SPECIFICATION

Model number	937BD	937BD+	939BD+
Main unit dimensions	L155×W112×H90 mm ±5mm		
Operating ambient temperature	0°C~40°C/32°F~104°F		
Temperature range	200°C~480°C/392°F~896°F		
Display	LED Nixie Tube		
Soldering tip to ground resistance	<2 Ohms		

I. APPLICATIONS

Suitable for soldering and desoldering operations on a broad range of surface-mount, and through-hole components such as SOP, DIP, SOIC and more.

II. COMPARISONS: FUNCTION

Performance \ Model	937BD	937BD+	939BD+
Display	LED Nixie Tube	LED Nixie Tube	LED Nixie Tube
Sleep Mode	NO	NO	Yes
Automatic Shutdown	NO	NO	Yes
°C/° Display Mode	NO	NO	Yes

III. OPERATIONS

1. Connect the soldering iron to the soldering station, and place the soldering iron into the holder.
2. Connect the power cord to an electrical socket, and turn ON the power switch. The soldering station's heating element will begin heating as per normal, and its operation indicator will turn ON. The operation indicator stays ON when the soldering iron is heating up, blinks rapidly when the temperature stabilizes, and turns OFF when the soldering iron is cooling. Once the indicator is blinking rapidly to indicate the temperature stabilization, begin operating.

CAUTION: Upon the first use of the soldering iron tip, set the temperature to 250°C/482°F. When the iron is just hot enough to melt the solder, coat the tip with a layer of solder (the use of rosin core solder is recommended), then set the temperature to your desired value.

Indicator: PID program real-time temperature tracking & compensation

3. When the operation is complete, use a wet sponge or metal wool ball to clean the soldering iron tip. Tin the tip with a new layer of solder, then put the soldering iron back to its holder. If the station is not in use for an extended period, turn OFF the power switch and DISCONNECT the power plug.

Sleep Mode

This function extends the lifespan of the soldering iron, conserves energy, and protects the environment.

When the station is turned ON, press and hold both the temperature increase and decrease buttons for approximately 3 seconds. The nixie tube display shows value "L00" (value L00 indicates that the sleep mode is turned OFF, L01 indicates the sleep mode timer set to 1 minute.) Press the temperature increase or decrease button to set the sleep mode timer value. Once done setting, stop operating for approximately 4 seconds, the system automatically saves the setting and exits the setting interface – setting complete (The sleep mode timer can be set from 0 to 99 minutes)

To start-up the soldering iron:
A. Shake the soldering iron a few times.
B. Press the temperature increase or decrease button.
OR C. Turn OFF, then turn ON the power switch.

Automatic Shut-Down

When the soldering station is turned ON, press and hold both the temperature increase and decrease buttons for approximately 3 seconds for 2 consecutive times. The nixie tube display will show "P00" (P00 is the indication that the automatic shut-down is OFF, P01, the automatic shutdown timer is set to 1 minute). press the increase or decrease button to set the automatic shutdown timer. Stop operating for approximately 4 seconds, the system automatically saves setting and exit the function setting interface – setting complete. (The automatic shutdown timer can be set from 0 to 99 minutes).

°F / °C Display

The machine comes with this function to adapt to the usage habits of consumers in different regions. Click the temperature adjustment knob to convert between Fahrenheit or Celsius temperature display mode.

When the soldering station is turned ON, press and hold both the temperature increase and decrease buttons for approximately 3 seconds for 3 consecutive times. The nixie tube display will show indicator "C" (The indicator C indicates the station in the Celsius display mode, whereas the indicator F indicates the station in the Fahrenheit display mode), press the increase or decrease button to select either the Celsius or Fahrenheit display mode. Once done setting, stop operating for approximately 4 seconds, the system automatically saves setting and exit the function setting interface – setting complete.

IV. MAINTENANCE & PRECAUTIONS

1. If a layer of oxidization forms on the surface of the soldering iron tip, a misconception can be created that the tip cannot heat up properly to melt the solder and do the tinning. However, the actual temperatures of both the heating element and tip are high. In such an instance, please do not increase the temperature value confusedly but use a metal wool ball to remove the oxidization following the steps below:

   A. Set the temperature to 300°C (572°F).
   B. Once the temperature stabilizes, gently rub the soldering iron tip inside the metal wool ball.
   C. When the oxidization is partially removed, continue applying solder onto the soldering iron tip while rubbing it until the tip is completely coated with solder. If the tip is too severely oxidized beyond cleaning, replace it with a new one.

2. DO NOT use metal files to remove the oxidization on the soldering iron tip. If the soldering iron tip deforms or rusts, replace the soldering iron tip with a new tip.

3. DO NOT apply excessive force on the soldering iron tip when soldering. Doing this will NOT IMPROVE the heat transfer but damage the soldering iron tip instead.

4. When placing the soldering iron back in the holder to idle after a high-temperature operation, adjust the temperature to 250°C (482°F) or below for idling. Failure to do so, and leaving the soldering iron tip to idle on a high-temperature setting will cause the accelerated aging of the heating element and shorten the lifespan of the heating element and soldering iron tip.

5. After every operation, clean the soldering iron tip, then tin the tip with a new layer of solder to prevent oxidization.

V. TROUBLESHOOTING

1. "S-E" – This is an indication that the soldering iron's sensor module is faulty. You need to replace the heating element (the heating element and the sensor modules) or, the soldering iron is not connected to the station.

2. When replacing the heating element, take note of the original connecting order and colors of the wires which MUST NOT be connected incorrectly.

For reference: compatible parts

Tip style (specifications and sizes)
900M Series Tip Out Diam ϕ 6.5mm