**Re-Corking a Harmon “Wow-Wow” Mute** by John Huth, Greg Beckwith and Lucas Pemberton

This applies too to any mute, like a Harmon-type or practice mute that uses a wraparound cork to completely seal the mute against the bell. As you read this article, if you have suggestions to improve the end result or the process to get there please let us know by email at bandinstrumentrepair2@southeastmn.edu. We welcome your comments.

No matter the material you choose (natural cork, plain composition cork or synthetic mixed composition cork/buna), the goal is to create a shape that wraps cleanly around the mute with minimal fuss for quick installation. For these types of mutes we are using 1/16” cork/buna composition gasket material from McMaster-Carr (#96165K32) that is performing very well – the cork/buna combination bites very well in the bell and seems durable.

We are going to use masking tape to create a template shape that can be used again and again. Here are our steps:

1. **Remove any leftover cork from the mute.** You can peel it off by hand, help it along with a scraper or heat the mute with a torch or hot air gun to soften the contact cement. We prefer to heat the mute/cork as scrapers often gouge the aluminum.

2. **Remove any remaining contact cement from the mute.** Acetone makes short work of this. Wear your safety gear when handling a hazardous chemical.
3. **Remove any dents.** In the mute body, do the best you can with rods and balls. Where the new cork will be installed, be mindful of preserving the mute arc as well as the end diameter. Use a curved hand burnisher to remove dents in the cork area. Round the end of the mute by pressing it against a bell iron with a straight burnisher, rotating it all around. Avoid using barrel balls to round the mute end – usually the mute flares outward making it difficult to fit in the bell. Too, remember that the mute in this article costs around $35 so balance your time versus replacing the mute.

4. **Prepare the surface to be corked.** Here we are using a Scotch-brite pad #7448 – the equivalent of 800 grit sandpaper.

5. **Make the template for the new cork.** With 3/4” wide tan masking tape (tan tape seems to stick better to aluminum than blue or green tape), place strips going up the mute off the end overlapping all the way around. The strips should extend minimally 1.500” down the mute. Then, wrap the end of the mute cylindrically all the way around with a single piece of tape.
6. Trim the tape to the desire end shape.* Trim the tape off the end. Mark the tape 1.250” down from the end all the way around. Supporting the mute on a tapered trombone mandrel or equivalent, press a razor blade into the tape line with the mute slowly spinning. Remove the excess tape. The end result should look like your replacement cork.

7. Use your tape template to create a card stock template.* Cut a vertical slit in the tape, remove it from the mute then place the tape on a piece of card stock. Cut around the tape leaving a little extra on each end for an overlap joint. You could apply your tape-only template directly to your new corking material then cut the cork out, but transferring the tape template to cardboard makes the template easier to work with, more durable and reusable.
8. **Using your new way-cool template, cut your cork.** Trace it out, cut it, bevel one end for the overlap. Soften your cork as required for wrapping. You can also butt the cork instead of overlapping it – your call. There doesn’t seem to be an advantage of one over the other.

9. **Install your new cork.** We recommend coating the cork with two layers of contact cement, letting the cement dry between coats.
10. Trim and blend your overlap, or ensure your butt joint is tight and clean, then trim other excess. Players pay attention to neat work. Give yourself and your customer something to brag about. We do not apply any grease or wax to the cork. The cork needs to bite in the bell.

11. Save your template for the next customer.* While there is upfront time investment on this to make the template, it is reusable – the jobs following this will go quickly and profitably. Too, it is likely that you will get repeat business once trumpet players learn that their mute corks are replaceable and that your work is awesome.

*Option: Use our pre-made template instead of performing steps 5 through 7. Go to www.redwingmusicrepair.org/band/resources.html where you will find a pattern ready to print off and use. It is specific to the Harmon brand “wow-wow” mute – the mute used by many trumpet players. When you print the page, ensure you tell your printer not to scale the page upward or downward – there is a 6” rule built into the template to help you determine if has printed off the correct size.

Note – special thanks to Red Wing BIR students Whitney Rose and Chris Herrmann