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MADE IN CHINA

ATTEN

ST-7500/ST-7800
Preheating & Reflow Platform User Manual

SHENZHEN ATTEN TECHNOLOGY CO ., LTD

08/ Product warranty

• Warranty regulations:

① The warranty period for this product starts from the date of purchase. During the warranty period, any malfunctions occurring due to the product's own quality issues can be serviced free of charge at our designated authorized repair center (or ATTEN) by presenting the original warranty card in accordance with the terms of this warranty card. Please keep your purchase receipt and this warranty card and present them together during repairs.

② During the warranty period, the following situations will incur paid repair services:

a. Inability to present a valid warranty card or valid proof of purchase.

b. The warranty card has incomplete or altered information, such as the purchase date or seller's name.

c. Damage caused by improper operation or failure to follow the instructions and precautions in the user manual.

d. Damage resulting from natural disasters or force majeure.

e. Damage caused by disassembly, repair, or modification of the product without manufacturer authorization.

f. Replacement of consumable or wear-and-tear parts.

③ The warranty card must be completed in full by the distributor or user to qualify for the 24-month warranty period.

④ Please keep this warranty card safe. Lost cards will not be reissued.

⑤ Special cases will be subject to mutual agreement.

⑥ The final interpretation rights belong to ATTEN.

User Notice

This product is covered by a 24-month warranty from the date of purchase. In cases of product-related quality issues, ATTEN is responsible for free repairs when presenting this card and the purchase receipt.

Note: When returning the product for repairs, the warranty card must be included, or else free repairs will not be provided. Thank you for your cooperation (please read the warranty policy for more information on warranty-related details).

Product Warranty Card

Product Name: _____

Product Model: _____

Serial Number: _____

Date of Purchase:： _____

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

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01/ 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

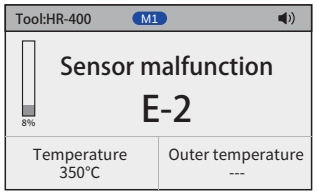
- Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine.Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine.
- Please use this product in a well-ventilated environment.
- When using this product for operation, the temperature in the preheating area can reach 80°C to 500°C (176°F to 932°F). Misuse may result in burns or fires.
- The machine generates very high temperatures in its vicinity during operation, so be cautious to avoid burns.
- This product should be used away from places with magnetic field interference, and it should not be installed on vibrating surfaces or areas susceptible to impact, as this could damage the product.
- Please place this product on a table with a fire-resistant and heat-resistant mat to avoid causing fires.
- Users without relevant guidance, experience, or adequate knowledge preparation should refrain from using this product.
- Do not wet this product. Avoid operating this product with wet hands or in a damp environment to prevent electrical shock.
- When replacing parts , turn off the power and allow this product 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.

07/Troubleshooting Guide

⚠ Warning

- When checking for faults or cleaning the machine, it must be done by a professional. Always disconnect the machine's power and wait for the Preheating & Reflow Platform to cool down to room temperature.

Issue	Possible Causes	Steps to Resolve
Cannot power on	Fuse is not installed or burnt out.	Check if the wiring is correct, confirm if the fuse is installed or shorted, and replace it with an original fuse as needed.
	Poor contact of the power cord.	Check if the power cord is damaged or deformed. If there is an issue, please contact your local dealer.
	Mainboard is damaged.	Please contact your local dealer.



E-2: Sensor malfunction.

Steps to Resolve:
Please contact your local dealer.

E-3: Please contact your local dealer.

Steps to Resolve:
The zero-crossing sensor is damaged, or the mains power frequency is incorrect, causing the sensor to be damaged.

• After-sales contact

- If the machine fails, or cannot work normally due to unknown reasons, please contact the local dealer or manufacturer for consultation.
- After-sales service department Tel: 400-998-6633

06/Optional Accessories

Accessories	Features	Instructions
Preheating Platform Stand (ST-701)	Adjustable height, simple and convenient to use.	① Put the special bracket above the machine; ② Loosen the sliding locking screw and place the PCB on the support.After adjusting to the appropriate position, tighten the sliding screw. ③ Adjust the clamping block of PCB fine-tuning, so that the clamping block is locked after the PCB and the bracket are fitted
Reflow Hood (ST-702)	Economical, practical, energy-saving, and stable performance.	Place the reflow hood on the preheating plate, and it can be used as a small reflow oven.

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 latestproduct features. We will not be responsible for further notice of the subsequent improvement of the product and this manual.

