

Keeping Instruments in the Hands of Students and Out of the Shop

- **Preventative Measures**
 - **Positive Habits**
 - **Teaching Strategies**
 - **Trouble Shooting**
- **Longer Band Instrument Life**

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Participant Package

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Getting Prepared – Being preventative from the very first day.

Just in Case... Notes to present to students

The instrument is kept in the case, except for when it is in use. The case is specially designed to protect this precision-built, fragile piece of equipment. Leaving an instrument unattended and out of its case is taking an unnecessary risk.

Have safe places at school and at home to store your case.

The first part of setting up for a playing session at school or at home is to get all equipment and supplies to the correct place (Chair, stand, music materials, instrument case, etc.). Once everything has been gathered and moving about is no longer necessary, start assembling the instrument.

When Band class is over, get your instrument safely back into the case before moving about to do other clean-up tasks. Explain how cleaning up at the end of a session is the opposite order as getting ready.

Case Jobs – I suggest having Beginning students complete these one-time tasks before the instrument comes to school for the first time:

- Label the case with name, phone number, school and other contact information.
- Put a pencil in the case pocket.

Case Habits of Effective Musicians

Lid Up. Always check that the lid is up before opening the case.

Just the Right Stuff. Store only your instrument pieces and accessories that will fit into the extra pocket area in the case.

Lid, snap, snap. Always secure the latches when closing the case lid. I introduce this to my beginners as a single action.

Lid toward you. No matter which hand you use to carry the case, the lid should always be facing toward you.

Tip: If your Beginning Band students bring their instruments to your room, regularly check for this habit by meeting your students at the door. Greet each student with either “remembered, go in” or “forgot, back of the line, please”. If a student who was sent to the back of the line comes up a second time with the lid still the wrong way, turn the case around in their hand and welcome them in!

Inspect. Regularly check case latches and hinges.

Clean Sweep! Use a vacuum cleaner to remove debris from the case lining.

Tip: Include Case Habits on your first theory quiz. The question I use is “Describe two case habits to keep you instrument safe”. Remove the poster for the quiz period. When the quizzes have been marked and handed back, have students share their written responses to the question. After the first volunteer has shared, ask “Has anyone written something different from these points that I also marked correct?” Did the class cover all the Case Habits in their responses? Yes or no, debriefing the quiz is a great way to reinforce these fundamentals of instrument care.

Keeping Instruments Out of the Shop – At least a bit longer

Royal Flush... No sticky stuff allowed. No gum chewing in Band class, not just because it’s the teacher’s rule. Food sugars inside a brass instrument results in poor performance and stuck slides. Woodwinds end up with sticking key pads and shortened pad life.

The best defence against these instrument problems is a clean mouth. Do a mouth rinse at the water fountain between a snack and a playing session. The mouth rinse habit should be encouraged at school and at home, as most foods contain sugars of some type that can cause pad and slide trouble.

Assembly and Handling Tips:

All instruments – Handle all pieces by their main structure, and never by a single key. Cork joints should be greased as necessary to avoid having to force a joint together. Occasionally clean cork surfaces and sockets of old grease (a lint-free paper towel or rag will do the job) before applying a thin layer of new grease. If a cork joint has a loose or wobbly fit, the cork needs to be replaced.

When assembling two pieces, keep hands near the point where the two pieces meet to ensure control and proper alignment.

Flutes – Allow enough space in your seating plan for flutes to easily go from rest to ready position. In rest position, the keys should be facing upward, preventing moisture from getting onto the key pads.

If the head or foot become sticky and hard to assemble, clean the tenon and socket with rubbing alcohol. Removing built-up dirt will allow pieces to slide together with greater ease.

Clarinets and Oboes – Again, keys and holes up in rest position to prolong pad life.

Bridge key assembly procedure.

Never stand the instrument on its bell. If your students still want to stand their clarinets upright, have them purchase a folding stand to increase stability.

If a wood-bodied clarinet or oboe has loose metal rings around the sockets, do not assemble the instrument. Cracking can occur.

Saxophones – Knocks and falls (no matter how minor) can cause playing problems for your saxes. Leave space between chairs for the instruments to hang in playing position and allow for ready and rest positions without bumps and knocks. Baritone saxophones need lots of room.

Take care in lifting the instrument body out of the case, hooking it to the neck strap to help avoid falls. However, never let the instrument hang unsupported from the neck strap. Avoid handling baritone saxes near those long key rods. Those tall key posts also do not need much sideways pressure to get moved, resulting in misaligned key pads and sticky rod-through-sleeve mechanisms.

When inserting or removing the neck, grasp it from above with your finger tips around the collar. Gently twist the neck into the receiver.

Regularly check guard screws, as these are short and would only have to loosen a few turns to become forever lost on the Band room floor. .

Clean alto and tenor bodies with a pull-through swab, dropping the weight into the neck receiver and tucking the cloth into the same end. Tip the body to allow the weight to fall out the bell, and pull the swab through.

Now for the really fussy ... Blotting pads.

Brass Mouthpieces – Need only be set into the receiver by its own weight, and given a slight turn. If a mouthpiece does get stuck, have the student bring the instrument to you after class so you can use a set of mouthpiece pullers (see Basic Desk Drawer) to free it.

