SHENZHEN ATTEN TECHNOLOGY CO., LTD.

●Soldering Iron ●Soldering Station ●Hot Air Rework Station
●Multi-function Rework System ●BGA Rework System
●Regulated DC Power Supply ●Switching DC Power Supply
●Programmable Power Supply

SHENZHEN ATTEN TECHNOLOGY CO.,LTD
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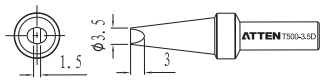
MADE IN CHINA
CBN034997 (D)

ATTEN

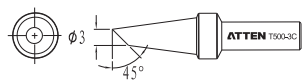
ST-1503/ST-1503D
HIGH FREQUENCY SOLDERING STATION

SHENZHEN ATTEN TECHNOLOGY CO., LTD.

Soldering tips(T500)



T500-3.5D
ACF028935



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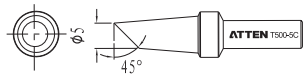

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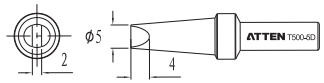

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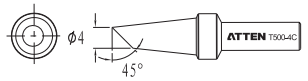

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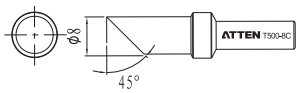

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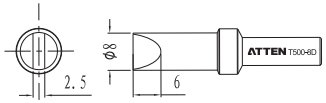

T500-8D
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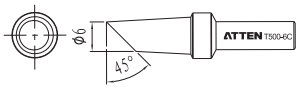

T500-6C
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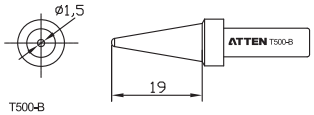
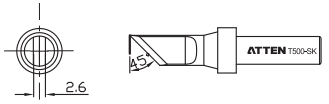


T500-B
ACF029754



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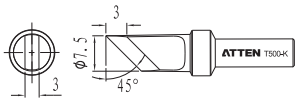

T500-K
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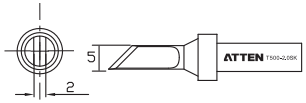


T500-2.0SK
ACF034934

Product warranty card

This product is guaranteed for two years from the date of purchase. If any quality problem is found within the guarantee period, we will response for the maintenance free of charge on presentation of this card and the receipt. We will repair and return the repaired equipment to the customer within 2 working days of the receipt date.
Note: This warranty card must be attached when this product is returned to the factory for maintenance, otherwise free maintenance will not be accepted. Thank you for your cooperation!

Product Certification

Product Model:_____ Product No.:_____

Inspector:_____ Ex-factory date:_____

Salesperson:_____ Sold Date:_____

Product warranty

- This product is guaranteed for two years from the date of purchase(excluding consumables such as the heating core). If any quality problem is found within the guarantee period, we will response for the maintenance free of charge.
- For those product beyond the warranty period, we provide life-long maintenance services.
- For those product damaged due to users' improper application and unauthorized changes to the product parts, our company only provides limited warranty service.
- In case of a product fault, please send the faulty product to the designated maintenance shop for maintenance, and those service center and personnel unauthorized by the factory are prohibited from carrying out any maintenance on the product.

Maintenance

(Diagram 15-1) E02: Open circuit of temperature sensor
(Diagram 15-2) E03: No zero crossing signal
(Diagram 15-3) E04: Temperature rise timeout alarm
(Diagram 15-4) E07: Heating core failure
(Diagram 15-5) E08: Abnormal overtemperature
(Diagram 15-6) E12: Soldering tip is not installed

Diagram 15-1

Diagram 15-2

Diagram 15-3

Diagram 15-4

Diagram 15-5

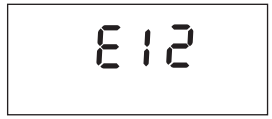


Diagram 15-6

After-sales contact

After-sales service department Tel: (+86) 755-26976387

1.This appliance can be used by children aged from 8 years and above and persons with reduced physical,sensory ormental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerninguse of the appliance in a safe way and understand the hazards involved.Children shall not play with the appliance.Cleaning and user maintenance shall not be made by children without supervision
2.WARNING:This tool must be placed on its stand when not in use.

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.

