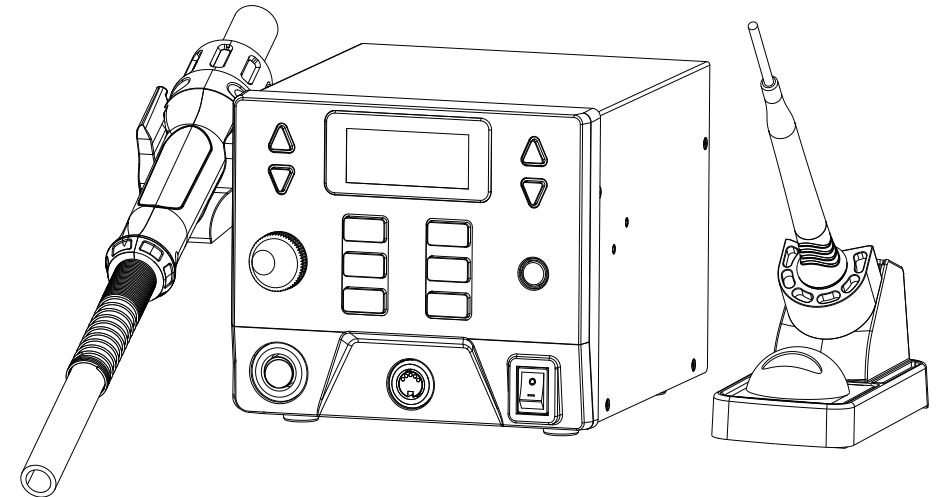


SHENZHEN ATTEN TECHNOLOGY CO.,LTD.

- Soldering Iron
- Soldering Station
- Hot Air Rework Station
- Multi-function Rework System
- Switching DC Power Supply
- Regulated DC Power Supply
- Solder smoke purify machine
- Programmable Power Supply

ATTEN



ST-8902D 2 in 1 Rework Station User Manual

The soldering iron needs to be tested before it leaves the factory,
so the soldering tip may cover small amount of tin,
and the casing will be slightly yellowing, which is a normal phenomenon

SHENZHEN ATTEN TECHNOLOGY CO.,LTD.

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Guangming New district, Shenzhen 518132, China
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E-mail: sales@atten.com.cn

MADE IN CHINA
CBN035394(A)



SHENZHEN ATTEN TECHNOLOGY CO., LTD

Copyright information

The design of this product (including internal software) and its accessories are under the protection of relevant 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, its tip and nozzle, with the temperature up to 100-500 °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 use modify this product or its accessories without authorization.
- Please turn off the power when replacing parts and iron tips, and do not replace it 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 stoppen 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.

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 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 with in 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: _____

Hot air station maintenance

Fault code & description	Possible causes and solutions
E2: sensor open circuit	The air gun interface or handle is in poor contact, replace the heating core.
E3: No zero-crossing signal	If the zero-crossing circuit is damaged, please return to the factory for repair.
E7: sensor short circuit	The temperature sensor in the heating element is short-circuited, or the heating element is open, please replace the heating element.
E8: Over temperature protection	1. The temperature sensor is abnormal, please replace the heating element. 2. The temperature of the heating core is too high, please restart the machine after cooling.
E10: Heating core overheating	Please contact the local dealer or manufacturer for assistance.
E11: Blower failure	Please contact the local dealer or manufacturer for assistance.
E13: Heating output switch failed	The heating output switch device fails, the device has been short-circuited and damaged, and it should be returned to the factory for repair.
The screen does not light up	When this problem occurs, you can try the following measures to solve it. If the problem still can not be solved after using the following methods, the device needs to be returned to the factory for inspection. 1. Check if the socket switch is turned on. 2. Check the socket for voltage. 3. Check if the power cord plug is loose. 4. Whether the fuse is damaged (please replace the fuse of the same specification).

Soldering Station Maintenance

(Fig. 2-13) S-E is displayed as sensor failure, and H-E is displayed as heater core failure.

