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# Maintenance Instructions for Kantele with Wooden Tuning Pegs

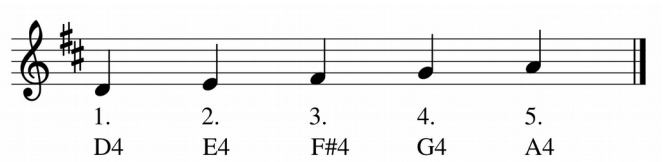
## General information

This information booklet is written for kanteles with 5 or 11 strings and wooden tuning pegs. Both intsruments have a small differences when compared to the models with metal tuning pins. For example some measures and thicknessess are desingned to function better with wooden tuning pegs.

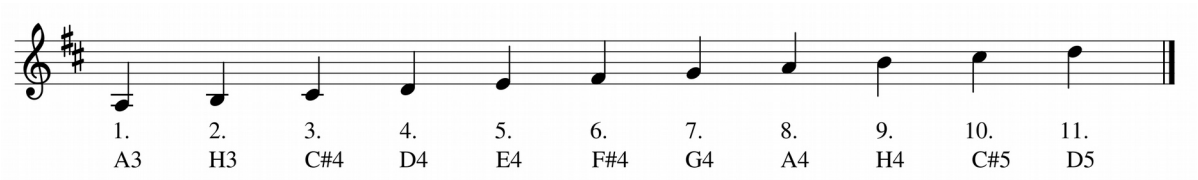
Frames and tops are made of alder from local forests. Tuning pegs are made of harder wood, which in this case maple. On the bottom side there are four softening pads that are made of leather. For finishing of the kantele, the colour is either from varnish (for natural wood colour) or stains (for other colours). On the surface there are several layers of non-toxic wood wax that has been certified with the standard EN 71.3.

Strings are numbered from the longest string with number one (Pictures 1. and 2.). The shortest string in 5-string kantele is number 5 and 11-string kantele number 11. With tuning level, the scientific way is used which means that tone A4 corresponds to the frequency 440 Hz. Many tuners use the same way.

Both kanteles are tuned to D major but they can be tuned in many other different ways by lowering or raising single tones. For example, 5-string kantele can be tuned from major to minor by lowering the 3. string half step (F#4 → F4). All strings can be tuned lower but it is not recommended to tune every string higher.




Picture 1. Tuning of 5-string kantele in D major. By lowering the 3. string to F4, kantele can be played in D minor.




Picture 2. 11-string kantele tuned in D major.

## Storage

Musical instrument like kantele should not be stored in direct sunlight or near heat sources. It is also advisable to avoid rapid changes in temperature. For example, if kantele has been transported in a cold outside air for a long time, when brought inside, it should be given some time to warm up in it's soft bag or case before use.

Changes in air humidity can affact to the functioning of wooden pegs. Constant humidity would be ideal but that is rarely possible to arrange. If the climate is cold during winters and indoor air is heated, air humidity can be very low. With large kanteles or other musical instruments like acoustic guitars, it is a good practise to use some kind of humifier during winter time. This is especially because large areas of like the top and bottom of the instrument are prone to cracks.

With small and medium size kanteles (like 5, 11 and 15 string kanteles) the effects of air humidity changes are not usually that big. But it is possible that in low humidity some wooden parts shrink a little bit and for example the ends of the metal rod can become more visible. Or because of the changes in humidity and as well as the stress from the strings, the bottom of the kantele may not be completely even when placed for example a table that is precisely flat.

## Adjustment of Wooden Pegs

A kantele with wooden tuning pegs has a personal, distinguishable sound. Compared to the metal tuning pins, wooden tuning pegs require a little more care and adjustment.

If wooden pegs feel to be stuck or very tight, they should not be tried to turn with force because that could in worst case break the tuning peg. The peg should first be pulled out a bit and then turned. When the correct tune is achieved, the tuning peg can be gently push back in until it is tight enough.

In case the peg seems to be turning open after tuning, one can try tuning the string while in the same time pushing the peg slightly inwards.

Using wooden pegs can sometimes be a bit tricky and need some practice. Also making small changes to the tone by turning the tuning peg, is not so easy that is usually is with metal tuning pins. If the methods described before don't seem to work, it is possible to affect the feel of the tuning peg by adding chalk or soap – depending on the situation. Usually this requires turning the peg many times, so that string is loose and removing the string from the peg. This way it is easy to add either soap or chalk. Other alternative is to loosen the string as much as possible and carefully pull the peg a few centimeters from the kantele (with the string still attached to the peg).

With synthetic strings it must be remembered that the string has been wind many times before placing it on the tuning peg. If the string is let loose, it will unwind. If there is some way to prevent is, it would be good (some kind of clamp, an assistant, etc.) but no harm is done if it unwinds. Then it just have to be wind again before putting it back to the tuning peg. It is good to use other strings as an example.

**Tuning pegs are too tight or too loose**

If none described before don't seem to help, then it may be time to try adding soap or chalk, depending on the problem.

Case 1. Tuning peg is too tight. In this case the solution is to add very carefully some soap to the tuning peg. Add only very small amount of soap first to a small area of tuning peg that touches the body of kantele. Then turn the peg to both directions and feel if there is any changes. It is advisable to put the string back and try tuning before adding more soap. If the peg still feels too tight, repeat the procedure. If if feels too loose, then there is too much soap which could be corrected by adding soap (see Case 2.). Also it is recommended to check does pushing the peg tighter help.

Case 2. Tuning peg is too loose. It can even turn open by itself. In this case the solution is to add chalk which adds some friction. Chalk should also be added with care, so add only a little amount first, put the peg back and try how it works. If it is still too loose, repeat the procedure. Crieking noise or difficluties in turning the peg indicates that there could be too much chalk. In this happens, you can first try if it gets better in time after you have carefully tuned it several times. But if it doesn't, adding soap could be an answer (See Case 1.).

**Notes and safety**

It is worth remembering that method of adding soap and chalk is only for kanteles with wooden tuning pegs. They should not be used with metal tuning pins.

If kantele has metal strings, it is good to remember that the end of strings can be sharp for example when a string is broken.

The soap and chalk delivered with kanteles are produced in Finland. For example the soap is produced without added fragrances or colours. It is advisable to keep the soap and chalk away from small childen. Also, even though kanteles do not have small parts except four soft pads that glued to the bottom of kantele, kanteles are not recommended for use of small children (under age of 3), especially not without supervision.

**Final word**

Tuning and adjustment of kantele with wooden tuning pegs may require patience but it should also get easier in time and with practice. If you don't find this instruction helpfull enough or there are constant problems with the tuning, please contact the manufacturer of your kantele. Also, if there is something that is missing from this instruction or you would like to share your experiences or some suggestions how to improve kanteles, I would appreciate if you could for example write an email and tell me about it.

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