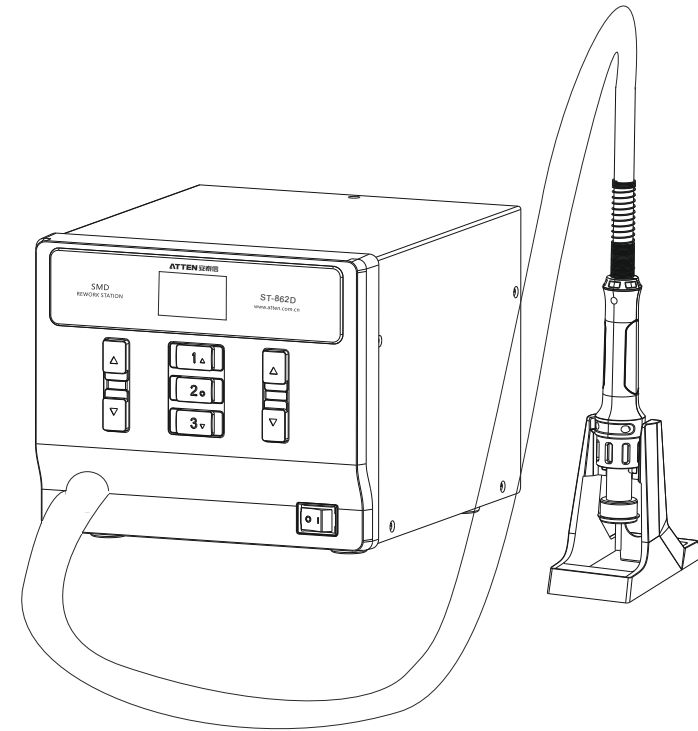


**SHENZHEN ATTEN TECHNOLOGY CO., LTD.**

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- Soldering iron ● Soldering station ● Hot air rework station
- Multi-function maintenance system
- Regulated DC power supply ● Switching DC power supply
- Programmable power supply

# ATTEN



## ST-862D Hot Air Station User Manual

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**Engineer's partner**

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CBN031661(F)



SHENZHEN ATTEN TECHNOLOGY CO., LTD

## Copyright information

The design of this product (including internal software) and its accessories is under the protection of relevant state laws. Any infringement upon the relevant rights of our company will be subject to legal sanctions. Users shall consciously abide by the relevant state laws when using this product.

## Description of common symbols

Thank you for using our products. Before using the product, please read this manual carefully and pay attention to the relevant warnings and cautions mentioned in this manual.

 Warning	Misuse of this product may lead to serious injury or death to the user.
 Caution	Misuse of this product may lead to serious injury to the user or material damage to the object involved.

## Essential knowledge for users

Users are required to have basic knowledge of common sense and electrical operations before using the product. Minors shall use the product under the guidance of a professional or guardian.

[Caution]: To avoid damaging the equipment and keep the safety of the operational environment, please read this manual carefully before use and keep it well so that you may read it at any time when necessary.

## Safety precautions

To avoid electric shock or injury to the human body or fire hazard, the following basic rules must be observed when using the equipment. In order to ensure personal safety, only parts and accessories approved or recommended by the original factory can be used, otherwise, serious consequences may occur!

### Warning

When using this product, the spray nozzle of hot air gun, with the temperature up to 100–480°C, may cause burns to the user or cause a fire due to improper application. So Users shall strictly observe the following rules:

- Keep this product away from flammable materials.
- Keep the product out of children's reach.
- Do not use this product if you are inexperienced or have no sufficient necessary knowledge without the guidance of related personnel.
- Do not use this product under wet environment or with wet hands to avoid electric shock.
- Do not modify this product or its accessories without authorization.
- Please turn off the power when replacing parts and iron tips, and do not resume the use until the equipment is completely cooled down.
- Please use the accessories from the original factory when replacing the product parts.
- Make sure to turn off the power switch when the equipment is temporarily stopped or out of use.

### Caution

- To ensure the normal operation of this product's ESD function, only three-core power cord shall be used as the host connecting line.
- Do not play or do other similar dangerous actions when using this equipment, because it can easily lead to injury to others or yourself.
- Do not use this product for purposes other than de-soldering.
- Do not modify this product and its accessories, otherwise the original warranty will be invalidated or damage may occur to the product.
- When plugging and unplugging the power cord and handle plug, please hold the plug body and do not pull the cord.
- Do not hit the product or its accessories too hard during the operation; otherwise damage may occur to the product.

