



ATETOOL AE970D Soldering Station User Manual

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ATETOOL AE970D Soldering Station



Product Information

Product Name: AE988/AE988D/AE970/AE970D Soldering Station

Model Numbers: – AE988 – AE970 – AE988D – AE970D

Packing List:

- Main unit: 1pc
- Handle: 1pc
- Iron stand: 1pc
- User manual: 1pc
- Brass wool: 1pc

Specifications: Main Unit (AE988/AE970):

- Total Power: 70W
- Output Voltage: 25VAC
- Temperature Range: 200°C – 480°C (392°F – 896°F)
- Temperature Stability: $\pm 5^{\circ}\text{C}$ ($\pm 9^{\circ}\text{F}$)
- Dimension: 148x120x85mm
- Weight (power cable excluded): 1.32kg Main Unit (AE988D/AE970D):
- Total Power: 80W
- Output Voltage: 25VAC
- Temperature Range: 50°C – 500°C (122°F – 932°F)
- Temperature Stability: $\pm 5^{\circ}\text{C}$ ($\pm 9^{\circ}\text{F}$)
- Dimension: 150x550mm (302°F – 1022°F)
- Weight (power cable excluded): 1.33kg Handle:
- Power Consumption: 65W (AE988/AE988D), 75W (AE970/AE970D)
- Tip to Ground Impedance: N/A
- Tip to Ground Voltage: N/A

Product Usage Instructions

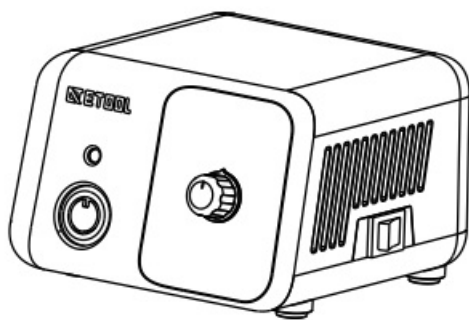
1. Unpacking:
 - Open the packaging box and take out all the components.
 - Make sure you have the following items: main unit, handle, iron stand, user manual, and brass wool.
2. Assembly:
 - Attach the handle to the main unit by aligning the connectors and firmly pushing them together.
 - Place the iron stand on a stable surface near your working area.
3. Power Connection: – Plug the power cable into the power outlet.
 - Connect the other end of the power cable to the main unit.
4. Temperature Adjustment: – Turn on the soldering station by pressing the power button located on the main unit.
 - Use the temperature adjustment buttons to set the desired temperature for your soldering task.
 - Wait for the station to reach the set temperature before starting your work.
5. Soldering:
 - Hold the handle and grasp the soldering tip with a pair of pliers or tweezers.
 - Touch the tip to the solder joint and apply solder to create a secure connection.
 - Move the soldering iron smoothly along the joint to ensure even heat distribution.
 - After completing the soldering task, place the soldering iron on the iron stand.
6. Cleaning and Maintenance:
 - Use the brass wool provided to clean the soldering tip after each use.
 - Regularly inspect the soldering station for any signs of damage or wear.
 - Follow the maintenance instructions provided in the user manual for proper care of the product.

Note: Always follow safety precautions and guidelines mentioned in the user manual to ensure safe and effective use of the soldering station.

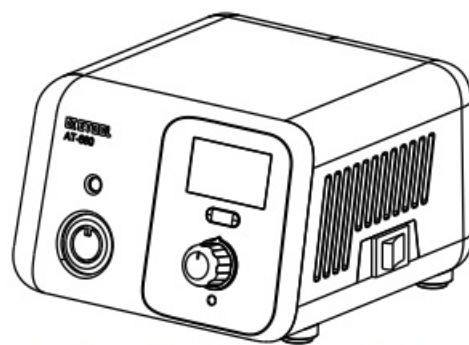
Packing List

- Main unit: 1pc
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Unit: 1pc
Handle: 1pc
Iron stand: 1pc
User manual: 1pc
Brass wool: 1pc



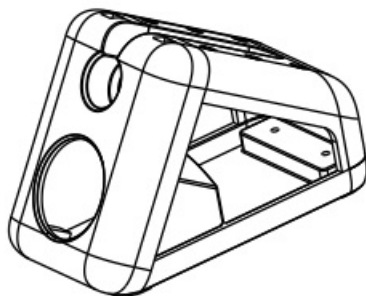
Main unit (AE988/AE970)



Main unit (AE988D/AE970D)



