



# The Ventenna Company LLC

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## How to Repair an HFp Element

HFp elements are constructed of fiberglass tubing with brass inserts pressed into the ends. The inserts are for coupling the elements together, and for connecting the wire which runs from one end of the element to the other. Occasionally, because of manufacturing tolerances, one of these inserts will come loose, and turn inside the element. Sometimes it turns far enough that the attached wire will break.

The Ventenna Company will replace failed elements free of charge, but, if you want to get going sooner than the shipping time, it is possible to repair these elements yourself. Here is how to do it.

First, carefully cut off an inch or so of the shrink tubing at the affected end of the element. Be **very** careful to not cut the wire. Try to leave the element's label in place.

If the insert is still fully seated into the tubing, use a pair of pliers to pull it out a bit. You will probably have to twist the insert back and forth slightly to get it to move. Pull it out so it's about a quarter-inch or so from its seated position.

Put a couple of small drops of the thin liquid type of Super Glue at the end of the fiberglass tube, in a couple of places around the insert. Do not use the gel-type of Super Glue for this.

Press the insert back into the fiberglass tubing, and let it sit for a few minutes.

Test the insert with the pliers - it should not be moveable under strong force.

If the wire has become disconnected, or is excessively loose, it must be re-attached. Cut the end off the wire, to eliminate any kinked or severely-bent portion - this will remove any weakened portion of the wire. NOTE - trim off as little as possible - 3/4 inch maximum! Clean the end of the wire for about 1/4 inch, removing any colored enamel on the wire.

Wind the wire tightly around the tubing, with the cleaned end against the exposed side of the brass insert. A piece of thin tape can be used to hold the wire in place. Using a strong soldering iron, solder the end of the wire to the insert. This may take a bit of heat, because the insert will act as a heat sink. Note that it may also be necessary to clean excess Super Glue off the side of the insert to get the solder to adhere. Gently file off any solder which got over on to the end of the insert, being careful to not slope the end of the insert.

After the soldering is done, cut a short length of 1/2" black shrink tubing, and slip it over the repaired end of the element. Adjust the tubing to be flush with the end of the insert, and shrink it into place. If the element's label has been removed in the repair process, be sure to replace it, as well.