2-in-1 Rework Station
ESD Safe

OPERATION INSTRUCTION

English

Thank you for purchasing this product. Please read the manual carefully before operating and keep this manual for future reference.

SPECIFICATION

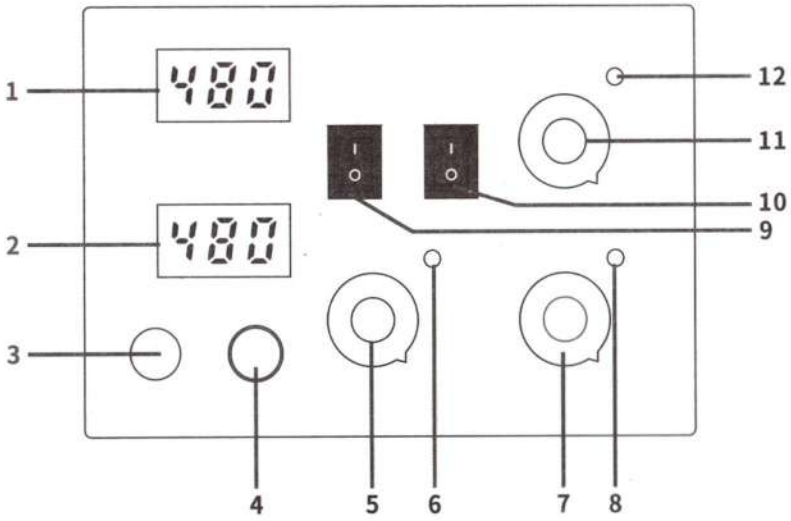
Model number	852D+		852D+SE		852D++
Main unit dimensions	L253*W186*H124mm ±5mm				L158*W186* H124mm ±5mm
Operating ambient temperature	0~40°C/32°F~104°F				
Hot Air Rework Station					
Motor	Brushless Motor with Smooth Air Delivery	Pump Motor	Brushless Motor with Smooth Air Delivery	Pump Motor	Brushless Motor with Smooth Air Delivery
Air volume	≤120L/min	≤24L/min	≤120L/min	≤24L/min	≤120L/min
Temperature range	100~500°C/212°F~932°F				
Display	LED				
Soldering Station					
Temperature range	100~500°C/212°F~932°F				
Display	LED				
Tip to ground resistance	<2 Ohms				

I. APPLICATIONS

1. This station is great for soldering and rework applications on SOIC, CHIP, QFP, PLCC, BGA, SMD, and many other types of components. This station is also an excellent choice for rework applications on FFC, FPC.

2. The station's applications include heat shrinking, drying, paint removal, adhesive removal, defrosting, pre-heating, soldering wire glues, and more.

II. CONTROL PANEL



1. Temperature display (Hot Air Rework Station)
2. Temperature display (Soldering Station)
3. Hot air gun handle
4. Receptacle (Soldering Iron)
5. Temperature adjustment knob (Soldering Station)
6. Operation indicator light (Soldering Station)
7. Air volume adjustment knob
8. Air output indicator light
9. Power switch (Soldering Station)
10. Power switch (Hot Air Rework Station)
11. Temperature adjustment knob (Hot Air)
12. Operation indicator light (Hot Air)

III. OPERATION

Hot air rework station (Pump Motor Powered)

Before transporting the station, 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 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 required nozzle (Use of nozzles in larger diameters are 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, then turn ON the hot air gun's power switch. The hot air temperature display will show "---" to indicate the gun in standby mode. Press the increase or decrease button to set the desired temperature. Pick up the hot air gun, and it will enter standard operation mode; the hot air rework station's operation indicator light (the dot located at the bottom-right of the hot air temperature display) will turn ON.

   The operation indicator light will stay ON constantly when the hot air gun heating up, blink rapidly when the temperature is stabilized, and be turned OFF when the hot air gun cooling. Adjust the air volume adjustment knob to set the desired air volume, and begin operation once the temperature has stabilized. Once the temperature has stabilized, its status is clearly indicated with the rapidly flashing operation indicator. The precision PID program is tracking and compensating the hot air gun's temperature every millisecond, the hot air gun's temperature is now in a stable, and precise thermostatic state.

4. When the operation is complete, set the hot air gun's manual/automatic mode to automatic before placing the hot air gun back to its holder. After this procedure, the hot air gun will cut its power to the heating element automatically, and turn OFF the operation indicator light. The hot air gun will not heat up and only put air out to cool the heating element. When the temperature drops below 100°C (212°F), the hot air temperature display will show "--- ". Turn OFF the hot air station's power switch at this point. If the station is not in use for an extended period, you MUST turn OFF the power switch and DISCONNECT the station's power plug.

