

REPLACING STRINGS

It is not unusual for harp strings to break, so you need to learn to replace broken strings. Harpmakers use a variety of types and gauges of strings, and it is extremely important that you use the correct strings for your harp. You should have received a string chart or string list with your harp, showing the correct strings for your harp model. If not, contact your harpmaker or a harp store that specializes in strings, and get a correct string gauge chart for your harp model. It is a good idea to keep an extra set of strings with your harp, so you can replace the strings when they break. **BE SURE TO REPLACE A BROKEN STRING WITH THE CORRECT GAUGE AND TYPE OF STRING.**

STEP 1 - Remove the old string from the back of the soundbox, and from around the tuning pin. If the string is wire or metal, use pliers to remove the string, so you don't cut your fingers.

STEP 2 - Prepare the tuning pin. The next step depends on which of three types of tuning pins are on your harp. Most harps have **tapered pins**, which are fatter on the end where you put your tuning key, and taper down to a smaller diameter on the end where the string attaches. Before you put on your new string, make sure the tapered pin is securely seated in its hole. Use your tuning key to twist back and forth slightly as you push firmly in toward the neck of the harp.

Dusty Strings has been using **threaded tuning pins** on their harps since 1998. On the outside, they look similar to tapered pins, but they have threads in the middle, inside the neck of the harp. Both the tapered pins and the Dusty Strings threaded pins are types of "through pins," because the pins go all the way through the neck. Some harps by other makers have **zither pins**, which don't go all the way through the neck of the harp: they only stick out on one side of the neck.

If your harp has either Dusty Strings **threaded pins** or **zither pins**, use your tuning key to unscrew the pin 3 or 4 turns before attaching the new string. If you skip this step, the pin will be too far into the neck once you bring the new string up to pitch.

STEP 3 - Knot and insert the string. Wound strings and bass wire strings come with an anchor on one end. When replacing any other type of string, you will need to tie a knot in one end. See page 78 for instructions on how to tie this knot. Once you've tied the knot (or if the string has an anchor), insert the free end of the string from the inside of the soundbox up through the hole in the soundboard. Pull the string through until stopped by the knot or the anchor.

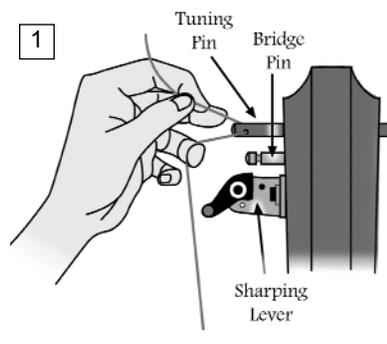
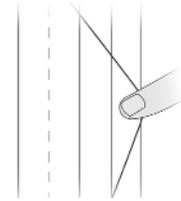
Another option is to thread the string through the hole **BEFORE** you tie the knot. To do this, insert the string through the hole from the **TOP** of the soundboard and then pull it through partway out the back of the soundbox and tie the knot. Pull the other end of the string back up through the soundboard until stopped by the knot.

STEP 4 - Thread the string through the tuning pin hole. Draw the string up to the tuning pin passing it through the sharpening lever, if necessary, thread it through the hole in the tuning pin, and pull it taut. Be sure that the string is on the correct side of the bridge pin.

STEP 5 - Create slack in the string if necessary. Depending on what type of string you are replacing, you may need to leave some slack before you start to wind the string. You want to end up with the string

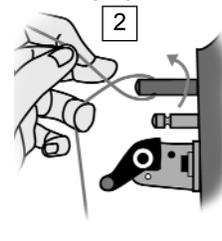
wrapping about 3 or 4 times around the tuning pin once the string is staying up to pitch. If you have either too few or too many wraps, your string is much more likely to break.

The highest thin nylon or gut strings need the most slack of about 2", with the slack decreasing as the strings get thicker. Bass wires and other strings with a wire core need up to 2" to 3" of slack. You do not need to leave any slack for nylon or gut strings over a gauge of about .036 or in the 4th and 5th octaves, or for nylon wrapped strings with a nylon core. To create slack, pull the string to the side about 3 string spaces, or pull the string back down through the hole in the tuning pin the proper number of inches.

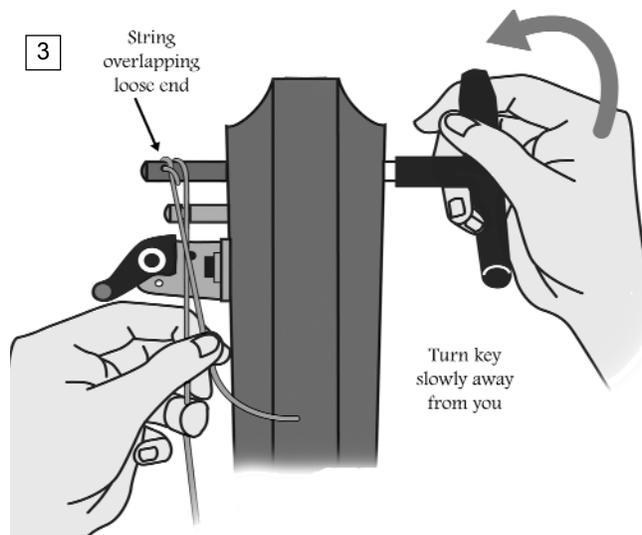


STEP 6 - Use your tuning key to wind the string on the tuning pin.

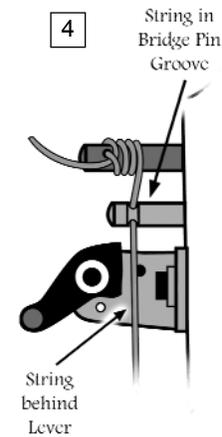
Hold the loose end of string out with your left hand as shown in Fig. 1. With your right hand, place your tuning key on the correct tuning pin and turn it by pushing your thumb away from you, until the string crosses over itself as shown in Fig. 2.



Bring this twist back toward the harp and continue turning the pin, so that the string winds over the loose end, securing it (Fig. 3).



Wind until the string has some tension and check to make sure the string is on the correct side of the bridge pin and tucked into the groove as shown in Fig. 4. Be sure the string looks like all of the other strings around it. Continue to slowly turn the pin with your tuning key until the string is up to the proper pitch. (If your harp has tapered pins, be sure to push the tuning key in towards the neck of the harp as you turn, to keep the tuning pin tight.)



STEP 7 - Cut off the excess string.

New strings, particularly nylon strings, need a lot of tuning before they will stay up to pitch. Once you're sure that the string is on your harp correctly, you should cut off the excess string above the tuning pin. On the highest strings, the excess will often be long enough to use later as another replacement string.

BASS WIRE STRINGS

Because harpmakers use a variety of types of wound bass wire strings, the instructions for replacing these strings varies greatly. Bass wire strings are particularly tricky to replace, and should be brought up to pitch slowly. Be very careful when replacing these strings, because if you make a mistake you usually will not be able to unwind the string and start over. Check with your harpmaker, your maker's website, or www.harpcenter.com to find additional instructions for the type of bass strings on your harp.