

2 in 1 Anti - static rework and soldering station

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# OPERATION GUIDANCE

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Circuit Specialists CSI-PREMIER-PRO  
English

Thank you for choosing this product. Please read the operation guidance thoroughly before use and keep it for future reference.

## 1. Product Features

1. Application of PID programmable temperature control technology, applied the most high-end precision PID program, the machine can track the actual temperature of the soldering station in the high speed, and correct the temperature. The temperature compensation speed is fast, and the deviation is small.
2. With hot air gun and soldering station function.
3. Anti-static design, protecting components from being damaged by static electricity or leakage
4. The machine design has the following humanization features.
  - A. Digital temperature correction function:**  
When the temperature appears deviation because of environmental impact or replacing the spare parts such as heating element, soldering iron, you can use this function to correct.
  - B. Celsius / Fahrenheit Temperature Display Function:**  
The temperature display mode designed to meet the needs of different regions of the market and it can be selected according to your customary interests.
  - C. Sleep function:**  
The soldering iron automatically detects when it is unattended and not in use, pauses for a set duration prior to sleep mode, and automatically cools to 200°C (392°F).  
It will then enter sleep mode to prevent soldering iron oxidation and effectively extend soldering iron head service life while retaining energy savings and environmental protection. The Sleep time can be set to: 2 minutes, 10 minutes, 30 minutes, If the sleep function is not necessary for the soldering iron, the sleep time should be set to 0.  
Wake up sleep method:
    - a. Shaking the soldering iron handle several times.
    - b. Press any one key at a time.
    - c. Turn off the power switch and turn it on again.
  - D. Protection function for air gun fan malfunction:**  
At the process of using the air gun, the air gun features shutoff protection functionality that automatically turns off the heating element when the fan is stopped to protect handle and ensure safe operation.
  - E. Air gun automatic / manual function:**
    - a. When you select the automatic function, and the air gun handle is placed back to the handle holder, the machine is automatically cut off and the heating body cools down, effectively prolonging the useful life of the heating body and saving energy. When the safety factor of rebooting the machine is extremely high, it can effectively prevent fire or other safety incidents caused by the machine turning on for unknown reasons and the

hot air gun being stored in some other place.

b. When the air gun is frequently used, switching to manual mode disables automatic cool down when the handle is docked in the holder! Please switch to the automatic function after using the manual function to improve security!

**F. Cool / hot air conversion at the flip of a button:**

Simply press the regulator and switch between cold and hot air, When switching to cool air, the air gun heating element will stop heating, and the fan works to provide air for the convenience to cool down the heating component.

5. The internal uses the SMT double-panel technology manufacturing, the process is neat, The signal flow is clear, further improve the machine stability and safety performance, it can adapt to various harsh environments.

## 2. Usage

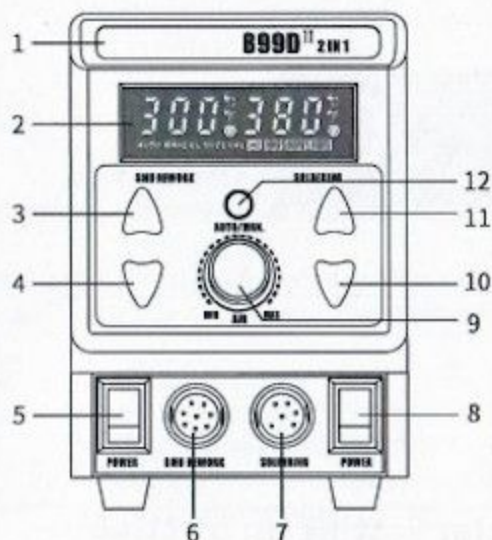
1. Suitable for welding various components , such as SOIC, CHIP, QFP, PLCC, BGA, SMD, etc. (especially suitable for welding mobile phone cable and cable seat).
2. Use for heat shrinkage, drying, removing the paint and stick, thawing, preheating, welding and so on.

