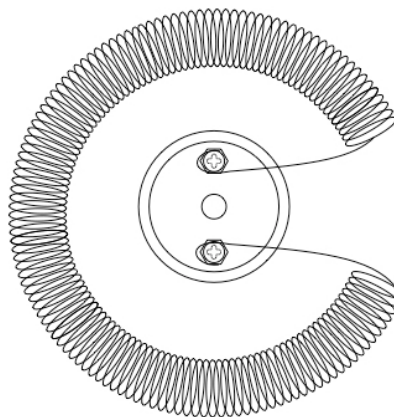


Instructions for Installing Heating Coils in Volatile Acid Stills

Your new heating coil comes to you in its larval form; it is up to you to effect the transformation into its adult, living form. As with all instructions, read these through carefully before doing anything.

You have before you a tightly wound coil of resistance wire like a Slinky, about four inches long. There should be about an inch and a half of straight wire coming off each end. Hold the coil from both ends and pull it a little; it will stretch like a spring. A long dowel or rod inserted through the coil can help achieve a good result. You will need to stretch it enough that when it relaxes there is a little space between each coil, with none of them touching over the whole length of the coil. It will take a lot of stretching before you overcome its springiness; try pulling a small section first to get an idea of how much works. A little variation in the coil spacing is okay; when the whole coil is about eight inches long, and all the coils are separated, you are done.

Wrap one end of the wire around one of the screws in the posts in the cordset insert unit, one wrap around between the two washers, and bring the wire out perpendicular to the line of the two screws, shown in the image to the right. **NOTE!** an internal wire is soldered to the end of this post, **and turning the post could disconnect the wire. Use pliers or a vise grip to keep the post from turning.** Use a Philips screwdriver to tighten the screw holding the wire; bend the wire coil around so that the other straight end can be wrapped around the other post and the screw tightened in a similar fashion. The end wires should hold the coil in a near doughnut shape, centered on the body of the insert unit, as shown. Squeeze the doughnut so it will fit through the glass threaded bottom opening of the still flask, and slide it and the insert unit into the glass thread. The wires should still be perpendicular to the line of the screws, and the coil should lay flat in the glass flask, with none of the coils touching. Tweak as necessary. Screw the plastic threaded cap onto the glass, and tighten it; a bit of moisture at the glass thread end can facilitate tightening. Attach some rubber tubing to the drain tube and close it off with the pinch clamp. Add some distilled water into the flask to check for leakage. Tighten the plastic cap if necessary. You are now ready to distill again.



When operating, check the level of water in the boiling flask, and add more if necessary. **Do not allow the level to go so low that the heating coil is exposed. If the flask runs dry, and is still hot, do not add water.** Turn off the power and let it cool slowly; if you add water to a hot flask it will crack. Damaged stills can be repaired, but damage is avoidable.