

# 2 in 1 & ESD Safe



# IMPORTANT SAFEGUARDS CAUTION!!! WARNING!!!

#### Read instruction manual before using.

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 power supply when not in use.

5. Heat gun, soldering iron, and desoldering iron must be placed on the stand when not in use.

6. Household and indoor use only.

7. To prevent electric shock, unplug before replacing the fuse or performing 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 granted 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 are 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, a service agent, or similarly qualified persons.

13. Any servicing should be performed by an authorized service representative and 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 heat to the same area for a long time;

- do not use in presence of an explosive;

- 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. 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.

17. Do not install nozzle when the hot air gun is turned on. The heat pipe and nozzle must be cooled before installing another nozzle.

18. Soldering produces fumes; ensure there is adequate ventilation.

19. After use, remember that when cooling the unit, the handle should be placed on the handle holder.

20. Longer, detachable power-supply cords are available and may be used if care is exercised in their use.

21. 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 type3 wire;

3) The longer cord should be arranged so that it will not drape over the countertop or tabletop, where it could be tripped over, snagged, or pulled on unintentionally (especially by children).

22. A short power-supply cord (or short, detachable power-supply cord) is provided to reduce the risks resulting from tripping or entanglement.

4

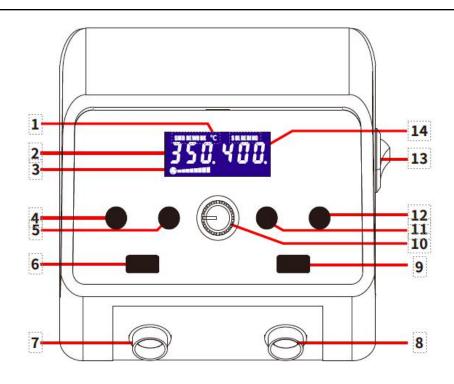
## **SPECIFICATION & APPLICATIONS**

Model Number	USS-SS00002
Control Unit Dimensions	L150*W136*H100mm ± 5mm
Hot Air Rework Station	
Air flow Type	Brushless Fan with Smooth Air Delivery
Air Volume	≤120L/Min
Temperature Range	100°C ~480°C/212°F ~896°F
Display	LCD
Soldering Station	
Temperature Range	200°C ~480°C /392°F ~896°F
Display	LCD
Tip to Ground Resistance	<2Ohms

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.

## I. CONTROL PANEL GUIDE



1. Celsius Indicator	2. Temperature Display (Hot Air)
3. Air Volume Display (Simulated Value)	4. Temperature Decrease Button (Hot Air)
5. Temperature Increase Button (Hot Air)	6. Power Switch (Hot Air)
7. Receptacle (Hot Air)	8. Receptacle (Soldering Iron)
9. Power Switch (Soldering Station)	10. Air Volume Adjustment Dial
11. Temperature Decrease Button	12. Temperature Increase Button
(Soldering Station)	(Soldering Station)
13. Power Switch	14. Temperature Display (Soldering Station)

### **II.OPERATION**

### Hot Air Rework Station

1. Set the rework station correctly. Install the hot air gun holder to the left side of the station, and place the hot air gun onto the holder.

2. Install the required nozzle (Use of large-diameter nozzles is recommended), and connect the station's power cord to an electrical outlet.

3. Turn ON the power switch, and the temperature display shows "---- "to indicate the hot air gun in standby mode. Set the desired temperature by using the increase and decrease buttons, and then pick up the hot air gun. The hot air gun will enter its standard operation status, and the hot air gun's operation indicator light (the dot located at the bottom-right corner of the temperature display) turns ON. The indicator stays ON when station heating up, blinks rapidly when the temperature is stabilized and turns OFF when station cooling. Adjust the air volume adjustment knob to set the appropriate air volume, and begin operation once the temperature has stabilized. The operation indicator blinks rapidly when the temperature process of the temperature enters stabilization. At this point, the precision PID

program tracks and compensates the hot air gun's actual temperature every millisecond. The hot air gun is now in the high-precision thermostatic state.

# Indicator for real-time temperature tracking & compensation

4. When the operation is complete, place the hot air gun back to the holder. Turn OFF the power switch (hot air), and the operation indicator light of the hot air gun turns OFF. The hot air gun now enters cool air mode to cool the heating element. When the temperature drops below 100°C/212°F, the hot air gun temperature display turns OFF. If the station is not in use for an extended period, turn OFF the station's power switch and DISCONNECT the station's power.



