

Instrument care and maintenance

Care and maintenance of your expensive pit instruments should be a daily concern.

Instruments should be checked and cared for before and after every rehearsal.

Preventative maintenance can save you thousands of dollars in the long run. Here are a few tips to get you started. Make sure every pit member and pit crew member is familiar with this information. You may want to create your own information packet to hand out to each person involved with the process.

“PIT MAINTENANCE BOX”

This is an absolute must! Find an old tool box or tackle box and fill it with everything you’ll need in case of a pit emergency. Here is a short list of items to include.



A well-organized pit “maintenance” box can really make a huge difference in handling common equipment dilemmas.

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|---|--|
| Keyboard cord | Drum keys |
| Tam tam rope | Timpani key |
| Scissors | Masking tape |
| Felt washers for cymbals
(all sizes for hi hats and suspended
cymbals) | Timpani and bass drum
mallet Replacement felt |
| Nylon cymbal sleeves
(surgical tubing) | Bungee cords |
| Wing nuts for all stand sizes and | A lighter |
| Keyboards | Tuner for timpani |
| Oil or WD40 | Metal washers for cymbal |
| Duct tape | Stands |
| Fishing line | Screwdrivers |
| | Allen wrench set |
| | Pliers |
| | Teflon tape |

You may also want to keep these items close by for general maintenance

- cymbal polish**
- cleaning rags**
- touch-up paint or spray paint**
- black magic markers**
- Windex**
- spare heads for all types of drums**

COVERS, CASES, AND BAGS

Many instruments come with a cover from the manufacturer. Most of these **covers** are meant to keep dust off the instrument; they are not “travel-worthy.” You may want to purchase **packing blankets** at your local hardware store. These will provide a little more cushion and they will hang over the sides of the instruments to protect keyboard resonators and timpani bowls. These covers should be kept

on the instruments whenever they are moved to and from rehearsal, transported to shows, or when not in use. They are also great for keeping the sun off the instruments during rehearsal breaks. You may also want to purchase or make **hard covers for your timpani heads.**

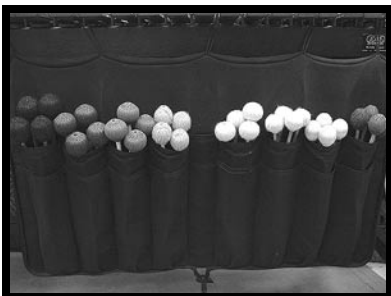


With a circular saw, cut ply wood pieces to fit each drum. Cover one side with adhesive felt and place it directly on the drum heads or on the dust cover. This will protect the heads and keep them in tune for longer.



Certain instruments will require a little more protection. **Fiber or plastic cases** are a necessity for many of the smaller and more fragile instruments: tambourines, concert snare drums, castanets, and so on. You may even want to invest in a hard case for your suspended cymbals. This is particularly true if you use a “box” truck with no shelving or small storage spaces. These instruments could get crushed before you leave the parking lot!

Finally, you will need mallet bags and cymbal bags. Mallets are expensive and they can be easily destroyed if their shafts are broken. **Mallet bags** will protect the shafts and help to keep things organized. There are two types of mallet bags available today. One type of bag has narrow pockets and you have to put the mallets in shaft first. This



allows you to identify the mallets by their heads, but does not allow for quick changes. These bags are nice when you have trap tables. The other kind of bag has wider pockets and allows you to put the mallets into the bag head first. You may want to tape the butt ends of the mallets, otherwise you won't be able to identify which is which. These bags are best for quick changes. Make sure you purchase mallet bags, not **stick bags**. Stick bags are much smaller and will only hold a few pairs of mallets.



TIMPANI HEAD CARE: CHANGING AND CLEARING

When timpani heads get damaged or need replacing, the process of **changing heads** is quite simple, but lengthy. Set aside the appropriate amount of time to make sure this process is done correctly. Proper “seating” and tuning of the head has a tremendous affect on the sound quality.



1. Using a timpani key, **remove the damaged head**. Remember to slowly ease off the tension by gradually loosening opposite tension rods (like a car tire). As you do this, you’ll notice that the spring tension on the pedal causes the pedal to go up. It does this because the head isn’t giving it as much resistance as when it is attached.



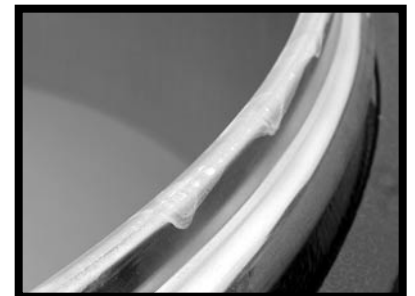
2. Now it’s time to do **maintenance on the inside** of the drum. Start by cleaning out any dust or dirt that has accumulated in the bowl. **Avoid touching** the inside of the bowl! This will leave nasty, tarnished fingerprints. Use a polishing cloth or metal cleaner if this occurs. If any **dings or dents** have damaged the bowl, now is the time to hammer them out with a heavy, rubber mallet (the kind you get at a hardware store). If you decide to hammer out dents, go slowly and be very careful not to hammer too hard. Clean off the **bearing edge** of the drum. This is where the head makes contact. Also clean off the inside of the **counter hoop** (the rim). If any damage has been done to the bearing edge or the counter hoop, consult a professional. This will have a severe effect on the sustain and tone quality of the drum.



