HIGH PRECISION
LED SHOW
2 IN 1 REWORK STATION

INSTRUCTION MANUAL

995D+

English

Statement: The company reserves the right to improve and upgrade products, product specifications and design are subject to change without notice.

Thank you for choosing this type of Unsoldering Equipment with Hot Air. The product is designed for soldering and unsoldering without lead. Please read the User Guide thoroughly before use, and keep it in a safe place for future reference.

Warning!!!

Use the machine, the following basic measures should abide, avoid electric shock or cause injury or damage caused by fires.

1. To ensure personal safety, after the machine completed work, please turn off the main power switch, and unplug the power cord if long time no use.

2. To ensure personal safety, you must use the original approval or recommendation of the parts, otherwise it will lead to serious consequences.
3. Machine failure must be by professionals or the company designated personnel for repair.
4. This product is grounded three-wire plug,must be inserted within the threehole grounded outlet, do not change the plugs or use ungrounded three adapter made it bad grounded.
5. Hot air gun or soldering station is open, its temperature are likely to reach 400 degrees. Do not use it near flammable gas, objects. Tube and the heat emitted very hot, can burn the body, do not touch the hot pipe and direct injection to heat the human body.
6. Hot air gun is turned on, do not leave the jobs site.
7. When the hot air gun opening do not install nozzle, the heat pipe and the nozzle must be cooling. Then installed the other nozzle.
8. Please keep inlet and outlet air flow, don't have obstruction.
9. After use, remember that the cooling body, the handle should be released into the handle frame, then shut down the machine to sleep.
10. Do not use a soldering iron to weld outside the work; Do not iron percussion table to clear the residual flux, this could seriously damage the iron.
11. The machine welding will take smoke, please do proper ventilation.

1. If the supply cord is damaged, it must be replaced by a special cord or assemble available from the manufacturer or its service agent.
2. WARNING: This tool must be placed on its stand when not in use.
3. --Be careful when using the appliance in places where there are combustible materials;
--Do not apply to the same place for a long time.
4. --Be aware that heat may be conducted to combustible materials that are out of sight;
--Do not leave the appliance unattended when it is switched on.
5. --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.
--Children should be supervised to ensure that they do not play with the appliance.

I. Products Feature

1. Using the new SAMSUNG microcomputer processor PID programmable temperature control technology and implantation of the most high - end precision PID program. The machine to every 20 ms as a cycle, using super speed to tracking detection the gun and iron actual temperature and correction. Magic temperature compensation to make its temperature stability. Temperature error and temperature compensation rate, to beyond the same type of products in the market. At the same time machine also upgraded the LCD display, using the latest digital dynamic LCD screen, its beautiful appearance. Accurate display the gun / iron temperature and various functional instructions (air gun automatic / manual function, show Fahrenheit / Celsius display, iron dormancy time etc .) With dynamic volume instructions, display stick out a mile. So operation is handy! At the same time the internal use of SMT double panel manufacturing process, internal process system,the direction of signal clarity, machine stability and safety performance is further improved, can adapt to a variety of harsh environment.
2. The machine design three storage: CH1/ CH2/ Ch3. The user can according to the use habit, or the device characteristics of assembling and disassembling , to set or storage three difference gun and iron temperature / airflow / display mode/ iron sleep time/ gun ATUO and Manual.
3. The user can according to three shortcut keyboard to into the storage quickly, it is very suitable for standardization production work . Machine add cooling funtion, can facilitate users in a particular environment of rapid dismounting device or cooling and dust equipment.
4. The gun heater adopts a ceramic heater. Heating element firmly around the model of ceramic, rapid and uniform heating up. Ceramic super high temperature and very tough material at long time high temperature under the condition of no deformation, greatly enhance the heating element stability , prolong the life of the heating element.
5. In the hot air gun automatic function unique safety protection function, the power to open all the circumstances, the handle set intelligence design. So we must be put the handle on the gun holder and take handle gain, and then its can normally work. This design effectively avoid the air guns in unknown circumstances use elsewhere caused by fire or other accidents.
6. The machine parts with self testing function, all the smart temperature /short circuit / open circuit / overload and so on fault display and protection function.
7. Powerful human function design, with the following5 functions:
A. air gun automatic / manual function:

