PT4-4000 & PT4-8000
4-Zone Preheaters

User Manual

CONTENTS

1. 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.
- Do not install closer than 100 mm to a vertical surface (such as side and rear)
- CAUTION: To provide continued protection against risk of electric shock, connect to properly grounded outlets only.
- WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH. DISCONNECT ELECTRIC POWER SUPPLIES BEFORE SERVICING.

⚠ Notice

- Before connecting to power, ensure that the voltage matches your local applicable voltage to avoid permanent damage to the machine.
- Use this product in a well-ventilated area.
- When operating this product, the preheating area temperature can reach 50℃ – 250 ℃ (122°F – 482 °F); misuse may cause burns or fire.
- The surrounding temperature is very high during operation; avoid burns, do not block the machine's ventilation openings. Even when the machine is turned off, the preheating area may still retain residual heat. Please avoid touching it.
- This product should be used away from locations with magnetic interference, vibration-prone surfaces, or impact-prone areas, as these may damage the product.
- When stopping use, turn off the power and unplug the power cord.
- Do not use this product without guidance, especially if lacking the necessary experience or knowledge.
- Do not wet this product or use it in a damp environment or with wet hands to avoid electric shock.
- This product is grounded. To ensure functionality, make sure the power connection is properly grounded.
- When replacing parts, turn off the power and allow the machine to cool to room temperature.
- Use original Metcal parts when replacing product components.
- Do not engage in horseplay or risky behavior while using the device to avoid injury to yourself or others.
- Avoid using this product for purposes other than its intended function to prevent damage or injury.
- Do not modify this product or its accessories, as doing so will void the warranty and damage the product.
- When disconnecting the power cord, hold the plug body rather than pulling the cord.
- Do not strike this product or its accessories forcefully during use, as this may damage the product.

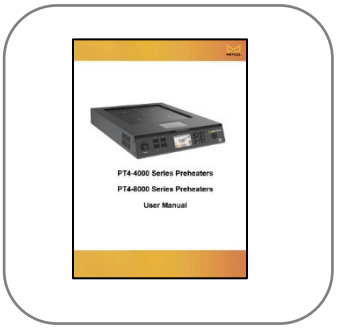
⚠ **Caution:**	**The equipment should not be used for any purpose other than PCB preheating. Improper use may cause personal injury or pose a fire hazard.** **During full-power operation, individual heating plates may enter protection mode (the heating wire of the plate may dim). This is a normal phenomenon.**

2. Packaging List

Main Preheater Unit

K-Type Thermocouple
Test Sensor (x4)

Grounding Wire



User Manual

Power Cord (230 V)
(PT4-4000-21 only)

A power cord is not included with the PT4-8000. See Section 4.

3. Exterior Components

3.1. Exterior Components: Front

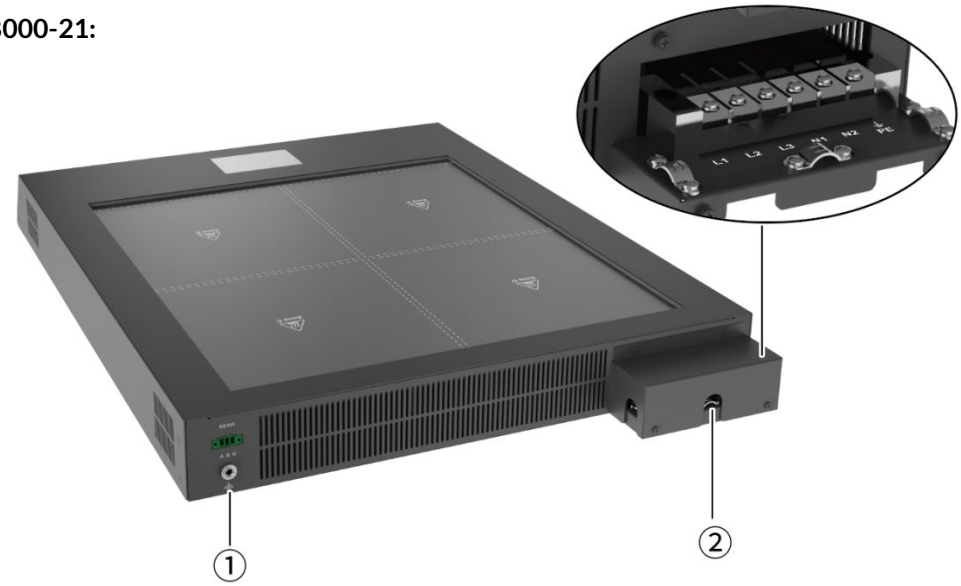
	Component Description
1	Power Switch
2	K-Type Thermocouple Connectors x4 (TC1 must be connected for device operation)
3	Screen Display
4	Buttons
5	USB Interface
6	Component Cooling Area (Place heated components in this area to dissipate heat)
7	Heating Areas (Zones A – D)