Check the cases in the school inventory for mouthpiece storage. Will the mouthpiece be restrained when the case is closed?

Piston Valve Brass – The most effective way to oil a valve still involves removing the valve, adding a few drops of oil on the piston surface and re-inserting. Check that the valve guide is “clicked” into place upon reinserting to ensure a good air flow.

Good hand technique will keep valves from sticking prematurely.

The instrument bell is not a stand. The creases around the edges of brass bell flares indicate that not everyone has followed this guideline. If you put the instrument down, lay it in its case. Trumpet players should lay the instrument with the second valve slide facing up to avoid dents to that area and a stuck second valve.

Slide it! While the woodwinds are putting pieces together, brasses should check tuning slides and valve slides for easy movement.

Rotary Valve Brass – Oiling procedure, using a drinking straw.

Regularly inspect valve strings for wear. Use a precision screwdriver to check for loose string screws, stop arm screws and cork plate screws.

Trombones – Be sure the playing area is free of obstacles, so allow enough room. Also, check out back to protect the tuning slide.

Keep the hand slide free of any sideways pressure, as this can cause a slide tube to bend.

Let gravity line up the slide parts when reassembling.

As for the tuning slide at the other end, check it for movement at the start of each playing session.

Electric Basses – The following set-up sequence will help basses get ready without taking your eardrums. Reverse the procedure for clean-up.

- Check that amplifier switch is off.
- Check that volume adjustments on the amplifier and instrument are at the lowest setting.
- Check that the amplifier is plugged in.
- Connect the instrument to the amplifier.
- Turn amplifier on.
- Set amplifier volume to half way.
- Adjust the volume control on the instrument.

Cord jacks on instruments and amplifiers need regular inspection for nuts that are tight.

Bass players should wipe the strings and fingerboard with a soft, lint-free cloth after each playing session to remove skin oils and fingerprints.

Lip Breaks

Since beginners have limited endurance, Lip Breaks scheduled part way through the lesson gives students a rest from playing while acquiring proper care and handling skills.

Although each Lip Break does not cover all the instruments, present each one from the front of the class and involve everyone in the discussion.

Lip Break 1 – Standing Instruments on Bells

- Clarinets falling over and breaking at the middle tenon.
- Brasses falling over and sustaining dents.
- Creases around the edges of Brass bells from standing the instrument upright.
- Proper way of laying an instrument down. (Flutes and clarinets, holes and keys up. Trumpets, second valve slide up.)
- (Optional) Types of stands available to safely stand and instrument upright.

Lip Break 2 – Oil Slick

- Disassembly and oiling of a piston valve.
- Positioning of the stamped valve numbers and setting the valve guide.
- Oiling a rotary valve.
- Lubricating a trombone hand slide.
- Safely disassembling and reassembling a trombone hand slide.

Lip Break 3 – Moisture Removal

- Use of cleaning swabs for clarinets, oboes and saxophones.
- Use of a flute cleaning cloth and rod.
- Use of Brass water keys, and using them over the Band Room sink, if one is available.
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Lip Break 4 – A Shiny Appearance

- Use of a soft cloth to wipe finger prints off exterior surfaces.
- Woodwinds, being careful not to run the cloth along the edges of the key cups, as this will wear the pads along one side.
- String instrument players, using a clean soft cloth to wipe skin oils from the strings over the fingerboard and the picking area.

Lip Break 5 – Eliminating Joint Pain

- How to clean dirty tenon corks.
- Cleaning metal joints (flutes and saxes) with rubbing alcohol.

Lip Break 6 – Cold Weather

Instruments do not like extreme temperature changes. To ensure an even temperature range for your instrument, keep cases away from exits to the outside, sun-lit windows or in the car during a hot summer day.

If valves on a cold Brass instrument do not move, let the instrument reach room temperature. Try the valves again before making that call to the repair technician.

Band Room Trouble-Shooting

Woodwind Keys that Do Not Return – Using a small latch hook or screwdriver to re-set needle springs.

If there is no needle spring near the empty spring hook, now is the time to pick up the phone.

Noisy Woodwind Keys (When pressed) – Cork key spacers are missing. Cut a small rectangle of 1mm (1/16inch) sheet cork and glue it **with pad and cork cement** to the flat spot under the lever or under the end of the key stop arm. Commercially available “roadside repair kits” include cork or synthetic material with adhesive on one side for silencing noisy keys.

Do not insert cork under key arms that rest against other moving key parts, as this can cause adjustment problems.

If the noisy key seems to have all of its cork spacers intact, try oiling the key with key oil.

If the noise comes from a saxophone when the notes from low Eb and lower are played, also check that the guard screws are snug (and actually there) and for the presence of felt spacers under the guards.

Sticky Woodwind Key Pads – Clean pad and tone hole surfaces with a lightly moistened piece of cigarette paper. Open the key, insert paper, close, gently remove paper. Repeat.