When choosing the automatic function, put the gun handle back on the holder, the machine automatically cut off the heating up and cooling, its effectively improve the heater service life and energy saving, good for environmental protection and high safety factor. Can be effective to avoid hot air gun handle caused by fire or other accidents. Select the manual function: When the gun handle back on the holder,that the gun is not cool and keep in work. Its very suitable for frequent operation and save cooling and heating time to improve work efficiency , it is recommended to use the manual function status was finished, please switching back to the automatic function to improve safety! (see specific settings feature set described in 4)

B. Temperature correction function: Adapted due to environmental conditions or the replace the heater/ fan blower / iron tips caused by iron or hot air gun temperature deviation, this feature can be corrected temperature. Correction of temperature range:-50°C~+50°C. (See the specific set of feature set described in 6-7)

C. Celsius/ Fahrenheit temperature display function: Meet different market needs to design the temperature display mode. According to the custom to choose. (See the specific set of feature set described in 5)

D. Iron sleep function: Iron automatic detection self working condition, when not in use is at a standstill. Reaches the set time to sleep, iron temperature automatic cooling to 200°C enter sleep state. Which can effectively prevent the iron tips oxidation and prolong the service life, energy saving and environmental protection. Sleep time can be provided with a range of powerful, can set range:0 ~99 minutes, walking for 1 minutes, the user can use to set. if you don't want to sleep, can be set the sleep time at 0. (See the specific set of feature set described in 3)

E. Air gun with a protective function:If the guns in the using process of the non normal stop wind, that heater will stop heating to prevent gun burn out by non wind, enhancing the safety performance of the product.

8. Iron part adopts import heater, quick temperature rise , temperature stability, long service life,static design,prevent electrostatic damage the SMD element.

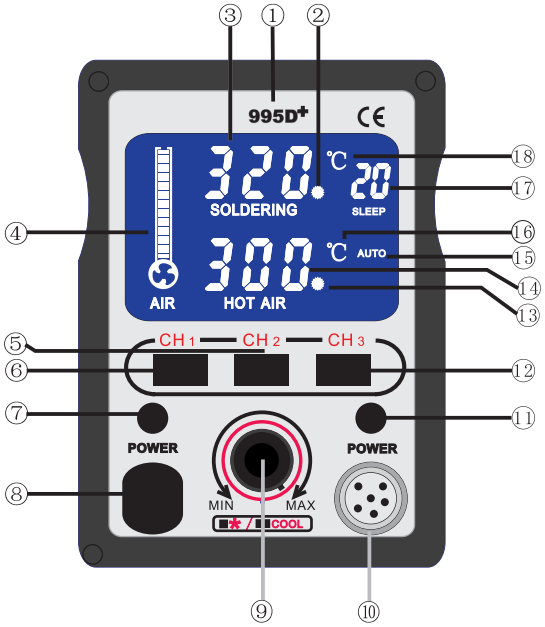
II. Specification

Power	720W
Size	L148xW99xH134mm ±5mm
Weight	2.6kg
Work Environment	0~50°C/0~122°F
Storage Environment	-20~80°C/-68~176°F
Storage humidity	35%~45%
Air gun part	
Airflow Type	Brushless fan soft wind
Wind flow	≤120L/min
Temperature Range	100°C~480°C/ 212°F~896°F
Temperature Stability	±1°C
Display type	LCD display
Handle length	⩾100cm
Soldering Iron	
Temperature Range	200°C~480°C/392°F~896°F
Temperature Stability	±2°C
Tip-to-ground voltage	<2mV
Tip resistance to ground	<2ohm
Display type	LCD
Handle length	⩾100cm

III. General Usage

1. Suitable for a various kind of soldering or de-soldering (removals)purposes of the electronic components such as: SOIC, CHIP, QFP, PLCC, BGA, SMD, etc. (Especially mobile phone's cable).
2. Shrinking, paint drying, adhesive removal, thawing, warming, plastic welding.

