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WEP WEP 938BD-I

# WEP 938BD-I Soldering Iron and Hot Air Rework Station User Manual

Model: WEP 938BD-I

## 1. INTRODUCTION

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Image: The WEP 938BD-I 2-in-1 Soldering Iron and Hot Air Rework Station with all included accessories. This image displays the main unit, hot air gun, soldering iron, various tips, nozzles, and the multi-function holder.

This manual provides comprehensive instructions for the safe and efficient operation, maintenance, and troubleshooting of your WEP 938BD-I Soldering Iron and Hot Air Rework Station. This 2-in-1 station combines a soldering iron and a hot air rework station, featuring an LCD display for precise temperature control and various protective functions.

## 1.1 Safety Precautions

- Always operate the unit in a well-ventilated area to avoid inhaling fumes.
- Wear appropriate personal protective equipment, including safety glasses.
- Ensure the power supply matches the unit's requirements (110-127V USA specifications). Do not connect to 220V.
- Avoid touching hot surfaces of the soldering iron tip or hot air nozzle.
- Place the hot air gun in its holder when not in use to activate standby mode.
- Keep flammable materials away from the work area.
- Unplug the unit from the power outlet when not in use or before cleaning/maintenance.

## 2. PACKAGE CONTENTS

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Verify that all components are present in your package:

- 1 x WEP 938BD-I Hot Air Rework Station (Main Unit)
- 1 x Detachable Hot Air Handpiece
- 1 x Detachable Soldering Iron
- 5 x Soldering Tips
- 3 x Hot Air Nozzles (various diameters)
- 1 x Desoldering Pump
- 1 x Solder Wire
- 1 x Holder (includes Soldering Holder, Solder Wire Dispenser, Tip Cleaner, Cleaning Sponge)

### 3. SETUP AND ASSEMBLY

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1. **Unpacking:** Carefully remove all components from the packaging.
2. **Main Unit Placement:** Place the main WEP 938BD-I unit on a stable, heat-resistant surface.
3. **Connect Soldering Iron:** Connect the detachable soldering iron cable to the "SOLDERING STATION" port on the front of the main unit. Ensure a secure connection.
4. **Connect Hot Air Handpiece:** Connect the detachable hot air handpiece cable to the "SMD REWORK" port on the front of the main unit. Ensure a secure connection.
5. **Assemble Holder:** Assemble the multi-function holder. This holder accommodates the soldering iron, solder wire, and includes a brass wool tip cleaner and cleaning sponge.

# Multi-Function

## Soldering Iron Holder



Image: Multi-function holder for soldering iron, solder wire, and tip cleaning. This holder provides storage and cleaning functions for the soldering iron tip and includes a brass wool cleaner and a sponge.

- 6. Place Hot Air Handpiece in Holder:** Position the hot air handpiece in its dedicated side holder on the main unit. This activates the automatic standby function.

# Hot Air Start/Stop

Cools to 212°F and stops operating in holder

**Reduce Wear  
Extend Lifespan**



Image: Hot air gun placed in its holder on the side of the main unit. Placing the hot air gun in this holder initiates the automatic cooling and standby mode, extending its lifespan.

7. **Power Connection:** Connect the power cord to the main unit and then to a grounded 110-127V AC power outlet.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Power On/Off

Press the main power switch located on the front panel to turn the unit on or off. The LCD display will illuminate.

# Dynamic Display

Shows real-time parameters



Image: Close-up of the WEP 938BD-I's dynamic LCD display. This display shows real-time parameters for both the hot air rework station (Air Volume, Set Temp, Actual Temp, Cool Air Mode, Calibration) and the soldering station (Power Meter, Set Temp, Actual Temp, Sleep Mode, Calibration).

## 4.2 Soldering Iron Operation

1. **Temperature Adjustment:** Use the dedicated temperature control knob or buttons for the soldering iron section on the main unit to set the desired temperature. The adjustable range is 392°F to 896°F (200°C to 480°C). The LCD will display both the set and actual temperatures.

# Soldering Station

Temperature-Controlled

## - 392~896°F Adjustable

- PID Temperature Stabilization
- Quick heat recovery
- Suitable for heavy-duty soldering
- Detachable soldering iron (53inches)



Image: Hand adjusting the temperature for the soldering station. The soldering iron heats up quickly and maintains temperature stability through PID control, suitable for various soldering tasks.

2. **Temperature Unit Conversion:** Press the center knob to switch between Celsius (°C) and Fahrenheit (°F) display modes.
3. **Recommended Soldering Temperatures:** For optimal results, the set temperature for a soldering iron should be approximately 50°C / 90°F above the solder's melting point. An additional 100°C / 180°F higher temperature provides a quick thermal recovery of the tip after the solder connection is made.

# Recommended Temperature for Soldering

## General Rule of Thumb

Your preferred  
Solder's Melting Point  
+  
50°C  
+  
100°C  
||

**Smoother Soldering Experience**

## Lead-Free Solder (Sn-Ag-Cu)

220°C

220°C+50°C+100°C=370°C

E.G.



1. The set temperature for a soldering iron/station should be approximately 50°C / 90°F above its melting point to make

2. The set temperature for a soldering iron/station should be an additional approximately 100°C / 180°F higher to provide a heat reserve for the quick thermal recovery of the tip after the solder connection is made.

Image: Diagram illustrating recommended soldering temperatures. It shows a general rule of thumb for setting the iron's temperature relative to the solder's melting point for a smoother soldering experience.

