



# Caring For Your Acoustic Guitar

This article will explain how to take care of your acoustic guitar. An acoustic guitar will last a lifetime if properly taken care of.

Your guitar is made of thin wood which is easily affected by temperature and humidity. This combination is the most important single part of your guitar's surroundings. Martin keeps its factory at a constant 45-55 percent humidity and 72-77 degrees Fahrenheit. If either humidity or temperature gets far away from these factory conditions, your guitar is in danger. A rapid change in temperature or exposure to cold can cause small cracks in the finish. These are lacquer checks. We recommend the use of a hygrometer or thermometer to measure the relative humidity and temperature surrounding your guitar.

As humidity increases, the moisture content of wood goes up rapidly, causing it to expand and swell. A gradual increase in humidity won't generally do permanent damage to your instrument. When very high humidity is combined with high temperature, glue joints could possibly become weakened and may even open slightly. If your guitar is exposed to high temperature or humidity for any length of time, the glue under the bridge could weaken causing the bridge to pull off.

Rapid changes in local humidity are what you want to guard against. If, for instance, you place your guitar near a source of dry heat, the humidity around it will drop much faster than it would naturally, although a sudden dry spell can have the same effect. If the moisture tent of wood is forced down in a hurry, portions of it shrink faster than others, causing cracks and open joints. Don't set your instrument next to a source of heat or hang it on a wall where it will dry out. At all costs, avoid hanging your guitar on an outside wall during winter months. The wall will be cooler than the inside air. The result is a conflict between the temperature of the top and back, with potential damage as a result.

Should the guitar be exposed to freezing temperatures, let it warm to room temperature while still in its case. This lets it come up to room temperature more slowly, decreasing the possibility of wood

and finish cracks.

Caution should be taken if you choose to use a humidifier to combat low humidity. Moisture in direct contact with the guitar could cause damage, as can the rubber or vinyl parts of a humidifier.

We recommend storing your guitar in its case when not in use. Humidity is easier to control in a smaller space. Don't bother loosening the strings when putting your guitar away unless it won't be used again for several months. Constantly tightening and loosening strings quickly ruins their sound.

## **Cleaning the Finish**

The best way to clean your guitar is with a warm, damp cloth. This will remove harmful chemicals. Your guitar is coated in the highest-grade finish available and is sensitive. Any type of solvent, especially those found in plastic, vinyl and leather straps, will mar the finish, as will alcohol, citric acid, aftershave lotion, insect repellent, and a number of related substances. Perspiration can also damage your guitar, so keep it dry. To polish, we recommend wiping down your instrument and strings with a soft, dry cloth before storing to remove harmful skin oils. Products containing silicone should not be used.

## **Tuning Machine Maintenance**

Tuning machines normally need very little care other than periodic lubrication. Enclosed machines, the type with a cover over the gears, are lubricated by the manufacturer, but the open type should be lubricated once or twice a year. Just put a little household petroleum jelly on the end of a toothpick and place the jelly in the gears. Be careful not to use too much because it catches dust which can wear out the machines.

Some types of machines are adjustable for ease of tuning. The open type can be made harder to turn by tightening the screw in the middle of the gear. Check this screw every time you replace the strings because it can work loose. Most enclosed machines have a screw in the end of the tuning knob that will make the machines harder to turn when the screw is tightened. Not much tension is needed, so don't overtighten the adjusting screws.

# Inserting the Bridge and Endpins

The strings are held in place at the bridge by a small notch at the front of each bridge pin. It is important that the pin slot is facing straight forward so the string is properly aligned on the bridge saddle. Make sure that the ball end of the string is pulled up tightly against the inside of the top before inserting the bridge pin.

Too often bridge pins are hammered in so hard that they become wedged and split the bridge. After inserting the string and pin, a solid push with your thumb is all that is needed.

The endpin is tapered and is wedged into the bottom end of the guitar. It is not glued in. It should be checked frequently to make sure it has not worked loose.