IV. Product Images And Description



1. Model
2. Iron work indicator
3. Iron temperature display
4. Gun airflow analog values
5. Preset storage Ch2
6. Preset storage Ch1
7. Gun switch button
8. Air gun handle line
9. Key features/ functions/ airflow adjusting knob
10. Iron six core socket
11. Iron switch button
12. Preset storage Ch3
13. Air gun indicator
14. Gun temperature display
15. Air gun manual or automatic status indication
16. Fahrenheit or Celsius display stat
17. Iron sleep time
18. Fahrenheit or Celsius display status indication

V. Operating Instructions

Hot air rework operation

1. Desoldering station will be a good place,first please install air gun frame in the left of the machine, then the handle must be set in the handle frame, otherwise air gun will not work (it has the unique security features, effective prevention of air gun in unknown circumstances on hold in other parts of fire or other accidents).
2. Connected power supply, the device the air nozzle (to make use of large-diameter nozzle).
3. Open the back of the chassis whole switch, the display shows the factory default values, the temperature of the air gun display windows " --- " when the air gun for standby, pick up the handle, rework station hot air guns enter into the state of the normal heating, at this time the air gun indicator (air gun display window of the lower right corner) is on! Warming up the indicating lamp bright, constant temperature the indicating lamp will regular high flicker, cooling the indicating lamp off. Adjusting airflow knob setting appropriate airflow, stay stable temperature will be normal operation. After the thermostat can visually see indicating lamp flashing at high speed, and then high precision PID program in milliseconds to high-sepeed tracking and compensate the gun actual temperature. So that the gun into the high stability and high precision constant temperature condition! (Figure 2)
4. Work is completed, must be put the handle on the holder, at this time de-soldering will automatic cut off the heating current into the body to send cold air cooling heating mode. When the temperature is below 100°C shows " --- " de-soldering station , that means the machine will enter into standby mode. the machine enter into standby state, press air gun " POWER " button turn off air gun.If long time no use,please turn off the back of the chassis whole switch.

Note: If air Auto/ Manual function set is manual, after open the whole switch, air gun start to heat normally. The specific parameter settings please see set up instructions.

Program high-speed tracking temperature compensation instruction

Figure 2

Soldering iron parts

1. The soldering iron handle connected, it will handle on the iron frame.
2. Open the back of the chassis whole switch, the display shows the factory default settings, the soldering iron heating element start to heating, at this time the iron work indicator lights (the lower right corner of the display window) is on! Heating temperature, the indicator always light, when constant temperature, the regular high-speed flash; dropping temperature display off.When the iron work indicator has a regular high-speed flash into a constant temperature after normal working!
3. Work is completed, clean high-temperature sponge to clean up the residue of the iron lips under re-plated on a new layer of solder , the iron into the iron frame, press iron "POWER" button, close the iron. If long time no use,please turn off the back of the chassis whole switch.

Note: The specific parameter settings please see set up instructions.

VI. Functional Setup Instructions

Cold wind setting

In normal operating mode, press the function button for 5 seconds

"HOT AIR" words disappears on the air gun display, Air gun display shows the current actual temperature of the outlet, air gun display shows "COL" then machine into cold mode when the actual temperature is below 60°C.

Function settings order:

Press the first function button

Soldering iron temperature settings ..... "SOLDERING" Display flashing, Clockwise or counterclockwise rotation the knob, set the desired temperature of the soldering iron.

↓ Followed press the 2 function button

Air gun temperature settings ..... "HOT AIR" Display flashing, Clockwise or counterclockwise rotation the knob, set the desired temperature of gun.

↓ Followed press the 3 function button

Soldering iron sleep time settings ..... "SLEEP" Display flashing, Clockwise or counterclockwise rotation the knob, set the desired iron sleep time.

↓ Followed press the 4 function button

Air gun AUTO/ MANUAL settings ..... "AUTO" or "MANUAL" flashing, clockwise or counterclockwise rotation the knob, set the gen AUTO and MANUAL.

↓ Followed press the 5 function button

Fahrenheit/ Celsius display change settings ..... °C or °F flashing press increase and Clockwise or counterclockwise rotation the knob, set the gun and iron °C or °F display state.