## 3. Display Screen, Panel Diagram





1. Fahrenheit or Celsius display
2. Soldering iron temperature
3. Air gun heating indicator
4. Fahrenheit or Celsius display
5. Air gun temperature
6. Air gun automatic mode
7. Air gun manual mode
8. Air gun cold air
9. Temperature correction
10. Soldering station no sleep indication
11. Soldering station 2 minutes sleep indication
12. Soldering station 10 minutes sleep indication
13. Soldering station 30 minutes sleep indication
14. Soldering station heating indicator light



1. Brand and model
2. Display window
3. Air gun temperature up button
4. Air gun temperature down keys
5. Air gun switch
6. Air gun handle interface
7. Soldering station handle interface
8. Soldering station switch
9. Airflow adjusting knob
10. Soldering station temperature down keys
11. Soldering station temperature up button
12. Air gun manual / automatic mode conversion button

## 4. Instructions

### Air gun part

1. Put the product in place ,connect the air gun handle, install the required nozzle, put the air gun handle on the handle stand.
2. Plug the power cord , open the main switch that behind the machine body.
3. Open the air gun switch, the screen shows "---", setting the required temperature and air volume.
4. Pick up the air gun handle and air gun begins to send air and heat, Operation can be carried after the temperature is constant.
5. When the work is completed, put the handle back to the handle frame (or directly turn off the air gun switch), air gun enters cool air mode to cool down the heating element. After the temperature drops to 100°C(212°F), turn off the main power switch.
6. If you do not use the machine for a long time, you must unplug the power cord.

### Soldering station parts

1. Connect the soldering station handle.
2. Plug the power cord.
3. Turn on the main power switch, the soldering station starts to heat.
4. Setting the required temperature, start the operation when the soldering iron temp is constant.
5. When the work is completed, please put the handle back to soldering iron stand, and turn off the power cord.

## 5. Function Parameter Setting Instruction

### Air gun digital temperature correction

1. Open the air gun switch and put the handle on the thermometer to measure the temperature.

2. Setting the required correction temperature, after the temperature is constant, press the air gun temperature plus and minus key for 2 seconds at the same time, with temp. appearing and "CAL" flashing.
3. Adjust the airflow knob to input the measured temperature.
4. Pressing the airflow adjusting knob for confirm, the program automatically save the data and exit the calibration state, and the calibration is completed.



#### Fahrenheit / Celsius temperature display setting

1. Open the air gun switch, and start the air gun.
2. Press the airflow knob for 2 seconds, the "°C" flashing, as shown in Figure.
3. Adjust the airflow knob to select the Fahrenheit or Celsius display system.
4. Press the airflow knob to determine, the program automatically save the data and exit the calibration state, and the calibration is completed.



#### Air gun cool / hot air conversion settings

1. Open the air gun switch.
2. Press the airflow knob with the appearance of "COOL", the air gun stops heating and the temp drops to room temp and cool air mode works.
3. Press the airflow adjusting knob again to convert to hot air mode and the air gun begins to heat.

#### Soldering station digital temperature correction function

1. Turn on the soldering station switch to start the soldering station.



2. Setting the required correction temperature, after the temperature is constant, press the soldering station temperature plus and minus for 2 seconds at the same time, with temp appearing and "CAL" flashing
3. Adjust the airflow knob to input the measured temperature.
4. Pressing the airflow knob for confirm, the program will automatically save the data and exit the calibration state, and calibration is completed.



#### Soldering station sleep time setting

1. Turn on the soldering station power switch.
2. Press the airflow adjusting knob for 2 seconds until the "S-E" is flashing.
3. Adjust the airflow knob to select the sleep time, no operation for 5 seconds, the program will exit the setting state and the setting is completed.



## 6. Symbol Description

1. "---" indicates that the outlet temperature is lower than 100°C(212°F), the soldering station enters into the standby state and the handle is on the handle frame.
2. "S-E", indicates that the handles are unplug or the sensor components of soldering iron or air gun are damaged. Please replace the heating elements (heater and sensor components).