Precautions

*In this instruction manual, "**WARNING**" and "**CAUTION**" are defined as follows.*

CAUTION!

Before use this unit, make sure comply with the following measures, against risk of electric shock or give rise to fire.

In order to ensure body safe, must use the components or accessories that recommended by original factory, otherwise it may cause serious consequences.

It should be maintained by qualified electric technician or service personnel specified by original factory.

When the power is on, the tip temperature is between 80℃/176℉and 480℃/896℉.

Since mishandling may lead to burns or fire, be sure to comply with the following precautions.

- Do not touch the metallic parts near the tip.
- Do not use the product near flammable items.
- Advise other people in the work area: the unit can reach a very high temperature and should be considered potentially dangerous.
- Turn the power off while taking breaks and when finished using the unit.
- Before replacing parts or storing the unit, turn the power off and allow the unit to cool down to room temperature.

To prevent damage to the unit and ensure a safe working environment, be sure to comply with the following precautions.

- Do not use the unit for applications other than soldering.
- Do not rap the soldering iron against the workbench to shake off residual solder, or otherwise subject the iron to severe shocks.

ST-3150 is a high-power soldering station with a heating method of high frequency vortex coil. especially suitable for solder multilayer circuit boards, high-frequency shielding enclosure and high-temperature soldering.
Thank you for choosing our product. Before using the product, please read this manual carefully and pay attention to the related cautions.

Features:

- All kinds of parameter data and information in the form of graphics display.
- MCU controlled temperature calibration, compensation for constant working .
- High power and great thermal recovery.
- Provide 3 groups shortcut temperature to simplify operations.
- Temperature read out in ℃ and ℉.
- Intelligent temperature calibration function.
- Intelligent temperature control fan, suitable for high-intensity work
- **ST-1503D With RS485 communication interface**

Specification

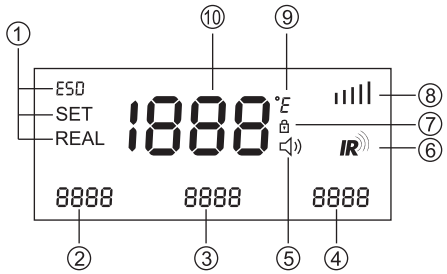
Item No	ST-1503/ST-1503D
Input voltage:	AC230V±10% 50Hz AC110V±10% 60Hz
Power:	150W
Temperature range:	80℃-600℃
Temperature stability:	±2℃ (in still air,no load)
Heater:	HS-3150H
Heating Method:	High frequency vortex
The handle type:	SP-H150
Tip-to-ground impedance:	<2Ω
Tip-to-ground voltage:	<2mV
N.W:	5038g
Dimensions:	195x124x124mm

* **ST-1503D With IOT Function**

Packing list

Soldering station: 1pc　　Soldering iron: 1pc
User manual: 1pc　　Iron stand: 1pc
Power cord: 1pc　　Ground wire: 1pc

LCD Screen display



① Mode display
② Show preset temperature 1
③ Show preset temperature 2
④ Show preset temperature 3
⑤ Alarm function
⑥ IR function
⑦ Temperature lock
⑧ Show power
⑨ Temperature unit
⑩ Show temperature

Operational guide

1.Connection
1.1 Plug soldering iron cable end into the front panel interface and put handle into the stand.
1.2 Plug the power cord into the behind interface .(Please ensure the power voltage is fit for this product)

2. Power-on
Turn the switch on after connecting the power cord .The LCD display screen will display the system version number for 1 second ,then the LCD display screen will show the last setting temperature value. Three seconds later, the display screen will show the soldering iron real-time temperature value

means:ST-1503 V0.1 version

10. Super temperature mode
Long press the MENU/ENTER key to enter the setting interface, under the "HP" menu, press the "▲" and "▼" keys to adjust the switch.
ON: the highest temperature can be reached 600℃. See diagram 14-1
OFF: the temperature range is 80℃-480℃. See diagram 14-2

diagram 14-1

diagram 14-2

11. Restore factory setting
Under the FAC menu, press "▲" and "▼" to adjust ON and OFF. Press [2] to return the normal operation interface and restore the factory setting when the menu is ON.

