

Circuit Specialists

**THERMO-CONTROL DISPLAY &
ANTI-STATIC
SOLDER STATION & SMD REWORK**

INSTRUCTION MANUAL

CSI8786D

English



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.

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 three-hole 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 percussive 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. Product Features

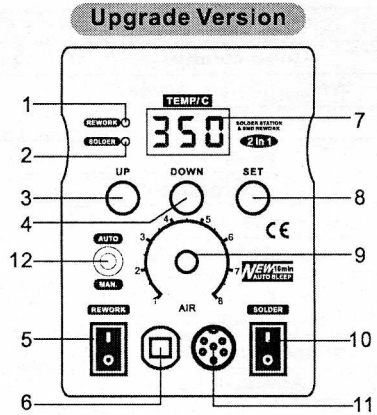
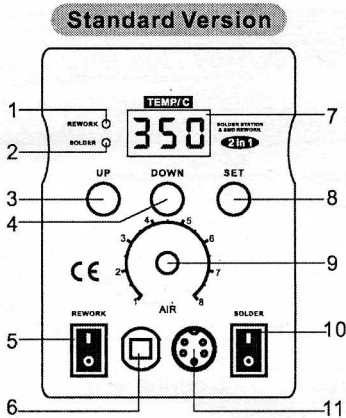
Standard Version

1. Closed loop sensor and microcomputer PID control make sure precise temperature. LCD digital display working status of air gun/iron, button switch the gun and iron display is easy and visual to operate.
2. Hot air gun with bigger power that rapid temperature rising. Airflow soft and wide, very suitable for lead-free soldering rework.
3. The heating element adopts low voltage power supply, can safely and effectively protect sensitive components and staff.
4. Perfect in gun and iron combination, the machine using ferroalloy cabinet, compact body occupied small area of table.
5. With self detection and fault alarm function.

Upgrade Version

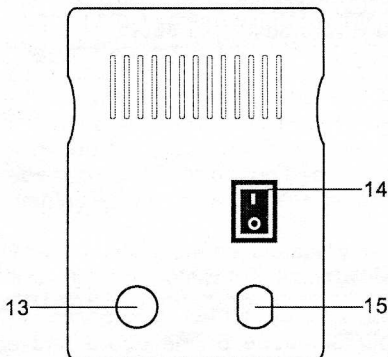
1. Upgrade Version with all the advantages of Standard Version, and add the air gun manual/automatic switching function. Toggle switch is convenient and fast.
2. Automatic mode:
Put the gun on the holder that air gun will be down temperature into a standby state. This model is suitable for not often soldering situation, can effectively save energy and reduce the loss(host, heater etc.), good for prolong the service life.
3. Manual mode:
Put the gun on the holder, the gun remain current operating temperature. This mode is very suitable for often soldering situation, can save time of gun repeatedly back to the temperature, improve the efficiency of soldering.
4. Iron sleep function:
Can be automatic detection of the working state, the absence of people into sleep function. Factory preset the iron sleep time (10 minutes), soldering iron temperature automatic cooling to 200°C and then sleep. Can effectively prevent the oxidation of the soldering iron tips and prolong the service life, energy saving and environmental protection.

II. Schematic diagram of the host panel



1. Hot air gun display status indicator
2. Soldering iron display status indicator
3. Up temperature adjustment button
4. Down temperature adjustment button
5. Gun switch
6. Air gun handle

7. Temperature display
8. Display status switch button
9. Airflow adjustment knob
10. Iron switch
11. Iron socket
12. Automatic / manual switch



13. Fuse
14. Power switch
15. Power line interface

III. Specifications

Machine	
Rated voltage	240V/230V/220V/110V $\pm 10\%$ 50Hz/60Hz
Whole device power	$\leq 750W$
Overall size	L148xW99xH140mm $\pm 5mm$
Weight	2.5kg
Work environment	0~40°C
Storage temperature	-20~80°C
Storage humidity	35%~45%
Hot air gun part	
Temperature range	100°C~480°C
Temperature stability	$\pm 2^\circ C$ (Static state)
Airflow type	Brushless fan gentle wind
Airflow	120L/min (MAX)
Soldering iron part	
Work voltage	26V $\pm 10\%$ 50Hz/60Hz
Temperature range	200°C~480°C
Temperature stability	$\pm 2^\circ C$ (Static state)
Tip-to-ground impedance	$< 2\Omega$
Tip-to-ground voltage	$< 2mV$

IV. Performance comparison table

Performance \ Model	The standard version	Updated version
According to the form	The LED switch	The LED switch
Automatic blower gun manually	NO	YES
Soldering iron dormancy	NO	YES

