**Soldering Safety**

**Soldering Iron Safety**
- Never touch the element or tip of the soldering iron. They are very hot (about 400°C) and will burn.
- Hold wires to be heated with tweezers or clamps.
- Keep the cleaning sponge wet during use.
- Always return the soldering iron to its stand when not in use. Never put it down on your workbench.
- Turn unit off or unplug it when not in use.

**Work Safely with Solder, Flux and Cleaners**
- Wear eye protection. Solder can “spit”.
- Use lead free solder.
- Keep cleaning solvents in dispensing bottle to reduce inhalation hazards.
- Always wash your hands with soap and water after soldering.
- Read and understand the MSDS for all materials before beginning work.

**Dangers of Lead Exposure**
- **Lead** on your skin can be ingested and lead fumes can be given off during soldering. Other **metal** fumes can also be hazardous. Lead can have serious chronic health effects, such as reproductive problems, digestive problems, nerve disorders, memory and concentration problems, muscle and joint pain.

**Avoid Toxic Fumes**
- Work in a well-ventilated area. The smoke formed is mostly from the flux which can be irritating, a sensitizer and aggravates asthma. Avoid breathing it by keeping your head to the side of, not above, your work.
- A benchtop fume extractor may be necessary to remove harmful fumes caused by solder and flux from the soldering workstation by filtering the air.

**Reduce Risk from Electricity**
- Always use a grounded outlet and grounding prong to reduce the risk of electrical damage if a short circuit occurs in the equipment.
- Prevent damage to electrical cords during soldering. Keep them away from heated tips.

**Fire Prevention**
- Work on a fire-proof or nonflammable surface that is not easily ignited.
- Wear nonflammable or 100% cotton clothing that covers your arms and legs to help prevent burns.
- Know where your fire extinguisher is and how to use it.

**First Aid**
- Immediately cool the affected area under cold water for 15 minutes.
- Do not apply any creams or ointments. Cover with a band-aid.
- Seek medical attention if the burn covers an area bigger than 3 inches across.

**Waste**
- Discard lead and silver solder and dross in a container with a lid.
- Label the container: “Lead (Silver) Solder Waste for Recycling”.
- Used solder sponges and contaminated rags must be disposed of as hazardous waste.
- Keep a lid on waste solder containers when not adding or removing material.