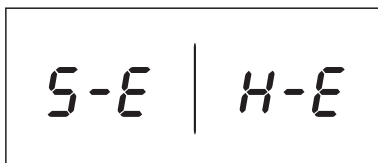
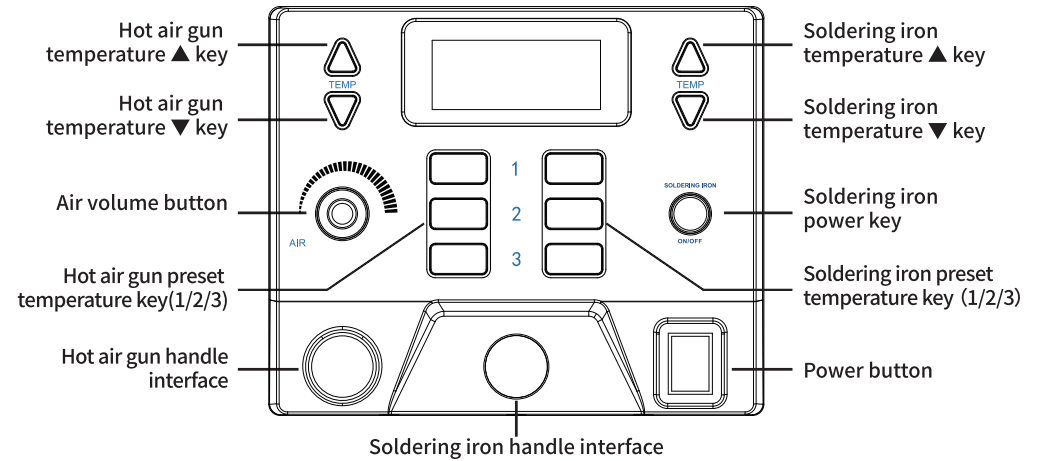


Fig.2-13

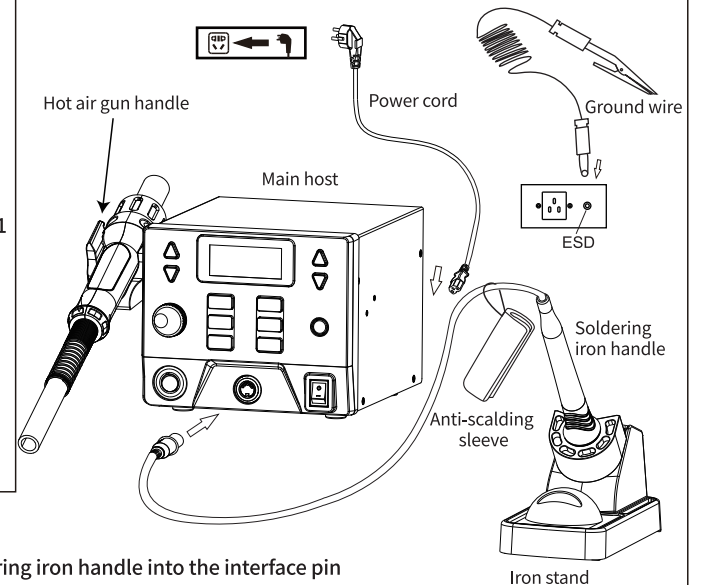
Front panel diagram



Connection diagram and packing list

Packing list:

- Main host X1
- Hot air gun handle X1
- Hot air gun holder X1
- Nozzles X3
- Soldering iron handle X1
- Iron stand X1
- Power cord X1
- Ground wire X1
- Anti-scalding sleeve X1
- User manual X1

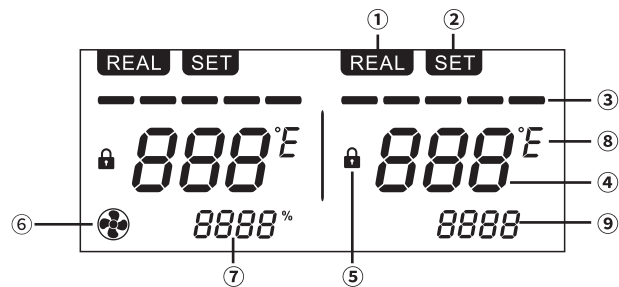


- Note: please plug soldering iron handle into the interface pin of soldering station when connecting handle with soldering station