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 (the dot located at the bottom-right corner of the soldering station display) will turn ON. The operation indicator light will stay constantly ON

when station heating up, blink rapidly when the temperature stabilizes, and be turned OFF when station cooling off. 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 increase the temperature to your desired value.

3. When the operation is complete, use a damp 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 the holder and turn OFF the power switch. If the station is not in use for an extended period, DISCONNECT the power cord.

IV. MAINTENANCE AND 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 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.

3. Select the appropriate nozzle based on your operation requirement (temperatures may vary when using nozzles in different diameters). When using nozzles smaller than the stock nozzles, you MUST use the maximum fan speed with a relatively lower temperature setting. Complete this operation in the shortest possible duration to prevent damaging the hot air gun.

4. Keep a minimum distance of 2mm between the subject 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 use high-strength stainless steel tubes. The station goes through 4 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. 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 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 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.

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 tip with a new tip.

3. DO NOT apply excessive force on the soldering iron tip when soldering. Doing so will not only damage the tip but also not improve the heat transfer.

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 in a high-temperature setting will cause the accelerated aging of the heating element, and shorten the lifespan of the heating element and tip.

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

V. TROUBLESHOOTING

1. "S-E" – This is an indication that the station's sensor module is faulty. To resolve this, you need to replace the heating element (the heating element and the sensor modules) Or, the soldering iron is not connected (Turn OFF the station, connect the soldering iron and turn ON the station).

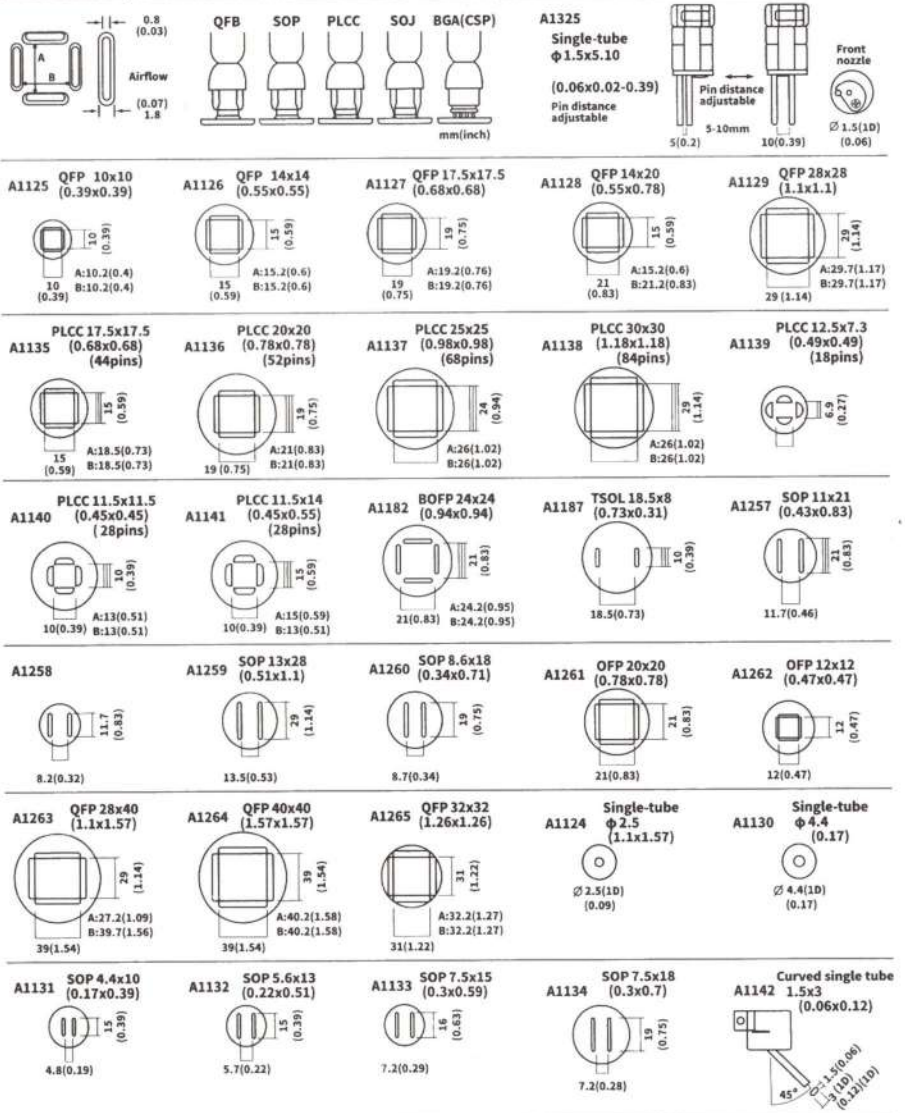
2. When replacing the heating element, take note of the original connecting order and colors of the wires which MUST NOT be connected incorrectly.

