

# SYMPTOMS OF A WET GUITAR

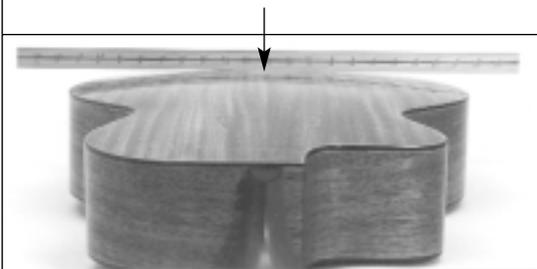


Photo 1.  
This photo shows an extremely swollen guitar back. Notice the dip in the center, where the back is glued to the tailblock. It cannot rise at this section and so a ripple, or low spot, is created.

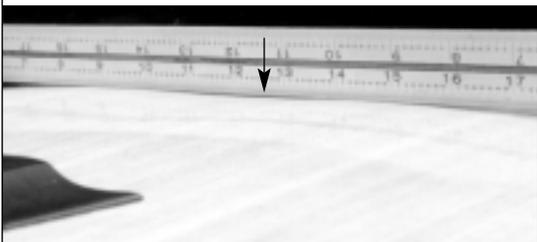


Photo 2.  
This photo shows an extremely swollen guitar top, and a dip similar to that shown in photo 1. In this case the dip occurs where the top is glued to the tailblock.

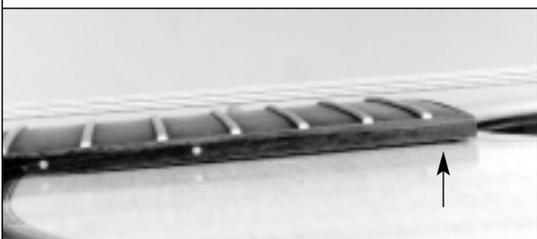


Photo 3.  
This photo shows the top and fretboard swollen so much that the glue joint has failed and the two pieces have popped apart.

While much of our energy is devoted to preventing guitars from drying out, it also is possible for guitars to become too *wet*. Usually, a guitar becomes over-humidified when it has been exposed to the elements for a period of several weeks in an area where the humidity is very high (80 to 90 percent), or for several months where the humidity is medium-high (60 to 70 percent). In some cases, guitar bodies are over-humidified by well-meaning owners who, in an effort to prevent their guitars from drying, have gotten carried away with soundhole humidifiers.

While high humidity usually will not crack the wood the way low humidity can, the adverse effects can be just as damaging and sometimes can be more costly to repair. **The wood in a guitar can swell tremendously, causing glue joints to fail and neck angles to go bad.** Distortions in the wood can remain even after other damage has been repaired, leaving the guitar cosmetically disfigured. Read the tech-sheet, "Symptoms of a Dry Guitar," to gain an understanding of our wood-drying process, the climate control of our fac-

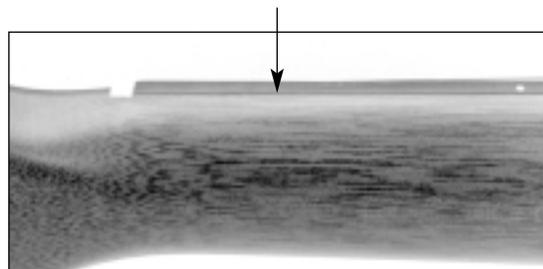


Photo 4.  
This photo shows the fingerboard swollen enough to grow wider than the neck, leaving a "step" where the fretboard meets the neck.

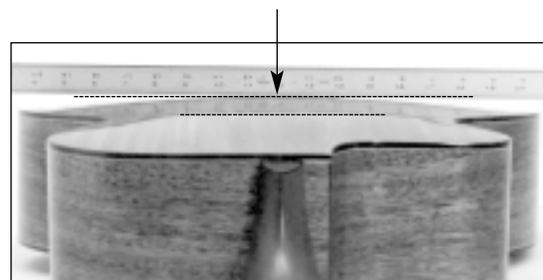


Photo 5.  
This photo shows a back arch that is very high from excess moisture.

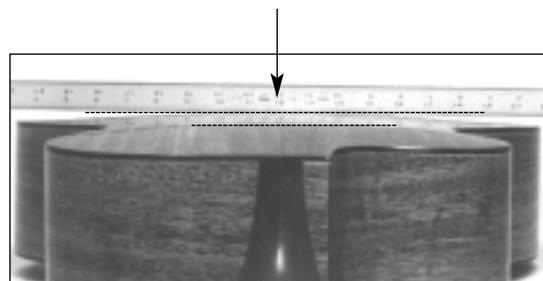


Photo 6.  
This photo shows the back arch after the guitar has been dried. Notice that the swelling on the back is less pronounced. This guitar lost 38 grams of weight in the drying process, which translates into 1-1/3 ounces of water!



