



Guitar Maintenance and Care Guide

First, let us stress the importance of protecting your guitar from too much humidity or dryness. An acoustic guitar is very sensitive to high tension caused by string-pull. Your guitar is made of wood, which is sensitive to humidity. However, if the instrument is properly adjusted and well maintained, it should last a lifetime. Everyday common sense will take you far. Invest in a good hard-shell case to protect your instrument from mechanical damage, humidity and sudden changes in temperature. A guitar-stand is also an inexpensive investment. It will keep your guitar from falling down and it also looks good on stage or in your living room. Always try to keep the instrument in a normal temperature. Slightly over or under room temperature is ideal. Be aware of rapid temperature changes. Do not leave the guitar near radiators and heaters. Do not leave it in a car on a hot summer day or in the dead of winter. If your guitar does get subjected to extreme temperature let it come back to room temperature gradually. Do not open the case too quickly.

Moisture in the air

Another factor to consider is humidity. There is always some moisture in the atmosphere. There are two ways of measuring humidity. These are called absolute and relative humidity. We will deal mainly with relative humidity. Landola guitars are made in Finland, where the relative humidity outdoors varies between 20 – 100%. The most humid seasons are summer, autumn and winter. Air is at its driest in the spring. Humidity indoors changes differently than outdoors, for example; it may be humid outside in the winter, but it is probably much drier inside your home. This is the effect that heating your house has. However, you can compensate for the lack of humidity with a humidifier. In the summer, when you do not have to heat your home and windows are often left open, the humidity inside and outside is generally the same.

What does too much humidity do to the wood?

Humidity can affect the life of instruments made of wood! When relative humidity rises, wood absorbs moisture from the air. When humidity is less than the wood's, the wood releases water back into the air. This means that the measurements of the instrument change. When wood absorbs moisture, it swells; when it dries, it shrinks. Because guitars are often made of several different kinds of wood which swell and shrink in different degrees, problem-solving can be a complicated task. Even luthiers can not do much about this problem. However, when wood is used correctly in the manufacturing process, many problems can be greatly reduced. During manufacture, humidity should be around 45 – 55%. This will reduce swelling and shrinking later on (if the guitar is kept in "average" humidity conditions).

Tender loving care

As you may have gathered by now, to avoid many problems, see to it that your guitar is not subjected to too much humidity or lack of it. The ideal relative humidity would be 50%, and this can be achieved by purchasing a humidifier for indoor use. Another good investment would be a small humidifier to keep in the guitar case. Ask your local music store about these. If the problem is too much humidity, you can invest in an air-dryer. This will get rid of moisture in the air and can be adjusted so that you get just the right conditions. A wise investment would be a small digital humidity and temperature meter, with which you can always check conditions wherever you are.

Adjusting the neck

Sometimes a neck will warp because of atmospheric conditions or when you change to a different string gauge. Electric guitars that usually have thinner necks are more sensitive than other guitars. Nylon stringed guitars generally have a much thicker neck and are not so easily affected by humidity or tension caused by string-pull. Acoustic and electric guitars have an adjustable "truss rod" inside the neck, just under the fingerboard. You should have received a truss rod key when you bought your instrument. Look carefully down the length of the neck, on the treble side and the bass side and determine if you have a bow in it. Make sure that the guitar is tuned to standard pitch before making any adjustments. If your guitar has a concave bow (downward bow) you need to turn the truss rod key clockwise, in other words, tighten the nut. If the neck has a convex bow (upward bow), turn the key counter-clockwise, loosening the nut. To check if you have a slight concave bow, try this simple trick. Press down on the first fret of the 6th (thickest) string, using your left hand (finger). Next, using your right hand thumb, press down the same string at the 12th fret (15th for electric guitars), now look for a gap between the string and the top of the 7th fret. If a sheet of paper fits snugly under the string it should be pretty close to ideal. If the gap is much bigger, you will have to adjust the truss rod by tightening it (clockwise turn). If a piece of thin paper does not fit in the gap you will have to loosen the truss rod (counter-clockwise turn). Repeat this procedure on the 1st (thinnest) string.

Make only small, $\frac{1}{4}$ turns of the key each time, as some truss rods will move a lot with the slightest adjustment. The ideal neck is one that is as straight as possible without any excessive string buzz. It is often necessary to leave a slight concave bow in the neck to avoid string buzz. You may have to also adjust your string height at the saddle, either by filing down the saddle or by adding a shim under the saddle.

String height (action)

The profile of the neck, curvature (radius) of the fretboard and height of the frets are normally not affected by climatic factors. On the other hand, the distance of the strings from the fingerboard may change due to climatic changes. How high should the strings be from the fingerboard? Every guitarist has his (or her) preference. Everyone has a different "touch". If you get a lot of string buzz, chances are you will have to make some adjustments to the instrument, while another guitarist (with a different touch) can make the same guitar play crystal clear. If the strings are set high to avoid buzzing, we get another problem: a neck that needs the strength of Hercules to play it. Often we have to compromise. To find the correct height for your style of playing, you will have to experiment. For example try different string gauges, string height and truss rod adjustments.

A few tips

- Change strings frequently. They sound good and give your guitar better intonation.
- Take the strings off and clean the fretboard periodically. Use "fretboard conditioner" which is available at most music stores.
- Loosen the strings if you're not going to be playing your guitar for a while.