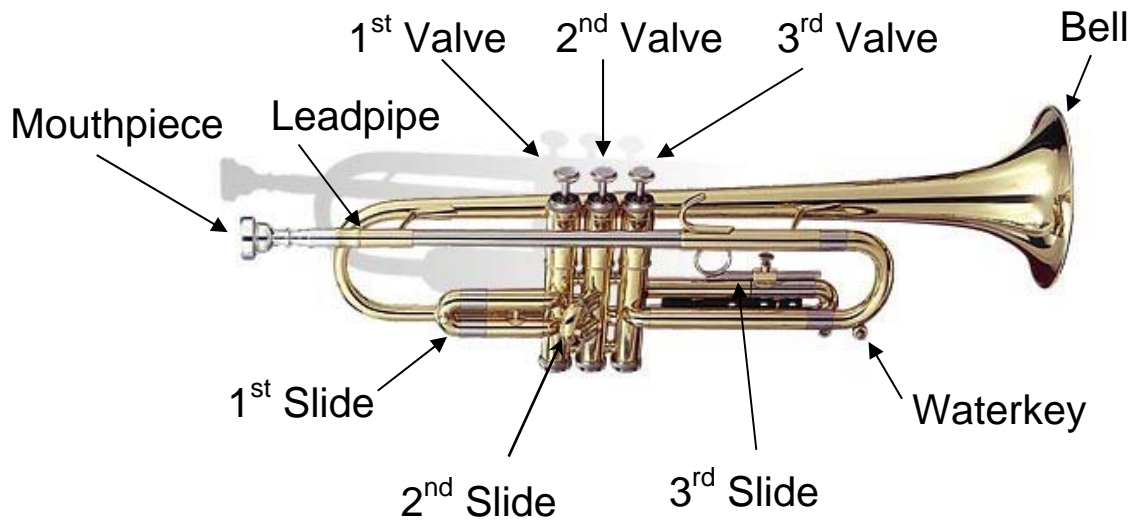


# Trumpet Care

## Parts of the Trumpet



Getzen 390 Trumpet

<http://www.getzen.com/trumpet/300-400/390.shtml>

# Regular Maintenance

**There are only 2 things you regularly have to do to your trumpet:**

1. Oil the valves
2. Grease the slides

**There are only 2 things you need for regular maintenance:**

1. Valve oil
2. Slide Grease

## Valve oil

Valve oil has three purposes: it cleans, lubricates, and it fills air space.



An un-oiled piston will wear faster than a regularly oiled piston. Oil also flushes out any small debris and dirt that gets in between the valve and valve casing. A layer of oil will also fill the small gap between the valve and the casing, reducing any air leakage, making your trumpet more efficient.

## Slide Grease

Slide grease has two purposes: it lubricates, and it fills air space.



## OILING THE VALVES

- do this about 2 times a week.



1. Hold your trumpet exactly like you would when you play it but hold it at a 45 degree angle downward.
2. Unscrew the valves top cap and lift the valve only half way out of the casing. Do not remove it completely.
3. Put about 5 drops of valve oil on the valve surface.
4. Spread the oil around by pushing the valve up and down in the casing.
5. Let the valve fall into the casing all the way down.
6. Turn the valve until you hear a click, indicating that the valve guide has fallen in the right space. This aligns the valve with all the ports.

You can easily tell if the valves are misaligned by blowing into the trumpet while cycling the valve. If you cannot easily blow through the instrument the valve is not properly aligned and the air passage is blocked.

The valve guide is a small plastic piece located under the valve spring. This valve guide must snap into a little notch inside the casing. When it does, the valve will be perfectly aligned. You will know when the valve guide is in the right place because you will feel and hear a click and the valve will not rotate any longer.

Some trumpets do not click and you need to ensure the valves are properly aligned, the valves are numbered and the number should be on the right side.