3.2. Exterior Components: Back

PT4-4000-21:

	Component Description
1	Grounding Wire Interface
2	Power Interface

PT4-8000-21:



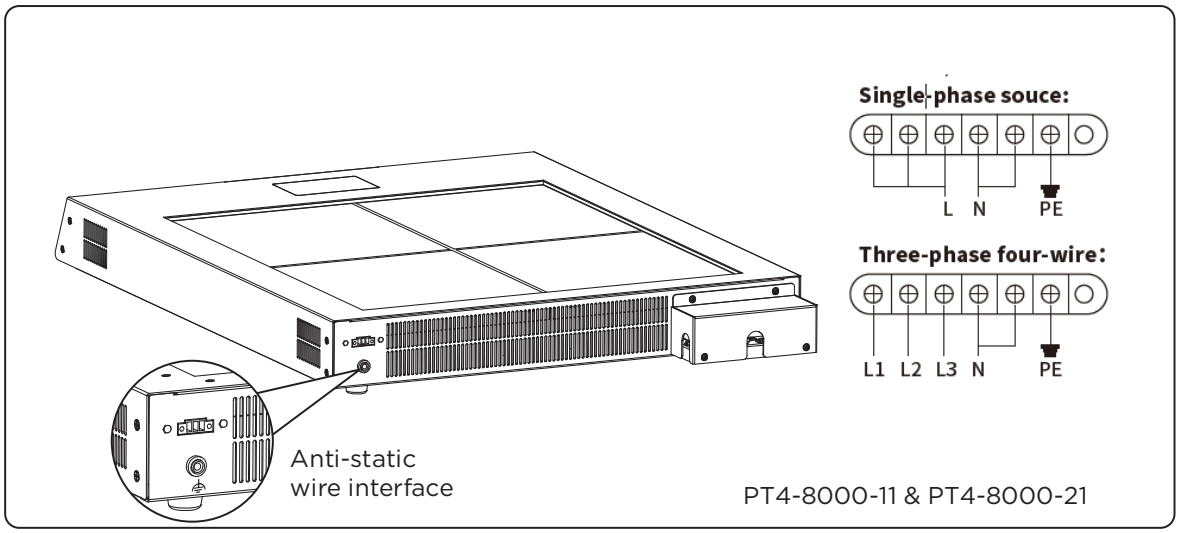
	Component Description
1	Grounding Wire Interface
2	Power Terminal (L1: Live Wire, L2: Live Wire, L3: Live Wire, N1: Neutral Wire, N2: Neutral Wire, PE: Ground Wire). See Section 4.

4. Set Up

⚠ CAUTION: The equipment should not be used for any purpose other than PCB preheating. Improper use may cause personal injury or pose a fire hazard. During full-power operation, individual heating plates may enter Protection Mode (The heating wire of the plate may dim). This is a normal phenomenon.