4. **Sleep Mode:** If the soldering iron is unused for approximately 10 minutes, it will automatically enter sleep mode, reducing its temperature to a lower idle state (e.g., 392°F / 200°C) to conserve tip life and energy. Picking up the iron will reactivate it to the set temperature.

# Sleep Mode

Enters 392°F sleep mode when non use  
for longer than 10-minute

**Reduce Wear  
Extend Lifespan**



Image: Soldering iron in its holder, indicating sleep mode. After 10 minutes of inactivity, the soldering iron enters sleep mode to reduce wear and extend the lifespan of the heating element and tips.

## 4.3 Hot Air Rework Station Operation

1. **Temperature Adjustment:** Use the dedicated temperature control knob or buttons for the hot air rework section to set the desired temperature. The adjustable range is 212°F to 896°F (100°C to 480°C).

# Hot Air Station

Temperature-Controlled

- **212~896°F Adjustable**

- PID Temperature Stabilization
- 120L/Min Max. Air Volume
- Suitable for heavy-duty soldering
- Detachable hot air handpiece



Image: Hand adjusting the temperature for the hot air station. The hot air gun offers rapid heating and precise temperature control, with a maximum air volume of 120L/min.

2. **Air Volume Adjustment:** Use the air volume control to adjust the airflow rate. The maximum air volume is 120L/min.
3. **Automatic Start/Stop:** When the hot air handpiece is placed in its holder, the unit automatically enters standby mode, cooling the temperature below 212°F (100°C) and turning off the blower. Picking up the handpiece will automatically resume operation at the set temperature and air volume. This feature reduces wear on the heating element.

# Hot Air Start/Stop

Cools to 212°F and stops operating in holder

**Reduce Wear  
Extend Lifespan**



Image: Hot air gun in use and then placed in its holder. The hot air gun automatically cools down to 212°F and stops operating when placed in its holder, reducing wear and extending its lifespan.

4. **Nozzle Selection:** Choose from the included hot air nozzles with different diameters based on the size of the component you are working with.

## 5. MAINTENANCE

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### 5.1 Soldering Iron Tip Maintenance

Proper maintenance extends the life of your soldering tips.

- **Tinning:** Always keep the soldering iron tip tinned with a layer of solder. This should be done before initial use, after cleaning, and before turning off the unit.

# Maintenance & Servicing

## Soldering Iron Tip

Proper maintenance and servicing can make the tips last twice as long.

Keep the soldering iron tip tinned with a layer of solder at all times  
Before Using | After Cleaning | Before Turning OFF

### When Using a New Tip:

Tin the soldering iron tip with a layer of solder as the iron is heating up

#### Method A



Apply solder directly onto the tip.

#### Method B



Whirl a small roll of solder onto the tip.

Image: Two methods for tinning a soldering iron tip. Method A shows applying solder directly to the tip as it heats up. Method B shows whirling a small roll of solder onto the tip. Tinning protects the tip and improves heat transfer.

- **Cleaning:** Use the brass wool tip cleaner or the damp cleaning sponge provided in the holder to remove excess solder and oxidation from the tip. Brass wool minimizes temperature loss during cleaning.
- **Tip Replacement:** Replace tips when they become excessively worn or corroded to maintain optimal performance.

### 5.2 General Cleaning

- Ensure the unit is unplugged and cooled down before cleaning.
- Wipe the main unit and handpieces with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Keep the air vents on the hot air handpiece clear of dust and debris.

## 6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit does not power on.	No power supply; power switch off.	Check power cord connection; ensure power switch is in the 'ON' position.
Soldering iron not heating.	Loose connection; faulty heating element/tip.	Check iron cable connection; replace soldering tip; contact support if issue persists.

Problem	Possible Cause	Solution
Hot air gun not heating or blowing air.	Handpiece not picked up from holder; loose connection; faulty heating element/blower.	Ensure handpiece is removed from holder; check cable connection; contact support.
Temperature display inaccurate.	Sensor issue; calibration needed.	Refer to advanced settings for calibration (if available in specific model firmware); contact support.
Soldering tip not tinning properly.	Oxidized tip; insufficient temperature.	Clean tip thoroughly with brass wool; increase temperature slightly; ensure proper tinning technique.

## 7. SPECIFICATIONS

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**Model:** WEP 938BD-I

**Input Voltage:** 110-127V AC (USA specifications)

**Soldering Iron Power:** 110W

**Soldering Iron Temperature Range:** 392°F - 896°F (200°C - 480°C)

**Hot Air Gun Temperature Range:** 212°F - 896°F (100°C - 480°C)

**Hot Air Gun Air Volume:** Max 120 L/min

**Display Type:** LCD

**Dimensions (Main Unit):** Approximately 5.91"D x 5.35"W x 3.94"H

**Weight:** Approximately 4.42 lbs

**Included Components:** Main unit, hot air handpiece, soldering iron, 5 soldering tips, 3 hot air nozzles, desoldering pump, solder wire, multi-function holder.

## 8. WARRANTY AND SUPPORT

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The WEP 938BD-I Soldering Iron and Hot Air Rework Station is covered by a 1-year technical support warranty in the USA. For any technical assistance or warranty claims, please contact our dedicated support team. Support is available 24 hours a day.

For further assistance, please refer to the contact information provided with your product or visit the official WEP website.