7. Screw the valve top cap back on.

If you remove the valves, ensure that you put them back in the proper order. If you do not the valve will be blocked and you will not be able to play the trumpet. The valves are numbered, #1 is the valve closest to the mouthpiece.

# GREASING THE SLIDES

Why do you have to grease the slides you ask?

If you do not lubricate the slides the mineral deposits from your saliva will literally weld the tubes together and you are looking at an expensive repair to mobilize them again. This is how you get "stuck slides". Your trumpet dries out and all that remains are the deposits. You will not be able to remove these deposits with any soap or water or any cleaning kit. It must be removed at a professional repair shop.

To avoid all this hassle and expense, all you have to do is grease the slides.

In case you forget to grease the slides and you feel that you are handy and will not have trouble pulling out the stuck slides with some tools from the garage, you will be in for an unpleasant surprise. You will tear your trumpet apart. There is a chance that you will rip apart the solder joints. Yes the trumpet is held together by solder joints. If you grease your slides regularly they will never get stuck.

If you forget and your slides get stuck, take your trumpet to a trusted repair depot and the repair tech should be able to remove the slides without any damage. In the worse case scenario some slides get stuck so bad that the slides themselves have to be unsoldered while in the trumpet and after the curved crook of the slide has been removed the individual pieces of slide tubing have to be removed independently piece by piece.

So, the moral of the story is **DON'T FORGET TO GREASE YOUR SLIDES.**

**How to grease your slides** - do this about once a month.

First you must know that there are two types of slides on your trumpet. There are "slow slides" and "fast slides". Slow slides are designed to move slowly and placed in one position like your main tuning slide. Fast slides are designed as fine tuning slides and are designed to move fast to fine tune your trumpet while playing. You activate them with your finger so they must be free to move easily and quickly while you play sweet music. Therefore you grease anything that is meant to move slowly and oil anything that is meant to move fast. If you grease anything that is meant to move fast, you will slow it down. Grease is thick like molasses and slows everything down. Valve oil is very thin and has the consistency of water; therefore it makes everything move fast.

## Greasing "slow slides"

Remember these are "slow slides", so you must grease them, not oil them. Take the slides out every month and put a thin coat of grease on the tubes and slide them back in place. You can buy tuning slide grease at most music stores for just a few dollars



## Here is how you grease your slides

Remember you do this to all the slides with the exception (on some trumpets) of maybe the 1st and 3rd valve slides, which are designed to be fast moving, so you put oil on them. Remember?

1. Remove the slide
2. Apply a layer grease on the male side of the slide.
3. Spread it around with your fingers. (Yes your fingers will get all greasy.)
4. Replace the slide tube.

With your fingers wipe off any excess grease that squeezes out after you insert the slide. Use this excess to put on the next slide.

Do the same thing with the next slide.

## Oiling "fast slides" - do this about 2 times a week.

These are usually the 1st and/or 3rd valve slides. On many trumpets the 1st and 3rd valve slides are designed to be a fast moving, fine tuning slide. This is why you have a finger ring on it, so that you can move it while playing with your finger. Put a drop of oil on each slide tube of the 1st and 3rd slides every time you oil the valves. Always press down on the corresponding valve to move the slide and when spreading the oil around since there may be a vacuum inside the trumpet.

NOTE: If you are a beginner or have only played for a few years, chances are you will not be using your 1st and 3rd fast moving, fine-tuning slides. Therefore, it is a good idea if you grease them and just make them into slow slides, since you are not using their fast slide capabilities anyway. The choice is yours for what you want to do. Sometimes it is just easier to grease every slide the same way.

## **Amado Waterkey Maintenance** - do this about once a month.

These days many trumpets have Amado waterkeys instead of the traditional "spit valves". Amado waterkeys are actually small valves that open and close if pressed on. The tolerances are quite tight and there is a tiny spring inside of them. So, needless to say, don't take them apart because you will never find the small parts and even if you do, you will never be able to put them all back. Mineral deposits from saliva, just like on any other internal part of your trumpet will jam or freeze the Amado waterkeys. This is why Amado waterkeys should never be allowed to dry out. They should always be oiled. **DO NOT USE VALVE OIL.** It must be thicker oil, so use woodwind key oil.

