IMPORTANT SAFETY GUIDELINES

Read instruction manual before using.

Strictly follow the basic safety guidelines and precautions when using the product. The guidelines include:

CAUTION!!! WARNING!!!

1. To provide continued protection against risk of electric shock, connect to properly grounded outlets only.
2. Do not immerse in water.
3. Hot Surface. Avoid Contact.
4. Shock Hazard. To provide continued protection against electric shock disconnect from the power supply when not in use.
5. Heat gun, soldering iron, desoldering iron must be placed on its stand when not in use.
6. HOUSEHOLD AND INDOOR USE ONLY.
7. To prevent electric shock, unplug before replace the fuse and other service.
8. Replace only with same type and rating of fuse.
9. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
10. Children should be supervised to ensure that they do not play with the appliance.
11. The soldering iron and desoldering iron is only to be used with the power supply unit provided with the appliance.
12. If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
13. Any servicing should be performed by an authorized service representative AND that the product has no user serviceable parts.
14. To reduce the risk of fire or electric shock, do not expose this product to rain or moisture. Store indoors. Read instruction manual before using.
15. A fire may result if the appliance is not used with care, therefore
    - be careful when using the appliance in places where there are combustible materials; - do not apply to the same place for a long time;
    - do not use in presence of an explosive atmosphere; - be aware that heat may be conducted to combustible materials that are out of sight;
    - place the appliance on its stand after use and allow it to cool down before storage; - do not leave the appliance unattended when it is switched on.
16. Hidden areas such as behind walls, ceilings, floors, soffit boards and other panels may contain flammable materials that could be ignited by the heat gun when working in these locations. The ignition of these materials may not be readily apparent and could result in property damage and injury to persons. When working in these locations, keep the heat gun moving in a back-and-forth motion. Lingering or pausing in one spot could ignite the panel or the material behind it.
17. WARNING: Extreme care should be taken when stripping paint. The peelings, residue and vapors of paint may contain lead, which is poisonous. Any pre-1977 paint may contain lead and paint applied to homes prior to 1950 is likely to contain lead. Once deposited on surfaces, hand to mouth contact can result in the ingestion of lead. Exposure to even low levels of lead can cause irreversible brain and nervous system damage; young and unborn children are particularly vulnerable.
18. Before beginning any paint removal process you should determine whether the paint you are removing contains lead. This can be done by your local health department or by a professional who uses a paint analyzer to check the lead content of the paint to be removed.
19. LEAD-BASED PAINT SHOULD ONLY BE REMOVED BY A PROFESSIONAL AND SHOULD NOT BE REMOVED USING A HEAT GUN.
20. Persons removing paint should follow these guidelines:
    1) Move the work piece outdoors. If this is not possible, keep the work area well ventilated. Open the windows and put an exhaust fan in one of them. Be sure the fan is moving the air from inside to outside. 2) Remove or cover any carpets, rugs, furniture, clothing, cooking utensils and air ducts. 3) Place drop cloths in the work area to catch any paint chips or peelings. Wear protective clothing such as extra work shirts, overalls and hats. 4) Work in one room at a time. Furnishings should be removed or placed in the center of the room and covered. Work areas should be sealed off from the rest of the dwelling by sealing doorways with drop cloths. 5) Children, pregnant or potentially pregnant women and nursing mothers should not be present in the work area until the work is done and all clean up is complete. 6) Wear a dust respirator mask or a dual filter (dust and fume) respirator mask which has been approved by the Occupational Safety and Health Administration (OSHA), the National Institute of Safety and Health (NIOSH), or the United States Bureau of Mines. These masks and replaceable filters are readily available at major hardware stores. Be sure the mask fits. Beards and facial hair may keep masks from sealing properly. Change filters often. DISPOSABLE PAPER MASKS ARE NOT ADEQUATE. 7) Use caution when operating the heat gun. Keep the heat gun moving as excessive heat will generate fumes which can be inhaled by the operator. 8) Keep food and drink out of the work area. Wash hands, arms and face and rinse mouth before eating or drinking. Do not smoke or chew gum or tobacco in the work area. 9) Clean up all removed paint and dust by wet mopping the floors. Use a wet cloth to clean all walls, sills and any other surface where paint or dust is clinging. DO NOT SWEEP, DRY DUST OR VACUUM. Use a high phosphate detergent or trisodium phosphate (TSP) to wash and mop areas. 10) At the end of each work session put the paint chips and debris in a double plastic bag, close it with tape or twist ties and dispose of properly. 11) Remove protective clothing and work shoes in the work area to avoid carrying dust into the rest of the dwelling. Wash work clothes separately. Wipe shoes off with a wet rag that is then washed with the work clothes. Wash hair and body thoroughly with soap and water.
21. To ensure personal safety, please turn off the power switch after work is completed; When not in use for an extended period, please unplug the power cord!!!
22. Do not install nozzle when the hot air gun is turned on, the heat pipe and the nozzle must be cooling. Then installed the other nozzle.
23. The soldering iron should only be used for soldering. Do not hit the soldering iron against the work surface to remove flux residues (Can be cleaned by the cleaning device of the product), as doing so may seriously damage the soldering iron.
24. Soldering produces fumes, ensure there is adequate ventilation.
25. After used, remember that cooling the unit, the handle should be placed on the handle holder.
26. Longer detachable power-supply cords are available and may be used if care is exercised in their use.
27. If a long detachable power-supply cord is used: 1) The marked electrical rating of the detachable power-supply cord or extension cord should be at least as great as the electrical rating of the appliance; 2) The extension cord should be a grounding type 3-wire cord; 3) The longer cord should be arranged so that it will not drape over the countertop or tabletop where it can be tripped over, snagged, or pulled on unintentionally (especially by children).
28. A short power-supply cord(or short detachable power-supply cord)is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
29. If the bottom of the brass wool tip cleaner contains solid-state rosin, the below warning applies: This product contains rosin (colophony), and the substance may cause an allergic skin reaction. When using the tip cleaner (rosin-inside), DO NOT inhale the fume generated or consume the solid-state rosin, DO NOT allow your skin and eyes to get in direct contact with the rosin.

