AT980D EU & AT980D UK

ESD Safe Soldering Station

User Manual

Please read this manual before operating the equipment.

Keep manual in accessible place for future reference.

What's Included

Control Unit	1 No.
Soldering Iron	1 No.
Soldering Iron Holder	1 No.
Power Cord (UK or EU)	1 No.
Cleaning Sponge	1 No.
User Manual	

Safety Precautions

- This product is meant for use by trained and qualified personnel only. Keep away from children
- Do not dis-assemble the control unit. There are no user serviceable parts
- Do not use the soldering station in the vicinity of flammable material
- Use appropriate safety gear and exercise caution while using this soldering station
- Do not touch the soldering tip as the temperature can be 200°C to 400°C when in use
- User proper power cord
- For changing the soldering tip, ensure that the power supply is turned off and allow sufficient time for the tip to cool down.
- The soldering tip should be cleaned by wiping it on the cleaning sponge provided. This will help get rid of the burnt solder or fluxes that cause oxidation on the soldering tip. Not cleaning the tip might lead to improper soldering.
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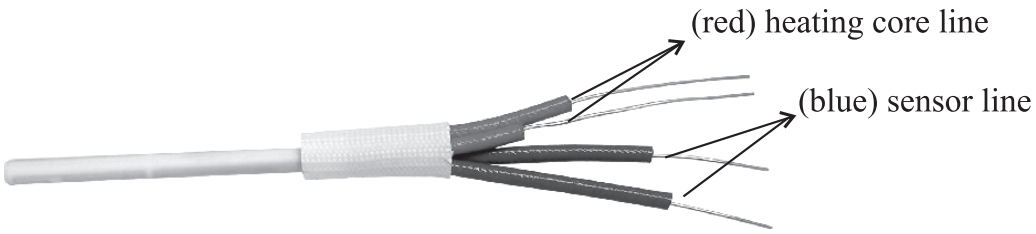
Specifications

Input Voltage	220V AC ±10% 50Hz
Plug Type	UK, EU
Power Consumption	80W (Max.)
Temperature Controlling Range	150°C to 450°C (302°F to 842°F)
Heater Voltage	24V AC
Temperature Stability	±1°C (Static)
Display	LCD
Max. Surrounding Temperature	40° C
Calibration Method	Digital
Temperature Range for Calibration	50°C to -50°C (122°F to -58°F)
Ground Impedance	< 2Ω
Ground Voltage	< 2mV
Heating Element	4 Core

*Specifications are subject to change without prior notice.

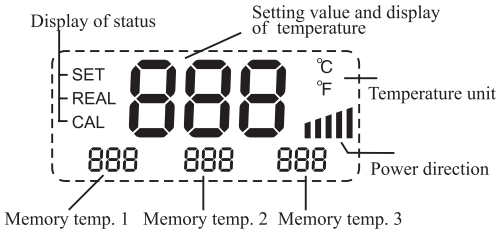
Heating element



4 cores (imported)

AT938D/AT980D Control Panel Guide

LCD display



Display of status
SET: Set Temperature
REAL:Real Temperature
CAL: Calibration Temperature

Features:

- New appearance design, big LCD screen, for clear and convenient reading.
- PID power control loop with constant temperature set by MCU computer for more precision temperature control.
- Imported temperature-beard materials with long life.

- It is convenient that the device adopt three programmable knobs in different condition.
- Display the temperature between Fahrenheit and Celsius flexibly, convenient for the type of operators.
- Computerized temperature calibration can correct the difference between the actual and display temperature quickly.
- Heating clement malfunction alert.

