

# HARP DOCTOR LLC

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## ***Complete RESTRINGING Procedure***

Here is the order and operations I do under normal circumstances. Some older harps (over 30 yrs old) or harps with structural concerns may require a slower procedure to be safe.

It is assumed that you can tie string knots in a reasonable amount of time, less than 5 minutes each.

Supplies, tools: Strings - Cutter tool - String anchors

- Make sure you have ALL the strings you are going to replace before you begin.
- You should also have a tool to cut the strings (a "side cutter" for electrical wire is good).
- String Anchors also sometimes called Toggles et al. These are 1 inch or 2.5cm long pieces of 5th octave gut strings. Other strings are too thin to perform properly for several reasons. If you replace the 5th octave first, you will have plenty of material for the remainder of the harp by either using only the bit you cut off after bringing the string to pitch or by using the old string you removed. You never need to destroy a good string to make Anchors.

1. Remove all 5 5th octave strings.
2. Install 5A and knot. Put into tuning pin, allow only a small amount of extra string (1/2inch, 1cm) and turn the tuning pin bringing the string under tension but not to pitch, we do that later.
3. Install 5B. Put into tuning pin, allow only a small amount of extra string (1/2inch, 1mm) and turn the tuning pin bringing the string under tension but not to pitch, we do that later.
4. Install 5C, 5D and 5E same as above.
5. TUNE all new strings one whole tone (step) too low. Do NOT spend more than 15 seconds on each string (yes, SECONDS, you are wasting time otherwise, hit the pitch and move on). Wait two minutes. Tune them one half tone low. Wait two minutes. Now tune up to pitch. Wait two minutes and tune again. We stop with the tuning now and go on. \*
6. Remove all 4th octave strings. Follow the same procedure as above (1.-4.) with installing each string.
7. Tune all 4th octave strings one whole tone too low twice. Now tune the 5th octave to correct pitch followed by tuning the 4th octave to correct pitch. \*
8. Remove the 3rd octave strings. Follow the same procedure to install but 3F is where we start to include an Anchor in the knot.
9. Tune...3rd octave one tone low one time, wait two minutes tune it again one half low. Now tune the 5th and 4th octaves to pitch followed by the 3rd up to correct pitch. \*
10. Remove 2nd octave following same procedure.
11. Tune 2nd oct one tone low one time, wait two minutes and tune it again one half tone too low. Now tune the strings to correct pitch in this order 5th, 4th, 3rd, 2nd. \*
12. Now change out the 1st octave using same procedure.
13. Once all the non-metal strings have been replaced. Let the new strings rest over night. In the morning tune up to pitch two times but do NOT dwell or fret about getting the pitch exact. Speed and repetition is more effective than precision in pitch at this point; "SPEED TUNING" should take no more than 15 minutes for the whole harp - try to keep moving. The strings will be unstable for several days so do not get frustrated or worry about them constantly slipping down in pitch.
14. Tune the harp as often as you like or can from now on. Leave at least one hour in between tuning sessions.
15. You can change out the wire strings on the second day or later. Change one by one and you can tune them up to pitch immediately.

\* You can take breaks if needed. A break can be 5 minutes or one day or two days or whatever...