02/Packaging List and Diagrams

• Packaging List

• Main unit x1

• K-type thermocouple test sensor x1

• Grounding Wire x1

• Power cord x1

• Certificate x1

• User manual x1

03/Specifications

• Technical Parameters

Product Model	ST-7500	ST-7800
Input Voltage	AC 220-240V~ 50/60Hz （AC 110-120V~ 60Hz）	
Power	400W (±10%)	800W (±10%)
Temperature Range	50°C~500°C/122°F~932°F	50°C~350°C/122°F~662°F
Heating element	HR-400	HR-800
Heating area	120*120mm	200*180mm
Heating material	Infrared Ceramic	Aluminum Plate
External K-type thermocouple	Supported	
Communication function	Supported	
Linkage function	Supported	
Temperature Unit	°C/°F, default is °C	
Temperature Adjustment Increment	Long press for quick adjustment, short press to adjust in increments of 1 unit	
Quick Parameters	Supports 3 sets of user-defined parameters	
Temperature Lock	Supported	
Language	Supports Chinese and English interfaces	
Display	TFT color screen	
Operating Environment	0°C~40°C, Humidity <85%RH	
Dimensions	278(L)x203(W)x73(H)mm	355(L)x293(W)x73(H)mm
Weight (Main Unit)	≈2.4kg	≈5.1kg

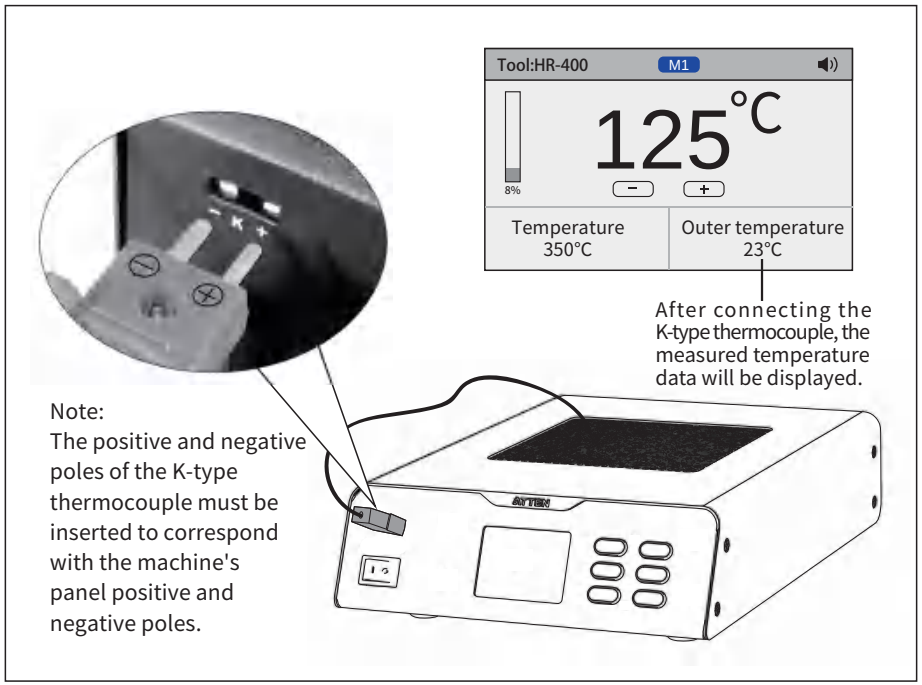
• Packaging Parameters

Product Model	Inner Box Packaging		Outer Box Packaging	
ST-7500	345x345x140mm	Gross Weight: ≈3.28KG	360x360x585mm (4 unit/box)	Gross Weight: ≈14KG
ST-7800	440x380x185mm	Gross Weight: ≈3.28KG	455x395x395mm (2 unit/box)	Gross Weight: ≈14KG

• Instructions for K-Type Thermocouple:

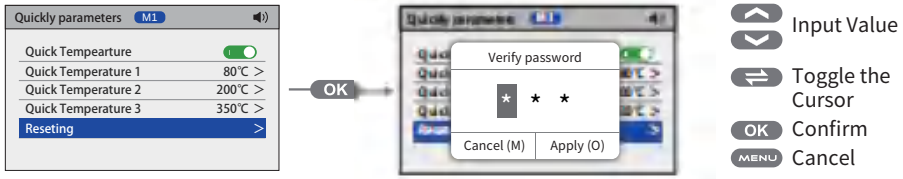
① As shown in the diagram, insert the K-type thermocouple into the corresponding interface of the preheating platform host. (Note: To avoid damaging the components and the host, ensure that the positive and negative terminals of the K-type thermocouple correspond to the positive and negative terminals on the machine's panel).

② On the main interface of the preheating platform host, the "External Test Temperature" will display the actual temperature data measured by the thermocouple, making it convenient for users to test the actual temperature of the heating product.



• Quick Parameter Groups Reset:

Under the Quick Parameter settings, select the "Reset" function, and enter the machine password to reset the quick parameters.