Specifications

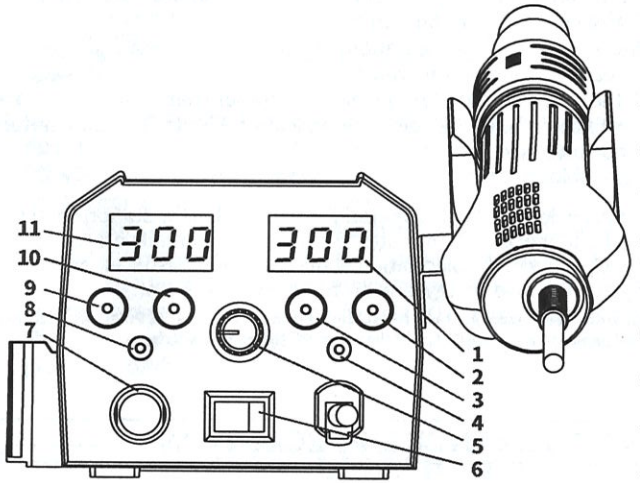
Model number	938BD II	938BD III
Main unit dimensions	L143xW125xH96mm ±5mm	
Operating ambient temperature	0~40°C(32°F~104°F)	
Display	LED	

Temperature range(Hot Air Rework Station)	100°C~480°C(212°F~896°F)
Air Delivery	Brushless fan with smooth air delivery
Air Volume (Measured at Exhaust)	≤30L/min
Temperature range(Soldering Station)	200°C~480°C(392°F~896°F)
Soldering tip to ground resistance	<2 ohms

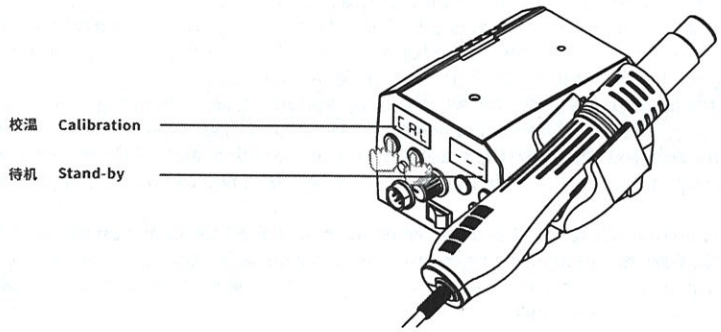
I. APPLICATIONS

1. *This unit is suitable for desoldering & soldering operations on a broad range of components. E.g., SOIC, CHIP, QFP, PLCC, BGA, SMD, and more. The unit is especially suited for desoldering operations on in-line sockets.*
2. *You can use this unit for heat shrinking, drying, paint removal, glue removal, defrosting, pre-heating, glue soldering, and more.*

II. CONTROL PANEL GUIDE



1. *Temperature Display (Hot Air Rework Station)*
2. *Temperature Increase Button (Hot Air Rework Station)*
3. *Temperature Decrease Button (Hot Air Rework Station)*
4. *Power Switch (Hot Air Rework Station)*
5. *Air Volume Adjustment Dial*
6. *Master Power Switch*
7. *Receptacle (Soldering Iron)*
8. *Power Switch (Soldering Station)*
9. *Temperature Decrease Button (Soldering Station)*
10. *Temperature Increase Button (Soldering Station)*
11. *Temperature Display (Soldering Station)*



III. OPERATION

1. Before use: Install the hot air gun holder and hot air nozzle. Connect the soldering iron and then connect the station to a power socket.
2. Press the power switch and the station is ready for use.