Menu mode

Model	ST-8902D	
Type	Soldering station	Hot air station
Voltage	AC 230V ± 10% 50Hz / (110V ± 10% 60Hz)	
Fuse type	T8A (230V AC) / T12A (110V AC)	
Power	90W	1300W(230V AC) / 1000W(110V AC)
Temperature range	200°C~500°C/392°F~932°F	100°C~500°C/212°F~932°F
Temperature stability	±2°C	±5°C
Air volume adjustment		Knob adjustment(1%~100%)
Temperature adjustment	Long press to quickly adjust by 1 digit, short press to adjust by 1 digit	
Standby mode	1~60 minutes (adjustable, can be closed)	Default 30 minutes (1~60 minutes adjustable)
Sleep mode	Sleep mode= standby mode time + 20mins (standby mode turn off, this function is also off)	The standby mode ends and enter the sleeping mode
Working condition	Temperature 0-40°C, relative humidity < 85%	
Storage condition	Temperature -20-80°C, relative humidity < 85%	
Dimension	(L) 200x (W) 170x (H) 150mm	
Weight	≈ 4.8KG	

LCD description



- Hot air station displayed by the left side, soldering station displayed by the right side.

- | | |
|---|--------------------------|
| ①. Real temperature status | ⑥. Fan icon |
| ②. Set temperature status | ⑦. Air flow percentage |
| ③. Simulate bar indicating heating power status | ⑧. Temperature unit |
| ④. Actual temperature value | ⑨. Set temperature value |
| ⑤. Lock symbol | |

6. Button beeping function

Under the menu BL mode, user can turn on/off the beeping function by press “▲” and “▼” key, diagram 2-9. On enables beeping function, OFF disable beeping function. The beep alarm function of the hot air gun and the soldering iron would be set simultaneously.

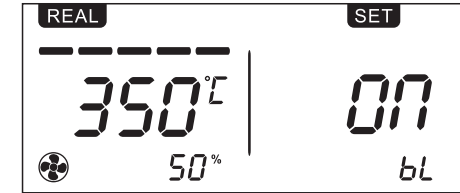


Fig.2-9

7. Upper and lower temperature alarm setting

In the H-L menu, press the “▲” and “▼” keys to set the upper and lower temperature limit values and OFF, (Figure 2-10) indicates that the upper limit temperature of the alarm temperature is 20°C and the lower limit temperature is -20°C, and alarm when the temperature exceeds the set range. (Fig. 2-11) OFF means that the temperature upper and lower limit functions are turned off, and the setting range of the upper and lower limit temperature of the alarm temperature is: 20-80°C.

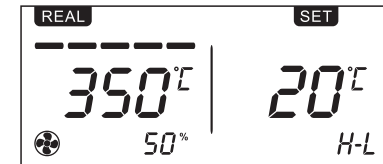


Fig.2-10

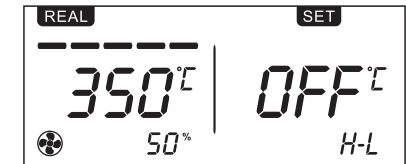


Fig.2-11

8. Restore factory

In FAC menu, press “▲” and “▼” key to adjust ON/OFF. Press the [2] key when menu is ON, then return to the normal operation interface to restore factory setting. The restore factory setting function of the hot air gun and the soldering iron would be set simultaneously.

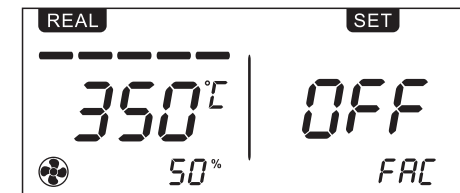


Fig.2-12

Factory Default:

- | | |
|---------------------------------------|---|
| CAL(calibration value): 00 | H-L(Temperature upper and lower limit): ±20°C |
| LoC(temperature locked function): OFF | Memory temperature 1: 200°C |
| C-F(temperature unit): °C | Memory temperature 2: 300°C |
| STBY(standby function): 1minute | Memory temperature 3: 400°C |
| BL(beeping function): ON | |

3. Temperature lock function

Under the menu Loc, it can turn on or turn off temperature lock function by pressing “▲” and “▼” key. (Diagram 2-6) ON means turn on temperature lock function, OFF means turn off temperature lock function). It can turn up or down menu by pressing button “1” or “3”, then press button “2” to exit and save your setting.