↓ Followed press the 6 function button

Soldering iron temperature calibrate settings ..... "SOLDERING" display flashing, meanwhile soldering iron temperature display window shows "00" , Clockwise or counterclockwise rotation the knob, set the iron compensate temperature

↓ Followed press the 7 function button

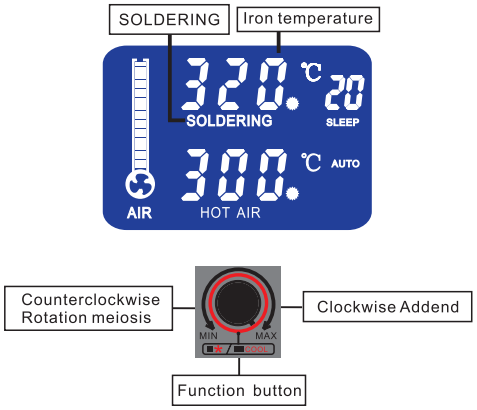
Air gun temperature calibrate settings ..... "HOT AIR" display flashing, meanwhile, air gun temperature display window shows "00", Clockwise or counterclockwise rotation the knob, set the gun compensate temperature

↓ Followed press the key at eighth times

Finish setting ..... The machine save all of the above setting function parameters automatically, and according to the function parameter working.

1. Soldering iron temperature settings

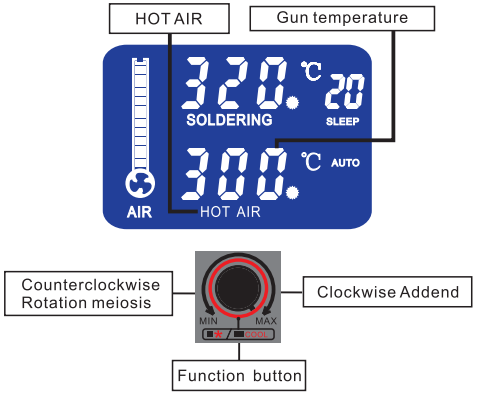
For example, set the iron temperature to 380°C:
Press the first function button, " SOLDERING" flashing, clockwise rotation the knob from 320 to 380. Stop operating four seconds, The " SOLDERING" stop flashing, the program automatically memory and exit the function setting, finish settings. If you want to set the temperature of the air gun, click the first function button more before "SOLDERING" display stops flashing, specific methods, please see air gun temperature settings.



Operation shown in Figure 1

2. Air gun temperature settings

For example, set the air gun temperature to 400°C, iron temperature set complete, press the second function button, "HOT AIR" flashing, Clockwise or counterclockwise rotation the knob to temperature of the air gun from 300 rose to 400, stop the operation of four seconds, "HOT AIR" display stops flashing, the program automatically memory and exit the function setting, set to complete. If you want to set the iron sleep time, click the function button before the display stops flashing "HOT AIR", set of specific methods, see iron sleep time.

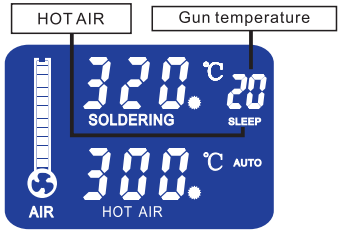


Operation shown in Figure 2

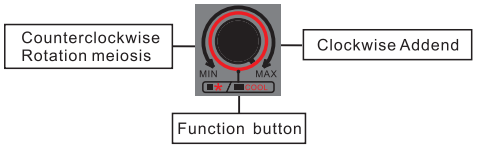
3. Iron sleep time setting

For example, Iron sleep time is set to 10 minutes:

Air gun temperature the set immediately by the third function button, " SLEEP" flashing, and counterclockwise rotation the knob to make the iron sleep time from 20 to 10, stop operating four seconds, "SLEEP" display stops flashing, the program automatically memory and exit the function setting, set to complete. If you want to set the air gun auto/ manual, "SLEEP" display stops flashing, click the function button, the specific methods, see the air gun auto / manual settings.



Operation shown in Figure 3-1

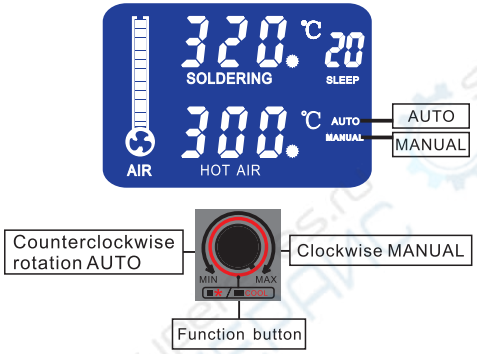


Operation shown in Figure 3-2

4. Air gun AUTO/ MANUAL settings

For example, Air gun automatic state convert the Manual states:

Iron Sleep time is set, immediately, press the fourth function button, "AUTO" flashing button, Clockwise rotation the knob to " MANUAL" display flashing,"AUTO" display crush out, stop the operation for four seconds, "MANUAL" display stops flashing, the program automatically memory and exit the setup is complete. If you want to set the Fahrenheit /Celsius display, click the function button in the " MANUAL" display to stop flashing before specific methods, see Fahrenheit /Celsius conversion settings.