3. "F-1/F-2" , indicates that the fan stops work and the fan and the air gun power supply need checking.
4. "SLP" , indicates that the soldering iron come into the sleep state.

## 7. Use Notice

1. The handle must be placed on the handle frame, when turning on the power of the air gun.
2. Please ensure the outlet is clear, must free from any blockages or obstructions.
3. After the work is completed, put the air gun handle on the frame, turn off air gun switch and after the machine cools down with the appearance of "---", turn off the power switch.
4. When working with smaller size nozzle other than the machine standard nozzles for short time, please set the air gun air volume to maximum and air gun temp to lower in order to protect the air gun from damage.
5. Different size nozzles are needed for working requirements and at least 2mm distance must be kept between the outlet and the object.
6. When installing the nozzle, do not force the nozzle of the device, or pull the nozzle edge with the pliers.
7. When the nozzle is installed, the nozzle must be installed when the heating pipe and the nozzle are cooled.
8. Do not touch the heating gun tube or make the hot wind blow to people to avoid burns. It is normal phenomenon that smoke appears when air gun is started and the smoke will disappear later.
9. When replacing heating element, be careful and do not damage the ground!!
10. Connect everything same as before when replacing the heater!!
11. The replacement heater or heating element must be the same type as before.

### Notice:

Dear customer Hello, it is normal that air gun and soldering iron tube made of stainless steel, of a new machine is slightly yellow brought by 4 times inspection during producing process.



## 8. Care and Maintenance

### Tip temperature

High operating temperatures will weaken the functioning of the soldering iron tip. Therefore, operating temperatures should be as low as possible. The soldering iron tip has excellent temperature recovery. Soldering is possible at lower temperatures, protecting temperature sensitive parts.

### Cleaning

Regularly clean the soldering iron tip with a clean sponge. After soldering, carbon compounds and oxidants produced by flux residue may damage the soldering iron tip, producing inaccurate soldering, or reducing the thermal function of the soldering iron tip. When the soldering iron is in continuous use, the soldering iron tip should be opened once a week to remove oxidants, preventing damage and temperature reduction to the soldering iron tip.

### When not in use

When the soldering iron is not in use, it should not be stored at high temperatures to prevent flux oxidation and weakening of thermal functions.

### After use

Following use, the soldering iron tip should be wiped clean and a new tin layering applied to prevent oxidization.

1. For using new soldering iron tip, at first please apply some tin on the soldering iron tip at the temp of soldering iron melting the tin and then raise the temp to desired one. A tinned soldering iron tip can ensure better work.
2. An oxide on the iron tip causes low temp to soldering iron and the tin can not be melted. In case of this, please do not increase the temp. Clear the oxide with clean sponge or turn off the power and clean the oxide with abrasive paper after the temperature is cool and then turn on the power and repeat the first step above.

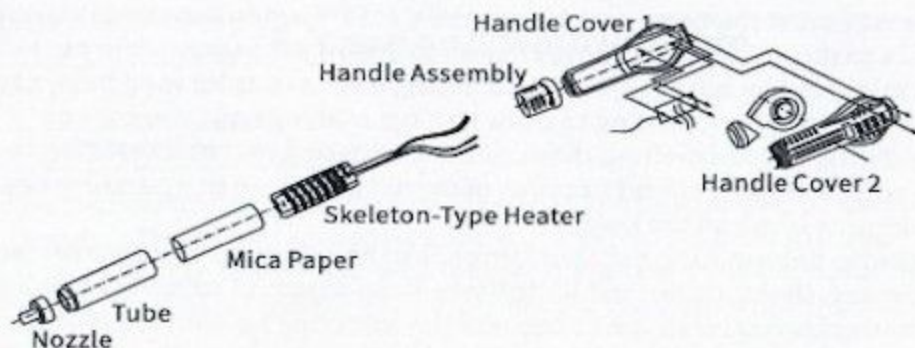
3. Please adjust the temp down blow 250°C (482°F) when put the soldering iron back to the holder for stand-by use and turn off the power when not in use for 20 minutes. Because high temp soldering iron in lasts for long time, causing damage to heater, leading to oxides on tip, making bad influence on soldering or even melting the nut of the soldering iron and breaking the heating elements circuit because of the accumulated temperature between soldering iron and the holder.
4. If the tip deformation or the occurrence of heavy erosion, please replace the new one. (Note: Do not use knife file remove oxides of soldering iron tip.)
5. When soldering, please do not press the soldering tip with too much strength because it does nothing in improving the thermal conductivity but damaging the soldering iron tip.