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

3. Digital Temperature Calibration

   3-1 Once the hot air rework station(soldering station) reaches temperature stabilization, press and hold both the hot air rework station(soldering station) temperature increase and decrease buttons for approximately 2 seconds. The display shows "CAL" while alternating the indicator with the set temperature.

   3-2 Press the hot air rework station (soldering station) temperature increase or decrease button to enter the measured temperature value.

   3-3 Press and hold both the hot air rework station(soldering station) temperature increase and decrease buttons to confirm. The system automatically calibrates the temperature and exits the calibration interface.

4. Sleep Mode (10-Minute)

   The station will automatically detects its own operation status. When the station detects no usage and movement for longer than 10 minutes, the soldering iron will enter sleep mode. This could effectively prevent the oxidization of the soldering iron tip, extend the lifespan of the soldering iron tip, save energy, and protect the environment.

   To start-up the soldering iron from sleep mode: A. Shake the soldering iron a few times. B. Press any button on the soldering station's control panel. OR C. Turn OFF, and then turn ON the power switch.

IV. MAINTENANCE & PRECAUTIONS

Hot Air Rework Station

1. Keep the air outlet clear and free of blockages at all times.
2. The installation of the hot air gun nozzles MUST be carried out ONLY when the steel pipe and nozzle have cooled. Install the nozzle correctly, DO NOT install the nozzle with brute force, pull the edge of the nozzle with tweezers, or over-tighten the screws.
3. Select the appropriate nozzle based on your operation requirement (temperature may vary when using nozzles in different diameters). When using nozzles smaller than the standard machine nozzles, you MUST use the maximum air volume with a relatively lower temperature setting. Complete this operation in the shortest possible duration to avoid damaging the hot air gun.
4. Keep a minimum distance of 2mm between the object and the hot air gun's air outlet.
5. DO NOT allow the hot air to come in direct contact with facial parts, and beware of the danger of burn injuries. Upon the first use, the hot air gun may emit white fumes, and the white fume will dissipate in a short while.

NOTE: The station's hot air gun and soldering iron handles use high-strength stainless steel tubes. The station goes through 4 times or more testing, inspection, and calibration procedures before rolling off the assembly line. The steel tube may exhibit light bronze color as a result of our quality control efforts. It is normal to have a slightly bronzed steel tube when using a brand-new station, rest assured for regular usage.

Soldering Station

1. If a layer of oxidization forms on the surface of the soldering iron tip, a misconception can be created that the soldering tip cannot heat up properly to melt the solder and do the tinning. However, the actual temperatures of both the heating element and soldering 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 has stabilized, gently rub the soldering iron tip inside the metal wool ball. C. When the oxidization is partially removed, continue applying solder onto the tip while rubbing it until the solder completely adheres to soldering iron tip. If the tip is too severely oxidized beyond cleaning, replace the tip 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 it with a new tip.
3. DO NOT apply excessive force on the soldering tip when soldering. Doing so will not only damage the iron tip but also not improve the heat transfer.
4. When placing the soldering iron back in its 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, always clean the soldering iron tip, then coat it with a layer of solder to prevent its oxidization.

V. TROUBLESHOOTING GUIDE

1. S-E - This is an indication that the station's sensor module is faulty. You need to replace the heating element (the heating element and the sensor modules). Or it may be that the soldering iron has not been connected (Turn OFF the power, connect the handlesoldering iron, then turn ON the station again.)
2. F-1/F-2 - This is an indication that the hot air gun is in the zero-air protection mode. The hot air gun and the hot air gun's power circuitry require inspection in this instance.
3. F-3 - This is an indication that the input voltage is too low. To resume use, please turn up the air volume, turn OFF the power switch and then turn ON.
4. F-4 - This is an indication that the input voltage is too high. To resume use, please turn down the air volume, turn OFF the power switch and then turn ON.
5. When replacing the heating element, take note of the original connecting order and colors of the wires which MUST NOT be connected incorrectly.
6. SLP - This is an indication of the sleep mode being active.

This product does not include the accessories below, information for reference only.

For reference: compatible parts

Nozzle style (specifications and sizes)

The nozzles sizes match with their corresponding IC sizes.