## Disclaimer

We will take no responsibility for any personal injury or property damage caused by reasons other than the product quality problem, which may include force majeure (natural disasters, etc.) or personal behavior during the operation of this product. This manual is organized, compiled and released by SHENZHEN ATTEN TECHNOLOGY CO., LTD. according to the latest product features. We will not be responsible for further notice of the subsequent improvement of the product and this Manual.

## 9. Start mode options (S-S) : Heating-up start mode option, there are two options available

Nor: Normal (Default)

The standby function is not turn on or entered to standby mode: the device turn on/off is control by handle button, press once to open, press again to close.



Enter to standby mode

The standby function has been turn on but not enter to standby mode: the output is control by handle seat, the handle will start immediately when remove from the handle seat; return handle to handle seat to turn off output

For: In forced mode, turn on/off the device is only control by handle remove/return to handle seat. the handle will start immediately when remove from the handle seat; return handle to handle seat to turn off output. The standby function is forbid under this mode.

## Error information

Fault code or fault description	Likely causes of the faults and solution
E2: Open circuit of sensor	Poor contact of air gun connector or handle, please change heater
	The zero-cross circuit is damaged, please return to factory repair
E7: Short circuit of sensor	The short circuit occurs to the temperature sensor in the heating core; or heating core open circuit. please replace the heating core.
E8: Over-temperature protection	1. The temperature sensor is abnormal; please replace the heating core. 2. The temperature of heating core is too high; after the heating core is cool, restart the machine.
E10: Heater overheating	solution : return to factory maintenance
E11: Fan broken	solution : return to factory maintenance
E13: The heating output switch component was failed	The heating output switch component was failed, the component has been broken by short circuit, please return to factory repair.
Display of messy code:	1. In case there is strong interference source from the outside environment, please change the application environment or evacuate from the interference area. 2. In case the internal circuit is abnormal, please send the equipment to the designated after-sales outlet for maintenance.

## 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 respond 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.

## After-sales contact

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

### 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 respond 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!

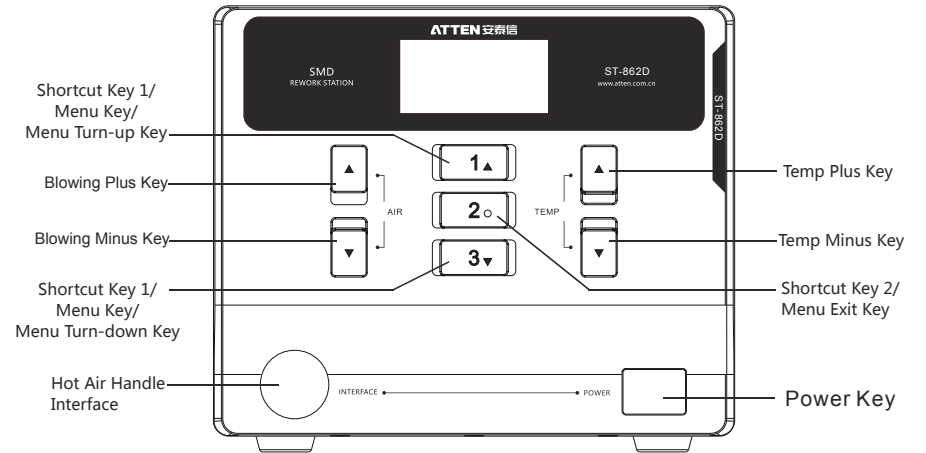
### Product Certification

Product Model: \_\_\_\_\_ Product No.: \_\_\_\_\_

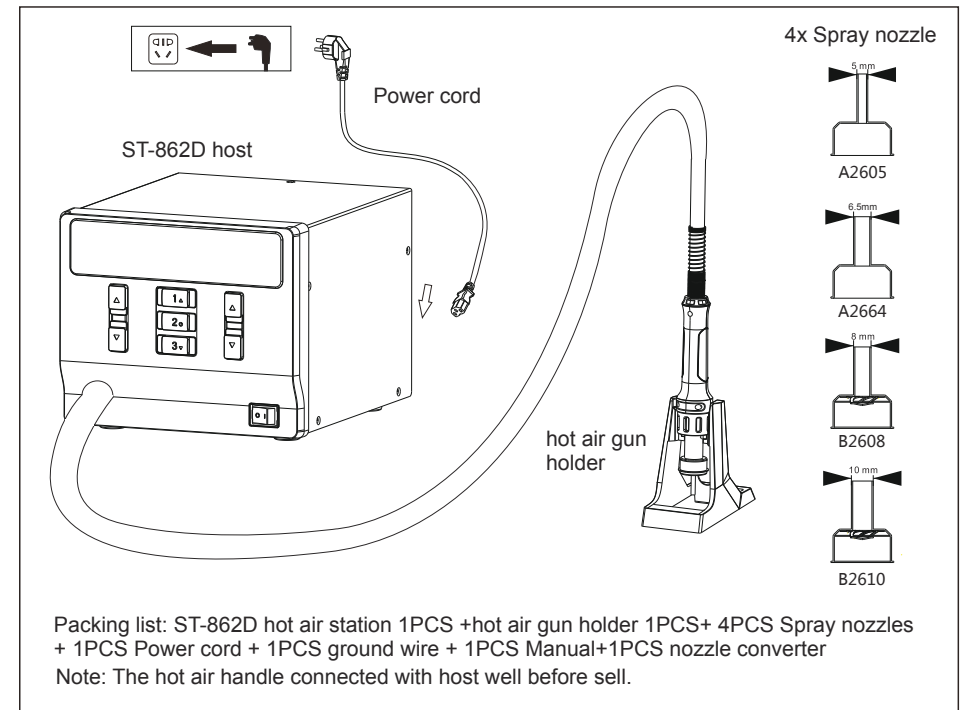
Inspector: \_\_\_\_\_ Ex-factory date: \_\_\_\_\_