## 9. Replacement Instruction

### Replacement of Hot Air Rework Heating Element

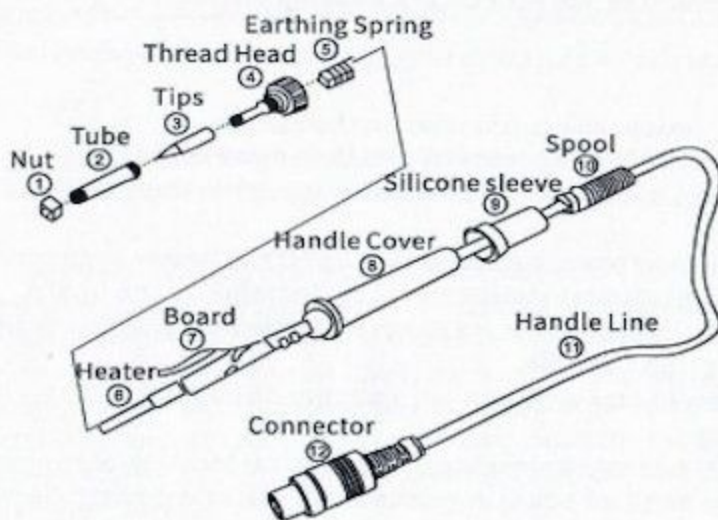
1. Ensure that the air gun temp fully cools down before replacing the air gun heater.
2. As Figure, loosen the two screws on the handle.
3. Screw out the handle assembly and then remove the handle's cover.
4. Gently takes out the fan, loosen and remove the three screws fixing wiring board.
5. Turn the wiring board back and take apart the heater connection cable from the board. Please remember the cable location on the board.
6. Remove the heater and mica paper from the tube and do not break the connection on the tube.
7. Wrap a new heater well with mica paper and insert the heater to the tube in right place.
8. Connect the heater according to the original location of the connection
9. Install the handle back in apposite way of disassembling the handle.