Input Value

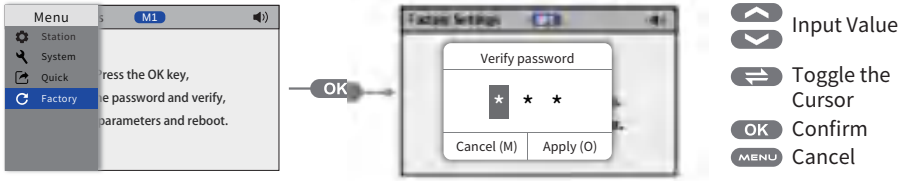
Toggle the Cursor

OK Confirm

MENU Cancel

• Factory Reset:

To restore factory settings, a password must be entered. After entering the correct password, the machine will automatically restart and restore the factory settings.



Input Value

Toggle the Cursor

OK Confirm

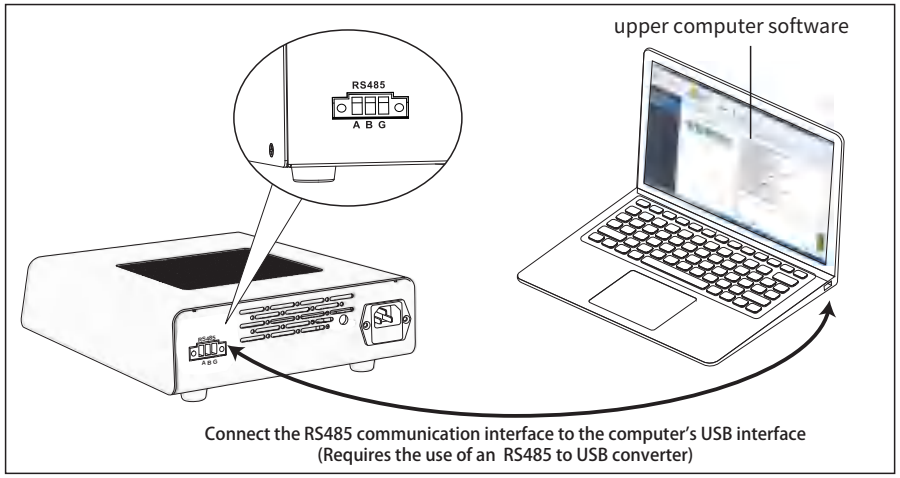
MENU Cancel

• RS485 Communication (Slave Mode):

①Set the preheating platform master/slave linkage mode to M3 (Slave Mode).

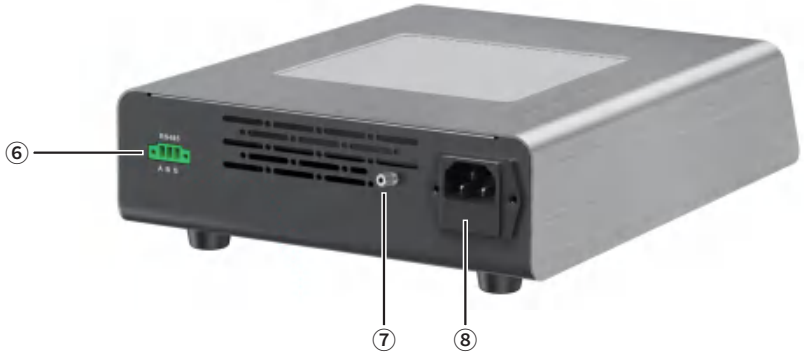
② Use the communication cable as shown in the diagram to connect this product's RS485 interface to the computer's USB interface.

③ On the computer side, use upper computer software to control the preheating platform machine with commands.



Please visit the "www.atten.com.cn" official website or contact the manufacturer for downloading the corresponding driver, DEMO software, and communication protocol documentation.

• Exterior Component Diagram

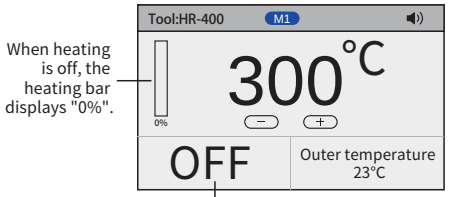


Serial number	Component description
①	Preheating area
②	External K-type thermocouple interface
③	Power switch
④	Screen display
⑤	Keypad area
⑥	RS485 interface
⑦	Power Interface
⑧	Grounding Wire Interface