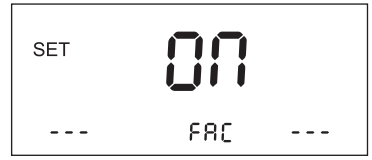


diagram 15-1

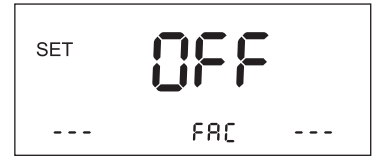


diagram 15-2

Factory default: Loc (Temperature lock): OFF
CAL (Temperature calibration): 0℃
SLP (Auto-sleep) : Open (10)
BL (Alarm): Open
STB (Auto standby): enter into time (default 10 minutes)
C-F(Temperature unit):℃
PSD(Password): OFF
Memory temp 1: 200℃
Memory temp 2: 300℃
Memory temp 3: 400℃
HP(Super temperature function): OFF

12. Address setting
Under the Addr menu, press "▲" and "▼" to adjust the communication address range value, which can be used for communication of multiple machines and can be connected at most 247 sets of equipment. (only applicable to ST-1503D model)

7. Auto Sleep

In the SLP menu, press the "▲" and "▼" keys to set the sleep parameters: Off/on time: 10~60 (default 10)minutes. See diagram 11-1/11-2
Under auto sleep mode, pressing any key will automatically return to normal working mode. (Note: If the device is in a non-stationary state, it will have effect for the device enter into auto sleep mode)

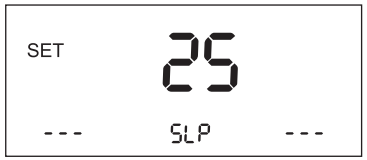


diagram 11-1

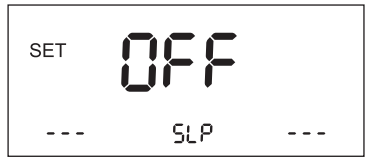


diagram 11-2

8.Alarm setting function switch

Under the BL menu, press "▲" and "▼" button to switch the alarm function. (diagram 12-1) is OFF , (diagram 12-2) is ON .

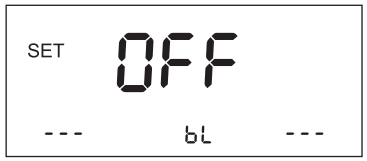


diagram 12-1

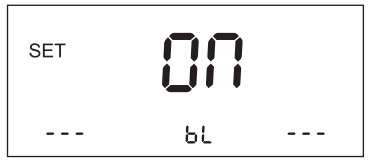


diagram 12-2

9. Password setting function

Under the PSD menu, press "▲" and "▼" button to adjust the password setting value.The password value can be set from "01" to "999". (diagram 13-1) Display -- - means the password function is off, (diagram 13-2) to enter the menu interface. The first time you enter the password in not set, press 2 button to enter the menu mode, then set the password and press 2 button to confirm the menu.
(Note: Directly enter password 906 to enter the menu interface in case of forgetting the password)

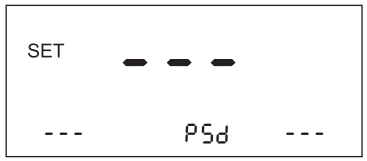


diagram 13-1

diagram 13-2

Working status

1. Normal working state
Set the temperature to 350 °C, the real-time temperature value is 350 °C, 3 sets shortcut temperature Heating power value 2 grids, real-time status display symbol

diagram1-1

2. Standby mode
In the standby state, it will heat at 200 °C. Press any key and move the handle to return to normal.

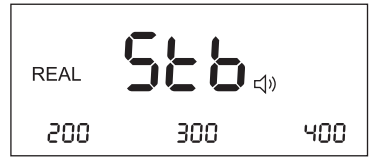


diagram2-1

3. Auto-sleep function
Note: under this mode, the heating core is not heated. Pressing any button will automatically resume the normal working mode. The machine will be turned off automatically once the auto-sleep mode exceed 30 minutes. You need to restart the machine by hand.(as shown in 3-1)

diagram 3-1

Temperature setting

Under normal work, press "▲" or "▼" button (diagram 4-1) to adjust temperature value (diagram 4-2), long pressing can be quickly adjusted. After stop pressing for 3 seconds to store . (The temperature value cannot be adjusted when locked)

diagram 4-1

diagram 4-2

Memory temperature (user-defined)

Press“1 or 2 or 3” button (diagram 5-1) to quickly preset temperature value which stored .