Operating Guidelines

Please refer to the “Control Panel Guide” section for buttons and display panel details

1. Connection:

1.1. Insert soldering iron’s plug into the socket and tighten the nut on the plug securely and place it in iron holder.

1.2. Inset station’s power cord into power plug on the back panel and plug the cord into a power source.

2. Power on:

2.1. Turn on the unit.

2.2. The Digital display will initially display the current set temperature (the value of last time using) for 3 seconds. After few seconds it would display the actual temperature with temp unit “°C or °F”. (diagram 1), (diagram 2)

turn on station

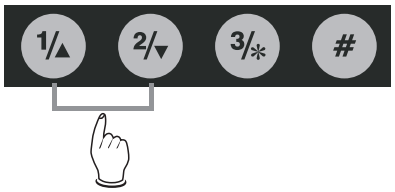
(diagram 1)

heating station

(diagram 2)

3. Adjusting temperature

Under normal working condition, pressing and holding button “▲” or “▼”, you can either increase or decrease the temperature quickly. Keeping the knob in pressed will adjust the temperature setting quickly; short pressing knob, you can adjust temp step by step. The display screen shows the temperature value simultaneously. Release knob for 3s to store. (Diagram 3)

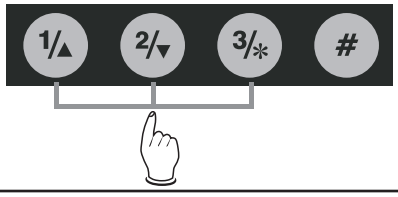


Temp adjustment status

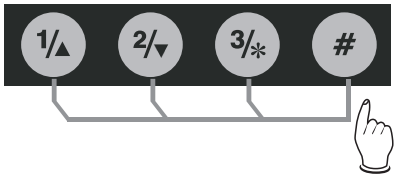
(diagram 3)

4. Quickly adjusting temperature

4.1. Under working condition, you can set working temperature quickly by programmable buttons. Press the button once to extract setting temperature stored in button”1, 2 & 3”, this way you can easily set the working temperature.



4.2. Pressing button “#” and buttons “1, 2, 3”, you can store the setting temperature into fast channel knobs “1, 2, 3”.



4.3. Temperature hotkey

A. Hotkey 1 is usually applied to store a 200°C or lower temperature value at which level machine stands by and on rest.

B. Hotkey 2 is a shortcut of temperature between 300°C to 350°C at which level a general soldering job can be done.

C. Hotkey 3 is a fast channel to high temperature of 380°C specified for special welding job.

5. Temperature calibration

You need calibrate the temperature of tip after you replace with a new heating element or tip.

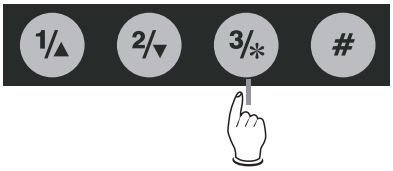
5.1. Enter into calibrating station by long pressing knob “*” (>3s).

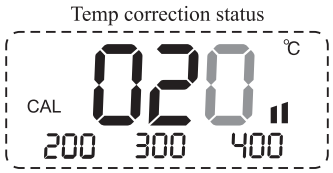
5.2. You can directly adjust the value of calibration by pressing knob “▲” or “▼”.

5.3. The value of calibration is temperature measured minus the settings.(e.g. Actual value 380°C - setting value 350°C = +30°C. Pressing knob “▲” adds 30°C; Actual value 320°C - setting value 350°C = -30°C. Pressing knob “▼” minus 30°C).

5.4. The calibrating temp range is +50°C ~ -50 °C.

5.5. You can press knob “*” to store after you finish calibration. (diagram 4)

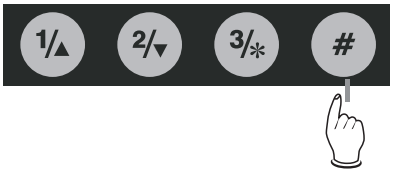




(diagram 4)

6. Temperature unit exchange

In the power off condition, press and hold knob”#”, then turn on the station, the temp unit will be changed between “°C” and “°F” and store automatically.



