



Thank you for purchasing SUNKKO 857D+. Please read this manual before operating. Keep the manual in a safe and easy accessible place for future reference.

Content / Feature

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| | property and the second |
| 857A Main Unit | |
| 857A Main Unit Power Cord | |
| Holder | |
| | |
| Holder screw | |
| Nozzle···· | |
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| User Manual······ | |
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FEATURE:

This product is used TOP closed-loop sensor, PID temperature control mode, digital temperature display, large power dual turbo vortex fan motor, 750W ceramic heating element. Furthermore, it develops intelligent sleep mode, auto power shut down and sleep mode selection functions to achieve high performance, longer service life. It is widely used for different technical requirements of lead-free or leaddesoldering and soldering.

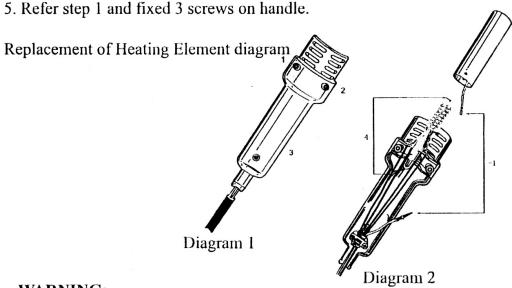
Content / Feature

Replacement of Heating Element

- 2. The pipe contains quartz glass which can break if the unit is dropped or jolted sharply.
- 3. Keep the unit in dry environment and don't waste the unit by water.
- 4. Disconnect the plug when you don't use the unit for a long time.

Replacement of Heating Element

- 1. Unplug the power cord and remove 3 screws on handle and then open the handle
- 2. Use soldering iron to desolder the heating element and take it out. (Note: Wire in white represents heating element, wires in red and blue represents sensor.)
- 3. Use multimeter in 200Ω gear to measure both endgins of 2 wires in white, the resistance value should be about 60Ω (Heating element). Measure the terminal of wires in red, the resistance value should be about $1\sim3\Omega$ [(Sensor: red is positive; blue is negative).
- 4. Please follow the wire connection and replace an original one if the heatingelement is faulty.



WARNING:

- 1) Ensure connecting ground wire for static discharge before use.
- 2) Read the user manual carefully when problems occur.
- 3) Do not disassemble the unit and try to replace it. It may cause danger because of high voltage.
- 4) Do not remove protection sheet, otherwise warranty is invalid.
- 5) Heating element putting in the handle pipe through the front net is not allowed which may damage it.
- 6) Please contact the supplier when the unit was broken.

Specification, Operating Instructions

Specification:

| Working power | AC 220V ±10% |
|--------------------------|------------------------------------|
| Power Consumption | 800W |
| Air Pump | DC 30V dual turbo vortex fan motor |
| Temperature control mode | PID |
| Temperature range | 100°C-450°C |
| Air Flow | 1.8 100 L/min |
| Display | LED |

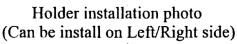


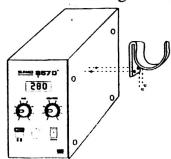
WARNING

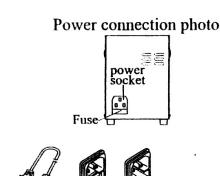
The station MUST keep a certain volume of airflow. Do not operate under Zero airflow and disconnect the power cord under high temperature. The handle is very high temperature during operating. Do not blow against inflammable materials or any part of body.

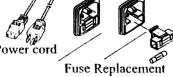
Operating Instructions:

Fixed the holder on the main unit with screws provided first and then Plug in the power cord to the socket on the back of station and power socket on the wall. (Refer to photo)









Operating Instructions, BGA Desoldering and Soldering

Power on

Switch ON the power, air pump will start after 10 seconds. LED light up and show temperature and airflow.

Airflow and temperature setting

Turn the Airflow tuning knob to desired airflow first. Put the handle downward or switch OFF sleep mode. Then turn the temperature tuning knob to setting temperature

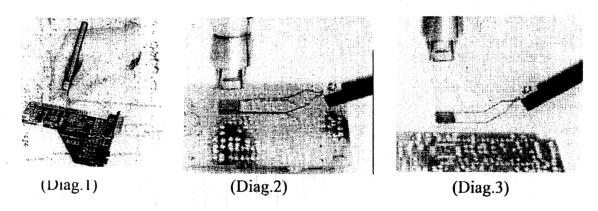
ON and OFF sleep mode function

Starting the sleep mode function by switch ON the sleep mode button. Otherwise, it is switch OFF.