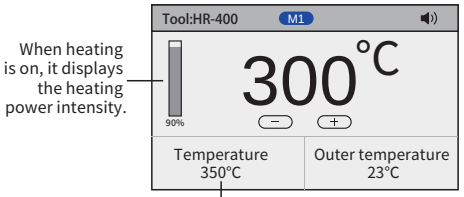
• Keypad Function Descriptions

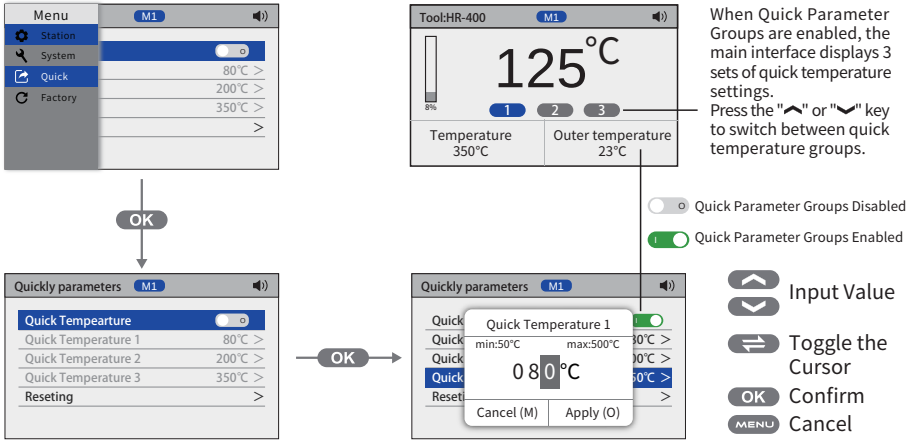
Key	Function Description
⇄	1. In the main interface, short press to turn heating on/off. (Figure 1-1) When turned off, the main interface displays "OFF". (Figure 1-2) When turned on, it displays "Set temperature value".
MENU	1.In the main interface, short press to display the menu setting navigation bar; 2.In the menu setting page, short press to return to the main interface; 3.In the parameter setting page, short press to return to the previous level (i.e., hide the parameter setting page).
i	1. Analyze or explain all the options on the machine.
OK	1.In the menu setting page, short press to open and close the sound and quick temperature group; 2.In the menu setting navigation bar, short press to enter the menu setting options; 3.In the menu setting page, short press to enter the parameter setting page; 4.In the parameter setting page, short press to confirm and save parameters.
^	1.In the main interface or parameter setting page, short press to increase the parameter; 2.In the navigation bar page or menu setting page, short press to scroll up through the options; 3.In the main interface, after the quick temperature group is enabled, short press to switch between quick temperatures.
v	1.In the main interface or parameter setting page, short press to decrease the parameter; 2.In the navigation bar page or menu setting page, short press to scroll down through the options; 3.In the main interface, after the quick temperature group is enabled, short press to switch between quick temperatures.

(Figure 1-1)



(Figure 1-2)





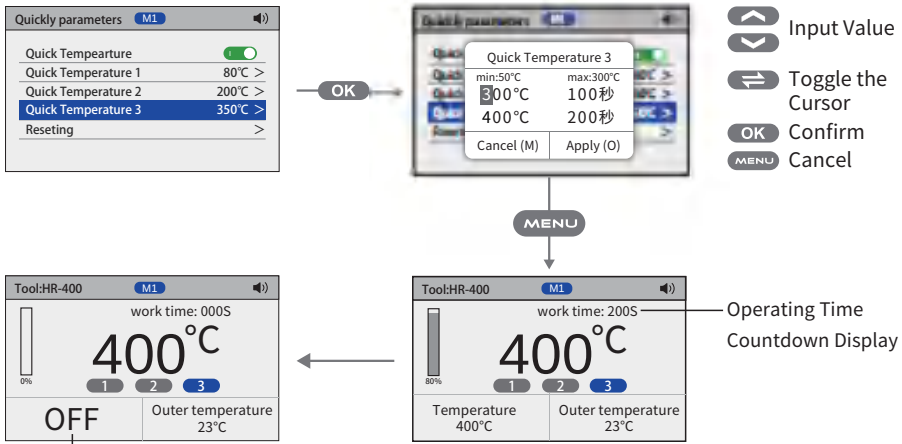
Quick Parameter [1]: Temperature range can be set from 50 to 500°C/122 to 932°F.

Quick Parameter [2]: Temperature range can be set from 50 to 500°C/122 to 932°F, and operating time can be set from 000 to 900 seconds.

Quick Parameter [3]:

For ST-7500, Temperature 1 range is 50 to 300°C/122 to 572°F, Temperature 2 range is 300 to 500°C/572 to 932°F.

For ST-7800, Temperature 1 range is 50 to 200°C/122 to 392°F, Temperature 2 range is 200 to 350°C/392 to 662°F, and operating time can be set from 000 to 900 seconds.



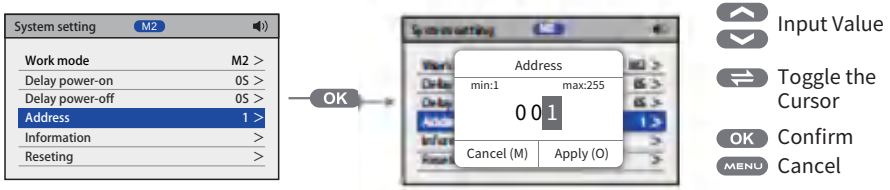
Displaying "OFF" means that the heating is turned off. Press "⇄" to restart the heating.

(As shown in the figure) The main interface displays Quick Temperature [3]. The machine will first heat up to 300°C (Temperature 1) according to the set quick temperature, start the operating time countdown.

