

# Soldering Equipment

## Safety Handout

Last Revised July 27, 2005

Soldering is simple in concept but difficult in practice. Many people think they know how to solder correctly but really do not. Therefore, it is important to read about proper soldering technique before using the soldering equipment. **In addition to reading this handout, please read the soldering tutorial located at:**

[http://www.elexp.com/t\\_solder.htm](http://www.elexp.com/t_solder.htm)

(A link to this tutorial is also provided on the engineering department website.)

The tutorial mentioned above provides an in-depth discussion of proper solder iron care and proper soldering technique. For quick reference, the most important points for safety are provided here as well.

Safety guidelines for operating soldering equipment:

- 1) **Set the temperature on the SODR-TEK solder iron no higher than 800°**  
Hotter temperature can damage both your circuit and the solder iron tip. A temperature between 650° and 700° is sufficient for almost all work.
- 2) **Never leave any solder iron turned on unattended**  
This prevents the risk of fire. Also, when you are finished soldering, turn off all solder irons before you leave.
- 3) **Never file or scratch the soldering iron tip**  
This will remove the tip's coating, permanently damaging it and rendering it unusable.
- 4) **Please put all tools and supplies back in this drawer when you finish with them**  
Tools and supplies for use at the soldering station, including solder removal equipment, are located in the drawer immediately to the right of the solder station.
- 5) **Re-tin the tip periodically as you work**  
Also, wipe clean and re-tin the tip before you leave. This will prevent tip oxidation, improve heat transfer, and lengthen tip life.
- 6) **Clean up before you leave**  
This includes putting away all tools, turning off the solder iron, and brushing loose bits of wire and solder into a trash can. Do not leave clipped component leads at the solder station. It makes the EE/CE technician very unhappy.
- 7) **Ask someone if you do not understand how to use the equipment or are unsure about any guideline**

These safety guidelines are also posted at the soldering station. Safety glasses are also provided at the soldering station for your use. Their use is recommended, but not required.

**Always remember that a soldering iron is a tool, not a toy. If you abuse it you could cause serious burns to yourself or others. Horse play with the soldering iron is strictly prohibited; if the EE/CE technician catches you playing with soldering equipment it will not go well for you.**