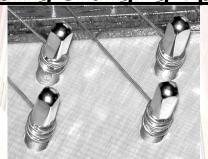


d'Aigle Autoharps & Folk Instruments 19106 Des Moines Memorial Drive S SeaTac WA 98148 206-439-3549 1-800-630-HARP

String Changing Tips



- Remove chord bars. Don't lose the springs! A refrigerator magnet in a tin can helps keep them.
- Loosen all strings one half turn, go back and loosen all again three full turns, while keeping enough tension on the string to unwind it as you back off the pin. Depending on how the 'harp was strung initially, the strings may simply pull out of the pins. It is best to have a grip on the string, with pliers, close to the pin so the string will not fly.
- If the strings do not pull out at this point, I prefer to CAREFULLY cut all strings near tuning pins. Then CAREFULLY pull strings out of pins. Use pliers and grab the strings close to the pins. Don't be shy about wearing eye protection! The strings can bounce back, or break with small pieces flying.
- Check the tuning pins for height. Adjust them to all be approximately 15/16" high. If they are too high you may experience loose pins that are hard to tune. If they are too low, they will sink too far into the 'harp body. Ideally, strings on an A model 'harp angle down at about 15 degrees, while B model strings should be relatively level from the bridge pin to the tuning pin.

- Clean up your 'harp while you have the chance! A little mild wood cleaner and polish is a good idea, or you can wax it with a good car wax if the finish is particularly dull or worn. Clean around the tuning pins with a soft bristle paint brush.
- Model "B" strings should anchor firmly in their slots. You can use a wood shim or equivalent to hold it in place at the anchor until you have tightened it in place.

Model "A" strings anchor directly over the anchor pins. You can hold them in place with a spring clip. Spring loaded clothes pins may not be strong enough.

Holding the string on the anchor will be made easier by keeping some tension on the string as you wind it on the tuning pin.



Tools for changing strings:

- Needle nose pliers
- Side cutters (wire cutters)
- Tuning wrench
- Fine tuning wrench
- Electronic tuner

• Fine tuners vary. The common O.S. style must be removed to thread the string through it, and then replaced. Try to seat the ball end into the fine tuner cam as well as possible. The finer strings will seat easily. For the larger diameter core wires, bend the tail of the string toward the ball end. For the largest (#14 through #17) I bend the tail up so it is parallel to the string. This gives the minimum thickness (double thick wire) to seat in the fine tuner. You may have to cut the tail end so that it does not cause a hazard for your fingers when stringing is finished.

Insert the screw and screw it down until it bottoms out, then back it off three full turns. If it is not fully seated, it will seat itself as you tune.

For d'Aigle fine tuners just remove the set screws, remove the old strings and drop the new into the slots. The tail should face up in the slot, and may need to be cut shorter if it sticks up above the fine tuner.



For other fine tuners simply take them apart as needed, and reassemble

the same way they came apart. For specific questions about these, ask the builder.

 You can use a nipper gauge tube to measure the proper string length (a drinking straw cut to about 2" in length will do). Pull the string past the tuning pin to measure, and cut the string at about 2" past the pin.

Cut the string to length, but don't thread it through the tuning pin. With needle nose

pliers, grab the string at bend the string into a J the tuning pin hole and you turn the pin to wind method is easiest for disappear altogether.



about 3/16" from the end, then shape. Insert string end into put a little tension on string as the string around it. This most folks, and the string ends

• Tighten each string, winding them to spiral from the hole toward the 'harp body. Tighten just until it will ring a tone (much lower in pitch than when finished).

- Go to next string and repeat until all strings are installed.
- Now tune all F strings, then all G strings etc. (recommended for older, less sturdy bodies) or simply tune all strings in succession. When finished, tune again a little sharp.
- Press the strings down at the bridges to make them all flat. Strings tend to bend upward at the bridge. You can use a straight edge sliding across the strings to see if they are at the same height. With Oscar Schmidt fine tuners you may need to make adjustments to make sure the strings are flat with each other.
- Strum the strings hard a few times. Make an awful sound! Then tune again.
- Reinstall chord bars.
- When should you change the strings? It varies widely with each person.
 Playing style, frequency of play, body oils etc. are different from person to person.
- In general, you will begin to notice the wound strings loosing their tone and brightness. Most players find string changing time to come around once every one to three years. Some will need it sooner, other weekend players will get by much longer. If you are beginning to wonder if it is time, chances are you will benefit from a change of strings.



Picture shows "A" model strings, those with loop ends, and "B" model strings with ball ends.

Most luthier-built 'harps use B style strings, though they have bridges like an A model.