3. Remove any dirt or grime from the **tension rods** (screws) and the **casings** (lugs).

4. Since the head will be moving across the bearing edge of the drum whenever the pedal is moved, it is important that the **bearing**

edge is lubricated. The best answer is also, unfortunately, the most expensive: **Teflon tape**. This can be purchased from Lone Star Percussion for around \$40. This is *not* the type of Teflon tape commonly found in the plumbing department of your hardware store! Lubricants such as petroleum jelly and cork grease attract dirt and dust which dampen the head, so don’t use them. Some people use paraffin wax, but wax buildup can cause a buzzing sound. Place a ring of Teflon tape all the way around the bearing edge. If you can find a teflon spray that adheres to the surface of the rim, that can work nicely as well.



These Adams timpani come lubricated with dry coating of teflon spray.



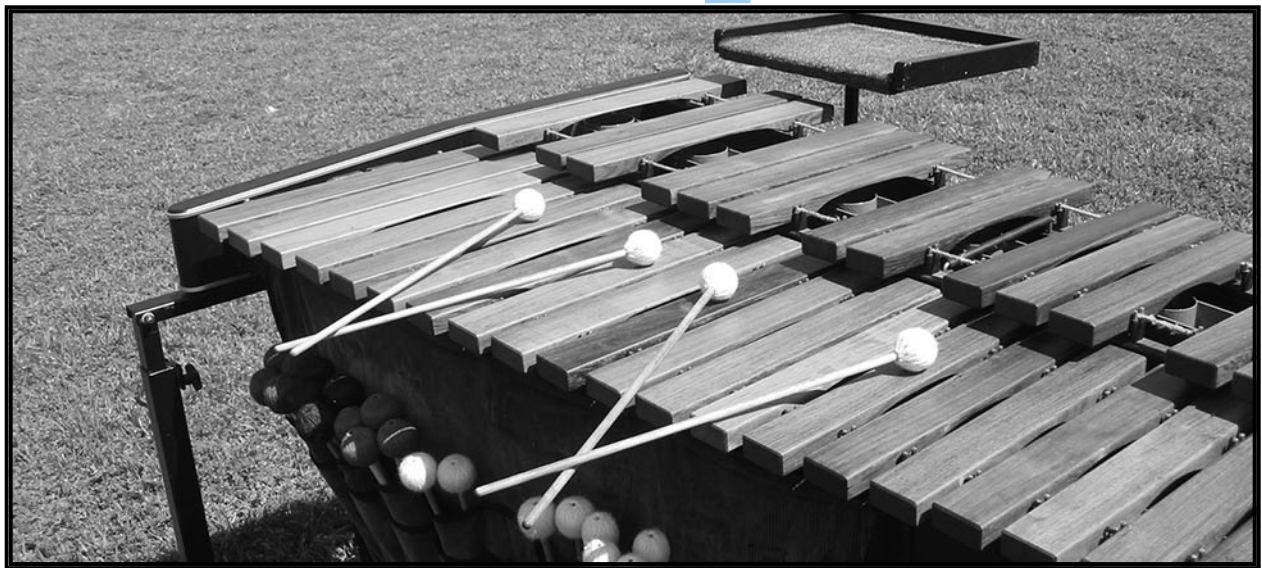
5. Place the new head on the drum, then, place the counter hoop over it. If you have extended collar drum (there is a space between the bearing edge and the counter hoop) use a ruler or your fingers to make sure the rim is equidistant from the bearing edge.

TRANSPORT TIPS FOR PIT MEMBERS AND PIT CREW

Part of getting the pit on and off the field successfully involves the assistance of volunteers or pit crews. Oftentimes you can enlist the help of willing parents. Since they may not be trained to take proper care of percussion instruments, it's important to guide them in order to prevent damage and injury. Sure, a major tip-over will damage an instrument in an instant, but what happens more often is that your expensive equipment starts to fall apart due to years of poor care and handling. That can easily be avoided with some simple, friendly training.

Hold a short meeting before each season to discuss proper instrument care. With a little guidance, the pit crew will become a well-oiled machine. On the next page is a listing of general transport tips to share with the folks who may not have experience with percussion instruments. Feel free to make copies of that page and distribute it to your pit crew.

sample



A Quick Guide for the Volunteer Pit Crew



Right!



Pull, don't push instruments over tall grass, bumps, or gravel. Since these terrains give resistance to your carts, they can damage the frames if pushed. **Lift and pull** over small curbs. Pushing over curbs (or even small bumps) will inevitably put undue pressure on the frame, causing it to warp or become less sturdy.



Right!



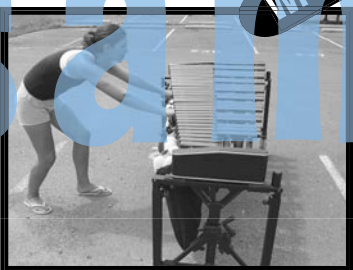
Wrong!

Carry timpani by the **struts**, not the rims to avoid de-tuning the heads.

What NOT to do with timpani.



Right!



Wrong!

A small bump can topple your marimba.

When moving keyboards on smooth surfaces, it's best to **push from the big end**, and most beneficial to have one person on either end of the instrument. To avoid tipping, **Push lengthwise** (low-to-high), not sideways (from the middle). **Check the wing nuts and support bars** on the keyboards before and after every move.



Wrong!

Mallet instruments are NOT tables.

Protect the bars! Never stack anything on top of the keyboards when transporting. Mallet instruments are not carts to transport other items. Also, don't lay small xylophones or glockenspiels upside down on their keys.

Listen to the students. They play the equipment all the time and know how it will react, where it needs to go, and when. Have a meeting and **dress rehearsal** to practice getting on and off the field. Make sure everyone knows their assignments so there is no confusion as you load. It's important to be efficient, but there is never so much of a hurry that damage to instruments or injury to students or crew should occur. **RELAX!**



"I've told you a thousand times..."