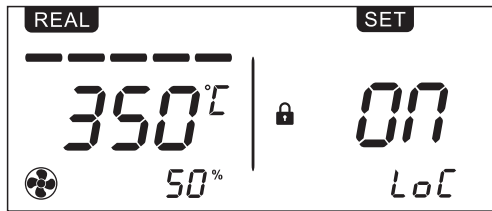


Fig.2-6

4. Switching temperature unit

Under the menu C-F mode, it can switch temperature units °C/°F by pressing “▲” and “▼” key, (Diagram 2-7) set -C- which means temperature units is °C, set -F- which means temperature unit is °F. The temperature unit of the hot air gun and the soldering iron would be switched simultaneously.

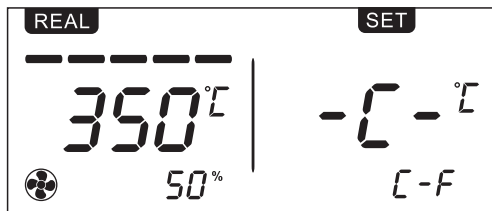


Fig.2-7

5. Auto standby setting

Under the STBY menu, press the "▲" and "▼" keys to adjust the standby time (1-60 minutes) and standby function (Diagram 2-8), auto sleep time = standby time + 20 minutes (standby function is turned off, the sleep function is also off).

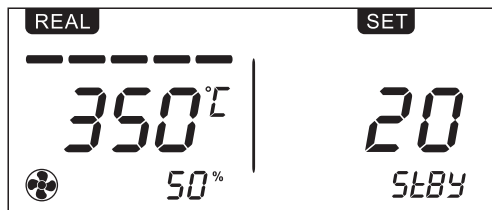


Fig.2-8

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 (Its version will be different according with version updated, such as VXX, X etc)



(Means V01 version)

Working status

1. Working normally

Meaning on the right(diagram 1-1): Real temperature is 350°C, setting temperature value is 350°C, this setting value locked, the display bar of heating power showing full.

Meaning on the left(diagram 1-1): Real temperature is 350°C, air volume is 50%, the display bar of heating power showing full.

2.Enter into standby mode

Meaning on the right(diagram 1-2): Under standby status of soldering station, it is heating by 200°C. Soldering station can be recovered to normal work by pressing any buttons or swinging the handle.

Meaning on the left(diagram 1-2): When hot air gun putting on the holder, the hot air gun enter into standby mode neither heating nor blowing air.

It will recover to normal work when taking this handle up.

3.Sleeping mode

Meaning on the right(diagram 1-3): Under shut off status of soldering station, it is not heating, need press power button to turn on soldering station.(Notes: under standby mode for 20 mins, it will be auto-sleep.)

Meaning on the left(diagram 1-3): Under shut off status of hot air station, it can not work by taking up the handle. It needs recover to work by pressing power button on hot air gun.

(It will enter into sleeping mode after setting the standby time, the default standby time is 30 mins)

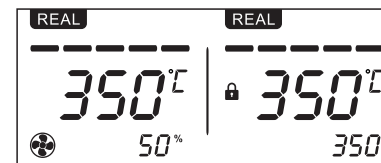


Fig.1-1

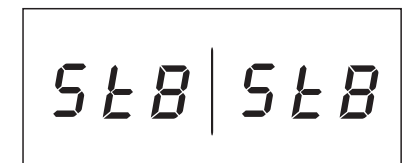


Fig.1-2



Fig.1-3

How to operate hot air station

The right side is for soldering station operation area, the left side is for hot air station operation area.

Temperature & Air flow setting

- Its temperature can be adjusted (diagram 1-4) by pressing ▲/▼ key on the left when normal working (diagram 1-5), and auto-save this setting temperature without pressing for 3 seconds. Air volume can be adjusted by air volume knob, adjusting with clockwise means adding air volume, counterclockwise means reducing air volume. (Temperature and air volume can not be adjusted if it's locked)

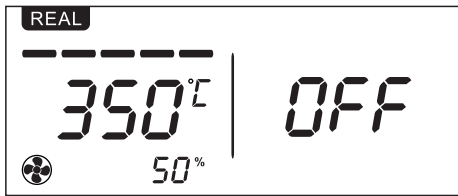


Fig.1-4

Retrieving and saving shortcut temperature

- Preset temperature /air volume can be retrieving rapidly by pressing left button 1/2/3 when normal working (diagram 1-5).
- Preset temperature/air volume can be saved when normal working, current setting temperature/air volume can be saved in button 1/2/3 by pressing button 1/2/3 longer than 3 seconds.