Long pressing “1 or 2 or 3” button (more than 3 seconds) to store temperature value .

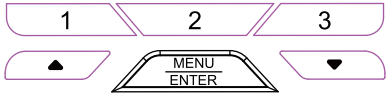
diagram 5-1

diagram 5-2

Menu setting

In normal working mode, long press MENU/ENTER to enter the menu mode, short press to confirm.

1. Button definitions in menu setting mode.



【1】Up button
【2】Exit and set button
【3】Down button
▲ increase value
▼ decrease value

2. Temperature lock function

Under the Loc menu, press “▲” and “▼”button to turn on/off . [1] [3] button to switch menus up and down, [2] button to exit and save settings. diagram6-1 is locked, diagram6-2 is unlocked.

diagram 6-1

diagram 6-2

3.Temperature unit exchange

Under C-F menu, press“▲” and “▼”button to exchange temperature unit, Diagram 7-1 -C- set temperature unit is ℃, diagram 7-2 is ℉.

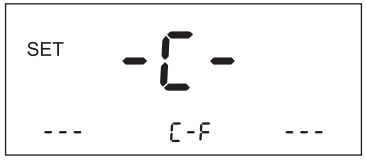


diagram 7-1

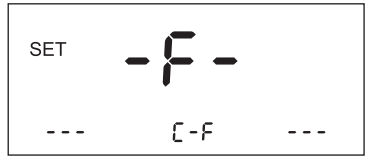


diagram 7-2

4.Temperature calibration

Under the CAL menu, press the “▲” and “▼” button to adjust the value. Calibration range [-50 ℃ ~ 50 ℃ (-90℉ ~ 90℉)]. When the real temperature is lower than the display temperature, the compensation takes a positive temperature value. When the real temperature is higher than the display temperature, take a negative temperature value.

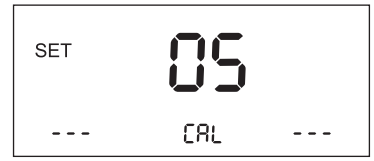


diagram 8-1

diagram 8-2

When replacing the heating element or the handle, the temperature if not accurate, can be calibrated by changing the following parameter.

Operation as follows:

1. Set the to-be-calibrated temperature of the handle to a suitable temperature, such as 350 °C / 662 °F.
2. After the temperature is stabilized, use the thermometer to measure the actual temperature of the soldering tip of the current handle, for example, the actual temperature is measured as 365 °C / 689 °F .
3. Through the analysis, it is concluded that the actual current temperature is 15 ℃ / 27 ℉ higher than the set temperature.
4. Set the temperature compensation value to -15 ℃ / -27 ℉ F to compensate the error of the output temperature.

5. Infrared temperature calibration function(The temperature tester ST-1090 is required)

Use the temperature tester to measure the temperature of soldering tip, press MENU/ENTER key to turn on the infrared function (as shown in Figure 9-1), and then press the thermometer’s SEND key. If the temperature compensation is successful, "beep" will sound and "IR" will flash, and the host displayed temperature will be consistent with thermometer’s displayed temperature.

Under the CAL menu, the temperature compensation value can be seen (as shown in Figure 9-2).

diagram 9-1

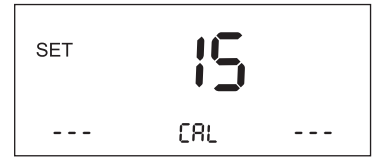


diagram 9-2

6. Setting automatic stand-by time

Under ”STB” menu , Press the "▲" and "▼" button to adjust the standby time (1-60 minutes)

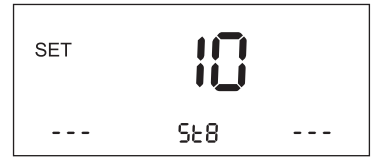


diagram 10-1 (Standby for 10 minutes)

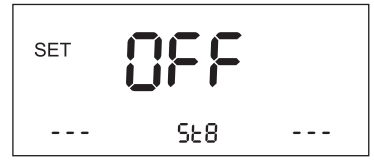


diagram 10-2