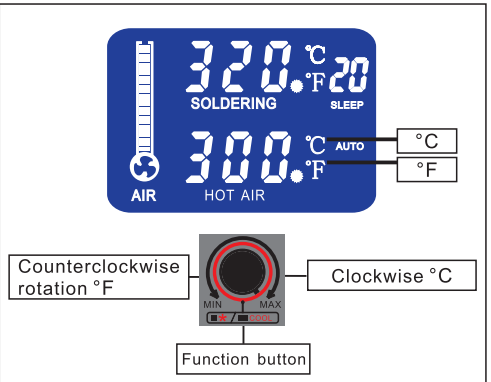
Note: "AUTO / MANUAL" will only show one States, picture shows the convenient introduction and Show All.

Operation shown in Figure 4

5. Fahrenheit/ Celsius conversion settings

For example, °C state conversion the °F state:

Air gun auto/manual settings, imme-diately press the fifth function button, "°C" display flashing, clockwise rotation the knob to,"°F"flashing, "°C"displays off, stop the operation 4 seconds,"°F" display stops flashing, the program automatically memory and exit the function setting, set to complete. If you want to correct iron temperature, "°F"display stops flashing, click the function button, and set of specific methods, see the soldering iron temperature correction.



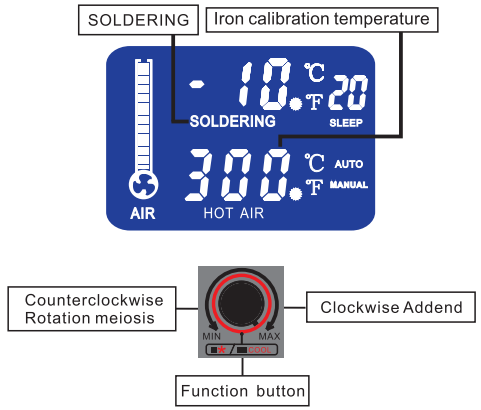
Note: "°F / °C" will only show one States, picture shows the convenient introduction and Show All.

Operation shown in Figure 5

6. Soldering iron temperature correction settings

For example, soldering iron temperature should be reduced by 10°C:

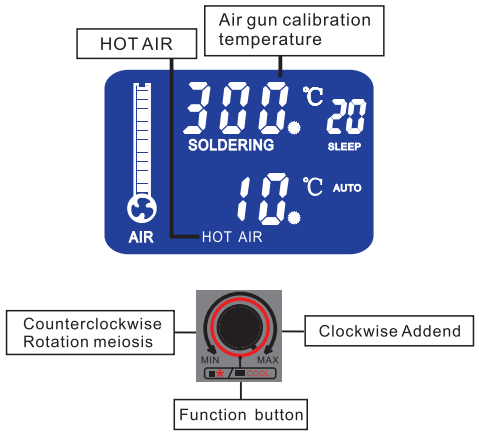
Fahrenheit /Celsius conversion settings, immediately press the sixth function button, "SOLDERING" display flashing, meanwhile soldering iron temperature display window shows "00", Clockwise rotation the knob to make the soldering iron temperature reduction"-10", stop operating 4 seconds, "SOLDERING" display stops flashing, the program automatically memory and exit the feature set, set up is complete. If you want to correct the temperature of the air gun, "SOLDERING" display stops flashing, click the function button, and specific methods, see the air gun temperature calibration settings.



Operation shown in Figure 6

7. Gun temperature correction settings

For example, the temperature of the air gun to an increase of 10°C:
Soldering iron temperature correction is set, immediately by the seventh function button “HOT AIR” flashing display, while the temperature of the air gun display windows, “00”, increase buttons to the wind the gun temperature display window shows “10”, stop the operation of four seconds. “HOT AIR”stops flashing, the program automatically memory and exit the function setting, set to complete. Press the function button once, so the feature set to complete.



