DEERHEAD
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Humidity and Care of Your Guitar

Wood is hygroscopic, that is, it will take on as well as lose water, and shrink or swell in response to environmental temperature and humidity changes. Deerhead guitars are assembled under ideal conditions: a shop temperature of about 70 degrees and relative humidity of about 50%. They will handle most variables; however, there can be no guarantees that the wood will not develop problems if exposed to extremes. Instruments should handle 25% and 75% relative humidity for a couple of days without too much strain. Extended exposure below 25% and above 75% is asking for trouble. It is in your best interest to keep aware of the environment and to adjust it when necessary.

Monitoring humidity in the air and the instrument is critical. There are a variety of instruments available for monitoring relative humidity. For example, the Taylor dial or Planet Waves digital hygrometers can be wall or case mounted respectively to measure relative humidity and temperature of the area. The importance of monitoring the moisture in the air cannot be too strongly emphasized.

Dial Hygrometer

There are also direct ways of monitoring the instrument's moisture content. Carefully observe the fingerboard, soundboard and back. When the instrument is subjected to an atmosphere that is drier than the point when assembly took place, the fingerboard will shrink and the frets will protrude. When the atmosphere becomes moister than when assembly occurred, the fingerboard expands and the frets will appear short, showing gaps at the end of the slots.

The arch in the back can also serve as a visual gauge. The cross braces were glued at 50% relative humidity. When humidity increases, the back expands, and with the cross bracing glued to the interior surface of the back, the arch will increase to the outside. When the humidity decreases, the back contracts and the arch decreases. In an ultra-dry atmosphere, the arch in the back can actually become concave. Then something may give: the back may open up or pop loose from the braces. By becoming aware of your instrument at the ideal relative humidity, you can acquire a sense of when the relative humidity has changed and precautions must be taken by adjusting the atmosphere.

Digital Hygrometer

Sound-hole Humidifier

You can control the immediate environment of the instrument by using case or sound-hole humidifiers. For example, the Planet Waves humidifier helps replenish the moisture content in the instrument after it is returned to its case. Results are slow, however, and not too effective if the instrument is outside the case for long periods of time. Note that humidifying devices that are used inside the sound-hole can be effective to the body area but do nothing for the fingerboard.

Some points to observe when using a case or sound-hole humidifier: There should be ample room around the device and case interior for circulation of the moistened air. The device or moisture should not touch the instrument directly. Water content in the device cannot be so excessive that it will leak out onto the case or instrument.

Room humidifiers are inexpensive and can be instrument savers in dry climates. A case humidifier, obviously, is not sufficient if the instrument is being played many hours a day in a bone dry atmosphere. A dry practice room should be closed off and a room vaporizer used to bring the relative humidity of the room to a comfort level of about 50%.

Silica Gel

For extra high humidity, water absorbers such as silica gel can be used in emergencies, but can be dangerous if used improperly. Silica gel packages used in the case work very slowly and should not touch the instrument.

The ideal temperature for you instrument is the same as for your own body. Never expose the instrument to any extremes that you would not find comfortable yourself. Typical hazardous areas include the trunk or interior of a closed car in hot weather, hot direct sunlight, or near a heater. Also avoid freezing cold air.

Following these guidelines assures your guitar will perform at the optimum level for many, many years.