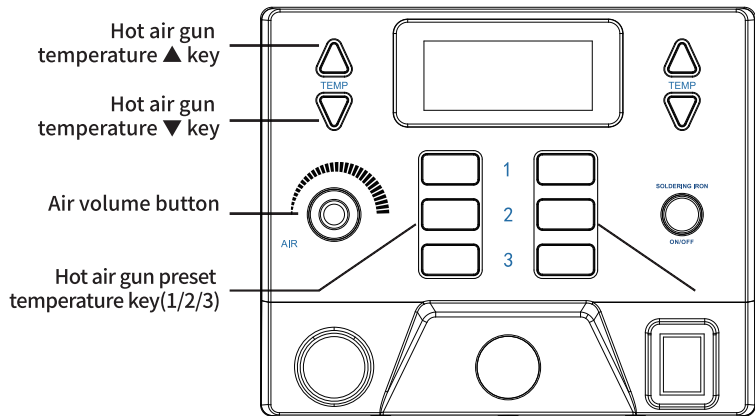


Fig.1-5

Menu mode

- Under normal work, press left "1"+"3" key more than 3 seconds to enter the soldering iron menu interface, Press the 2 key on the menu to exit and save the settings.

1. Button definition under menu setting mode

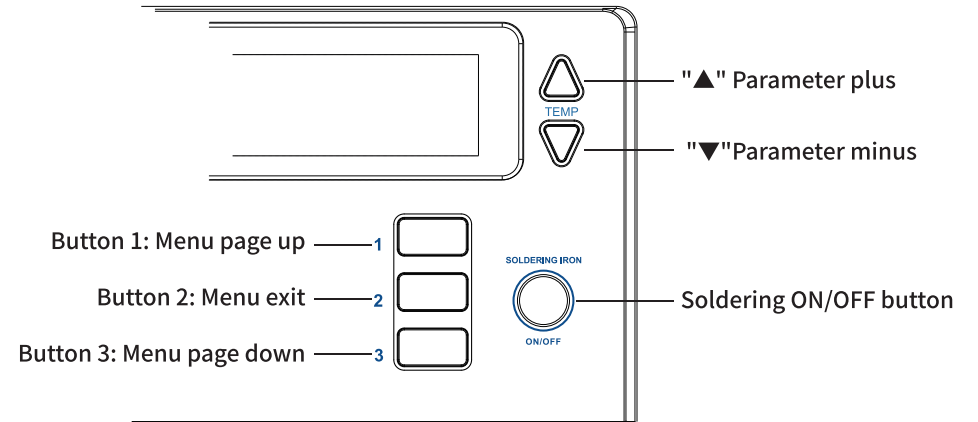


Fig.2-4

2. Temperature calibration

Under menu CAL mode, press "▲" and "▼" key to enable temperature calibration function, 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.

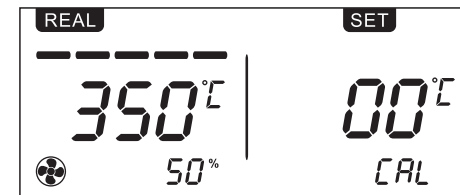


Fig.2-5

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 referred as below:

1. Set the 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.
3. For example, its actual-measured temperature is 365°C/689°F, we can get conclusion that the actual-measured temperature compared to the setting temperature is 15°C/27°F higher.
4. Then set the calibrate temperature to -15°C/-27°F to compensate the error of output temperature.

How to operate soldering station

The right side is for soldering station operation area, the left side is for hot air station operation area.

Power on soldering station and the temperature setting

- The screen will be displayed (diagram 2-1) after turning on the power key, the soldering station are still closed, should turn on the soldering station power key to start soldering iron. Under working status press right "▲" or "▼" key (diagram 2-3) to adjust temperature (diagram 2-2), long press to adjust quickly, stop to press key after 3 seconds to save temperature value automatically (the temperature value can not be adjusted when locked).