Salesperson: \_\_\_\_\_ Sold Date: \_\_\_\_\_

## Schematic Diagram of the Whole Equipment



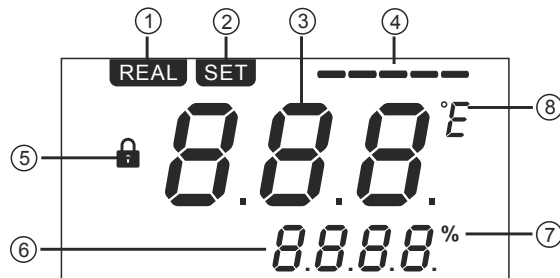
## Connection Diagram for the Whole Equipment



## Technical Data

Model:	ST-862D
Voltage	AC230V±10% 50Hz (110V±10% 60Hz Optional)
Power	1000W (Max)
Fuse type	T6.3A(230VAC) T12A(110V AC)
Temperature range:	100°C ~ 480°C/ 212°F ~ 896°F
Setting range of air volume	1%~99%
Temperature unit	°C/°F (default °C)
Air flow	20~130L/min
Standby heater cooling function	Support
Abnormal detection of heating element	Heating element remove detection; heating element open circuit detection; heating element overheating detection
Abnormal detection of temperature sensor	Temperature sensor open circuit detection
Beep alarm function	Available
Quick function	3 sets shortcut temperatures
Temperature compensation	±50°C/±90°F
Heating status display	5 dynamic simulate bars
Temperature adjustment	10 digits (Coarse)/1 digit (Fine-tuning)
Air flow adjustment	2 digits (Coarse)/1 digit (Fine-tuning)
Shortcut temperature/air flow	3 sets shortcut temperatures/air flow for quick selection
Working conditions	Temperature 0-40°C, relative humidity <80%
Storage conditions	Temperature -20-80°C, relative humidity <80%
Dimension	208(L)x175(W)x150(H)mm
Weight	About 3340g

## LCD Description



1. REAL : Real Temperature status
2. SET : Start up and set temperature status
3. Actual temperature value
4. Display bar for heating power status
5. Symbol for lock
6. Display settings value
7. Air flow percentage
8. Temperature unit

## 6. Button Beeping Function

Under menu BL mode, user can turn on/ off the beeping function by pressing “▲” or “▼” key. Refer Pic.1-16, OFF disable beeping function; Refer Pic.1-17, ON enables beeping function.

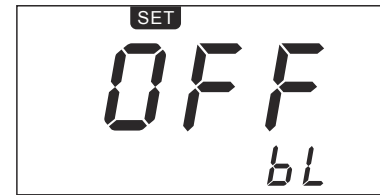


FIG. 1-16



FIG. 1-17

## 7. Defining Work Function

Under menu HTO mode, it can adjust time of defining work by pressing “▲” or “▼” key (FIG. 1-18, the time of defining work is 20 seconds, “0” means turn off defining work function, the minimum setting time for defining work is 10 seconds, maximum setting time is 900 seconds.); it can turn up or down menu by pressing Button “1” or “3”, then press Button “2” to exit and save your setting.