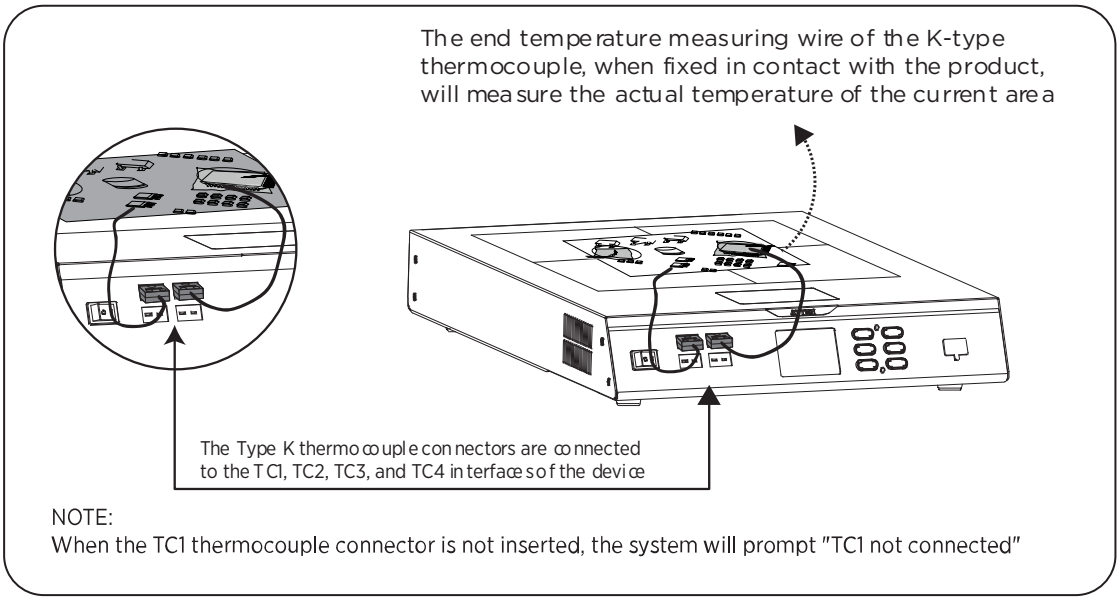
4.1. PT4-8000 Wiring Diagram

Connect the power cord to the corresponding interface on the Main Unit.



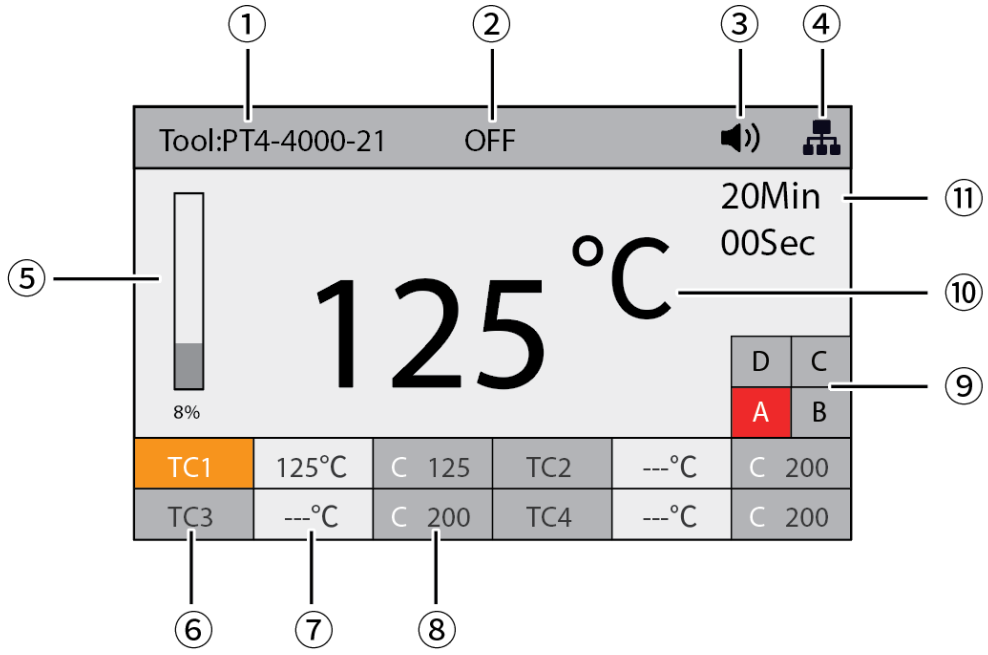
NOTE: PT4-8000-11 and PT4-8000-21 Preheaters require an external power cord (not included). The power cord must be wired in compliance with local regulations.