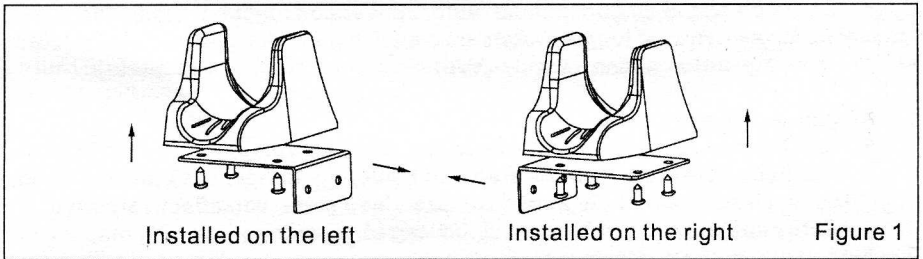
V. Application

1. Suitable for a variety of elements soldering and de-soldering such as: SOIC, CHIP, QFP, PLCC, BGA (especially suitable for mobile phone board and cable seat de-soldering).
2. For thermal shrinkage, drying, paint, adhesive removal, thawing, preheating, welding glued.

VI. Air gun Holder Installation

At first use the machine must install the gun holder, as Figure 1.

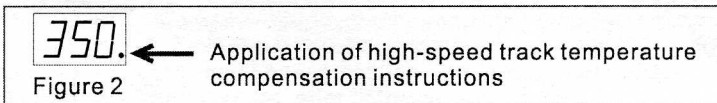
1. According to the personal habits, according to the figure shown in select position and tighten the four screws.
2. According to personal habits, as shown in select position tighten the four screws.
3. The handle assembly on the holder, check if appropriate



VII. Operating instructions

The standard version Gun parts

1. Connect the power supply, air nozzle device required (as far as possible use large diameter nozzle), put the gun on the gun holder.
2. On power switch and gun switch, the beside of display blue LED bright, display "---", and then the gun at standby status.
3. Take the gun, the display show the preset temperature 2sec, and then start heating up. Adjust the airflow for suitable airflow, when the gun temperature steady start to work.
4. Press "UP"/"DOWN" adjust the temperature.
5. After Constant temperature, the lower right corner of point blink, program in milliseconds to tracking and compensation the temperature.(as figure 2)
6. After work, put the gun back to the gun holder, the machine will stop heat up and down to 100°C, and then into standby mode. If the soldering iron still in work, the display will be show the iron temperature. If the iron also not work will be show "---"
7. The gun into standby, if display show iron temperature, when you take the gun from the gun holder the display will be show the gun temperature, and start the setting temperature for work.



Warm Prompt:

When the gun and iron work together, if you want check each of them could be press set to look it. (Rework blue bright mean gun temperature, SOLDER red bright mean soldering iron temperature)

Upgrade version Gun parts

Upgrade version add to air gun manual /auto. conversion function ,toggle the panel manual /auto. switch over toggle switch, then switch over corresponding work state. (AUTO . is air gun automatic work state ,MAN. is air gun manual work state)

1. Air gun AUTO. work state:
 - A. AUTO. mode operation way same as the standard version .
 - B.This mode not suitable all-too-frequent soldering ,handle back into the handle frame, air gun immediate start down to a sleep state, can effectively save energy and reduce machine (host, heater, etc.) wear and prolong life.
2. Air gun manual work state:
 - A. Open air gun switch, the display shows the air gun preset temperature 2 seconds, air gun start from 100°C high-speed heating until the temperature rose to the preset temperature and stable, then able to work properly.
 - B. Print front panel "UP(temperature rise key)"/"DOWN(drop in temperature key)" adjust what you need temperature.
 - C. Manual Mode, air gun handle back into the air gun frame,air gun also keep the currently work temperature. This mode is very suitable for all-too-frequent soldering ,it can save air gun heating up time, raise soldering efficiency.

Soldering iron part

1. Connect the soldering iron handle, put the iron on the iron holder.
2. On iron power switch ,the display beside Red LED bright ,the display window shows iron preset temperature 2 seconds ,iron start from 200°C high-speed heating until the temperature rose to the preset temperature and stable, then able to work properly.
3. Print front panel "UP"(temperature rise key)"/"DOWN(drop in temperature key)" adjust what you need temperature.

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. Symbol show

1. The displays show "---", hot air gun sleep state, it shows air gun handle enter into sleep state.
2. The displays show "S-E", it means the soldering iron and hot air gun of sensor is having a problem or other parts have faulty, then the machine stops heating output signal.
3. LED Digital last place the decimal point: - Always bright is the entire heating; - goes off to stop heating; - flashing at a constant temperature all the way to the current state.
4. Shows "---" always flashing, it means that the machine into standby, prompt you turn off the power switch, more human and saving energy.