## SYMPTOMS OF A WET GUITAR (continued from page 1)

tory, and how relative humidity affects wood.

We do not expect guitar owners to become meteorologists, or to walk on eggshells concerning the safety of their guitars. But by becoming familiar both with the principles of humidity and with how a normal guitar looks and feels, an owner can prevent almost all damage to a guitar. **Basic precautions include: keeping the guitar in its case when not in use; keeping it out of direct sunlight, and extremes in heat, cold, and high or low humidity; regularly checking for any significant changes.**

Examine these photographs of an extremely "wet" guitar that came to us from a dealer in Asia. During a very wet and rainy season, this guitar remained on the store wall, where it absorbed moisture from the air. When the dealer returned it to us for repair, it weighed in at 2,431 grams. After drying it and then letting it normalize naturally to the 47 percent relative humidity in our factory (which restored the guitar to its original moisture content), the guitar weighed 2,383 grams. This was a loss of 38 grams of water, or 1.34 ounces — enough to saturate four large, highly absorbent paper towels!

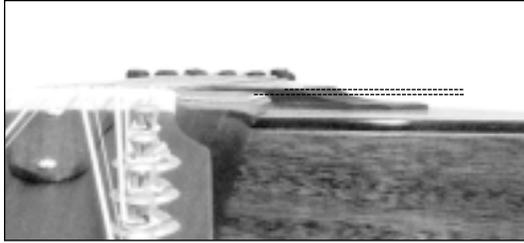


Photo 7.

*This photo shows the neck angle when wet. The top is so swollen that the bridge has risen above the fingerboard (see broken lines). If you were to "sight" down the neck, you'd find that it points "low" on the bridge. It would be a mistake to reset the neck while the body is this wet.*

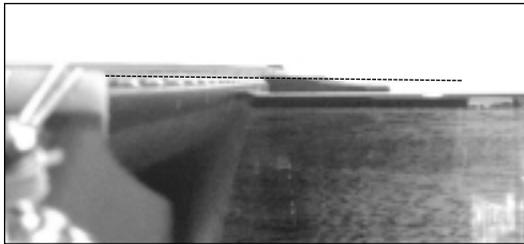
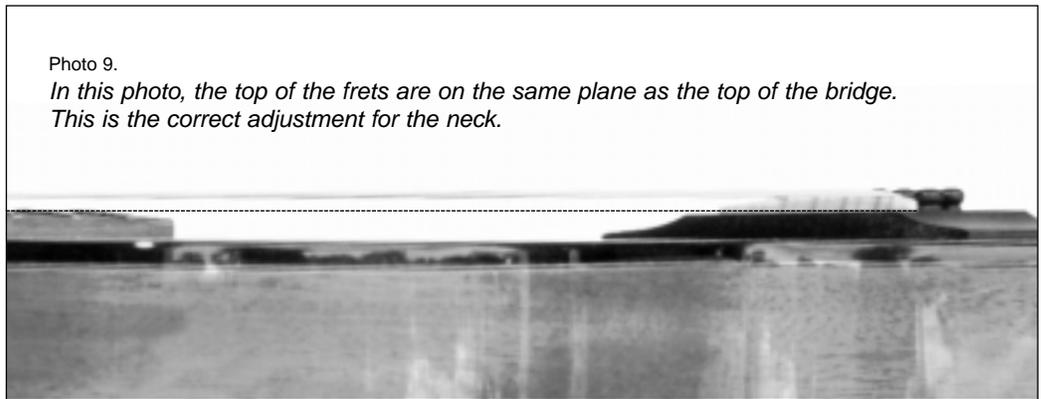


Photo 8.

*In this photo, the neck angle is correctly set. Notice that if you sight down the neck to the top of the bridge, the top of the frets and the bridge are on the same plane.*

Photo 9.

*In this photo, the top of the frets are on the same plane as the top of the bridge. This is the correct adjustment for the neck.*



### SYMPTOMS TO LOOK FOR:

1. High action. Strings that are unusually high off the fretboard, making it difficult to play.
2. Portion of fretboard on the body is raised above the portion on the neck. Causes fret buzzing in the high registers.
3. Unusually swollen top. See photo 2.
4. Unusual warp on the top, back or both at the end-block.  
See photos 1 and 2.
6. Improper neck angle. Sighting the neck to the bridge, the frets will appear to hit below the bridge.  
See photo 7.

**NOTE: All guitars will have a certain amount of "pull" behind the bridge. This alone is not an indication of a wet guitar. Look for a combination of these symptoms to determine if the guitar is getting too humid.**

### PREVENTION IS BEST:

1. Periodically, remove the guitar and blow-dry the interior of the case with a hair dryer for 10-15 minutes.
2. Use a small de-humidifier in the room where you store your guitar. It's also wise to monitor the humidity levels with a digital hygrometer. Radio Shack offers these for a nominal fee.
3. Place several silica gel packs in the guitar case and change them every few months

