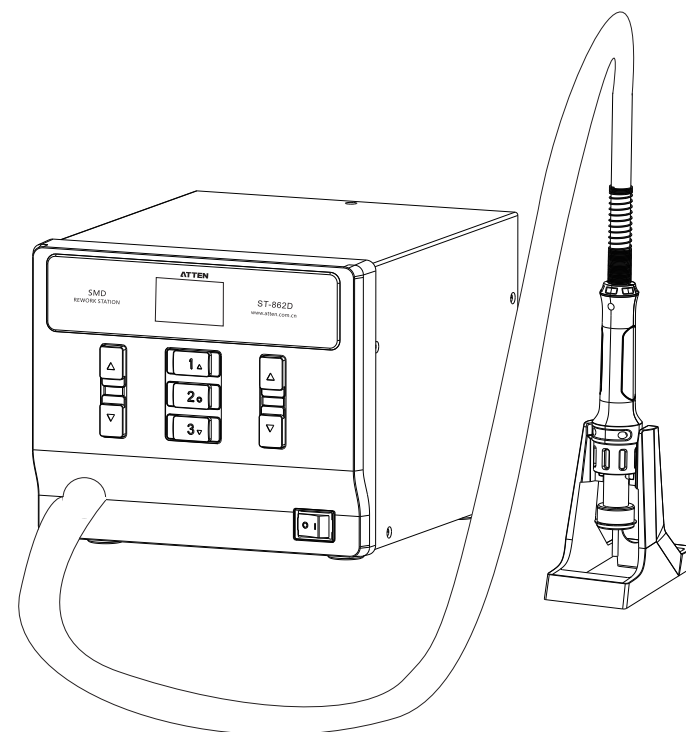


SHENZHEN ATTEN TECHNOLOGY CO., LTD.

- Soldering Iron
- Hot Air Rework Station
- Thermal Wire Stripper
- Automatic Equipment
- Soldering Station
- Multifunctional Maintenance System
- Preheating & Reflow Platform
- Fume Extractor

ATTEN



ST-862D Hot Air Station User Manual

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MADE IN CHINA
CBN031661 (K)

SHENZHEN ATTEN TECHNOLOGY CO., LTD

Safety and Usage Precautions

- This product (including internal software) and its accessories are protected by relevant national laws. Any infringement on our rights will be subject to legal penalties. Users should voluntarily adhere to the relevant national laws while using this product.
- **Thank you for using our product. Before using this product, please carefully read this manual and take note of the warnings and precautions mentioned. Keep it in a safe place for future reference.**

 **warning** Improper use may result in death or serious injury.

 **Caution** Improper use may result in personal injury or substantial damage to objects involved.

- We require users to have a basic understanding of everyday life and basic knowledge of electrical operations before using this product. For underage users, please use this product under the guidance of a professional or a guardian.

 **Caution** To prevent injury, maintain a safe operating environment.

- When using this machine, the following basic points must be adhered to in order to prevent electrical shocks, injuries to individuals, or potential hazards such as fires.
- To ensure personal safety, only use genuine or recommended parts and accessories; otherwise, serious consequences may occur.

Warning

- READ ALL INFORMATION BEFORE USE.
- Power off when not in use or unattended. Place the soldering iron handle the iron stand, This tool must be placed on its stand when not in use.
- Keep this product away from flammable materials. When using, please inform other people in the area near the machine. Please do not touch the machine because of high temperature
- Do not apply to the same place for a long time.
- 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.
- 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.
- Cleaning and user maintenance shall not be made by children without supervision.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Caution

- Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine. Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine.
- When soldering, there will be smoke. Please use this product in a well-ventilated environment.
- When using this product, the temperature of the spray nozzle of hot air gun can reach 100°C to 480°C (212°F~896°F). Misuse may result in burns or fire.
- Users without relevant guidance, experience, or adequate knowledge preparation should refrain from using this product.
- Do not wet the soldering station. Avoid operating this product with wet hands or in a damp environment to prevent electrical shock.
- Do not immerse heater in liquids to prevent damage to heater.
- This product has grounding functionality. To ensure proper operation, make sure the power source is properly grounded when connecting the machine.
- When replacing parts or installing soldering tips, turn off the power and allow the soldering tip to cool to room temperature.
- Use original ATTEN parts when replacing product components.
- Do not engage in play or any dangerous activities while using the equipment, as this may lead to harm to yourself or others.
- Please do not use this product for purposes other than its intended function, as it may lead to damage to the machine or personal injury.
- Do not modify this product or its accessories, as this may void the manufacturer's warranty and damage the product.
- When plugging or unplugging the power cord, grip the plug body and avoid pulling or tugging the cord.
- Do not strike this product and its accessories with force during use, as it may damage the product.

Error information

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 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.

After-sales contact

After-sales service department Tel: 400-998-6633

User Notice

The warranty period of this product is valid within 24 months from the date of purchase. For any product quality problem, the company will be responsible for free maintenance with this card and purchase certificate.

