

Soldering Iron Safety Checklist

Refer to Mastercraft Soldering Iron Station Instruction Manual for detailed operation guidelines

PPE/Safety Rules

- Wear goggles for eye protection
- Wear clothes that cover arms and legs to avoid solder burns.
- Work in the assigned soldering station, where a fume extractor is present. Keep soldering station free of electric cables.
- Wash hands thoroughly after use.
- Clean up the area when finished, and ensure all components are turned off
- Collect waste in a lidded container.
- Clean the contents of the metal part, using the cleaning sponge or utility blade If necessary
- Keep the cleaning sponge wet during use.

Things to avoid

- Do not use hands to manipulate any components. Use a third hand, circuit board vice, pliers, tweezers or clamps
- Do not inhale fumes from the soldering process.
- Do not use soldering iron that have obvious damage to body, cable or plug. Notify the Makerspace Co-ordinator immediately.
- Do not have food or drink near the working area.
- Do not leave the soldering iron running unattended.
- Do not cover the fume extractor

Pre-start Checks

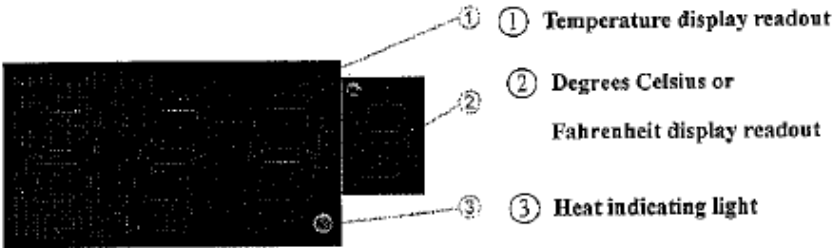
- Have I been trained?
- Do I know how to stop the machine quickly in case of an emergency? Is the safety on?
- Do I know all the components of the soldering equipment I am using?
- Does the soldering iron have any visible damage to it?
- Is the cleaning sponge wetted and in its designated area?

Potential Hazards

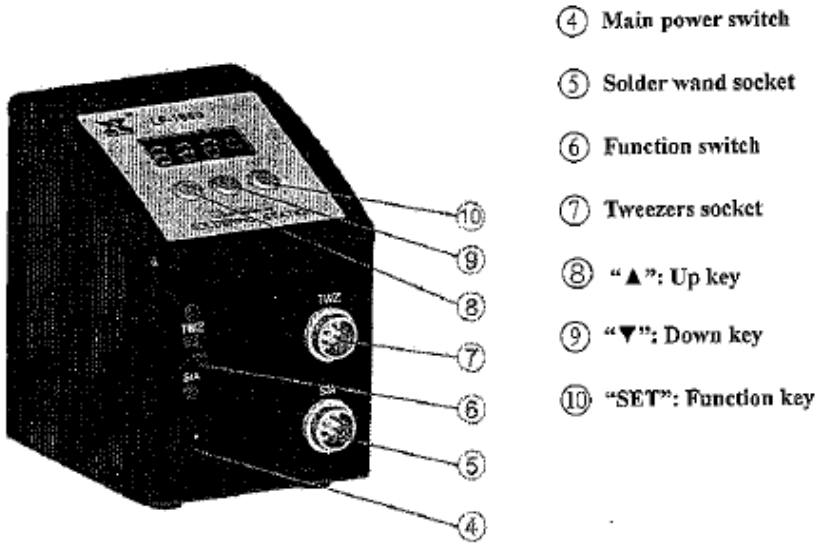
- Electric shocks
- Hand injuries
- Eye injuries
- Small components
- Hot soldering iron

BRIEF INTRODUCTION OF PANEL FUNCTIONS:

Front panel



- ① Temperature display readout
- ② Degrees Celsius or Fahrenheit display readout
- ③ Heat indicating light



- ④ Main power switch
- ⑤ Solder wand socket
- ⑥ Function switch
- ⑦ Tweezers socket
- ⑧ “▲”: Up key
- ⑨ “▼”: Down key
- ⑩ “SET”: Function key

Mastercraft®

Soldering Iron Station

Your Mastercraft® Soldering Iron Station is ideal for "do-it-yourself" projects.