Just put a drop of oil in the actual waterkey hole and around the small waterkey button. Put another drop on the other side of the Amado waterkey as well. A total of 3 drops of oil once a month will do the trick and you will never curse Mr. Amado for his invention. After oiling each Amado waterkey in these three places, work in the oil by pressing the button a number of times.

## **Mouthpiece Maintenance** - do this about once a month.

To keep the mouthpiece polished and clean, rinse the mouthpiece out in warm water. Use a mouthpiece brush to clean the inside. Use a soft cloth to dry and polish the mouthpiece. If corrosion has built up on the shank, use #0000 fine steel wool to polish only the shank (not the cup or the rim). You can also apply a VERY light layer of slide grease to the mouthpiece shank; you should not see any grease on the shank after it is applied. This is optional, but recommended if your mouthpiece is consistently getting stuck.

The mouthpiece is inserted by "screwing" it into place ¼ turn and removed by "unscrewing" it. It will not fall out. Never pop the mouthpiece in place, it can become stuck and you will need to take it to a repair shop for removal.

Never try to remove your mouthpiece if it gets stuck. Take it to a repair shop that has a special tool for this purpose. Using pliers or vise grips will scar the instrument and mouthpiece and you can break the solder joints making a minor fix into a major repair.

## **Last but not least: VERY IMPORTANT:**

Be sure to always put your mouthpiece in its proper spot in the case and never in with your trumpet. It will smash up your instrument if it bounces around in the case.

Never stand your trumpet up on its bell. It will fall over and get damaged. When you are not playing the trumpet, put it in the case or on a trumpet stand made for this purpose.

**Repairs** – Never let anyone repair your trumpet who is not a professional wind instrument repair technician.

# MAINTENANCE

## Cleaning your trumpet - do this about once a year.

The frequency of cleaning depends on how you use your trumpet. If you eat candy or chew gum then play your trumpet without brushing, then you may need to clean every week or month.

To clean your trumpet there are two options 1) Use a cleaning kit 2) take the instrument to a repair shop to be cleaned.

Brass musical instruments are continually subjected to the aerosols in the musician's breath. Over time this debris will build up inside the instrument until its performance is degraded. Valve action in particular is drastically effected when those aerosols attach themselves to the piston and valve casing. Human saliva is also damaging to these instruments. The salts and enzymes present in saliva promote Monel valve staining, attack internal solder joints, and cause dezincification (red rot) in the crooks of the slides. On the outside of the instruments, sweat from the hands also causes dezincification. The following method of maintenance will ensure that the instrument can perform at its utmost. Although there are many techniques in use, this method is based on soapy water, a little effort, and a lot of common sense.

## Cleaning Equipment



**Snake**



**Valve Brush**



**Mouthpiece Brush**



**Soap**

To clean inside the instrument you should use a quality snake which has a protective coating covering its length. The snakes' bristles should be moderately stiff, but the ends should not have exposed metal tips. Wire brushes may get the task done quickly, but the added risk of scratching the instrument does not justify their use. The concern is that their routine use might scratch the instrument's interior enough to provide a better surface for mold to anchor between washings. Moreover, a weakened wall on an old instrument can be easily perforated. **DO NOT USE** scouring pads, metal brushes or any abrasives

We therefore prefer to rely on the proven power of soapy water to loosen the debris followed by a thorough, but gentle, brushing to remove the debris.

To clean the valve casings you should use a valve casing brush that is soft enough to avoid marring the casing wall. The mouthpiece is cleaned with a mouthpiece brush, but cotton or foam swab works well inside the cup.

As for the soap, Lemon Joy works best, but Palmolive liquid dish soap can also be used. Or you can buy Dr. Dan's Horn Soap.