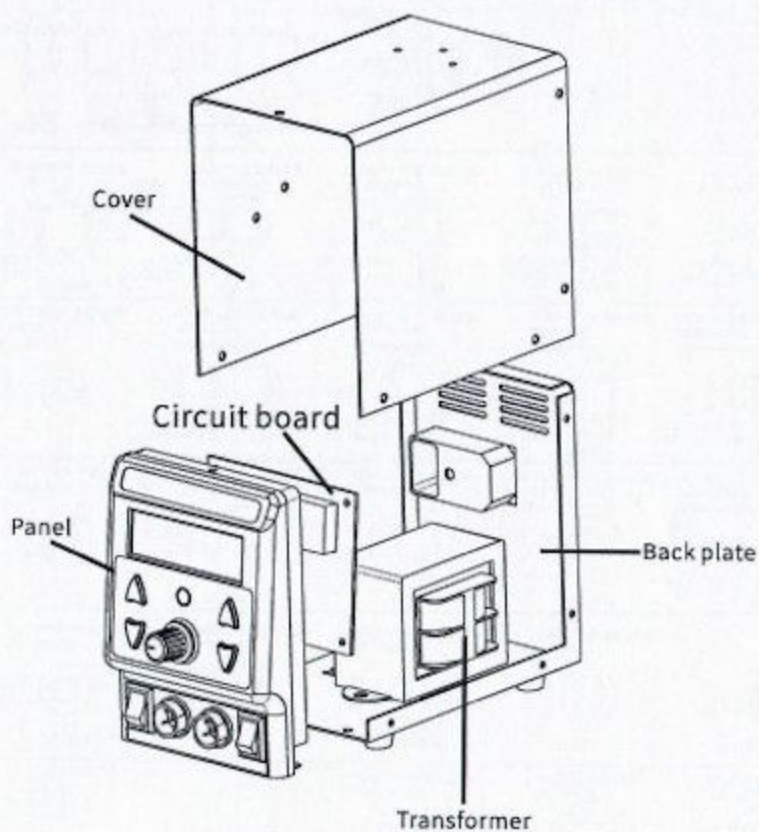


### Replacement of the soldering iron's tip and soldering iron heating element

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 replacing the heating element, please step to unscrew the thread head ④, gently pull out the heater ⑥ along with the circuit board ⑦ and remember the connecting location of spring ⑤.
3. De-solder the heater from the circuit board, replace a new heating element solder the connecting wire according to the original location and install the soldering iron.



● Machine Installment illustration



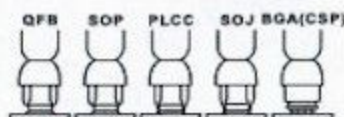


# 通用部件

\*喷嘴的规格尺寸  
表示该IC的尺寸

# General parts

\*Nuzzle specification  
and sizemeans the IC size



mm(inch)

**A1125** QFP 10x10  
(0.38x0.39)



**A1126** QFP 14x14  
(0.55x0.55)



**A1127** QFP 17.5x17.5  
(0.68x0.68)



**A1128** QFP 14x20  
(0.55x0.78)



**A1129** QFP 28x28  
(1.1x1.1)



**A1135** PLCC 17.5x17.5  
(0.68x0.68)  
(44pin/needle)



**A1136** PLCC 20x20  
(0.78x0.78)  
(52pin/needle)



**A1137** PLCC 25x25  
(0.98x0.98)  
(58pin/needle)



**A1138** PLCC 30x30  
(1.18x1.18)  
(84pin/needle)



**A1139** PLCC 12.5x7.3  
(0.49x0.49)  
(18pin/needle)



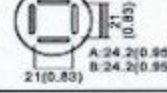
**A1140** PLCC 11.5x11.5  
(0.45x0.45)  
(28pin/needle)



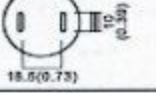
**A1141** PLCC 15x14  
(0.45x0.55)  
(28pin/needle)



**A1182** BQFP 24x24  
(0.94x0.94)



**A1187** TSOP 18.5x8  
(0.73x0.31)



**A1257** SOP 11x21  
(0.43x0.83)



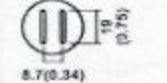
**A1258**



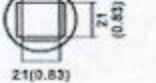
**A1259** SOP 13x28  
(0.51x1.1)



**A1260** SOP 8.6x18  
(0.34x0.71)



**A1261** QFP 20x20  
(0.78x0.78)



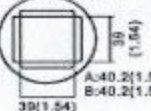
**A1282** QFP 12x12  
(0.47x0.47)



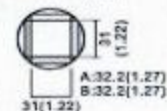
**A1263** QFP 28x40  
(1.1x1.57)



**A1264** QFP 40x40  
(1.57x1.57)



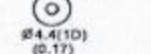
**A1265** QFP 32x32  
(1.26x1.26)



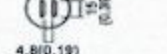
**A1124** Single-tube  
单管式 2.5  
(1.1x1.57)



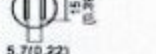
**A1130** Single-tube  
单管式 4.4  
(0.17)



**A1131** SOP 4.4x10  
(0.17x0.39)



**A1132** SOP 5.6x13  
(0.22x0.51)



**A1133** SOP 7.5x15  
(0.3x0.59)



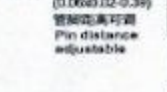
**A1134** SOP 7.5x8  
(0.3x0.7)



