

## Buzzes

Buzzes can be caused by a poor fit between parts like an open seam or a poor-fitting bridge, or an inappropriate contact between parts, tailpiece hitting the chinrest or accumulated rosin in the f-hole corners. By keeping an instrument clean and in good condition, you will greatly reduce the likelihood of buzzes developing. Many buzzes will try the skills of even the most experienced repairers, so if you can't fix it quickly, just bring it to a professional.

## Don't Try These At Home

If you try any of these techniques, please remember these suggestions are meant as "First Aid". Never attempt jobs that require the skills of an expert repairer. These would include bow rehairing, adjusting soundposts, and regluing fingerboards, open seams, and cracks. Undoing inept or unskilled work can double the cost of a repair. Always think "Safety First!" for yourself and the instruments. When using tools or hazardous materials, work calmly to avoid accidents and follow the rules of common sense. If this introduction to does not satisfy your interest in the subject, there are many schools that offer courses in violin making and repair for beginners.

## In Closing

Instruments in good condition sound better, play easier, and help students make rapid musical progress. I hope this Guide will be helpful for you and your program. If you have any questions, or suggestions for improving the information or presentation please do not hesitate to call or write.

Best wishes,

*Charles J. Rufino*

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## Notes

### About Charles J. Rufino

Master Violin Maker Charles J. Rufino studied violin making and restoration for ten years in some of the finest studios of Europe and the United States. Since 1983 from his own studios in Huntington, Long Island and New York he has made instruments considered by experts to be the equal of old Masters. Today, Rufino instruments are used by discerning musicians and heard live and in recordings of concerts and television, movie and Broadway soundtracks.

He established *The Long Island Violin Shop* to share his expertise with string teachers and their students. The *LIVS* specializes in excellent affordable instruments and expert services for serious young string players. Mr. Rufino is a member of The American Federation of Violin and Bow Makers, *L'Entente Internationale des Maitres Luthiers et Archetiers d'Art*, and the String Industry Council of the American String Teachers Association (ASTA) He is a well known spokesman for his art, and presents an illustrated PowerPoint lecture ***The Art and Lore of the Violin*** numerous times each year to student and professional groups.



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*The Long Island*  
**VIOLIN SHOP**  
CHARLES RUFINO VIOLIN MAKER

# GUIDE TO FIRST AID FOR SCHOOL INSTRUMENTS

## A TEACHER'S GUIDE

BY

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PRICE \$1.00

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## *Introduction*

Many string teachers would love to repair instruments, but the cost of tools, difficulty of required skills, and lack of time make it difficult. But a little instrument "first aid" can improve the sound and performance of your string program and lower repair costs with a minimal effort and cost. Using commonly available supplies, I hope to share some ideas that will require few, if any, new skills or tools.

## *Involve Your Students*

Get your students involved in caring for their instruments, and require them to show up to class with their instruments in good condition. Their increased commitment means lessons become available for teaching, instead of maintenance.

Our *Guide To Instrument Care* was written with the help of leading expert in string pedagogy. Simple enough to be used with primary grades yet comprehensive enough for many adults, who find it informative. The Guide has been found to be particularly effective if it is used as a lesson plan and not simply handed out to students. Encourage students to keep it in their case re-read it from time to time. Free copies are available online at [www.liviolinshop.com](http://www.liviolinshop.com), or in bulk for a small fee.

Two weeks before any big concert, as a part of your final rehearsals, have all students install new strings (full sets) and clean & polish their instruments. Check their bows at this time, making sure the bows and hair are in good condition, recommending rehairs as needed. The instruments will sound and look great, and the students will play better.

## *Tonal Improvement*

Insisting on good strings is the best way to improve the sound of your program. Cheap or old strings play false and damage the ability to produce a nice tone. Like tires on a car, strings wear out and should be changed long before they break. If strings are played 5-6 hours a week, after 4 months they are worn and after 8 months they should be replaced. As you already know, the higher pitched strings wear out sooner, and can be replaced once before changing the full set. This is true for all instruments.

## *Bow Problems*

Lubricate the frog and the bow screw with wax if they are tight. As with strings, don't wait to rehair a bow until all the hairs are broken or the hair is completely dirty. The practice of washing hair is misguided, as soiled hair is only part of the reason for changing the hair. If the hair is too short, the stick can be ruined. If too long, it will not tighten properly. When at playing tension, the frog should be no more than ½ inch from the thumb grip.

## *Peg Problems*

Lubricate sticking pegs with commercially available peg compound. Slipping pegs will stick better with Burnt Umber oil pastels; the two compounds can be mixed on the peg. Light sanding can sometimes help. Never use soap - when it dries out, the peg gets glued into the hole. Some pegs are in such poor condition that no amount of compound will ever make them work well. For pegs that hold but turn with difficulty, install a tailpiece with built-in tuners and use the pegs as little as possible. Please remember that pegs in very poor condition can cause serious damage to the pegbox, to the point of causing the head to break apart. If you want to use Peg Drops just use a tiny bit and don't make a mess!

## *Fingerboard and Nut*

The Nut string grooves should be 1/3 of the string diameter deep, and roll down to the pegbox in a smooth curve from a high point above the fingerboard. The grooves deepen with use, pinching the sides of the strings and causing strings to wear and break. The groove also gets rounded down towards the fingerboard, causing the open string to play false. Using a fine round needle file, widen the groove without deepening it, until only 1/3 of the string diameter is cradled by the groove. At the same time, file the bottom of the groove, creating a gentle rolling curve down into the pegbox. Lubricate the grooves with pencil lead.

If the nut is low the string hits the fingerboard surface and buzzes. Remove the nut and raise it with a small piece of heavy black or brown paper. Glue it back on with a tiny dot of glue.

## *Bridges*

Replace bridges that are too low or too high. Moving them around to adjust the string height upsets the balance between bridge, soundpost and bassbar and damages the tone.

Keeping bridges straight reduces the need for straightening or replacing them. Bent bridges break and risk severe damage to an instruments. In a pinch, an bridge with adjustable feet works surprisingly well. Made of higher-quality wood than many student bridges, each size comes in three different heights, with pre-cut string grooves. Some teachers keep the more popular sizes on hand and simply place the one with the most suitable height on the instrument.

## *Tailpieces and Tailguts*

Tailpieces with built-in tuners promote tuning. Choose a model like the Wittner Ultra that is easy to replace without tools. You can get a precision oiler at any hobby shop to put a tiny drop of oil on the screws. Toothpicks dipped in baby oil work too, or remove the screw and rub it with wax.

Broken tailguts require no tools for installation and can be easily replaced. Keep the tailpiece close to the saddle, the ebony support on the edge of the instrument, but not so close it touches the saddle or the chinrest.

## *Cleaning Instruments*

Wipe the instrument clean with a soft, dry cloth after each use. Use violin polish to remove rosin and restore the shine. If a polish is strong enough to clean, it can also damage varnishes. Test all cleaners on an inconspicuous spot using a white cloth. If you see dirt come off onto the rag, you should be safe. If the varnish color comes off on your rag, don't use that cleaner! Keep alcohol or other strong solvents away from your instrument at all times.

When using solvents, work in a very well-ventilated place. Never use violin polish, or anything containing oil, near a crack or seam that needs to be glued. Never use polishes with silicones on your instrument.

Rub steel wool (0000 grade) moistened with baby oil on the neck and fingerboard to clean them and leave a silky feel. Keep the oil away from the bowed area of the strings or clean the string by scrubbing with dry steel wool or pinch it with a clean cloth and scrub hard, running along the length.