DO NOT use toothpaste, abrasive soaps, Brasso, Tarnex, chemicals or any soap that makes the water turn milky. Do not use soaps that leave behind an odor, or claim to contain a skin softening lotion. Cleaners such as Fantastic, Pinesol, Mr. Clean and Citrus cleaners are powerful cleaners, but they contain solvents that might soften and bluish some lacquer finishes. Some are also alkaline enough to increase any red rot already forming on the instrument

## **Procedure**

Begin by removing all of the slides. Use soft paper toweling to remove all traces of tuning slide grease from the slides and the instrument. A little grease goes a long way in slowing down your valves, and this step will keep grease from transferring to the valves and casing during cleaning. Silicone based slide grease is uniquely tough to remove. If you have silicone based slide grease on your slides, remove it with a paper towel saturated in mineral spirits. Place the slides somewhere safe until the soapy water is ready.

The valves are also best cleaned separately. First, soak them in individual plastic cups containing enough lukewarm soapy water to just cover the top of the piston, but not the felts. Use your snake to gently clean the ports of each piston, and a soft soapy wash cloth to clean the outside of each piston. Again, let the soaking do most of the cleaning.

The most effective technique for cleaning the rest of the instrument is to work in a bathtub or large basin. Obviously do not use an automatic dishwasher; it will not clean the instrument interior and it will permanently damage your instrument. Fill the tub with lukewarm water (not hot) and mix in a healthy amount (about a tablespoon) of the liquid dish soap.

Place a large cloth towel in the bottom of your tub or basin to help prevent scratching the instrument during cleaning. Put the disassembled instrument, slides and mouthpiece (but not the valves) onto the towel in the bathtub and let the parts soak for about 30 minutes to loosen any debris. Use a soft cloth to wash the external parts of the instrument. Dip the snake's brush in some dish soap and gently run the snake inside every tube and slide. Do not try to force the snake all the way around the curves of the small slides.

Remove the valve caps on the bottom of the valve casing. Use your soft valve casing brush to GENTLY brush out the valve casing. Remember, this is a delicate part of your instrument, so be gentle. Use the same technique with the mouthpiece, but use a mouthpiece brush. If the instrument is exceptionally dirty, let it soak longer. Again, do not use abrasives, scouring pads or metal brushes; the soapy water will work if you are patient.



After you are satisfied that everything is clean, rinse all the parts well with lukewarm water until every trace of soap is gone. To prevent spotting, the outside of the instrument can be wiped dry. The external finish will scratch easily, so use the softest cloth you can find. A very worn, but clean, cotton Tee-shirt or old cotton pajamas work well for this. Blow out any water hanging up in the tubing, use a brass saver to thoroughly dry the inside of the instrument.



It is very important that the pistons, the valve casings, and the ends of the slides are dry before you begin to reassemble the instrument. Oil and grease work far better and last longer if applied to dry surfaces. Remember oil and water does not mix.

Begin reassembling your instrument by rubbing a thin bead of slide grease on the tips of the male ends of each tuning slide. By applying grease in this way any excess grease will be pushed out of the instrument instead of into the instrument where it can eventually effect valve action. Use valve oil on the trigger slides, and a slide grease on the main tuning slide. Be sure to wipe any excess grease off the exterior surfaces of the instrument.

After all of the slides have been assembled, the valves need to be properly prepared. It is absolutely necessary to liberally coat BOTH the valve and the valve casing surfaces with valve oil (five drops on each valve and five drops on each casing) so that excess oil will transfer to the internal solder joints. Use your fingers to forcefully rub the oil onto the entire piston surface. This rubbing action guarantees complete coverage of the valve, and helps protect Monel valves against spotting. Some musicians blow oil through the instrument. This is a good idea to protect the instrument interior, but does not replace proper oiling of the piston and valve casing as we described.

Proper care and handling of your instrument will ensure it will last a long time.