FIG. 1-18

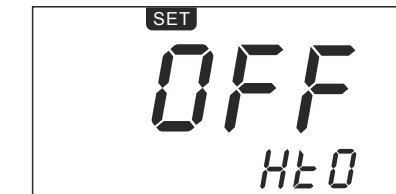


FIG. 1-19

## 8. Standby Function

Under Menu STBY, that press button can adjust standby function. (Pic.1-20) When standby function is off, it can adjust the time (time can be set from 1 to 10mins) when this machine can enter into standby. When standby function is on, this handle can be shut off automatically when putting it into this holder after used, it will recover to work after taking this handle out if within standby time, if beyond the standby time, it don't work until pressing the button in this holder after taking this handle out. (Note: If both timing function and standby function are on simultaneously, timing function will be recount time when the hot air gun working.)

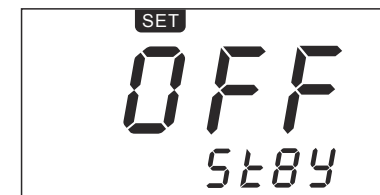
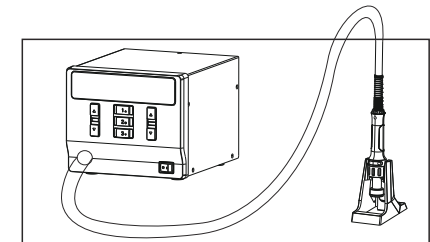


FIG. 1-20



#### 4. Restore Factory Setting

In FAC menu ,press “▲”and“▼”keys to adjust ON/OFF. Press the [2] key when the menu is ON, then return to the normal operation interface to restore factory setting

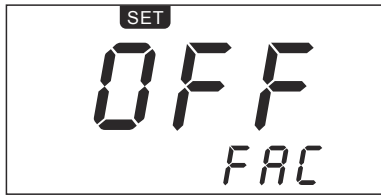


FIG. 1-12

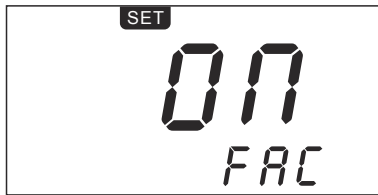


FIG. 1-13

Default value :

Loc ( temperature locked function ) : OFF	Memory temperature 1 : 200°C
CAL ( calibration value ) : cleared	Memory temperature 2 : 300°C
BL ( Beeping function ) : ON	Memory temperature3 : 400°C
F-C(temperature unit) : °C	
HTO(Timing operation) : OFF	

#### 5. Temperature Calibration

Under menu CAL mode, press “▲” or “▼” key to enable temperature calibration function, whose calibration range is -50°C~ 50°C(-90°F~90°F). Calibration value will be negative as actual-measured temperature is lower than setting temperature; Calibration value will be positive as actual-measured temperature is higher than setting temperature.

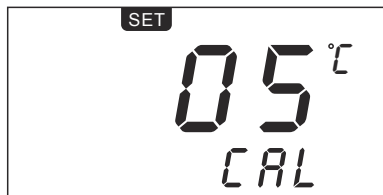


FIG. 1-14

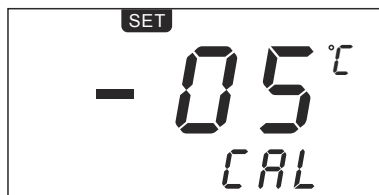


FIG. 1-15

Note: User need calibrate temperature by adjusting its value if the displayed temperature is much different with actual-measured temperature after changing a new heater or tips, its calibration method be refered as below:

- 1.Set this handle required calibration as a suitable temperature like 350°C/ 662°F;
- 2.After this setting temperature is stable, use temperature tester to measure the actual temperature of its tip, for example, its actual-measured temperature is 365°C/ 689°F;
- 3.We can get conclusion that the actual-measured temperature compared to the setting temperature is 15°C/ 27°F higher;
- 4.Then press “▲” key to calibrate temperature.

#### Boot-up Screen

After the station has been switched on, the display will turn on and show the system version number for one second before switching to the normal display.



(Means ST-862D V0.1 version)

#### Settings

##### 1. Normal display

(FIG. 1-1) shows real temperature is 300°C, the temperature setting value is locked, the air volume is 50% and the heating power value is 3 bars.



FIG. 1-1

##### 2. Display Of Hot Air Gun Status

(FIG. 1-2)shows when the air gun is off (non-power)) The setting value can be adjusted when the hot air gun is off. When the hot air gun is on, it will work according to the setting value.(FIG. 1-3) When the handle of the air gun is placed on the holder, the hot air gun will automatically stop heating and delay air supply, (the air supply will stop after the heating wire cools). Pick up the handle again and press the switch key on the handle, it will resume to work.