For reference: compatible parts

Nozzle style (specifications and sizes)

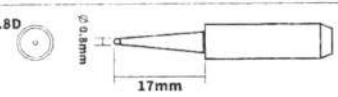
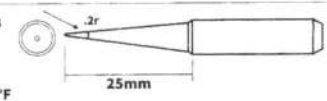
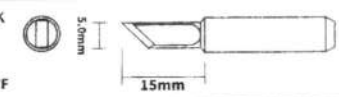
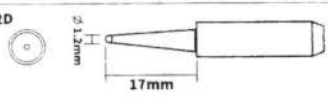
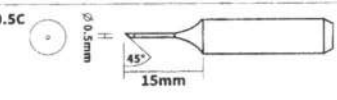
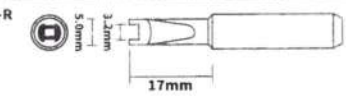
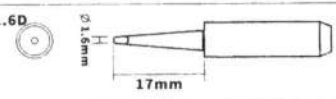
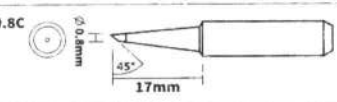
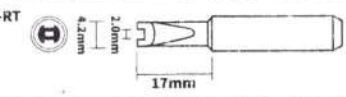
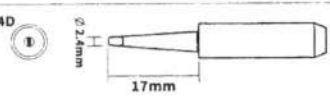
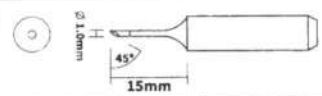
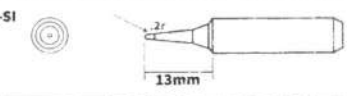
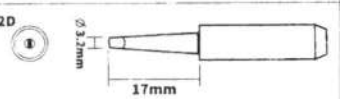
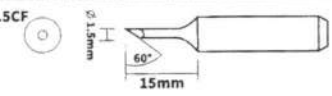
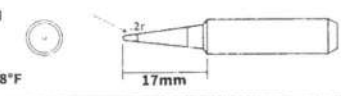
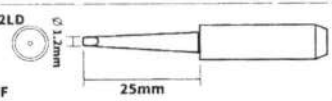
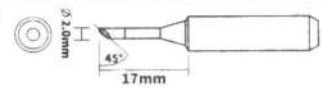
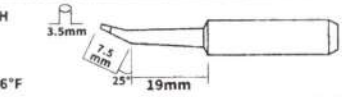
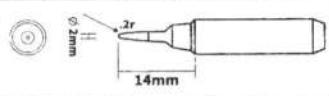
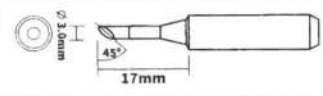
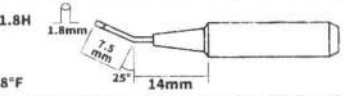
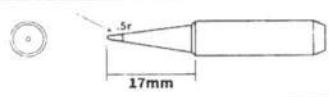
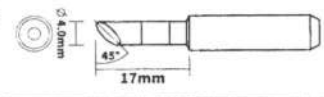
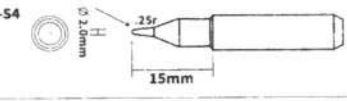
The nozzles sizes match with their corresponding IC sizes.

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



Tip style (specifications and sizes)

900M Series Tip Out Diam φ 6.5mm

900M-T-0.8D  0°C	900M-T-LB  -10°C/-18°F	900M-T-K  30°C/54°F
900M-T-1.2D  0°C	900M-T-0.5C  0°C	900M-T-R  0°C
900M-T-1.6D  0°C	900M-T-0.8C  0°C	900M-T-RT  0°C
900M-T-2.4D  0°C	900M-T-1C  0°C	900M-T-SI  0°C
900M-T-3.2D  0°C	900M-T-1.5CF  0°C	900M-T-I  -10°C/-18°F
900M-T-1.2LD  -10°C/-18°F	900M-T-2C  0°C	900M-T-H  -20°C/-36°F
900M-T-SB  0°C	900M-T-3C  0°C	900M-T-1.8H  -10°C/-18°F
900M-T-B  0°C	900M-T-4C  0°C	900M-T-S4  0°C

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