Handle



Iron stand



Brass wool



User manual

Product Specification

Model No.	AE988	AE970	AE988D			AE970D
Total Power	70W	80W	70W			80W
Main Unit						
Output voltage	25VAC					
Temperature range	200 480°C(392-896 °F)		50 500 (122-932°F)			150 550 (302-1022 °F)
Temperature stability	±1°C ±1.8°F { 200°C(400°F)}					
Dimension	148x120x85mm					
weight power cable excluded	1.32kg	1.32kg	1.33kg			1.334kg
Handle						
Power consumption	65W	75W	65W			75W
Tip to ground impedance	<2Ω					
Tip to ground voltage	PTC ceramic	<2mV			PTC ceramic	
Heating element	heater	Integrated tip 1.2m	heater			Integrated tip
Cable length						
Weight	79g	68g	79g			68g
Note: specifications and appearance are subject to change for product improvement without prior notice						

Safety and Precautions

The precautions in this manual are divided into the following [warning] and [attention]. Please fully understand the content.

Warning: misuse may cause death or serious injury to the user

Note: misuse may cause injury to users or substantial damage to objects involved

For your own safety, please strictly abide by the following precautions

Warning

When power is on, the temperature of the soldering iron tip might reach to 50 ~ 550 °C (120 ~ 1022°F). Misuse may cause burns and fire, please strictly observe the following precautions:

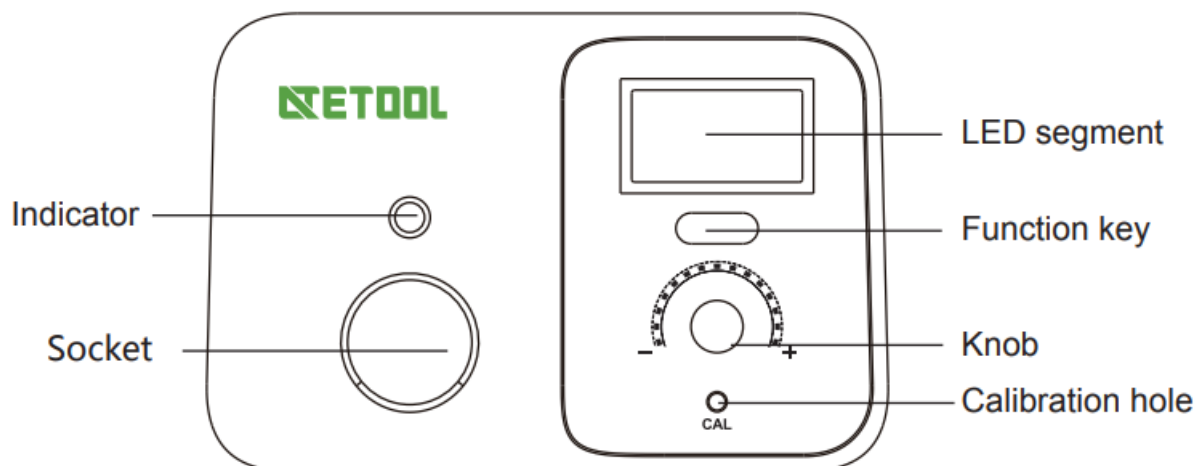
- Do not touch the soldering iron tip or the metal part around it while using
- Do not use it around combustibles
- Inform the people around of the potential risk caused by high temperature
- Turn the power off when not in use
- Before replacing parts or tip, turn off the power and wait till the iron tip cools down
- Do not use this product if you are inexperienced or have no sufficient necessary knowledge without the guidance of related qualified personnel
- Please keep it out of reach of children
- If the power cord is damaged, please ask the manufacturer or its service agent or similar qualified personnel to repair it, so as to avoid personal injury or damage to product

Please strictly observe the following precautions, otherwise it may cause injuries or death

- Do not use this product for works other than soldering
- Do not hit the handle hard for removing the tin on the iron tip
- Do not modify this product
- When replace parts, must use original ATETOOL parts
- Do not soak the product in water or use it with wet hands
- Unplug it properly after using
- Smoke will be emitted during soldering, please use it in open space
- Do not engage in other dangerous acts with this product

Using Method(AE988D/AE970D)


Operation and display instructions


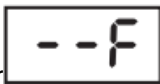



Panel display:

- LED segment: digital display
- Indicator: indicates the statement of heater (light on/off means power on/off)
- Function key: function operation
- Knob: to adjust temperature
- Calibration hole: for calibrate the temperature

Turn on the power switch

After switching on, indicator lights up and LED segment displays  for 1 second, now power is on.