“Stuffy” Flutes – Check the following screw locations:

- Key post near low D key (Body key nearest the foot). When tightening this screw, ensure that the F# key (fourth one up from bottom) still moves freely. Over-tightening will cause this key to bind.
- Key post near C key (Small circle near the head). When tightening this screw, check the Bb key (First large circle from the head) for freedom of motion.
- Trill key posts. When tightening from both ends, Check C#/D# trill key (Part nearest the key posts) for freedom of movement.

Clarinets with No Low Notes – The adjustment screw on the G# key may be too tight.

Loose Socket Rings on Wooden Clarinets or Oboes – Do not assemble these parts prior to doing something about it.

Saxophones with No Low Notes – Look from the top, and check that the neck is in line with the bell.

Since there are so many things that can go wrong with this mechanism, not much more can be done with the tools in your desk drawer. However, you can determine if the problem is with the instrument or the player by using one more tool - a leak light.

Look where the key pads meet the tone holes. If light shows through these areas, the saxophone has leaks and needs to see a technician for adjustment and possibly some pad replacement.

Woodwinds Needing Key Oil – Use a sewing machine oiler that dispenses oil through a fine metal needle to apply a small drop of oil at each contact point between a moving key part and a key post and in the cracks between moving key parts that share a common hinge rod.

Trumpets that feel “Blocked” – First check that the valves are in the correct order. While you have each valve out to check the number, check for proper alignment the valve guide.

All the valves look correct, but still no air flow? Now we wonder if something got stuck in the bell.

Noisy Piston Valves – Check that cylinder top caps and valve buttons are snug.

Euphonium or Tuba Valves that Do Not Let Air Through - You have an easy-fix situation if your model has a washer-type valve guide between the valve stem and the piston, and two holes in the top surface of the piston. A properly positioned valve guide will reveal part of the larger hole as well as the stamped valve number.

Broken Metal Braces – If there are braces that have come loose at one end or have fallen off, the shop is the only choice.

Tips for a Small Town

Out-Of-Round Brass Mouthpieces – Option A: Contact a Band instrument retailer about a tool for straightening dented edges. Purchase one and put it next to your mouthpiece pullers.

Option B: Take the mouthpiece to the metal shop and ask your colleague for a large centre punch. Secure the centre punch in a vice and place the mouthpiece on the tapered end of the centre punch. The shaft on the punch should be large enough to fill the inside of the mouthpiece. Use a small mallet to round the mouthpiece to the shaft of the punch. The mouthpiece should slide further up the shaft as it gets rounded out.

Out-Of-Round Flute Tenons – Take this problem to the jewellery store. Let them use their ring-sizing mandrel to put the “round” back into the situation.

Missing Sax Guard Screws – Unscrew one that is still there and take it to the building supply store to find a matching thread type.

No Tuning Slide Grease? – Purchase lanolin cream from the drugstore. It can be found in the breast feeding aisle.

Broken Strings on Rotary Valves – You need a braided string the same diameter as the ones still there. See the tailor, shoe repairman or the sports store owner who restrings badminton rackets.

The Basic Desk Drawer

The tools listed here are easy to obtain and will enable you to deal with common situations described in this package.

- One set of **Precision Screwdrivers**. These are available at hardware or department stores. Pick the set with a good selection of flat blade tips for slotted screws. The other types of screwdriver tips do not see much action in Band Class.
- **Small Rawhide Mallet**
- **Small Star-Shaped Screwdriver** (Phillips head No. 1). This tool fits most saxophone guard screws that are not the slotted type. This item may not have to be purchased if one is included with the precision screwdrivers.
- **Saxophone Leak Light**. Remember the coat hanger, electrical tape and miniature lights?
- **Sheet Cork** (1mm or 1/16inch thick) for silencing noisy woodwind keys. Available for the Hobby Supply place.
- **Hobby Knife** for cutting cork spacers from sheet cork. Ask for one when buying the cork.
- **Tweezers**. Use for inserting cork key spacers under woodwind key stop arms.
- **Pad and Cork Cement**. Order this from the Music retailer. It comes in small tubes for those impromptu repairs.
- **Cigarette Paper**. Use this tool on loose clarinet socket rings and sticky key pads. Remove the papers from their original package and put them in a plain envelope before storing them at school.
- **Small Latch Hook**. Reach those inaccessible needle springs. Purchase in the Sewing Department. The latch part is not a necessity, but the hook has a good shape for moving needle springs.
- **Rubbing Alcohol**. First aid section of the pharmacy for this metal joint cleaner.
- **Brass Mouthpiece Puller**.
- **Brass Mouthpiece Straightener**.
- **Tuning Slide Grease**.
- **Valve Oil**.
- **Key Oil**.
- **Sewing Machine Oiler** for key oil. Look for the small plastic bottle with the thin metal needle. Back to the Sewing Department.
- **Business Card** with contact information of the nearest shop.

Case Habits Poster (Next Page)

Copy this on brightly-coloured paper and display in your classroom. A larger version can be made by setting the copier to 129% and using 11X17 paper.

Case Habits of Effective Musicians

- Lid Up
- Just the Right Stuff
- Lid, Snap, Snap
- Lid Toward You
- Inspect

- # Clean Sweep

Permission to copy for 2016 Palliser District Teachers' Convention Workshop participants.