Note: When this product is returned to the factory for maintenance, the warranty card must be attached, other wise it will not be repaired for free, thank you for your cooperation (please read the warranty regulations for warranty related instructions)

Product warranty card

Product Model: _____ Product No.: _____

EX-Factory No.: _____ Sold Date: _____

This product test result is qualified and met the technical standard.



Disclaimer

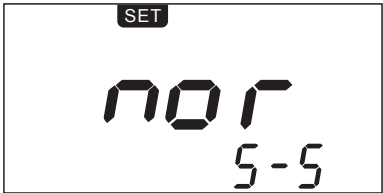
- We will take no responsibility for any personal injury or property damage caused by reasons other than the product quality problem, which may include force majeure (natural disasters, etc.) or personal behavior during the operation of this product.
- This manual is organized, compiled and released 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

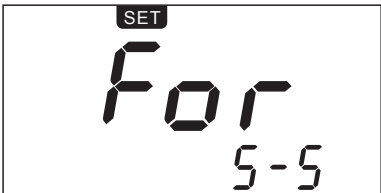
Nor: Normal (Default)

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.

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



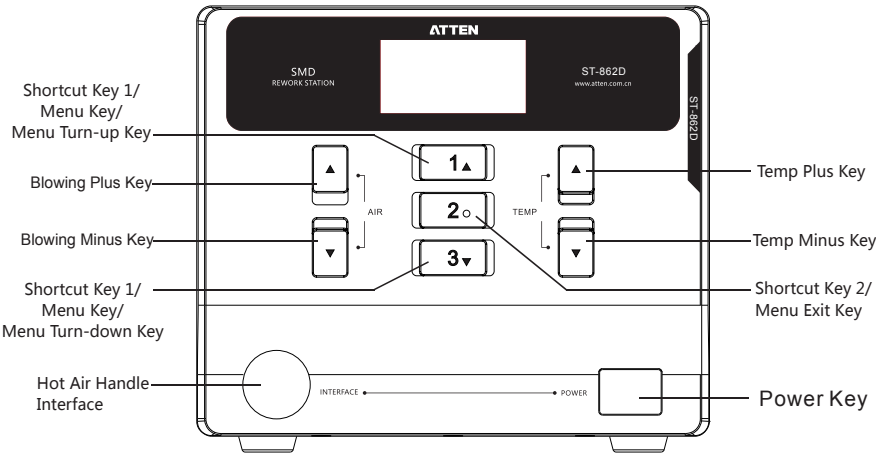
For: In forced mode, turn on/off the device is only control by handle remove/return to handle seat. the handle will start immediately when remove from the handle seat; return handle to handle seat to turn off output. The standby function is forbid under this mode.



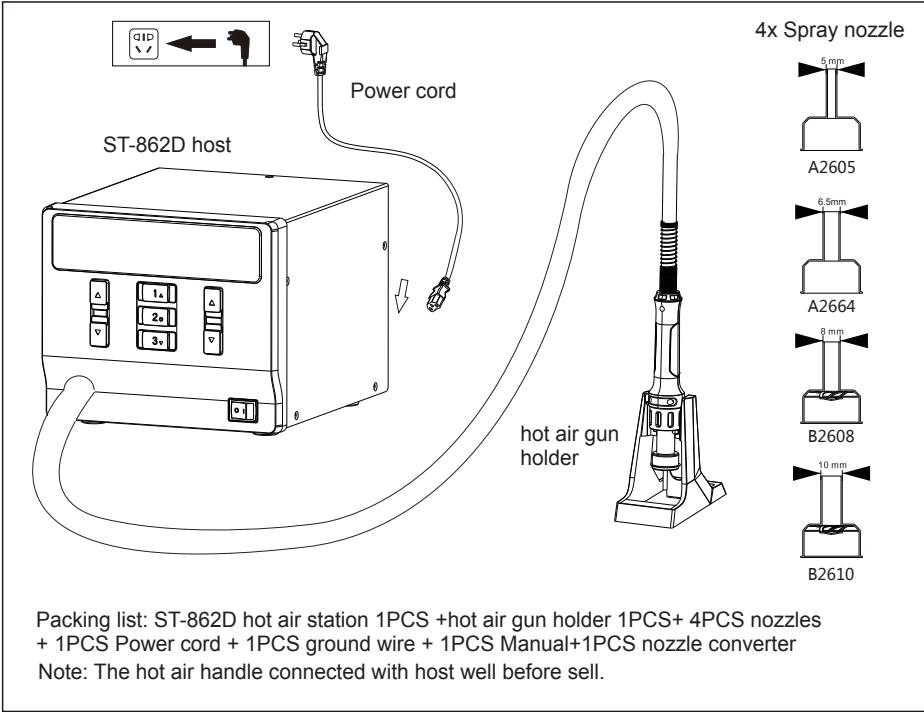
Error information

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
E3: No zero-cross signal	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. pleas replace theheating core.

