

TROMBONE

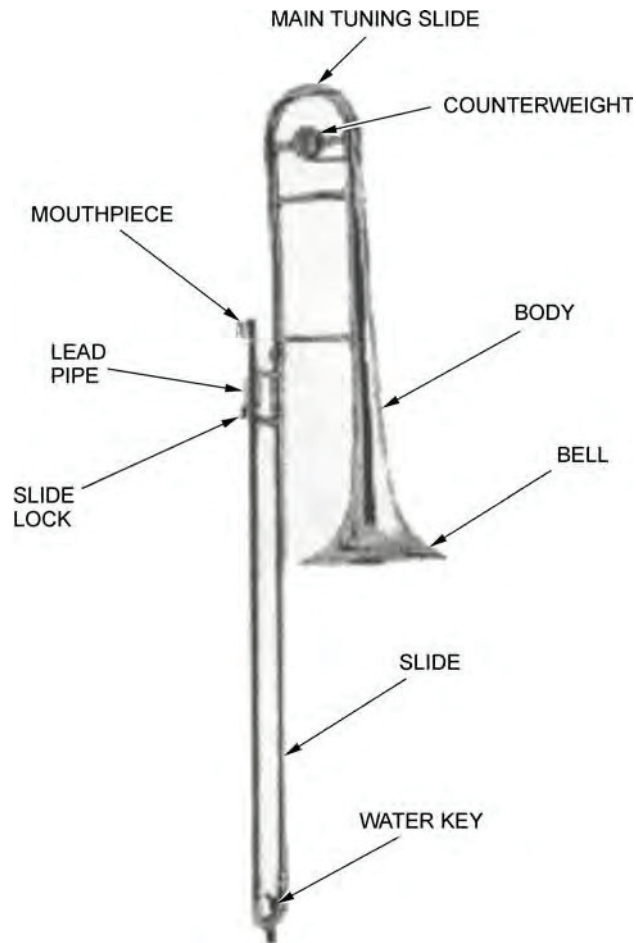


Figure 17 The Parts of the Trombone

Note. Created by Director Cadets 3, 2004, Ottawa, ON: Department of National Defence.

Assembly

To assemble the trombone, use the following steps:

1. Set the instrument case on a flat and stable surface. Make sure the case is facing up. The case latches are the best indication to verify this. Open the case.
2. Hold the bell in the left hand and the slide in the right hand.
3. Gently push the bell and the slide together.
4. Twist the slide so it forms a 90-degree angle to the bell.
5. Tighten the bell lock to secure the two sections together.
6. Gently place the mouthpiece into the receiver and twist it gently to seat it.



It is important to avoid hitting the slide with the bell. Even a small dent on the slide could hinder its movement.



It is important to avoid hitting the mouthpiece, even lightly, after it is seated in the receiver as this will likely get the mouthpiece stuck. Do not try to remove a stuck mouthpiece; ask for help from an instructor, as they have tools to do this.

Disassembly

The disassembly process is the reverse of the assembly process.

Storage

Most trombones cases are designed to fit only the instrument, its mouthpiece and maintenance supplies. Storing anything else in the case may cause damage to the instrument.

Maintenance

TYPES OF OIL AND CREAMS

There are a number of different types of lubricants used to maintain a brass instrument. Each type is used on a different part of the instrument. While they all serve the same general purpose, they should not be mixed or used on the wrong part as it may hinder the movement of the part.

Valve oil. A light, often clear, mineral oil used to lubricate piston valves such as those found on the trumpet, the euphonium, and most tubas.

Rotary valve oil. A light, often clear, mineral oil used to lubricate rotary valves. It is thicker than valve oil. It is used to lubricate rotary valves on the French horn, trombones with the F attachment, and certain tubas.

Slide cream. Slide cream is used on the inner slide of trombones. Slide cream is a white, fairly thick cream, similar to cold cream. If the slide cream starts to separate and there seems to be a liquid in the container, it is time to replace it as it will not perform to the required standard.

Slide oil. Another type of lubricant for trombones is slide oil. This is a clear mineral oil used on the inner slide. Slide oil can be found in one step and two step processes. It is a matter of preference as to which one to use, however the two-step process often lasts for a longer period before requiring reapplication.



Never mix slide cream with slide oil as it may hinder the movement of the slide.

Slide grease. Slide grease is a thick grease used to lubricate the tuning slide on brass instruments. It is often an amber colour and has the consistency of petroleum jelly.

REMOVAL OF ROTARY VALVES



Some tenor trombones and all bass trombones will have one or two rotary valves often referred to as a trigger.



Rotary valves should only be removed by a qualified repair technician. In order to lubricate the rotary valve, the valve slides will need to be removed; this will be done one at a time when oiling the rotary valve.

Rotary valves should not be removed by cadets. They may check the strings on the rotary valve and look for wear. If there is wear, have a repair technician or instructor replace the string.

Unscrew the back of the rotary valve to expose the inside rotor action. Also, remove the tuning slide for each valve.

LUBRICATION OF SLIDE

To lubricate the inner slide:

1. Wipe the inner slide clean with a clean cloth.



When wiping the inner slide, one hand should be holding the slide by the support brace on the same side that you are wiping. By doing this you reduce the chance of bending the slide.

2. Apply a small amount of slide cream or slide oil to the inner slides.
3. Spread evenly until the inner slide is coated with a thin film. (The slide cream or slide oil is not required to cover the whole slide.)
4. Using a water spray bottle, spray a small amount of water evenly over the inner slides.



Since the inner slide has the slide cream or slide oil on it, the water will form beads of water acting like little ball bearings, allowing smooth movement of the slide.

5. Replace the outer slide and move it back and forth.
6. Replace the tuning slide and move it back and forth.
7. Water should also be applied between lubrications to assist with the slide movement.

LUBRICATION OF TUNING SLIDE

It is very important to keep the tuning slides well lubricated. The tuning slides need to move with ease. The tuning slide grease also helps maintain a proper air seal around the slide.

To apply slide grease:

1. Remove the slide from the instrument.
2. Wipe the slide clean.
3. Apply the tuning slide grease completely around the slide, about 2 cm from the end.
4. Replace the tuning slide.



When tuning slides are removed, remember to press the valve for that slide (if applicable) before removing and replacing the valve.

CLEANING THE EXTERIOR OF A BRASS INSTRUMENT

The exterior of brass instruments should be cleaned every day before storage to remove dust and fingerprints from the instrument. Fingerprints have an acid base that can damage the finish.

To clean the exterior of brass instruments, use a polishing cloth to remove the dust and fingerprints. If there is dirt or residue, lukewarm soapy water and a clean soft cloth can be used to wipe down the instrument. Use a clean soft cloth to dry the instrument. Use the polishing cloth once the instrument is dry.



Grease and oil from your hands can be corrosive to the lacquer on an instrument. It is important to ensure the instrument is cleaned to maintain the polish and shine.