And then it displays the temperature unit  or  for 1 second, so you know which unit is


used right now. If the standby function is enabled in this soldering station,  will be displayed for 1 second to show standby function is available. Then displays the set temperature for 1.5 seconds, and finally displays the real time temperature. When the temperature is stable, indicator will flash.

Note: when not in use, please put the soldering iron on the holder. If it won't be used for a while, please cut off the power supply.

After use

After use, please clean the soldering iron tip and apply new solder on it.

Temperature unit conversion

First press function key, in the meanwhile switch on the power, till LED segment displays , release the function key, now the temperature unit changes. If it was Fahrenheit, now switch to Celsius, and vice versa.

Temperature adjustment



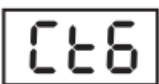
Temperature range

AE988D 50-500°C 122-932°F

AE970D 150-550°C 302-1022°F, note: as LED segment shows only 3 digits, 1022 will be displayed as A22, "A" represents digit "10"

Temperature adjusted by knob.

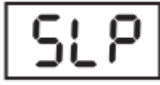




Screen brightness setting

1. Press and hold the function key till the the screen displays , to enter the brightness setting.
2. Show the current digital display brightness level  - .
3. Adjust the brightness level through the knob: gear 1-6.


4. Press the function key or wait for 10s to automatically save to complete the setting.

Standby and sleep functions

Standby function on and off:

1. Press and hold the function key till  display on LED segment to enter the standby function on/off setting:
2. Display the current setting  or 
3. Adjust by knob:  or  to turn on/off the standby and sleep function.
4. Press the function key or wait for 10s to automatically save to complete the setting.

Standby function

1. When standby function is turned on, the soldering station will enter standby mode after not in use for 10 minutes.
2. In standby mode, LED segment displays  and temperature drops to 250 °C (482 °F).
3. When any operation is detected, such as using the soldering iron, adjusting knob or pressing the function key, it will return to the work mode.
4. When in standby mode, if no further operation is detected for 10 minutes, it will enter sleep mode.

Sleep function:

1. That short press the function key or long time in standby mode can make it enter sleep mode:
2. When entering sleep mode, screen displays



and heating is turn off.

3. Press the function key to return to normal heating work mode.

Temperature locking function:

Temperature locking function on and off:

1. Turning the knob to adjust the temperature to be set.
2. Long press the function key till



is displayed.

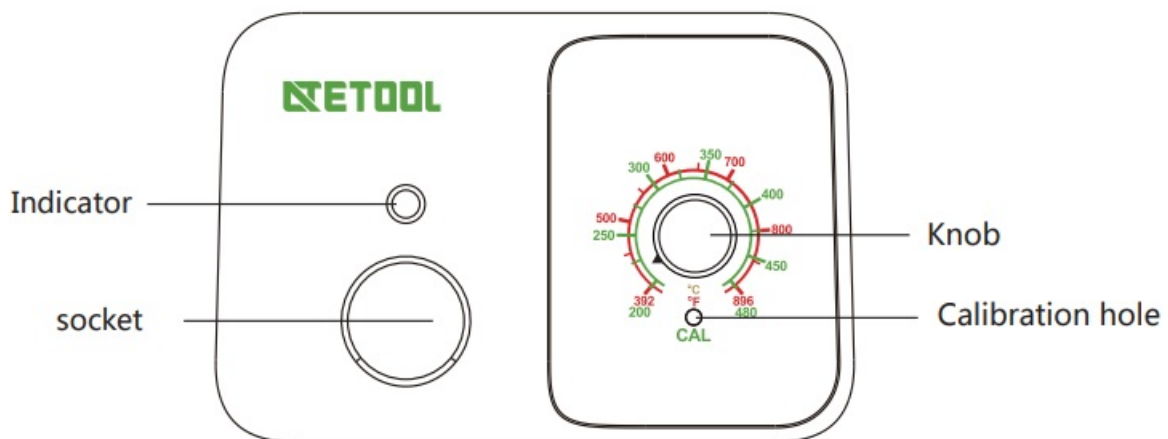
3. Now LED segment displays ON or OFF
4. Turn the knob to set the locking function to be ON or OFF
5. Press the function key or wait for 10s to automatically save to complete the setting.
6. When the temperature is locked, adjusting the knob does not change the setting temperature, it will display LOC for 1 second to show that the current temperature is locked.

Temperature calibration

1. Adjust the set temperature to 350 °C (662 °F) by knob and wait for 2 minutes to stabilize the temperature.
2. Use a thermometer to measure the temperature of the soldering iron tip.
3. Use a cross screwdriver to adjust the calibration hole to make the displayed temperature value equal to the measured value. For example, if the measured value is 345 °C, adjust calibration hole to reduce display temperature 350 to 345, make the display temperature match the measured value.
4. Press the function key to complete calibration.

