

## SPECIFICATION

	<b>852</b>	<b>852D</b>	<b>702</b>
Control Unit Dimensions	L253xW186xH124mm ±5mm	L158xW186xH124mm ±5mm	
Operating Ambient Temperature	0~40°C/32°F~104°F		
<b>Hot Air Rework Station</b>			
Motor	Brushless Motor with Smooth Air Delivery	Brushless Motor with Smooth Air Delivery	Pump Motor
Air Volume	≤120L/min	≤120L/min	≤24L/min
Temperature Range	100°C~450°C/212°F~842°F	100°C~500°C/212°F~932°F	100°C~450°C/212°F~842°F
Display	LED Light	LED	LED Light
<b>Soldering Station</b>			
Temperature Range	200°C~480°C/392°F~896°F		
Display	LED Light		
Tip to Ground Resistance	<2 Ohms		

## I. APPLICATIONS

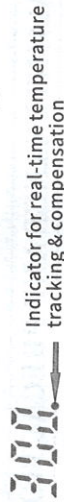
1. This unit is great for desoldering and soldering applications on small components such as SOIC, CHIP, QFP, PLCC, BGA, SMD packaging, and more. This unit is especially suited for desoldering operations on sockets in in-line packaging.
2. The unit's applications include heat shrinking, drying, paint removal, glue removal, defrosting, pre-heating, glue soldering, and more.

## II. OPERATION

**Hot Air Rework Station (Pump Motor Powered):** Before the station can be transported, the pump motor **MUST** be secured with the locking bolt (installation hole located at the bottom of the station). Failure to install the locking bolt before transportation will result in serious consequences. **REMOVE the locking bolt at the bottom of the station before use, failure to REMOVE the bolt before use will result in serious consequences.**

### Hot Air Rework Station

1. Set the rework station correctly, and install the hot air gun holder on the left side of the station, and then place the hot air gun onto the holder.
2. Install the selected nozzle (Use of nozzles in larger diameters is recommended). Connect the station's power cord to an electrical outlet.
3. Turn ON the master power switch located at the rear of the station, and then turn ON the hot air rework station's power switch. The hot air gun will be in standby mode. Turn the temperature adjustment knob to select the required temperature. Pick up the hot air gun, and the hot air gun will enter the standard operation status with its operation indicator turned ON. The indicator will stay ON when the hot air gun is heating, blinks when the temperature is



stabilized, turned OFF when the hot air gun is cooling. Turn the air volume adjustment knob to set the desired output volume. Begin operation once the temperature has stabilized. (NOTE: Pump Motor Powered Rework station will begin standard operation when the hot air rework station's power switch is turned ON)

4. When the operation is complete, put the hot air gun back to the holder and turn OFF the rework station's power switch. The hot air gun will cut power to the heating element automatically, and the hot air rework station's operation indicator light will turn OFF. The hot air gun will only put out air without heating to cool the heating element. When the heating element cools to 100°C(212°F) below, the hot air rework station will stop putting out air. When the station is not in use for an extended period, turn OFF the master power switch located at the rear of the station, and DISCONNECT the power cord from the electrical outlet.

### Soldering Station

1. Connect the soldering iron to the station, and place the iron into its holder.
2. Turn ON the station's master power switch located at the rear of the station, and then turn ON the soldering station's power switch. The soldering station's heating element will begin heating, and its operation indicator light will turn ON. The operation indicator light will stay constantly ON when the soldering iron is heating up, blink rapidly when the temperature is stabilized, and be turned OFF when the soldering iron is cooling. Begin your operation once the soldering station's indicator is blinking rapidly to indicate the temperature's stabilization.

**CAUTION:** Upon the first use of the soldering iron, 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.



Indicator for real-time temperature tracking & compensation

- When the operation is complete, use a damp sponge or metal wool ball to clean the soldering iron tip. Tin the soldering iron tip with a new layer of solder, then put the soldering iron back to the holder and turn OFF the power switch. If the station is not in use for an extended period, turn OFF the master power switch located at the rear of the station and DISCONNECT the power cord.

### III. MAINTENANCE AND PRECAUTIONS

#### Hot Air Rework Station

- Keep the air outlet clear and free of blockages at all times.
- The installation of the hot air nozzles MUST be carried out ONLY when the steel pipe and nozzles 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.
- Select the appropriate nozzle based on your operation requirement (temperatures may vary when you use nozzles in different diameters). When using nozzles smaller than the stock nozzles, you MUST use the maximum air volume with a relatively lower temperature setting. Complete this operation in the shortest possible duration to prevent damaging the hot air gun.
- Keep a minimum distance of 2mm between the subject and the hot air gun's air outlet.
- 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 you use a brand-new station; rest assured for normal usage.

#### Soldering Station

- If a layer of oxidation 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. But 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 oxidation following the steps below:
  - Set the temperature to 300°C (572°F).
  - Once the temperature stabilizes, gently rub the soldering iron tip inside the metal wool ball.
  - When the oxidation is partially removed, continue applying solder while rubbing until the soldering tip is completely coated with solder. If the soldering iron tip is too severely oxidized beyond cleaning, replace the tip with a new one.
- DO NOT use metal files to remove the oxidation on the soldering iron tip. If the soldering iron tip deforms or rusts, replace the soldering iron tip with a new tip.
- DO NOT apply excessive force on the soldering iron tip when soldering. This will not only NOT IMPROVE the heat transfer but damage the soldering iron tip instead.
- 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.
- After every operation, wipe off the soldering iron tip, then tin the tip with a new layer of solder to prevent oxidation.

### IV. TROUBLESHOOTING

- The operation light stays on constantly without the heating element heating up. This is an indication that the station's heating element is faulty. You need to replace the heating element (the heating element and the sensor modules).
- When replacing the heating element, take note of the original connecting order and colors of the wires which MUST NOT be connected incorrectly.