Operation shown in Figure 7

Notice:

1. The air gun and soldering iron calibrated temperature is 0 in factory, has been precisely calibrated air gun and soldering iron temperature of the factory, do not arbitrarily change the calibration temperature of the air gun and soldering iron.

2. **When the only open air gun, the function set of the order is:**
   A. Air gun temperature settings
   B. Auto / Manual settings
   C. Fahrenheit /Celsius show conversion settings
   D. Air gun temperature calibration settings

3. **When the only open soldering iron, the function set of the order is:**
   A. Iron temperature settings
   B. Iron sleep time settings
   C. Fahrenheit / Celsius show conversion settings
   D. Iron temperature calibration settings

4. Any function set up, stop the operation for 4 seconds, the program has automatic memory and exit the feature set, if you need to set 1 of the function at the feature set order to re-set.
   For example, set the iron sleep time of 10 minutes(open air gun and soldering iron):
   Continuous press the 3 function button , “ SLEEP ” display flashing, press the increase and decrease button so that iron sleep time display windows “ 10 ”, stop the operation for 4 seconds, “SLEEP”display stops flashing, the program automatically memory and exit the setup is complete.

VII. Terms Of Use

1. When turning on the main unit’s power, the Hot Air rework’s handle must be placed properly on the handle’s rack.
2. Please ensure the Hot Air’s outlet is clear, must free from any blockages or obstructions.
3. After usage, the handle must be placed back on the handle’s rack, let the unit cooling down (temperature gradually decreasing) until it displays “---” (Air flow stop), then turn off the Hot Air power switch.
4. The unit comes with 3 standard nozzle sizes: Large,medium, small.When using the smaller nozzle the hot air volume must be adjusted to the maximum rate or set the temperature low and maintain it in short time,to avoid prolonged use which could damage the Hot Air unit.
5. In regards to the usage requirements, choose the appropriate Hot Air flow, different Hot Air flow will cause the temperature to be slightly different, and please maintain the distance between the outlet and the object must be at least 2mm.
6. When the iron is used for the first time, please pay attention to check the iron tip warming condition, when the tip can melt the tin wire, please plate some tin on tip, then adjust to the desired temperature.
7. The tip temperature should not be too high, too high temperature would weaken the tip function. When interval using, can lowering the temperature.
8. Should be regularly use clean sponge to clear soldering tip, after finish use, should wipe clean soldering iron tip, plate new tin to prevent soldering iron tip oxide.
9. After prolonged use, the inlet of the air gun handle may be sticking a lot of dust blocking the vents, please clean-up it, to avoid to reducing outlet airflow. Another thing: Fan may be the effect of variation of lubrication and dust impact, resulting in the fan slowly rotating, the program may start no wind protection function does not work, timely maintenance of the fan.

Special instructions:

Dear User! Our air gun and soldering iron handle adopt high strength stainless steel tube, the machine must be inspected or calibrated four times in normal working condition during the production process, the copper tube could be slight yellowing due to high temperature! When use the new machine first time, it is normal that the steel tube at a slight yellowing, please be assured!

VIII. The do’s and don’ts

1. Do not rude when put on nozzle or use pliers to pull nozzle edge, Do not hard to bolts screws.

2. Nozzle can be install after the heating pipe and nozzle are cool.
3. High temperature can burn the human body, do not touch the heating pipes, or put the heat air spurting to face. At the starting, may be emitted white smoke, this is a normal phenomenon, this phenomenon will disappear later.
4. When replace the heating element, be careful don't damage the ground wire.
5. When doing replacement, should pay attention to the order and color of the connecting wire, it could not be wrong connection!
6. Please replace the same type of heating element or heater!

IX. Display Notes

1. When the LED digital display "---", it means the outlet temperature is below 100°C; the hot air rework station is in standby mode, and the handle is placed on the handle's rack.
2. When the LED digital displays "S-E", it means the Soldering iron and Hot Air rework's sensor is having a problem or handle is un-plugged, if this the case it needs to replace the heating element (heating core's element and sensor components).
3. Display "F-1/F-2", shows the air gun is no wind protection, you need to check the fan and air gun power supply circuit.