Using Method AE988/AE970

Operation and display instructions



- Indicator: indicate the power state(light on/off means power on/off)
- Knob: adjust the temperature
- Calibration hole: for calibrate the temperature

Switch on the power

After the power is on, indicator lights up, and the soldering station starts heating up according to the set temperature. After the temperature is stable, indicator flashes.

Note: when not in use, please put the soldering iron on the holder. If it won't used for a while, please cut off the power supply.

Temperature adjustment

- Temperature range: AE988/AE970 200-480°C 392-896°F .
- Temperature adjusted by knob.

Temperature calibration

1. Adjust the set temperature to 350 °C (662 °F) by knob and wait for 2 minutes to stabilize the temperature.
2. Use a thermometer to measure the temperature of the soldering iron tip.
3. Use a cross screwdriver to adjust calibration hole to make the measured value equal to set temperaure.
For example, if measured value is 345°C, adjust calibration hole to increase it to 350, make the measured value match set temperature.
4. Temperature calibration completed.

Maintenance

In order to make this product durable, please maintain it regularly. The lifespan of this product depends on the used temperature, quality of solder wire and soldering paste, frequency of use etc. Please repair and maintain it according to specific use conditions

Warning

Please pay close attention when the soldering station is in use at high temperature, cut off the power and unplug the power cord after use.

Soldering iron tip maintenance

1. Set the temperature to 250 °C (480 °F).
2. After the temperature is stable, clean the soldering iron tip with a brass wool and check its condition.
3. If black oxide is attached to it, please apply new solder (including flux) and wipe it repeatedly with a brass wool until it's clean, then apply some new solder.
4. If the soldering iron tip has been deformed, perforated or worn out, please replace it with a new one.

Troubleshooting Guide

Warning

- When checking or replacing parts, be sure to pull out the power plug to prevent electric shock
- If the power cable is damage, it must be sent to the manufacturer, agency store or maintenance personnel with the same qualification for repair to avoid accidents

Failure phenomenon	Examination	Dealing method
	Check whether the power cord is good, or plug falls off	Connect the power supply well

Not working after power is on	Is the fuse OK	<p>Figure out the cause of fuse damage:</p> <ol style="list-style-type: none"> 1. Short circuit inside the station. 2. Inside the handle, the spring might meets the heating element. 3. Check whether the pin of heating element is twisted or short circuited. <p>Even if the cause is unknown, please replace the fuse. If the fuse get burnt out again, please return the handle with the main unit for maintenance.</p>
The display shows “S-E”	Whether the handle cable is well connected with main unit	Reconnected
	Whether the wire connecting to handle is broken	If so please replace it with a new handle
	Whether the heater is damaged (the resistance of the blue lead wire shall be less than 100 Ω at room temperature).	If damaged, replace the heater
The display shows “H-E”	Whether the wire connecting to handle is broken	If so please replace it with a new handle
	Whether the heater is damaged (the resistance of the red lead wire shall be less than 100 Ω at room temperature)	If damaged, replace the heater
Iron tip heating is on and off	Whether the wire connecting to handle is broken	If so please replace it with a new handle
The solder won't get on the iron tip	Check whether the temperature of the iron tip is too high	Adjust to the proper temperature
	Check whether there is oxide on the tip	Clean the oxide with a brass wool

Iron tip temperature is too low	Check whether there is oxide on the tip	Clean the oxide with a brass wool
	Whether the temperature is proper	Adjust to the proper temperature
The iron tip won't fit	Whether there is oxide inside tip, or soldering iron tip expands	Change the tip and heater
	Not original tip or not same type tip	use original factory tip or same type tips
The actual temperature can't reach	Is the temperature adjusted correctly	Adjust the set temperature again
	Haven't done temperature calibration for a long time	Re-calibrate temperature accordingly

T900M series soldering tips AE988/AE988D)