IX. Interchangeable Component Description

Replacement of Hot Air rework heating element Figure 3

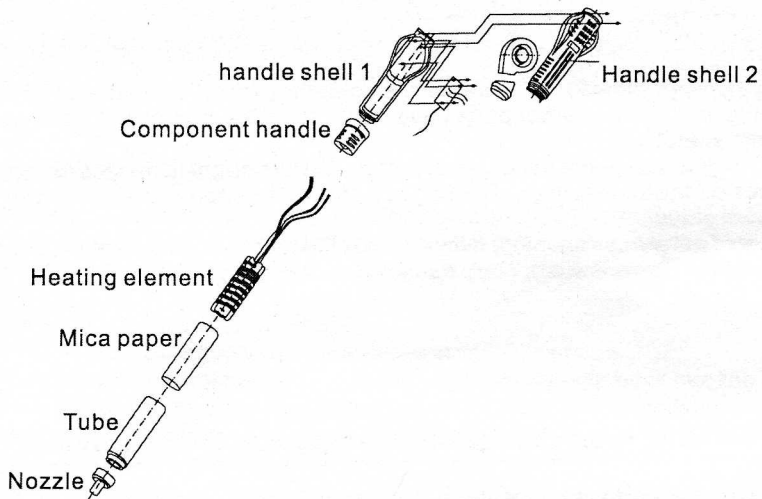
1. Ensure the hot air rework is fully cooled down before replacing the element
2. Figure, loosen the two screws on the handle.
3. Unscrew the handle assembly 1, and then remove the handle shell 2.
4. Gently takes out the fan, loosen the three screws to remove the fixed wiring board.
5. The wiring board in turn, heating elements connector apart from the wiring board, pay attention to its connection position.
6. Remove from the heat pipe heat body wrap body with mica paper, careful not broken ground wire of the steel.
7. Wraps well with the new heater mica, inserted into the tube, the attention heater to install 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.

Attention:

When replacing the heating element, be careful not to damage the ground; do not damage the cable of fan; while back install handle, the handle is fixed on the column should be fixed on the pipe in the hole.

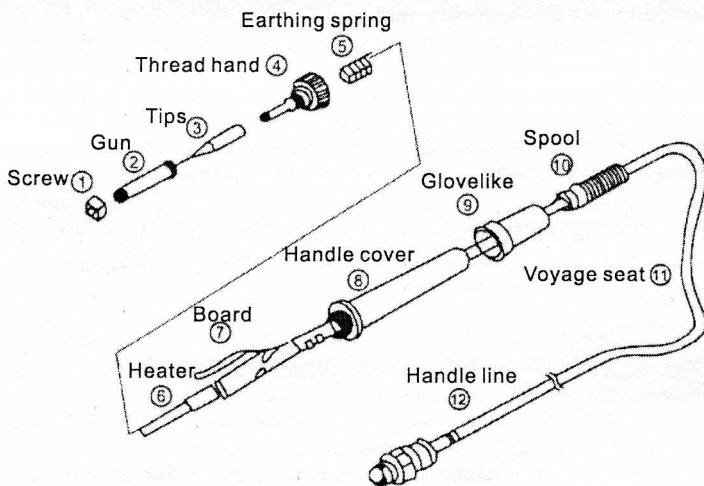
Replacement of the soldering iron's tip and soldering iron heating core's element Figure 4

1. Unscrews the nut NO.1, and then removes the steel tube NO.2, followed by removing the tips 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.
3. 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.



Heat gun disassembling schematic diagram


Figure 3



Schematic electric iron disassembly

Figure 4

Product certification

Model NO.	
Product ID	
Examine	Upon examination products meet technical standards 
Sales Date	
Date of manufacture	

Warranty Card

Thank you for choosing this type of products, please read the following terms before using:

1. From purchasing date within 7 days, under normal use(Artificial damage),new package, not be disassemble and repaired ,enjoy replacement service.
2. From purchasing date within one year, under normal use, if there are quality problem, not be disassemble and repaired ,enjoy free repair service.
3. For more than warranty, we provide a lifetime warranty service, free of labor costs, charge only spare parts costs.
4. Failure to present warranty card during warranty period, the company will not be a free service.
5. Users need warranty service, please contact your original sales unit.
6. When users need warranty service, please provide warranty card and purchase invoice, or receipt of the certificate of the company seal.
7. Warranty does not include transportation costs and provide on-site service.

Maintenance records

NO.	Date for repair	Cause	Fix date	Repairer

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