Sumsour 868D

Sumsour 868D Hot Air Heat Gun Solder Rework Station User Manual

1. Introduction

This manual provides essential instructions for the safe and effective operation, setup, and maintenance of your Sumsour 868D Hot Air Heat Gun Solder Rework Station. This device is designed for professional and hobbyist use in BGA, SMD soldering, desoldering, and general electronic repair tasks. Please read this manual thoroughly before using the product and retain it for future reference.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the device:

- **Electrical Safety:** Ensure the power supply matches the specified voltage (110V). Do not operate with wet hands or in damp environments. Disconnect power before cleaning or maintenance.
- **Heat Hazard:** The hot air gun produces high temperatures (up to 500°C). Avoid direct contact with the nozzle and heated components. Allow components to cool before handling.
- **Ventilation:** Use the rework station in a well-ventilated area to dissipate fumes produced during soldering and desoldering.
- **Flammable Materials:** Keep flammable materials away from the working area.
- **Personal Protective Equipment:** Wear appropriate safety glasses to protect against splashes and fumes.
- **Children and Pets:** Keep the device out of reach of children and pets.

3. Product Overview

The Sumsour 868D Hot Air Heat Gun Solder Rework Station consists of a main control unit and a hot air gun. Various nozzles are included for different applications.



Figure 3.1: Front view of the Sumsour 868D Rework Station main unit. This image displays the control panel with the digital display, air and temperature adjustment buttons, power button, USB port (DC 5V/1A), and the rework station connector.



Figure 3.2: The Sumsour 868D Rework Station with the hot air gun connected and various nozzles placed on top of the unit. This illustrates the complete setup with accessories.

3.1 Main Control Unit

- **Digital Display:** Shows current temperature and airflow settings.
- **Air Control Buttons:** Adjusts the hot air flow rate.
- **Temperature Control Buttons:** Adjusts the hot air temperature.
- **Power Button:** Turns the unit on and off.
- **USB Port (DC 5V/1A):** For charging or powering small external devices.
- **Rework Connector:** Port for connecting the hot air gun.

3.2 Hot Air Gun

The hot air gun is the primary tool for heating components. It features a comfortable handle and a nozzle for directing hot air.



Figure 3.3: Close-up view of the hot air gun handle, showing its ergonomic design and ventilation holes.

3.3 Nozzles

Various sizes of nozzles are provided to concentrate the hot air for different component sizes and applications.



Figure 3.4: A set of three different sized hot air nozzles, designed to be attached to the hot air gun for precise heat application.

4. Specifications

Feature	Specification
Model	868D
Voltage	110V
Power Consumption	700W
Resistance	<2Ω
Handpiece Size	<23mm
Temperature Stability	± 1°C
Fan Type	Brushless ball
Airflow	120L/min (max)

Feature	Specification
Noise	<45dB
Temperature Control Range	100~500°C
Display Type	LED Digital Display
Output Voltage	AC24V
Heating Components	Chinaware
Handle Length	100cm
Product Dimensions (L x W x H)	25.4 x 17.8 x 15.2 cm
Item Weight	1.5 kg

5. Setup

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any signs of damage.
2. **Placement:** Place the main control unit on a stable, heat-resistant surface in a well-ventilated area.
3. **Connect Hot Air Gun:** Connect the hot air gun's cable to the 'REWORK' port on the front of the main unit. Ensure the connection is secure.
4. **Attach Nozzle:** Select an appropriate nozzle for your task and securely attach it to the hot air gun.
5. **Power Connection:** Plug the power cord into the main unit and then into a grounded 110V AC power outlet.

6. Operating Instructions

6.1 Powering On/Off

- **To Power On:** Press the power button on the front panel. The LED display will illuminate, showing the current temperature and airflow settings.
- **To Power Off:** Press the power button again. The unit will enter a cooling mode for the hot air gun before completely shutting down.

6.2 Adjusting Temperature

Use the **+** and **-** buttons in the 'TEMP' section to adjust the desired hot air temperature. The temperature range is 100°C to 500°C. The display will show the set temperature and then the actual temperature as it heats up or cools down.

6.3 Adjusting Airflow

Use the **up** and **down** arrow buttons in the 'AIR' section to adjust the hot air flow rate. Adjust the airflow according to the component size and the specific task to prevent damage or excessive heat spread.

6.4 Using the Hot Air Gun

1. Place the hot air gun in its holder when not in use. The unit will automatically cool down the gun when placed in the holder and resume heating when removed.

2. Set the desired temperature and airflow. Allow the gun to reach the set temperature.
3. Direct the hot air nozzle towards the component to be worked on. Maintain a safe distance to avoid overheating the component or surrounding areas.
4. Move the hot air gun in a circular motion to ensure even heating.
5. After use, return the hot air gun to its holder. The unit will automatically initiate a cooling cycle.

7. Maintenance

Proper maintenance ensures the longevity and optimal performance of your rework station.

7.1 General Cleaning

- Ensure the unit is powered off and unplugged before cleaning.
- Wipe the exterior of the main unit and hot air gun with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Keep the air vents clear of dust and debris to ensure proper cooling.

7.2 Soldering Tool Maintenance (General Best Practices)

While this unit is a hot air rework station, general soldering best practices are crucial when working with electronic components. If using a separate soldering iron in conjunction with this station, observe the following:

- **Temperature Management:** Operate soldering tools at the lowest effective temperature. High temperatures can reduce tip life and damage temperature-sensitive components.
- **Tip Cleaning:** Regularly clean soldering iron tips with a damp sponge or brass wool. Oxide buildup and carbide deposits reduce heat conduction. Clean the tip to maintain efficiency and prevent damage.
- **Idle State:** When not in active use, lower the soldering iron tip temperature or place it in a standby mode to prevent excessive oxidation.
- **Tinning:** After cleaning and before storage, always tin the soldering iron tip with a fresh layer of solder to prevent oxidation and prolong its life.

8. Troubleshooting

If you encounter issues with your Sumsour 868D Rework Station, refer to the following common problems and solutions:

- **No Power:**
  - Check if the power cord is securely plugged into the unit and the wall outlet.
  - Ensure the power switch is in the 'ON' position.
  - Verify the wall outlet is functional by plugging in another device.
- **Hot Air Gun Not Heating:**
  - Ensure the hot air gun is properly connected to the 'REWORK' port.
  - Check the temperature setting on the display. Increase if necessary.
  - Ensure the hot air gun is removed from its holder, as some units have a standby feature when placed in the holder.
- **Low Airflow:**

- Check the airflow setting on the display and adjust using the 'AIR' control buttons.
- Ensure the hot air gun nozzle is not clogged.
- Verify that the unit's air intake vents are not obstructed.

- **Inaccurate Temperature Reading:**
  - Allow the unit to stabilize for a few minutes after powering on.
  - Ensure the hot air gun is clean and free of debris that might affect sensor readings.

If the problem persists after attempting these solutions, please contact customer support.

9. Warranty and Support

For specific warranty information, please refer to the documentation provided at the time of purchase or contact your retailer. Sumsour is committed to providing quality products and support.
If you require technical assistance or have questions not covered in this manual, please reach out to Sumsour customer service through the contact information provided on the product packaging or the official Sumsour website.