7. Temperature lock function (AT980D only)

Temperature LockDisplay:”Loc”, short of Lock, located in right bottom of LCD display screen. Temperature lock & unlock function can be realized by pressing “#” for three second or longer. Whenever the machine is locked as above photo shows, the functional key in panel lose effect.

Locking state on display

8. False alarm

When “H-E” or “S-E”is displayed on the screen, there is some wrong in heating element or the circuit. (diagram 5, 6). Turn off the unit and follow the instructions to replace the heating element.

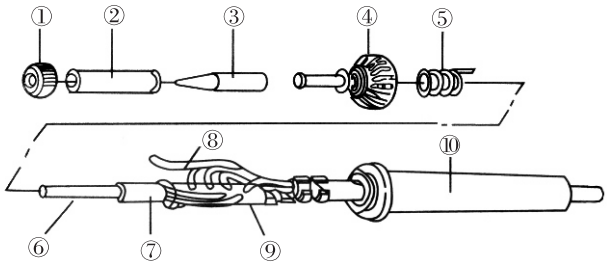
(diagram 5)

(diagram 6)

Replacing the heating element

Note: diagram (8) is soldering station AT980D, heating core resistance (red) about 2.5 ~ 3.5Ω, sensor (blue) resistance about 43 ~ 58Ω.

1. Power off the unit and unplug the device. Wait for the heating element to cool down.
2. Loosen the nut (1)
3. Remove the tip retainer (2) and soldering tip (3)
4. Unscrew heating contact (4), remove grouping spring (5)
5. Remove the full heat wire group (6).
6. Please reference to diagram Section (7) - (8)
7. Replace the old one the good condition heating element
8. Reverse the process to secure the heating element in the handle.



AT980D diagram (8)

Care and Maintenance

- Keep the soldering station dry; if it gets wet, dry it immediately.
- Use the soldering station only in normal temperature environments.
- Keep the soldering station away from dust and dirt.
- The soldering iron tip should be cleaned after use by wiping it on the damp sponge found in the soldering iron stand. This is to get rid of burnt solder or fluxes that cause oxidation on the tip.

Changing Soldering Tip

• Always turn the power OFF when removing or inserting a tip
• Let the tip to cool down to room temperature before holding it with heat resistant pads
• Unscrew the metal cap nut (1).
• Pull out the shaft of the soldering iron(2).
• Replace it with a new soldering tip.
• Put back the shaft and securely lock with the metal cap nut

Correct Disposal of this product.

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal,recycle it responsibly to promote the sustainable reuse of material resources. To return your used device,please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

9. Soldering Tip Care and Use

a. Tip Temperature

- High soldering temperatures can degrade the tip
- Use the lowest possible soldering temperature. The excellent thermal recovery characteristics ensure efficient and effective soldering even at low temperatures
- When not in use, do not leave the soldering iron on at a high temperature as the tip's solder plating will get covered by oxide, reduction it's heat conductivity

b. Cleaning

- Clean the tip regularly with a cleaning sponge, as oxides and carbides from the solder and flux can form impurities on the tip. These impurities can result in defective joints or reduce the tip's heat conductivity
- When using the soldering iron continuously, be sure to loosen the tip and remove all oxides at least once a week. This helps prevent seizure and reduction of the tip temperature
- After use, wipe the tip clean and coat with fresh solder. This helps prevent tip oxidation.

10. Changing the Soldering Tip

a. Always turn the power OFF when removing or inserting a soldering tip
b. Let the tip to cool down to room temperature before holding it with heat resistant pads
c. Loosen nut (1 in diagram 7)
d. Pull out the shaft of the soldering iron (2 in diagram 7)
e. Remove the old soldering tip and replace with new one (3 in diagram 7)
f. Reverse the process to secure the soldering tip
g. Preferred Soldering Tips : 21-10140, 21-10142, 21-10144, 21-10146, 21-10148, 21-10150, 21-10152, 21-10154, 21-10156, 21-10158