After the countdown ends, the machine will continue to heat up to 400°C (Temperature 2) and begin another operating time countdown. After the countdown ends, the machine will automatically stop heating. (as shown)

• Address:

In the system settings, select the Address function, and press "OK" to enter the address parameter settings. (Factory default is 1, with a range of 1 to 255).

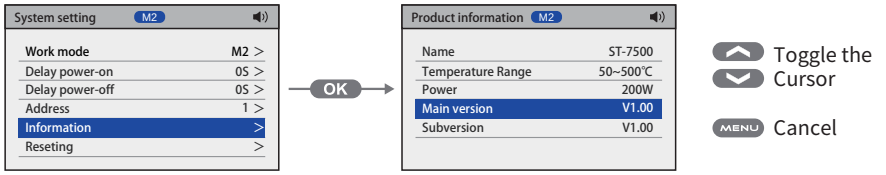


• Baud Rate:

In the system settings, select the baud rate function, nd press "OK" to enter the baud rate parameter settings.
(Factory default is 38400, with a range of 4800/9600/14400/38400/56000/57600).

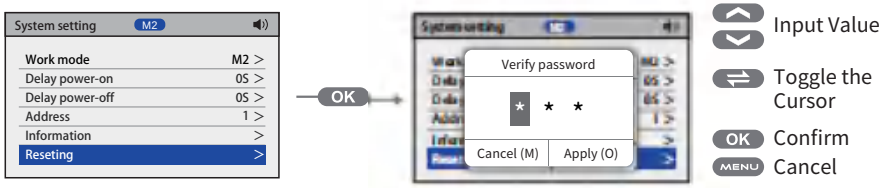
• Information:

In the system settings, select the Information function, and press "OK" to view machine information.



• Reset:

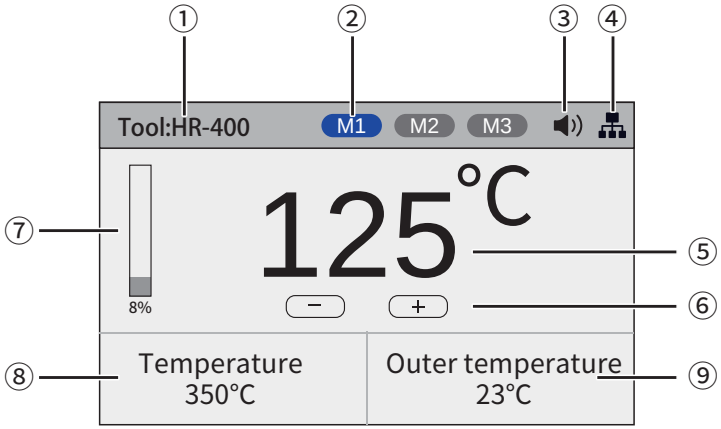
In the system settings, select the Reset function, and enter the machine password to reset the system settings.



• Quick Temperature Groups:

In the Quick Parameter Group function, three sets of quick temperature can be customized.
(Factory defaults for quick parameters are **[1]:** 80°C/176°F, **[2]:** 200°C/392°F, **[3]:** 350°C/662°F)

04/Main Interface Introduction



Serial number	Heating Module Model
①	Heating Module Model
②	Linkage Mode: M1: No Linkage Mode M2: Master Mode (Preheating platform controls external devices) M3: Slave Mode (External devices control the preheating platform)
③	Sound Icon (Display indicates that the sound is on, no display indicates that the sound is off)
④	RS485 Communication Data Transmission Icon
⑤	Current Real-Time Temperature Display
⑥	Temperature " + " and " - " Icons
⑦	Heating Simulation Bar: Displays the current heating power intensity
⑧	Press "▲" or "▼" to set the temperature value. Press " ⇄ " to turn off/on heating. When heating is turned off, the main interface displays "OFF," and when heating is on, it displays "Set temperature value."
⑨	Displays the tested temperature value. When a K-type thermocouple is connected, it displays the actual data. If no external K-type thermocouple is inserted, it shows "---." (For usage instructions, please refer to page 16.)

• Operating Instructions:

① Connect the power cord to the corresponding interface on the main unit.

② Turn on the power switch, and the preheating platform will start heating up .
(the default factory setting is to heat up to 100°C/212°F).