900M-T-I



900M-T-B



900M-T-K



900M-T-1.2D



900M-T-1.6D



900M-T-2.4D



900M-T-3.2D



900M-T-4.6D



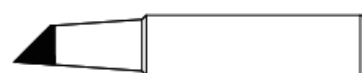
900M-T-6.5D



900M-T-0.8C



900M-T-3C



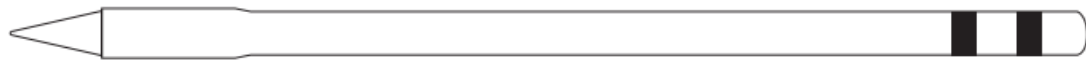
900M-T-5C



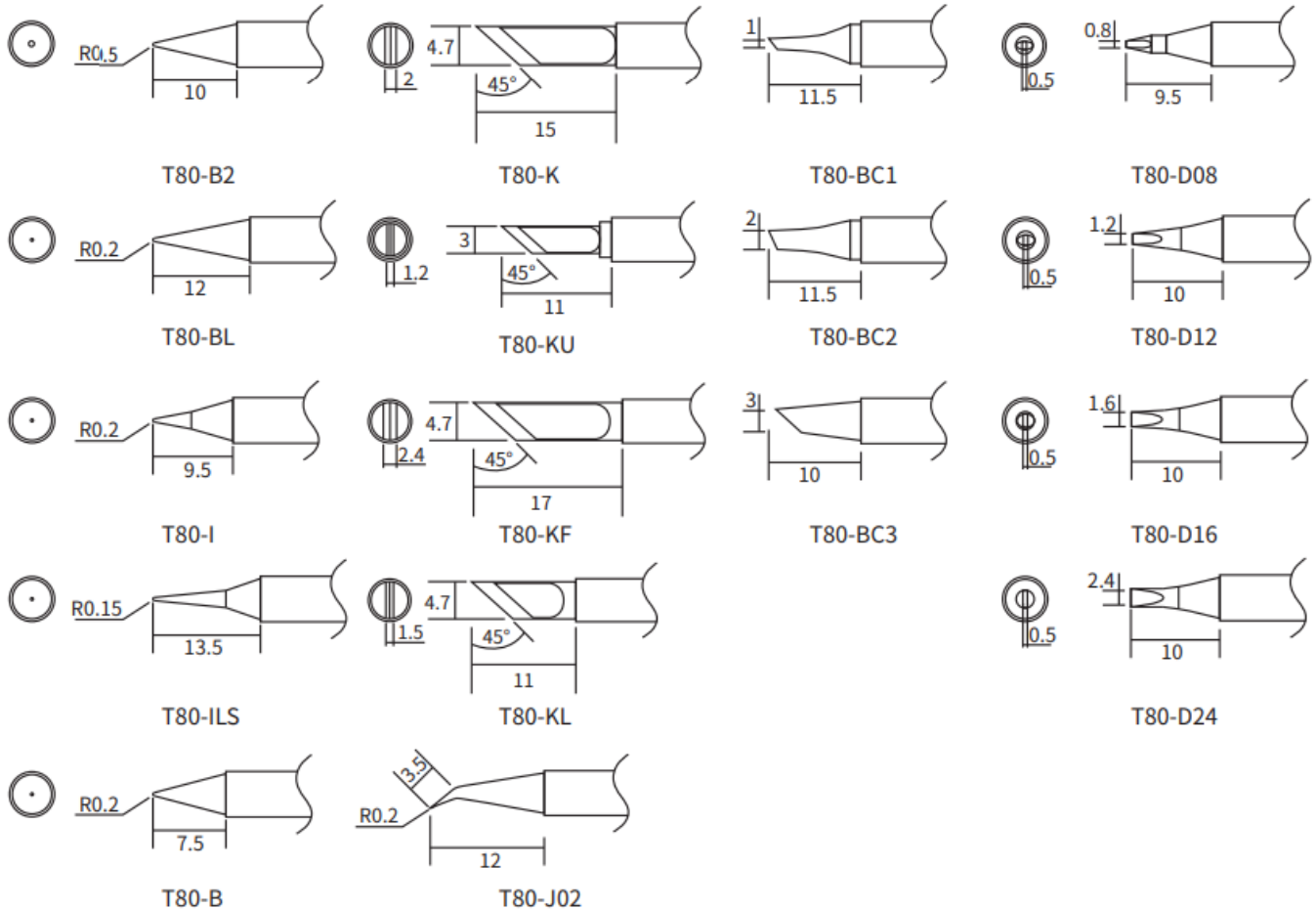
900M-T-6.4C

(More soldering tips information please contact us)

T80 series soldering tips AE970/AE970D)



T80-B2



(More soldering tips information please contact us)

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Documents / Resources



[ATETOOL AE970D Soldering Station](#) [pdf] User Manual

AE988, AE970, AE988D, AE970D, AE970D Soldering Station, Soldering Station, Station

References

-  [soldering iron station china supplier - ATETOOL](#)

Manuals+.