### Soldering Station

1. Connect the soldering iron handle to the station, and place the soldering iron into the iron holder.

2. Turn ON the power switch, then turn ON the soldering station power switch. The soldering station's heating element will begin heating normally, and the station's operation indicator light (the dot located at the bottom-right corner of the soldering station's display) turns ON. The indicator light stays ON when station heating, blinks rapidly when the temperature is stabilized, turns OFF when station cooling. Begin with the operation when the soldering station's operation indicator light blinks rapidly to indicate temperature 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 value.

# Indicator for real-time temperature tracking & compensation

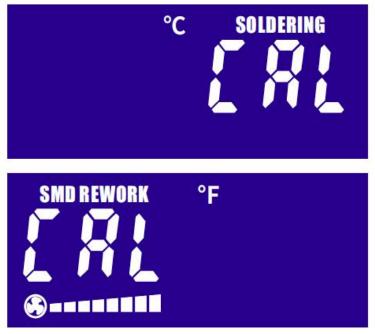
3.When the operation is complete, use a damp sponge or brass wool ball to clean the soldering iron tip. Tin the soldering iron tip with a new layer of solder again, then put the soldering iron back to the holder, and turn OFF the soldering station power switch. If the station is not in use for an extended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



#### **Digital Temperature Calibration**

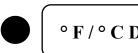
Temperature discrepancies may occur due to the change in the environment's temperature or due to the replacement of the heating element and other components. You can correct the discrepancies with this function. The temperature calibration function can help improve work efficiency and prolong the lifespan of the soldering iron.

 Once the hot air (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 display value with the set temperature.



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

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.

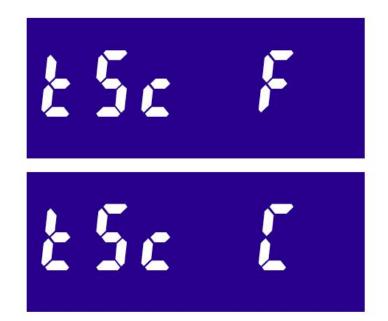


° F / ° C Display Setting

# This function allows the station to comply with user preferences in different regions.

1. Press and hold the hot air rework station temperature increase and soldering station temperature decrease buttons, then, turn ON the power switch. The display will show indicator 'SLP'.

2. Quickly press the hot air rework station temperature increase button 2 times, and the display will show indicator 'tSc C' to indicate the current display mode is in Celsius. (If the display shows 'tSc F', that means the station is in Fahrenheit display mode)



3. Press the soldering station temperature increase or decrease button to select either the Celsius or Fahrenheit display mode. Once done, press the hot air rework station temperature increase button to confirm setting and exit the setting interface.



When the hot air gun stops putting out air abnormally during an operation, the system will automatically cut off the power to the heating element. This is to prevent the burn damages on the handle due to heat accumulation from not putting air out. This function further improves the safety factor of the product.



### **Sleep Mode (Soldering Station)**

The station self-detects its operating status automatically. When the iron is not in use and stayed static for longer than approximately 10 minutes, the soldering iron will cool to 200°C/392° automatically to enter sleep mode. This function prevents the iron tip from oxidizing effectively, extends the lifespan of the soldering iron tip, and conserves energy.

1. Press and hold the hot air rework station temperature increase and the soldering station temperature decrease buttons, then, turn ON the power switch. The display will show value 'SLP 010' to indicate the sleep mode timer set to 10 minutes.

2. Press the soldering station temperature increase or decrease button to set the sleep mode timer. The sleep mode timer can be set to 0 or 10 minutes. When the timer value is set to 0, sleep mode is turned OFF.



3. Stop operating for approximately 6 seconds, the system will then save the data and exit the setting interface.

To start up the iron from sleep mode:

a. Shake the iron a few times.

b. Press any button on the soldering station.

c. Turn OFF then turn ON the power switch.



1. Press and hold the hot air rework station's temperature increase and the soldering station temperature decrease buttons, then, turn ON the power switch. The display will show indicator 'SLP'

2. Press the hot air rework station temperature increase button, and the

display will then show indicator 'bEL ON' to indicate that the buzzer is

turned ON.



3. Stop operating for approximately 6 seconds, and the system will automatically save the setting and exit the setting interface.

### **III. 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 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 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's handles 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  $300^{\circ}$ 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 onto the soldering iron tip while rubbing it until the tip is completely coated with solder. If the tip is too severely oxidized beyond cleaning, replace it 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 on 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, clean the soldering iron tip, then tin the tip with a new layer of solder to prevent oxidization.

18

### **IV. TROUBLESHOOTING**

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

4. SLP – This is an indication of sleep mode being active.

5. O-E – This is an indication that the hot air gun's heating element is faulty. The replacement of the heating element (heating element & sensor modules) is required.

19

### Contact

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