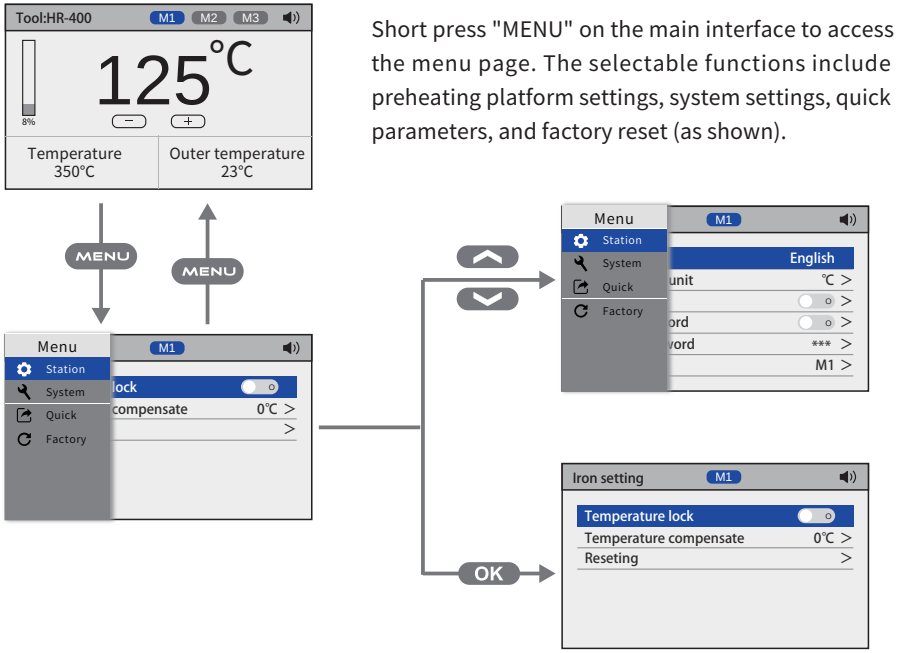
③ While on the main screen and with the machine's temperature not locked, adjust the temperature value using the "^" and "v" buttons on the machine panel.
(Temperature range: 50~500°C/122~932°F for ST-7500, and 50~350°C/122~662°F for ST-7800).

④ The machine will gradually heat up or cool down to the set temperature.

⑤ When not using the machine for an extended period, please turn off the power and unplug the power cord.

05/Function Introduction

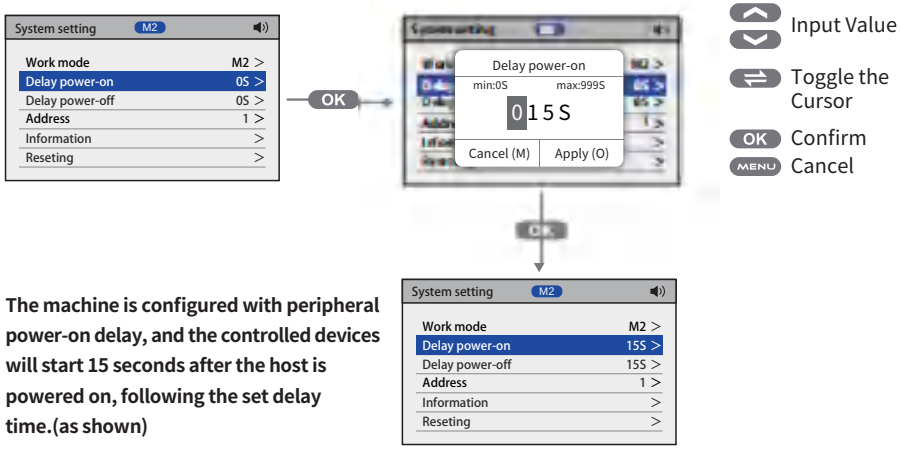
• Menu Settings:



Short press "MENU" on the main interface to access the menu page. The selectable functions include preheating platform settings, system settings, quick parameters, and factory reset (as shown).

• Peripheral Power On/Off Delay:

In the system settings page, select the Peripheral Power On/Off Delay function, and press "OK" to enter the peripheral power on/off delay parameter settings.
(Factory default is 0 seconds, with a range of 0-900 seconds)



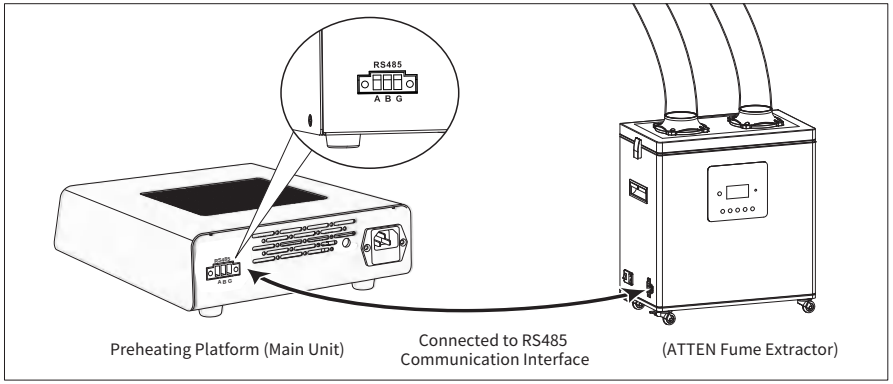
The machine is configured with peripheral power-on delay, and the controlled devices will start 15 seconds after the host is powered on, following the set delay time.(as shown)

• Peripheral Power Off Delay:

In the system settings page, select the Peripheral Power On/Off Delay function.
(Note:This feature is not available yet)