Schematic Diagram of the Whole Equipment



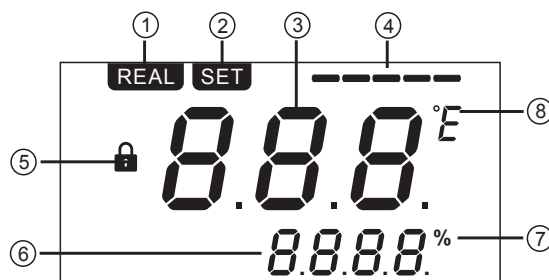
Connection Diagram for the Whole Equipment



Technical Data

Model:	ST-862D
Voltage	AC 230V±10% 50Hz (Optional) / AC 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	20~120L/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
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%RH
Storage conditions	Temperature -20~80°C, relative humidity <80%RH
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 Snd 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.

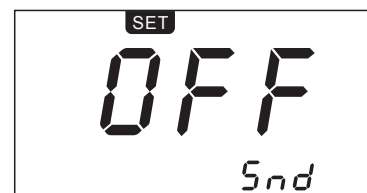


FIG. 1-16

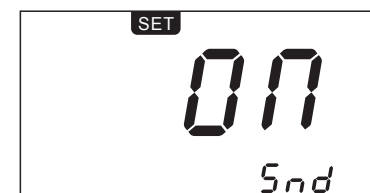


FIG. 1-17

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

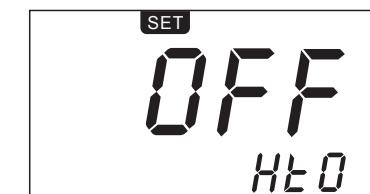


FIG. 1-19

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.)

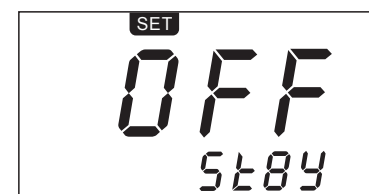
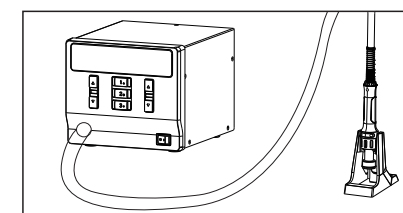


FIG. 1-20



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

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

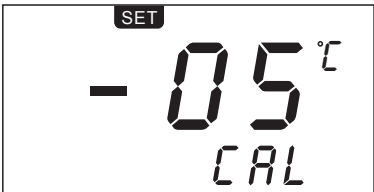


FIG. 1-15

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.

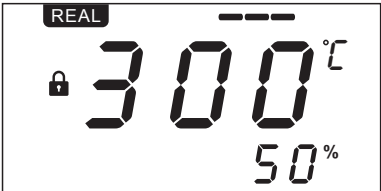


FIG. 1-1

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.

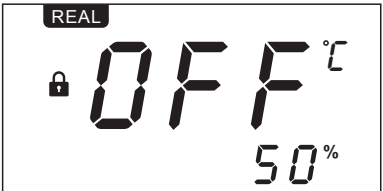


FIG. 1-2

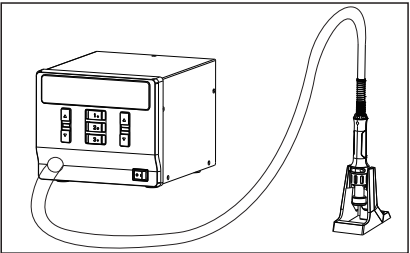


FIG. 1-3

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.

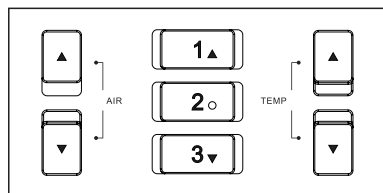


FIG. 1-4

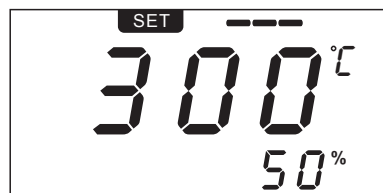


FIG. 1-5

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.

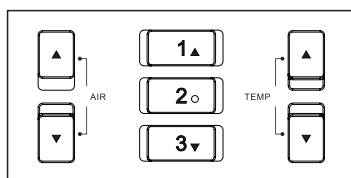


FIG. 1-6

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

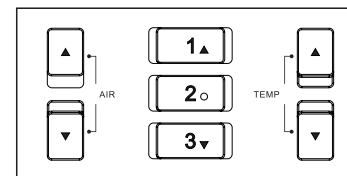


FIG. 1-7

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.

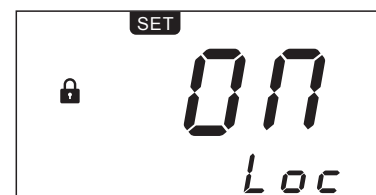


FIG. 1-8



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.

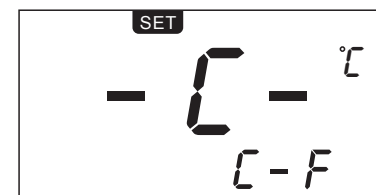


FIG. 1-10

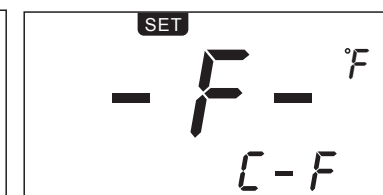


FIG. 1-11