the long-joint down into the bottom-joint until it is fully home and the joint locking pin can be closed (you may need to slightly twist the long joint into position for the joint locking pin to locate properly).

4. Now fit the hand-rest to the boot-joint and attach the sling.

Warming up the instrument

It is impossible to warm up a Bassoon in the same way as other woodwind instruments can be warmed up; instead just warm up the crook – hold it in your hands for a couple of minutes until it is warm, *do not warm the crook by blowing into it* – this will just cause condensation problems as well as initially distorting the tuning.

Inserting the crook into the wing joint

The crook (bocal) is very easily bent so take care how you grip the crook at this stage.

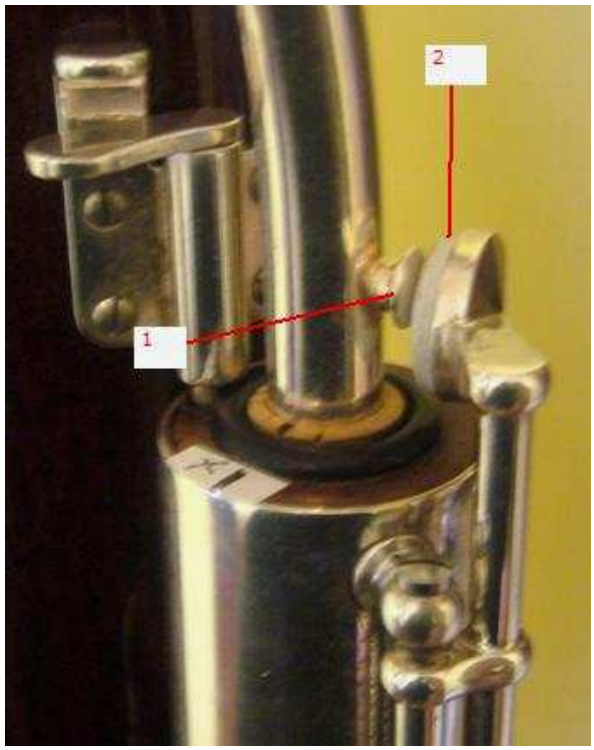
1. Grip the crook at the top of the U-bend with your thumb close to the Octave bush.

2. Grip the assembled instrument with your left hand on the metal sleeve of the bell.

3. Work the crook into the wing-joint socket with a twisting motion until it is fully inserted and align it so that when the crook key is operated the whisper pad covers the hole in the Octave bush.

Octave bush (1) uncovered by pad (2)

Octave bush (1) covered by pad (2)



4. Fit the hand-rest, sling, and finally the reed.

Dis-assembly

When taking the instrument apart keep it upright to prevent water running into the pads. Never lay the assembled instrument down or across your lap - even when resting during a performance.

Reverse the assembly procedure, as follows:

1. Remove the sling, hand-rest, reed, and crook - leave the instrument standing upright.

2. Swab out the crook with a commercial brush cleaner or swab; use a nylon fibre (from a broom) to clean the Octave hole in the crook (never use a pin or needle).

3. Remove the long-joint and the bell in one piece (gripping the metal sleeve of the bell) and lay them to one side because they do not need to be swabbed out, instead concentrate on keeping the wing-joint and the bottom-joint upright.

4. Separate the wing-joint and the boot-joint and you can now lay the wing-joint on a flat surface resting on its concave side but still keep the boot-joint upright.

5. The boot-joint always has the narrow bore lined and sometimes both bores are lined. After playing, it is important to tip out any water that has gathered in the 'U tube' at the bottom of the joint. If only the narrow bore is lined, then slowly turn the joint upside down and tip the water out holding the joint so that the water runs along the side of lined bore (avoiding the tone-holes). Now use Bassoon swabbing rods (mops) to mop out each bore of the boot-joint.

If both bores are lined it is better to tip the water out along the wider bore (again along the side avoiding the tone-holes). Place the joint in the case once it has been swabbed out.

7. Now return to the wing-joint and swab it out with an appropriate cloth pulled down from the socket to the tenon and place it in the case.

8. Now return to the assembled long-joint and bell and take them apart and pack them away in the case.

Provided the Bassoon is correctly assembled and disassembled, it is best to pack the instrument away after each playing session rather than leave it propped in a corner, this is for two reasons:

- Firstly, unlike other woodwinds, a Bassoon cannot be left to 'air' – it will not drain properly - it is necessary to get rid of the water that has collected in the bore, particularly in the 'U tube' at the bottom of the boot-joint (under the metal cap).

- Secondly, again unlike other woodwind instruments (except student Recorders), Bassoons are made from Maple. Maple is a relatively soft wood that distorts easily; this distortion occurs mainly at the tenon/socket joints– it is therefore more important that the corks on the tenons retain their 'springiness' to help form an airtight seal. If the Bassoon is left assembled then the corks loose their springiness.

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