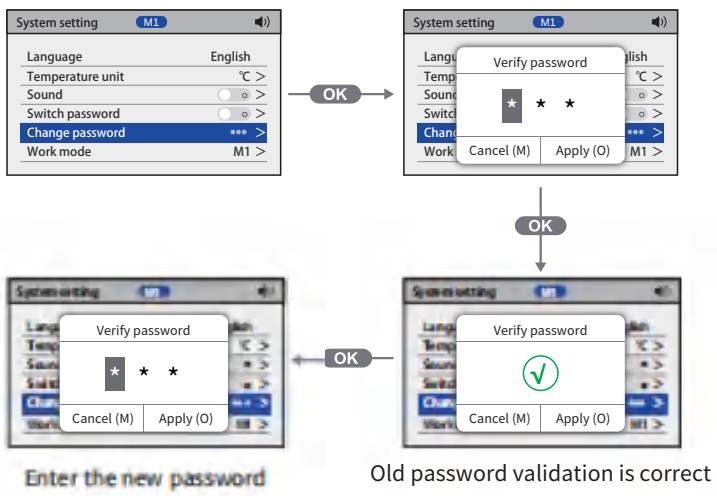
• RS485 Communication (Master Mode):

(Note: Peripheral power on delay is only effective when the preheating platform linkage mode is set to M2 (master mode), and both machines have the same address code. It is used in conjunction with ATTEN Fume Extractor, Ion Fan, Hot Air Station, and other equipment.) The connection method is as shown in the diagram:



• Password Modification:

In the system settings page, select "Password Modification," then press "OK" to set a new password after validating the old password.



Input Value

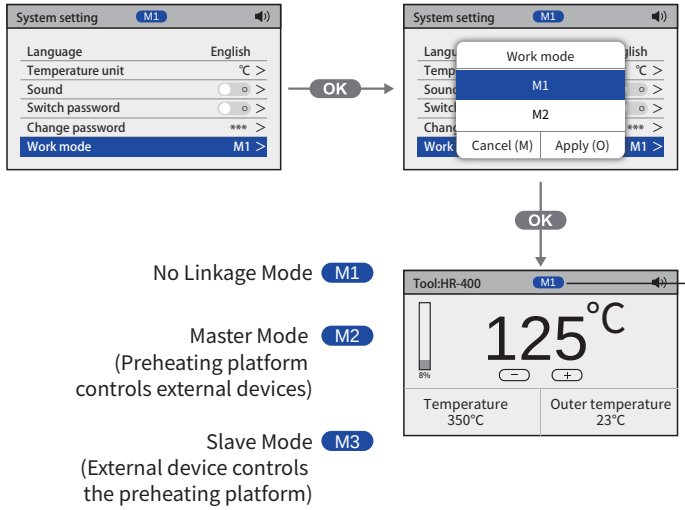
Toggle the Cursor

OK Confirm

MENU Cancel

• Linkage Mode:

In the system settings page, select "Linkage Mode," then press "OK" to enter the linkage mode selection.



Toggle the Cursor

OK Confirm

MENU Cancel

No Linkage Mode M1

Master Mode M2
(Preheating platform controls external devices)

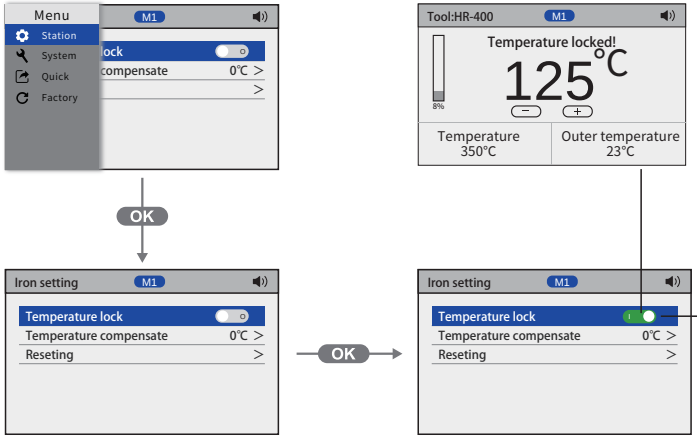
Slave Mode M3
(External device controls the preheating platform)

If the icon is blue, it indicates that the current interlock mode is M1.

• Preheating Platform Settings:

Preheating platform settings can set temperature lock, temperature compensation, and parameter reset functions.