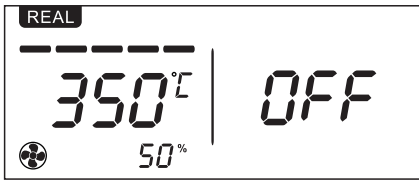


Fig.2-1

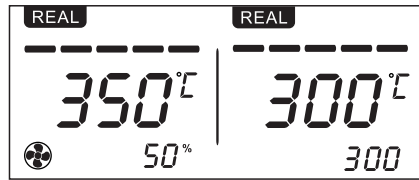
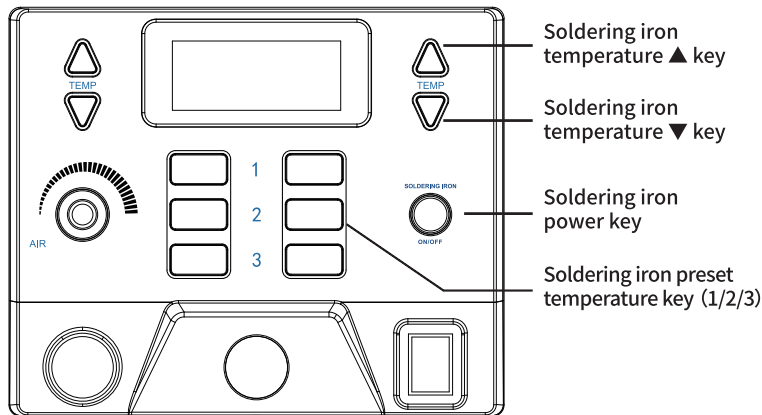


Fig.2-2

Retrieving and saving shortcut temperature(User define)

- Under normal working status, retrieving shortcut temperature: it can rapidly retrieving preset temperature as current working temperature by pressing right button "1/2/3". (diagram 2-3)
- Under normal working status, saving shortcut temperature: It can save the current working temperature into memory by long pressing button "1/2/3" more than 3 seconds



Cool air function

- The hot air gun enter into cool air mode when the setting temperature value under 100°C, and Cool air mode displayed COL (diagram 1-6) and the heater element does not heat, the air gun blows cool air then the heater quickly cool down.

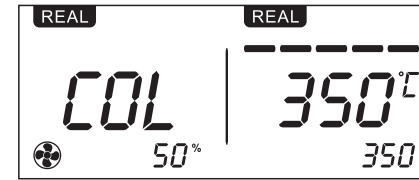


Fig.1-6

Menu mode

- Under normal work, press left "1"+"3" key more than 3 seconds to enter the hot air gun menu interface. Press the 2 key on the menu to exit and save the settings.

1. Button definition under menu setting mode

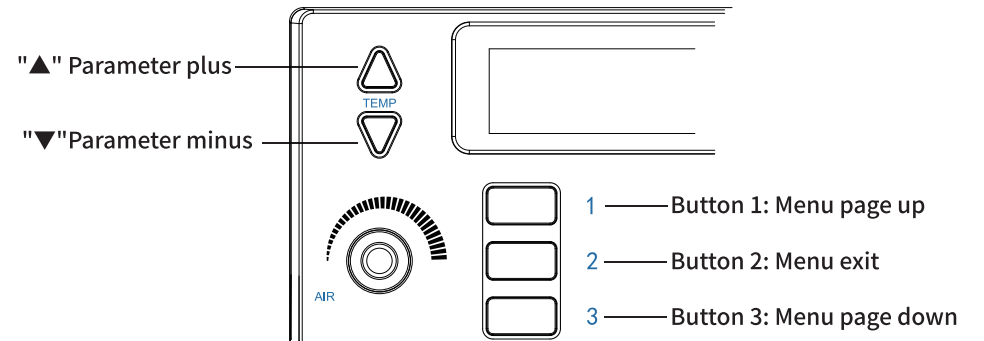


Fig.1-7

2. Temperature calibration

Under menu CAL mode, press left "▲" and "▼" 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.

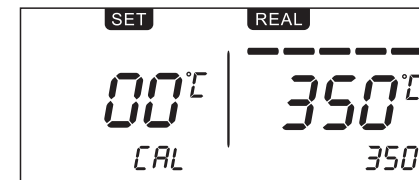


Fig.1-8

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 can be referred as below:

1. Set the 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.
3. For example, its actual-measured temperature is 365°C/689°F, we can get conclusion that the actual-measured temperature compared to the setting temperature is 15°C/27°F higher.
4. Then set the calibrate temperature to -15°C/-27°F to compensate the error of output temperature.

