

Recession Busters!



Here at Hexacon we know that everyone is experiencing difficulty during this economic crisis. We thought the best we can do is to remind our customers how to get the most from their soldering tools. We call this column "Recession Busters" and hope to add to it periodically. We are here to support our customers and if you have a question about your soldering iron or station we want you to contact us directly. We value you as our customer and wanted to share what we know to help stretch that shrinking dollar.

1. A clean **sponge** is the lowest cost way to make sure soldering tips are well maintained. If your sponges are black and covered with solder and flux residues, chances are that you are transferring these residues onto the work being soldered. The sponge used should be wet enough to see water if pressed with your finger. If the sponge is too dry it acts as sand paper and mechanically abrades the plated surface of the soldering tip. Sponges are the cheapest thing to replace and will extend tip life.
2. Did you know that the most common reason for premature element failure is an unseated tip in the element core? **Fully seat all tips** at the base of the element core for optimal element life. If element operates without direct contact with tip the element overheats and fails. Unseated tips will void any warranty claim.
3. Did you know that using a **voltage controller** with your steady output iron lowers the iron voltage and reduces the energy usage too? The voltage controller can be used to turn the iron down during idle periods and still be ready to use when you are. A lower temperature on the iron will also have the added benefit of increasing the life of your soldering tip.
4. Did you know that Hexacon still sells most of its **tips** individually? Except for J tips you can still buy one tip. Other soldering iron manufacturers sell tips in larger package sizes.
5. A properly designed **iron holder** can increase the efficiency of your soldering tool. Poorly designed holders may heat sink an iron causing idling temperature losses of up to 200 degrees F. Which part of the iron comes in contact with the iron holder is also critical to an iron holder's design. If the angle at which the soldering iron is supported is too great, convection heating will generate handle heat. Hexacon designed a custom bench mounted iron holder to accommodate as many as four soldering irons at one station.
6. A coating of solder makes your **soldering tips** last longer. Apply a fresh coating of solder to your soldering tip before placing the iron back into the iron holder. This solder coating is known as "tinning" regardless of alloy or metal content.
7. Although instinct would guide a user to wipe the tip clean before placing the iron in the holder, a freshly wiped tip that has no solder on it and is returned to the holder at operating temperature will only oxidize the surface of the tip. The longer the iron idles in this condition the more difficult the removal of the oxide becomes. Oxide build-up on the tip surface can interfere with optimal heat transfer to the termination being made and could transfer these oxide residues to the connection. At some point no amount of flux or mechanical abrasion will remove these surface oxides and the tip becomes dewetted and unusable due to poor solderability. Dewetting is becoming more common with the switch to lead-free alloys.
8. A little solder to coat the tip is a small price to pay compared to the cost of replacing a prematurely failed tip.
9. Another way to extend the life of your tips is to prevent the build-up of oxidation at the other end of the soldering tip. How do you do that? It's easy. **Each morning** before you plug-in the soldering iron or station in **loosen the tip** from its housing and move it around. It does not have to be completely removed just twist and pull it out an inch or two. Take special care to fully reseat the tip in the element before plugging the iron back in and beginning the day's work. This daily maintenance on the tip will take under a minute.