• Temperature Lock:

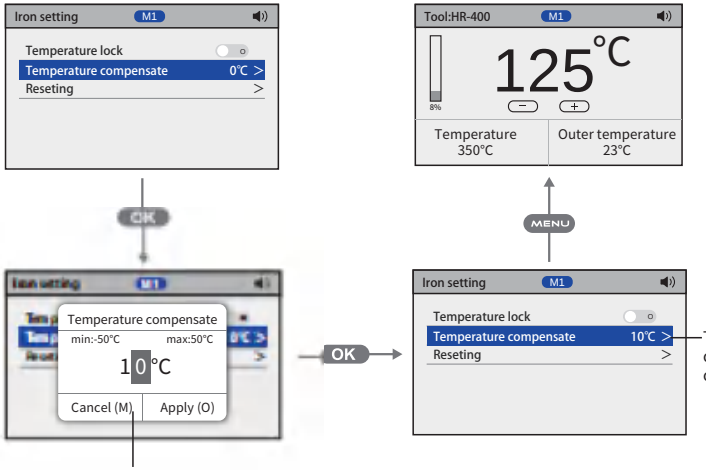


When temperature lock is enabled, the main interface will display "Temperature Locked," and the temperature adjustment keys will become inactive.

Temperature Lock Disabled

Temperature Lock Enabled

• Temperature Compensation:



Temperature compensation can be set within the range of -50~50℃ / -122~122℉.

Input Value

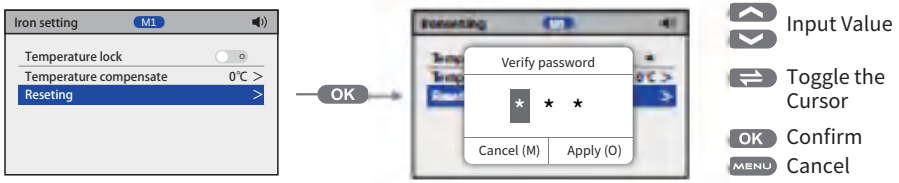
Toggle the Cursor

OK Confirm

MENU Cancel

• Reset:

Under Preheating Platform Settings, select the reset function. Enter the machine password to reset the preheating platform settings page.

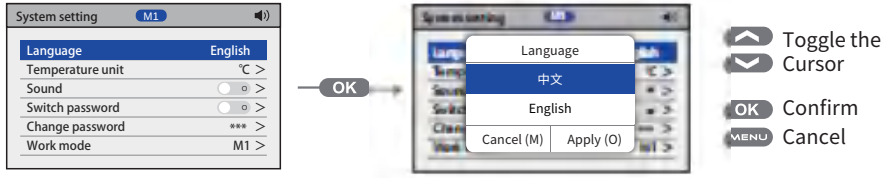


• System Settings:

System settings can set language, temperature unit, sound, password switch, change password, linkage mode, peripheral power-on delay, peripheral power-off delay, address, information, and reset function.

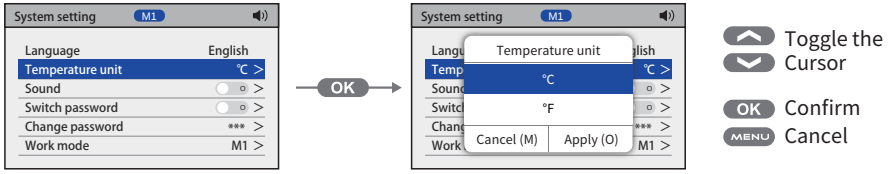
• Language:

Choose the language function under system settings to set the machine's language.



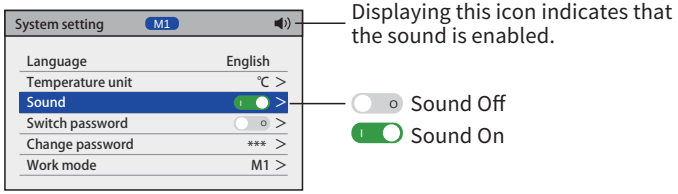
• Temperature Unit:

Choose the temperature unit function under system settings to set the temperature unit.



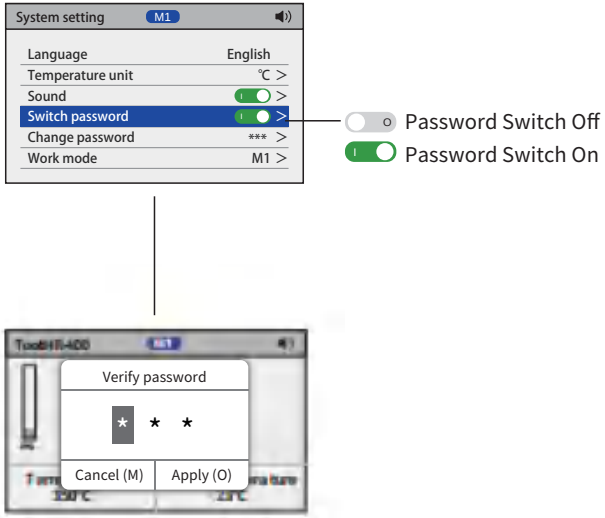
• Sound:

In the system settings page, select the sound function and press "OK" to turn the machine's sound on or off.



• Password Switch:

In the system settings page, select the Password Switch function and press "OK" to turn the password switch on or off.



When the password switch function is enabled, entering the menu interface requires inputting the machine password. (For setting the machine password, please refer to the page 11 " Password Modification" function.)