Features:

- "Power On" light indicator:** For greater safety.
- 20/40 W Dual-heat setting:** Choose a low heat setting (20 W) or a high heat setting (40 W) to best suit your project.
- Lightweight iron with rubber grip:** For greater comfort.
- Sponge pad tip cleaner:** Helps keep the tip of your iron clean.
- Coil-spring iron holder:** Easily store your iron when hot, or when not in use.

This soldering iron is cUL-listed.

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

CAUTION
RISK OF ELECTRIC SHOCK.
DO NOT OPEN

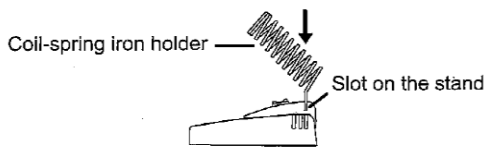
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol is intended to alert you to the presence of un-insulated, dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

PREPARATION

1. Insert the coil-spring iron holder into the slot on the stand.



2. Remove the rubber cap from the soldering iron and place the iron in the holder.
Caution: Do not connect the AC plug while the rubber cap is on the soldering iron.

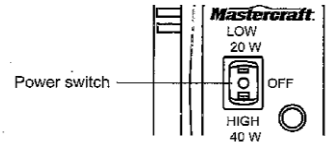
3. Connect the AC plug to a standard AC outlet.
Warning: This soldering iron has a polarized plug (one blade is wider than the other). To reduce the risk of electric shock, this plug is made to fit the polarized outlet only one way. If the plug cannot be fully inserted into the outlet, turn the plug over and try again. If it still does not fit, contact a qualified electrician. Do not modify the plug in any way.

4. Pour a small amount of water on the sponge pad.

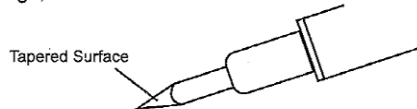


OPERATION

1. Set the power switch to either LOW (20 W) for light-duty work (like printed circuit boards), or to HIGH (40 W) for heavy-duty work (such as large wire or terminal strips). When you set the switch to either position, the power indicator lights up to show the soldering iron is heating.

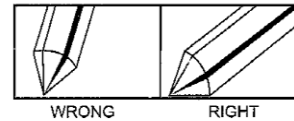


2. Choose the right solder. It is recommended that rosin core solders are used for electronics.
3. Use a smooth file, fine sandpaper, a steel brush, or solder flux to clean the parts to be soldered. To ensure a good electrical contact is made, remove any oxide-coating from the areas to be soldered. Clean printed circuit boards very gently to ensure that the thin conductive film is not torn.
4. "Tin" the tip of your iron. When the tip is hot, coat the tapered surfaces with melted solder. Tinning prevents oxide build up and ensures efficient heat transfer. Whenever the tip becomes discoloured, wipe it clean on the sponge, and then re-tin it.



5. Heat the parts that you are soldering before applying the solder. Hold the tip's tapered surface (not the point) firmly against the parts. When both parts are hot, apply a little solder. Use just enough solder to make a good connection; do not over-solder.

The melted solder should flow evenly, coating all the surfaces. If the parts have not been well-heated, the solder joint creates a poor electrical connection.



Hint: It takes practice to solder quickly and properly. Before you start an important project, be sure to solder several practice joints.

Warning: Be careful! Hot solder irons can cause severe burns and ignite fires. When you finish soldering a part, simply wipe the soldering tip across the moistened sponge pad tip cleaner to clean it, then insert your iron in the coil-spring iron holder. When you are not using your soldering iron, be sure to set the power switch to OFF. The power indicator light turns off.

This Mastercraft product carries a **three (3) year** replacement warranty against defects in workmanship and materials. Mastercraft Canada agrees to replace the defective product free of charge within the stated warranty period, when returned by the original purchaser with **proof of purchase**. This product is not guaranteed against wear or breakage due