



Cleaning

The polyester finish is best cleaned with a soft, damp cloth. An excellent finish polish is Stewart MacDonald's *Preservation Polish* and it is gentle enough to be used regularly. Be careful not to apply buffing compound right near the neck or bridge joint as it can get trapped at the edge of the joint and look unsightly. For the fretboard and bridge, I recommend Stewart McDonald's *Fretboard Finishing Oil* for annual or biennial application.

Humidity Control

By far, the most important thing you can do for your instrument is to keep it properly humidified. Both low and high relative humidity (RH) can completely destroy your instrument within a very short time. My guitars should be maintained within a RH range of 40% to 50%. Here is an important list of RH ranges that you should remember:

< 30%	---	VERY BAD	PERMANENT DAMAGE.
30% TO 35%	---	BAD	THE WOODS ARE SHRINKING AND PROLONGED EXPOSURE WILL CAUSE DAMAGE.
35% TO 40%	---	OKAY	THE LOWER END OF THIS RANGE AFFECTS THE ACTION AND PLAYABILITY.
40% TO 50%	---	IDEAL	
50% TO 60%	---	OKAY	THE UPPER END OF THIS RANGE AFFECTS THE ACTION AND PLAYABILITY.
60% TO 80%	---	NOT GOOD	THE WOODS ARE SWELLING AND PROLONGED EXPOSURE WILL CAUSE DAMAGE.
> 80%	---	VERY BAD	PERMANENT DAMAGE.

Please Note: Most digital hygrometers on the market are within acceptable accuracy ranges but it is still important to make sure they are calibrated correctly. Digital hygrometers also drift over time and should be replaced every few years. I have found the Caliber IV hygrometers to be consistently accurate right out of the box. If you are unfamiliar with hygrometers, please call me to discuss proper calibration methods.

Miscellaneous Information

■ I recommend light gauge strings in standard tuning and medium gauge strings for dropped tunings. My guitars ship with a light-medium gauge string set which feature medium gauge strings for the E, b, and e. This keeps the overall string tension relatively low in standard tuning but provides the needed tension for most dropped tunings. I do not build my instruments to accept a full medium gauge string set in standard tuning. The instrument will certainly not implode but months of wear with the added string tension will likely cause undesired amounts of soundboard deformation.

■ I use unslotted bridge pins and a slotted bridge. When installing the strings, position the ball end so that it rests upon the bridge plate in its widest orientation. It helps to slightly pre-bend the string right before the location of the saddle – this makes it easier to hold the string in the proper position while installing the bridge pin. Following this tip is not necessary but over many decades can make a difference in the condition of the bridge plate.

■ I carefully fit each bridge pin to each individual hole. If the pins get mixed up, you can easily reestablish the correct order by laying out the pins in order of decreasing length. The bridge pin for the low E is the longest and the pin for the high e is the shortest. When restringing the instrument, push the bridge pins in with very light finger pressure -- there is no need to push the pins in with much force or they will become difficult to remove. If you can't remove a tight-fitting pin, you can push the pin from inside the guitar (*or use a small wooden block as a mallet*) but be very careful not to let the pin shoot into the air and land on the top. You can also purchase a special bridge pin tool that will remove stuck pins without damaging the guitar.