Tin melting

1. Using FP pickup wire. (Diag.1)

Adjust the FP pickup wire to the suitable size fit for PLCC and SMD chips and using a small tweezers to pickup it out.



2. Heating (Diag.2)

Hold the handle direct to chip until the tin was melted by hot air. (Note: Nozzle must not touch the wire and SMD surface, keep distance between outlet of handle and replacement part about2~3mm.)

3. Take out component (Diag.3)

When the tin is melting, lift up the FP pickup wire and move the component together with hot air handle. Using tin removing tool to clean up tin residue.

BGA Desoldering and Soldering

BGA Desoldering and Soldering

1. BGA Desoldering

- A. Install suitable size of BGA nozzle for desoldering chips.
- B. Apply some rosin or subsidiary materials on BGA surface.
- C. Put the handle direct to BGA chip. (Note: Nozzle cannot touch the surface of Chip.)
- D. When the tin is melting, using tweezers.to lift up BGA. Do not force to pry it to avoid damage of PCB and BGA.
- E. Using tin removing tool to clean up tin residue.

2. Soldering

- A. Apply some tin paste on BGA and put it on circuit board.
- B. Install suitable size of BGA nozzle.
- C. Preheat BGA.
- D. Soldering BGA.
- E. Clean up tin residue after soldering.

3. Melting the flux (Diag.2)

Hold the handle direct to desire part until the flux was melted by hot air (Note: Nozzle cannot touch the circuit broad.)

4. Remove integrated circuit broad. (Diag.3)

Life up the FP pickup wire and move away IC after tin was melted.

5. Switch OFF

The heater stop heating and cool air still come out after switch OFF the power until the handle is cool down. Hence, do not disconnect the plug during cooling process. Disconnect the plug when you don't use the unit for a long time.

6. Clean the flux residue

Using tin remover tool to clean up tin residue after removing IC. (Note: If the IC is SOP or PLCC, use tweezers to lift it up.)

Precautions, Repair and Maintenance

Auto sleep mode

This product build-in sleep mode device in order to saving energy and reduce environmental effect. Sleep mode function will start and "SLEEP" indicated LED light up when press "ON" sleep mode button, put the handle on holder or hold the handle upward. At the meantime, the temperature constantly around 100°C, Airflow constantly between level 1-2. Sleep temp. display

Put the handle downward to return working mode.

Sleep indicator

Intelligent Power shut down

The product will power shut down after 30minutes when sleep mode start. Put the handle downward to return working mode.

Power OFF unit

After turning OFF the unit will automatically blow cool air once the temperature has dropped around 60°C.

Repair and Maintenance:

| Fault condition | Reason | Solving method |
|--|--|--|
| • The unit does not work When power ON | Poor connection of power cord. Fuse was missing, faulty or poor connection. Damage of heating element. Control board has failure. | Re-plug power cord properly in good connection. Check fuse Measure resistance value of heating element at noral value 60 Ω or contact to supplier. |
| • Fuse was missing, faulty or poor connection. | •Sensor and circuit failure caused by short circuit from sensor and hearting element. | Measure resistance value of sensor at normal value 1-3Ω Contact to supplier for circuit board failure. |
| • The temperature out of control and no air after replace new heating element. | Revise installed of sensor about position and negative pole. | Install the sensor properly. |

△NOTICE:

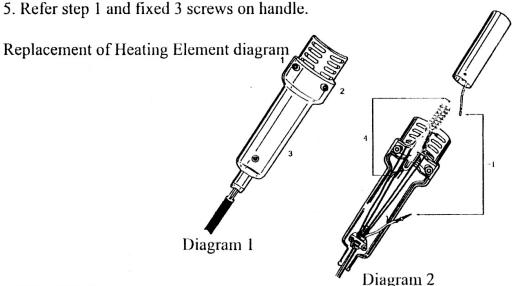
1. Do not put the handle near inflammable material and your skin because both nozzle and heater air are extremely hot and can cause painful burns.

Replacement of Heating Element

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Nozzle size and map

User can change any size of nozzle IC size map (inch/mm):

