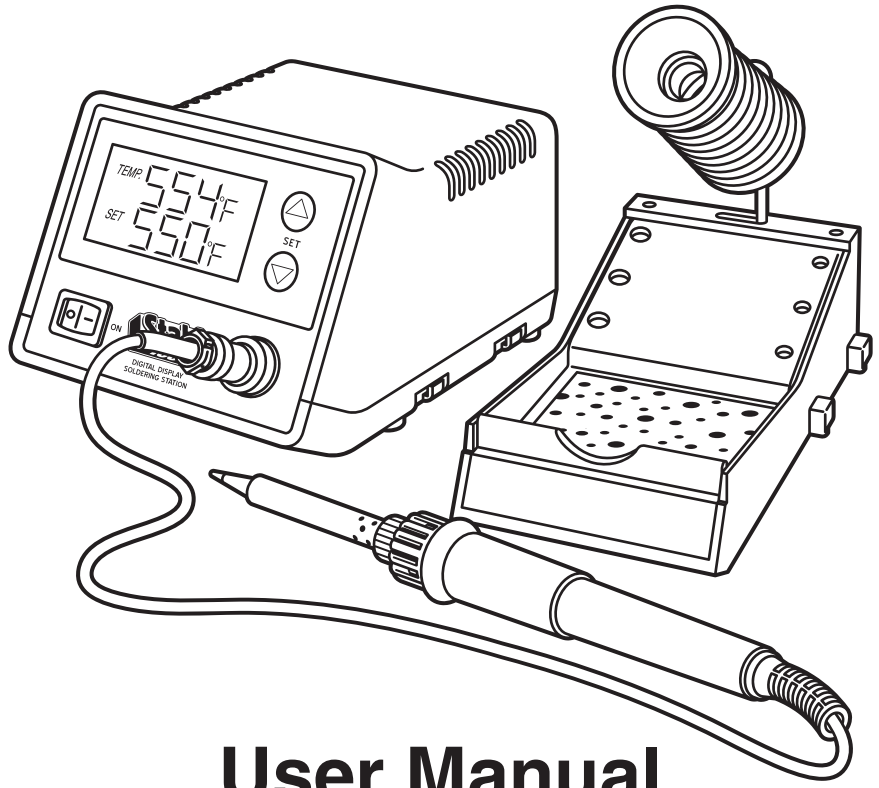
DDSS
Digital Display
Soldering Station



User Manual

Introduction:

The Stahl Tools Digital Display Soldering Station is designed for production soldering to meet the daily demands of the electronics professional. The DDSS offers electronic control of the unit's heat from 300 to 840 °F at 48 Watts through the ceramic heating element. With a super-slim ESD safe pencil iron you can confidently work on or around sensitive components. Work with the ceramic ringed stand attached to the base or detached when space is limited. Temperature control ▲/▼ buttons provide more precise heat control. Temperature is displayed on the 2-1/4" (W) x 1-1/8" (H) LCD display.

Set-Up:

- Unpack the soldering station and insert the ceramic ring into the tightly coiled end of the iron holder
- Insert the holder into the holder base
- Place the cleaning sponge into the base; wet the sponge prior to using the iron to keep the tip clean
- Remove the heat shrink protective cover from the soldering iron tip
- Place the iron into the iron holder and connect the cable to the controller base
- Plug the three prong grounded power cord into a grounded electrical outlet and turn the controller base on
- Set the temperature to the desired temperature using the ▲/▼ buttons; the LCD will display "HEAT ON" as the soldering station is actively heating the iron and "WAIT" if the temperature falls below the set point
- Do not operate the controller base without the soldering iron connected

Note: The iron holder can be attached to the right or left side of the controller base or left unattached as desired.

Working Temperature:

Soldering at the correct temperature is very important to ensure a perfect solder connection. If the temperature is too low the solder will not flow properly causing cold solder joints. If the temperature is too high the flux will burn and not allow the solder to flow properly. High temperature can also cause damage to the PC Board and other sensitive components. When the working temperature is set within the correct parameters suited to the particular solder being used a good joint is assured. Never touch the solder directly to tip as this will burn the flux from within the solder.

The most common solder alloys used in the electronics industry is 60% tin, 40% lead (60/40). A common tip working temperature of 60/40 solder is detailed below (this may vary from manufacturer to manufacturer).

Melting point	419°F	(215°C)
Normal operation	419°F-572°F	(215°C-300°C)
Production line operation	608°F-716°F	(320°C-380°C)
Desoldering for small joint	599°F	(315°C)
Desoldering for large joint	752°F	(400°C)

General Cleaning:

The outer case of the iron or station may be cleaned with a damp cloth using a small amount of liquid detergent. Never submerse the unit in liquid or allow any liquid to enter the case of the station. Never use solvent to clean the case.

Maintenance:

The iron must be placed in its stand when not in use. If the supply cord becomes damaged, it must be replaced by a qualified service technician.

Tip Replacement and Dressing:

CAUTION: THE TIP IS PROTECTED IN SHIPMENT BY A VINYL TUBE. REMOVE THIS TUBE PRIOR TO USE TO PREVENT PERMANENT DAMAGE TO THE TIP!

The tip supplied is iron plated copper; if treated property it will provide years of reliable service. Always tin tips prior to switching off or storing the iron for any period of time, wipe only before use.

Tip replacement or cleaning should be done only when the iron is at room temperature. The tip can be changed or replaced simply by unscrewing the knurled nut from the barrel assembly. The station must be switched off and allowed to cool before and during this operation, as damage may result if the system is left on without the tip installed. After removing the tip, blow out any oxide dust that may have formed in the tip retaining area of the barrel. Replace the tip and screw the retaining knurled nut onto the barrel assembly; tighten only finger-tight. Pliers should only be used to tighten the nut if it becomes loose when the iron is hot to avoid burning your fingers. Do not keep the iron set to high temperatures for a long period of time as this will break down the surface of the tip. Do not use fluxes containing chloride or acid; use only rosin or activated resin fluxes. Do not use any compound or anti-seize materials on the tip surface.

Warranty:

This product is warranted free from defects in material and workmanship for one year from date of purchase. Warranty does not apply to misuse, abuse, neglect, accident, improper use, etc. Contact your reseller for a Return Merchandise Authorization.