X. Interchangeable Component Description

Replacement of Hot Air rework heating element Figure 3

1. Ensure the Hot Air Rework is fully cooled down before replacing the element.
2. Figure, loosen the two screws on the handle.
3. Turns the handle anti-clockwise until it comes off and then remove the handle's cover.
4. Gently takes out the fan, loosen the three screws to remove the fixed wiring board.
5. The wiring board vice versa, apart from the heater wiring board connection cable, pay attention to the connection location.
6. Remove from the heat pipe heat body wrap body with mica paper, careful not broken in place.
8. According to the original location of the connection to connect heater.
9. When the reverse process by open bottles and handle back.

Replacement of the soldering iron's tip and soldering iron heating core's element Figure 4

1. Unscrews the nut No.1, and then removes the steel tube No.2, followed by removing the tip which is going to be replaced.
2. For the replacement of heating core's element can be performed by unscrewing the plastic cap No.4, pulls out gently the heating core's element No.6 along with the circuit board No.7, please carefully remember the connection of spring No.5.
8. The iron core from the circuit board welding, the replacement of the heating core, can be fitted well. Note that the order of the iron core wire connection.

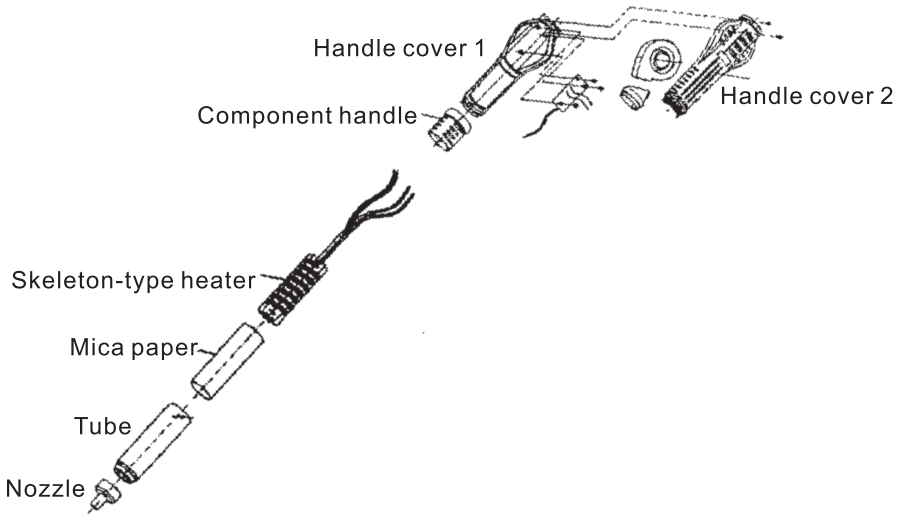


Figure 3

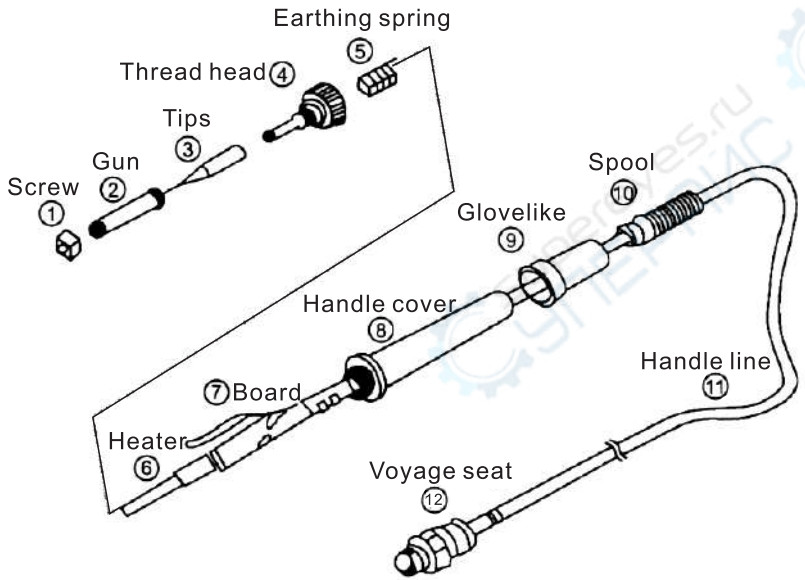


Figure 4

General parts

*Nuzzle specification and size means the IC size