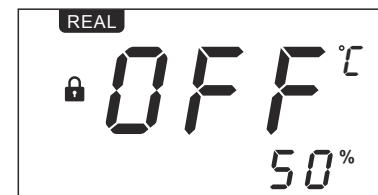


FIG. 1-2

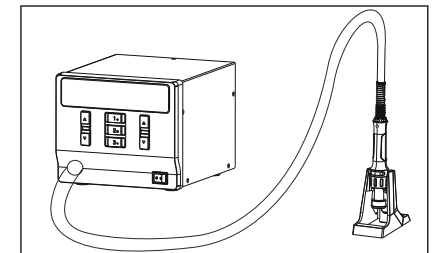


FIG. 1-3

## Temperature/Air Flow Setting

1. Adjust the air volume: Press air "▲" or "▼" key (see FIG 1-4). Long press for quickly adjusting. Stop pressing the key for 3 seconds, it will save the setting automatically.
2. Adjust temperature value (when temperature value is locked, it can not be adjusted): Press temperature "▲" or "▼" key, switch to SET status (see figure 1-5). Long press for quickly adjusting, stop pressing the key for 3 seconds, it will automatically save temperature setting, and state switch to REAL.

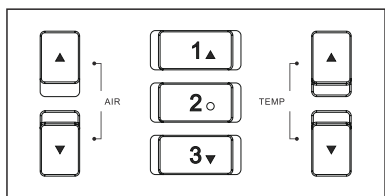


FIG. 1-4

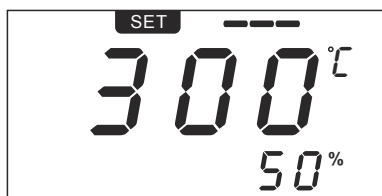


FIG. 1-5

3. The cool air function is used when the temperature setting value under 100 °C.



Cold air display interface

## Saving and Retrieving Shortcut Temperature(User define)

1. Retrieving shortcut temperature: It can rapidly retrieving preset temperature and blowing restored in Button "1" / "2" / "3" by pressing Button "1" / "2" / "3" .(FIG. 1-6) when working
2. Saving shortcut temperature: It can save the user-define temperature and blowing in Button "1" / "2" / "3" by pressing Button "1" / "2" / "3" more than 2 seconds.

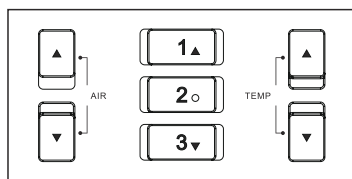


FIG. 1-6

## Menu Mode

Enter into menu mode by pressing both Button "1" and "3" more than 3 seconds under working status.

### 1. Button Definition under Menu Setting Mode

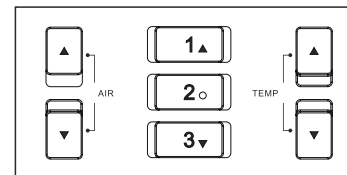


FIG. 1-7

Button "1": Menu page up  
 Button "2" : Menu exit  
 Button "3" : Menu page down  
 Parameter plus  
 Parameter minus

### 2. Temperature Locking Function

Under Menu Loc, it can turn on or turn off temperature locking function by pressing "▲" or "▼" key(FIG. 1-8, ON means turn on temperature lock function, OFF means turn off temperature locking function); it can turn up or down menu by pressing Button "1" or "3" , then press Button "2" to exit and save your setting.

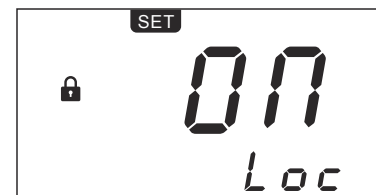


FIG. 1-8

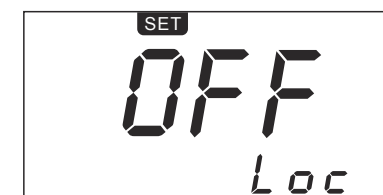


FIG. 1-9

### 3. Switching Temperature Unit

Under menu C-F mode, it can switch temperature units(°C & °F ) by pressing "▲"or"▼"key. Refer Pic.1-10, set -C- which means temperature unit is °C; Refer Pic. 1-11, set -F- which means temperature unit is °F.

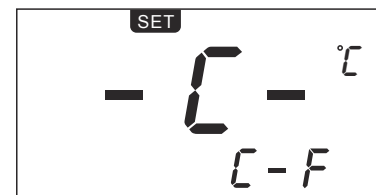


FIG. 1-10

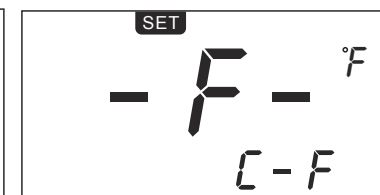


FIG. 1-11