## Strings

Different styles of playing demand different types of strings; but, unless you are a specialist in a particular style, your guitar came with strings that will normally give the best results. You may want to make your guitar easier to play and use one of our lighter string sets, but your bridge saddle and neck may have to be adjusted to prevent fret buzz. A classical guitar has much lighter bracing than the usual steel-string acoustic guitar, and using steel strings on it will literally pull it apart.

Strings don't last forever. As you play your guitar, you will notice its sound will gradually lose brilliance. It will begin to sound slightly muffled because the strings have begun to wear out. Human skin moisture causes strings to become dirty and corrode, and this layer of corrosion eventually deadens the sound of the strings. At this point, the entire set should be replaced. Replacing only one string causes an unbalanced sound.

## Adjusting the Action

Often as a guitar ages, it seems to get harder to play. This is because the height of the strings above the fingerboard has increased slightly. This height usually called "action," is very important to the

playability of the instrument. However, if the strings are too low, they will buzz against the frets. The action can be adjusted at the bridge and saddle by an authorized repair person.

The adjustable neck rod is not for action adjustments; it is to be used to obtain the proper neck relief and should also be performed by an authorized repair person. Though straightening will have an effect, the neck should not be adjusted if it is already in proper alignment.

## Necks and Tops

Neck bow itself is often misunderstood and talked about as if it is the worst thing that can happen to a guitar. For some playing styles, a slight forward bow can prevent buzzes. With the adjustable neck rod, the neck can be adjusted for relative straightness.

Sometimes sighting down the neck gives the illusion of neck bow when it is actually within specifications. This is because the top will rise and fall with changes in temperature and humidity. This swelling raises the end of the fingerboard, which is actually attached to the top rather than the neck. If this should become too high, it might need adjustment or repair.

The bellying of the top is normal and should be expected. The top is actually made with an arch. This will increase over a period of time due to string stress and/or high humidity. Heavy-gauge strings should not be used. If the bellying becomes excessive, the saddle and bridge may need to be lowered to improve the playability.

## Guitar Care While Traveling

The guitar probably travels more than any other musical instrument in the world, and it'll only be a matter of time before you take yours on its first trip. If you're going to take your guitar on the road with you, remember, it's not just another piece of baggage. You have to make an effort to protect it.

If you're traveling by car, don't make your guitar ride in the trunk. It's much safer in the back seat because most car trunks are neither heated nor ventilated, so the temperatures can fluctuate wildly. Freezing or overheating your guitar is an invitation for a crack or warp to occur. Your guitar is

assembled with glues that can be affected by heat causing breakdown and loosening of glue adhesion. Most commonly affected is the bridge.

Air travel has become the most popular mode of commercial transportation, but the protection of your instrument is important. Airlines don't set out to damage guitars intentionally, but a conveyor system can't tell a guitar from other baggage. Airlines may consider a guitar to be too fragile for their handling and may require that a waiver is signed which limits or removes their liability. Don't sign such a document if you can avoid it. Even a hard case can't always protect a guitar from damage from mishandling by individuals or commercial carriers.

Occasionally you can bypass the usual baggage handling system by asking to take your guitar to the boarding area where it can be tagged and hand carried to the airplane. Upon arrival, notify the flight attendant or customer service representative and try to retrieve it at the gate. Not all airlines give you this option.

There are size restrictions on carry-on luggage. It must fit in the overhead bin or under the seat ahead of you. Some flight attendants may allow you to try the overhead bin, but if it doesn't fit, it may have to be checked as baggage. Loosening the strings and using a soft cotton packing material to keep the guitar tight in its case will decrease the possibility of damage while a guitar is in the baggage compartment.

## Using Guitar Straps

Your finish can be adversely affected by interaction with certain synthetic straps and can also be affected by leather straps.

Vinyl and synthetic leathers contain solvents that keep the material soft and supple. These solvents will transfer to the instrument's finish and cause damage. Do not allow such straps to contact the finish. The best procedure is to always remove your strap from your guitar after use and store separately. Vinyl sofas, chairs, etc. should also be avoided.