3. Temperature lock function

Under the menu Loc, it can turn on or turn off temperature lock function by pressing left “▲” and “▼” key. (Diagram 1-9, 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.

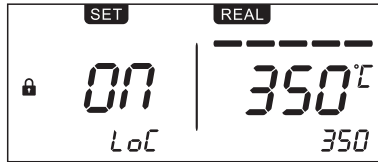


Fig.1-9

4. Switching temperature unit

Under the menu C-F mode, it can switch temperature units °C/°F by pressing left “▲” and “▼” key. (Diagram 1-10) set -C- which means temperature units is °C, set -F- which means temperature unit is °F, the temperature unit of the hot air gun and the soldering iron would be switched simultaneously.

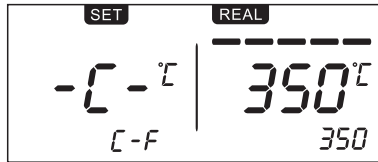


Fig.1-10

5. Standby function

Under the STBY menu, press ▲ and ▼ key to adjust ON/OFF of the standby function. (Figure 1-11) OFF means standby function Off, when the setting value is 1~60 minutes, it corresponds to the length of standby time.

When the standby function is turned on, after the air gun putting into the bracket, the air gun will automatically stop working, and when the air gun picked up again during the standby time.

The air gun starts to work automatically. After the standby time has elapsed, you need to press the air gun handle button to start working after picking up the air gun again.

(Note: The default standby time is 30 minutes. When the timing function and the standby function are turned on simultaneously, the timing function will re-time when the air gun is activated.)

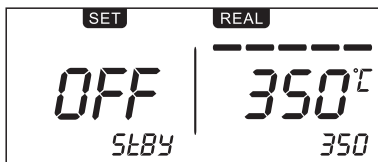


Fig.1-11

6. Button beeping function

Under the menu BL mode, user can turn on/off the beeping function by press left “▲” and “▼” key. (diagram 1-12) On enables beeping function, OFF disable beeping function. The beep alarm function of the hot air gun and the soldering iron would be set simultaneously.

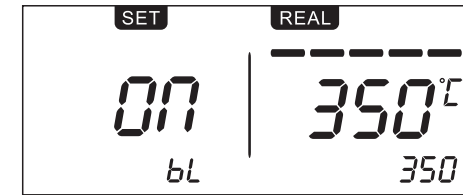


Fig.1-12

7. Timing function

Under HTO menu, press left “▲” and “▼” keys to adjust the timed working time. [1][3] key to switch menu up and down, [2] key to exit and saving setting values. Displayed OFF to turn off timing function. The minimum setting time is 10 seconds and the maximum is 900 seconds. (Diagram 1-13) the timing work time is 900 seconds, (Diagram 1-14) the left 900 is countdown time.

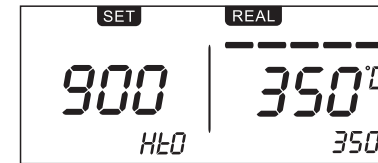


Fig.1-13

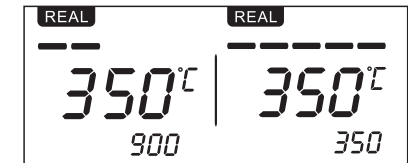


Fig.1-14

8. Restore factory

In FAC menu, press “▲” and “▼” key to adjust ON/OFF. Press the [2] key when menu is ON, then return to the normal operation interface to restore factory setting. The restore factory setting function of the hot air gun and the soldering iron would be set simultaneously.

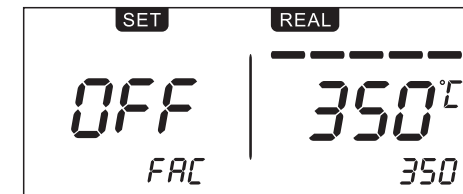


Fig.1-15

Factory Default:

- | | |
|---------------------------------------|-----------------------------|
| CAL(calibration value): 0°C | HtO(timing function): OFF |
| LoC(temperature locked function): OFF | Memory temperature 1: 200°C |
| C-F(temperature unit): °C | Memory temperature 2: 300°C |
| STBY(standby function): 30minutes | Memory temperature 3: 400°C |
| BL(beeping function): ON | |