**A1142** Curved single tube  
弯型单管式 1.5x3  
(0.06x0.12)



**A1325** Single-tube  
单管式 1.5x5.10  
(0.06x0.12-0.39)  
管脚距离可调  
Pin distance  
adjustable



**A1132** SOP 5.6x13  
(0.22x0.51)



**A1133** SOP 7.5x15  
(0.3x0.59)



附：电焊机使用烙铁头型号图

Attachment: Electric welding machine using welding head model figure

900M-T-0.8D 0°C		900M-T-LB -10°C/-18°F		900M-T-K 30°C/84°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/-38°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	

900M系列外径 $\phi 6.5\text{mm}$  900M Series Tip Out Diam  $\phi 6.5\text{mm}$



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

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Made in China

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# **2 in 1 Anti - Static Rework and Soldering Station**

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**Circuit Specialists CSI-PREMIER-PRO  
English**



**Made in China**

Thank you for choosing this anti-static soldering station, this product is specially designed for lead-free rework, please read these instructions carefully before using. After reading Please keep for future reference.

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



**ESD  
SAFE**



This product should not be thrown in the garbage.  
In accordance with the European directive 2012/19/EU, electronic  
equipment at the end of their life must be collected and returned to  
an authorized recycling facility.

## Circuit Specialists

Circuit Specialists (USA)  
819 W Fairmont Dr # 2  
Tempe, Arizona USA 85282  
800-528-1417 / 480-464-2485  
[www.circuitspecialists.com](http://www.circuitspecialists.com)

Circuit Specialists Europe Ltd  
Unit 26, Ashburton Park  
Wheel Forge Way, Trafford Park  
Manchester, M17 1EH  
[www.circuitspecialists.eu](http://www.circuitspecialists.eu)



## Safety Guidelines

To use this product, the following basic measures must be strictly followed to avoid hazards such as electric shock, bodily injury, fire and other phenomenon:

1. 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!!!
2. Machine failure must be maintained by professionals or our designated personal, must use original or approved parts.
3. This product uses a three-wire grounding-type plug, please ensure that it is properly grounded before use.
4. Be aware that heat may be transmitted to distant flammable materials. It is strictly forbidden to use in flammable, explosive and other hazardous environments. It is strictly forbidden to touch the hot parts of the machine.
5. Do not leave the appliance unattended when it is on.
6. Do not install nozzle when the hot air gun is turned on, the heat pipe and the nozzle must be cooling. Then install the other nozzle.
7. The soldering iron should only be used for soldering. Do not hit the soldering iron against the work surface to remove flux residues (Can be cleaned by the cleaning device of the product), as doing so may seriously damage the soldering iron.
8. Soldering produces fumes, ensure there is adequate ventilation.
9. After used, remember that cooling the unit, the handle should be placed on the handle holder.
10. This product allows for children over the age of 8 and those with physical, sensory or mental disabilities and inexperienced persons, but must provide necessary supervision and guidance. This product is forbidden for children to play.
11. Do not use the appliance in the same place for a long time.

## Specification

Model	899D II
Power consumption	750W
Voltage	220V~240V/AC,50Hz
Dimension	L148xW99x134mm $\pm$ 5mm
Weight	2.8kg $\pm$ 10%
Working environment	0~40°C/32~104°F
Storage environment	-20~80°C/-4~176°F
Storage humidity	35%~45%
<b>The air gun part</b>	
Airflow type	Brushless fan with soft wind
Air flow	$\leq$ 120L/min
Temperature range	100°C~480°C/212°F~896°F
Display form	Digital display
The length of the handle line	$\geq$ 100cm
Noise	$\leq$ 45dB
<b>Iron part</b>	
Temperature range	200°C~480°C/392°F~896°F
The output voltage	24V AC
Display form	Digital display
Handle length	$\geq$ 100cm