



*Crafting World Class Instruments In the Heart of America*

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## K.C. Strings Instrument Care Guide

A string instrument requires care and attention. It is crafted out of woods that expand and contract even hundreds of years after it was made. It is under pressure by the strings of many pounds per square inch and spends much of its life under the stress of vibration. Over the life of an instrument's normal use some changes will inevitably occur. Here are several recommendations for you to make your instrument's long life a little healthier.

I. **TEMPERATURE AND HUMIDITY:** Changes in temperature and humidity affect a string instrument. Avoid any sudden change. The instrument case inside only keeps the previous temperature and humidity for only a few minutes. Keep the instrument away from direct sunlight and away from air vents. In general, avoid any and all extremes in temperature and humidity. Do not leave instrument in the trunk of the car. Cold can make an instrument crack and heat causes the glue joints to come apart and varnish to soften. The general rule of thumb is: Don't leave your instrument in any area where you wouldn't leave a baby.

(a) Use a dampit type humidifier in the instrument during winter, or when it is in a dry region. This is especially important for basses or any instrument left in rooms that have no humidifiers. The dampit can be soaked in water for 10-20 seconds, squeeze out the excess water in a towel, and put the dampit back into the lower lobe of the f-hole. Do this when you feel the dampit has dried out. But always take the dampit out while playing.

(b) If transporting the instrument during the winter in a car then warm up the car before entering with the instrument. Remember, you have a coat the instrument does not. In hot weather, cool the car ahead of time.

II. **VARNISH:** Although the varnish looks hard and durable, it is not. Avoid touching the varnish at all. Fingerprints could leave permanent marks. Hold the instrument by the unvarnished neck and the bottom endbutton or endpin. Do not leave the instrument on a hard surface. Hard surfaces and sharp corners can scratch and chip the varnish. Do not let rosin build up on your instrument. Use a soft rag to clean the top before you put it away.

III. **CRACKS AND OPENINGS:** Despite your best efforts, cracks sometimes develop and/or the top or back pull away from the ribs. A crack is where the wood itself cracks. Anytime the wood parts just come unglued that's actually positive. When the back or top come unglued from the ribs, this is called an "open bout". This is positive because the plate was contracting or expanding and if it would not pull away from the ribs then there is a very good chance that the plate could have cracked. Bring your instrument in for repair as soon as possible if the wood cracks or becomes unglued. Neglecting cracks and openings can lead to far more serious problems.

IV. BRIDGES: Instruments swell and shrink depending on temperature and humidity. To maintain proper string height a shorter bridge may be required in summer than is required in the winter. Please bring your instrument in during these seasons so we can check the string height for you.

(a) The proper angle position of the bridge is one where it leans slightly back toward the tailpiece. As you tune the instrument, the thinner top part of the bridge always gets pulled forward (toward the fingerboard) while the thicker bottom part stays fitted to the top plate leaning back. This is what causes the bridge to warp. So periodically check the angle position of the bridge and pull the top part back so it is straight and leaning correctly. We can show you this procedure in the shop.

(b) Lubricate the string notches in the bridge by marking with a pencil in the grooves. This will let the string glide over the bridge easier while being tuned and bridge and therefore minimize bridge movement.

V. SOUND-POST: The sound-post is the small dowel of wood inside the violin near the treble foot of the bridge. The sound-post controls a lot of your instruments sound quality, balance, and projection. If your instrument is having trouble in these areas, it is probable that we can help it with a sound-post adjustment. Also, the swelling and shrinking of the plates sometimes necessitates a new sound-post. We check the sound-post placement and tension whenever we check over the instrument while its in the shop for any work.

VI. FINGERBOARD AND NUT: Lubricate the nut grooves in the same way as the bridge notches. Fingerboards develop bumps and grooves from string usage above them, finger wear and just general movement from the affects of weather. These can be smoothed out in our shop with planes, files and sandpaper. We call this "finger board dressing". If the strings wear far enough into the nut, the open strings will buzz, at which point we will raise or replace the nut.

VII. STRINGS: Change the strings at least once per year. Even with little sign of wear the string may be vibrationally worn out and not responding properly. Strings also break, and usually at the most inconvenient time. It is a good idea to have a spare set with you at a concert or a recital.

VIII. PEGS: Pegs hold by pure friction. Extreme dry and humid weather both can make pegs sticky. Lubricate the pegs with peg dope when they stop turning well. On the flip side if pegs start turning to easy then use blackboard chalk to make the pegs hold firmer.

INSURANCE NOTE: Insure your instrument immediately after purchasing it. Check with your agent about the policy as to what is and is not covered. Insurance policies differ dramatically on this. For instance many insurance companies do not cover theft or damage to an instrument in an unattended car.