4.2. Connect the External K-type Thermocouple.



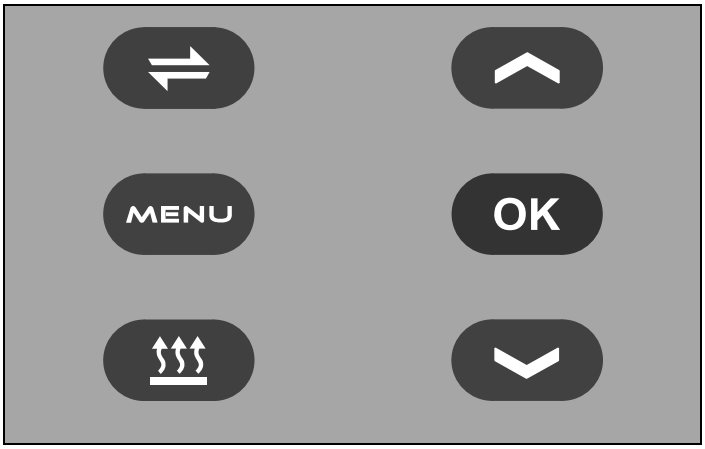
NOTE:
When the TC1 thermocouple connector is not inserted, the system will prompt "TC1 not connected"

5. Main Interface



1	Preheater model number
2	**ON**: Heating enabled / **OFF**: Heating disabled
3	Icon: Sound On
4	N/A
5	Power Meter: Displays the current heating power output
6	1. TC1, TC2, TC3, and TC4 correspond to the thermocouple ports 2. Press ⇄ to switch between TC1/TC2/TC3/TC4
7	1. Displays the temperature value when the thermocouple is connected. If no K-type thermocouple is inserted, it shows "---" 2. TC1 must be inserted for the unit to heat and function properly. If the thermocouple is not inserted, the system will display a message indicating TC1 is not connected.
8	Press ⌄ or ⌃ to set the temperature value (in the default temperature mode of the device, the minimum temperature value in TC1, TC2, TC3 and TC4 is taken as the heating upper limit temperature)
9	Heating Zone On/Off Status. Press ♨ to turn the heating zone on or off. 1. Red = On, Gray = Off (NOTE: The heating zone switch is only effective when it is turned on. For detailed settings, please refer to Section 6.3.3)
10	After connecting the K-type thermocouple, the current region measured temperature data will be displayed
11	Stop Time: Pre-set auto-off timer (See Section 6.5.7)

5.1. Button Functions



Button Layout

⇄	• Main Interface: Press to switch between TC1, TC2, TC3, and TC4.
MENU	• Main Interface: Press to display the Menu Settings Navigation Bar • Menu Settings: Press to return • Parameter Settings: Press to return
↑↑↑	• Main Interface: Press to turn heating on/off (Note: This is only effective when the Heating Zone Switch is enabled. For detailed settings, please refer to Section 6.3.3)
OK	• Menu Settings Navigation Bar: Press to enter the Menu Settings • Menu Settings page: Press to enter the Parameter Settings page • Parameter Settings page: Press to confirm and save parameters
^	• Main Interface & Parameter Settings: Press to increase the value • Navigation Bar & Menu Settings: Press to scroll up through the options
v	• Main Interface & Parameter Settings: Press to decrease the value • Navigation Bar & Menu Settings: Press to scroll down through the options

6. Initial Zone Setup

MENU > Tool Settings > Zone A/B/C/D On/Off

- Turn the power switch to the ON position.
- Enter the Tool Settings screen (Figure 1-1) and select the Heating Zone to be turned on.

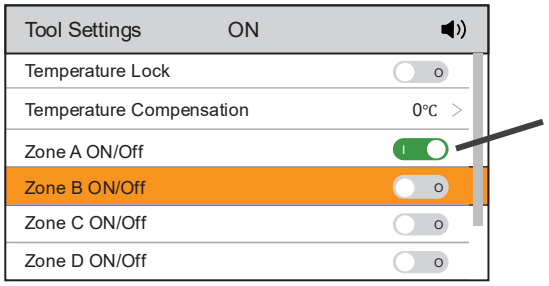


Figure 1-1

Figure 1-2

- Press  on the Main Interface (Figure 1-2) to turn the heating zone on and off

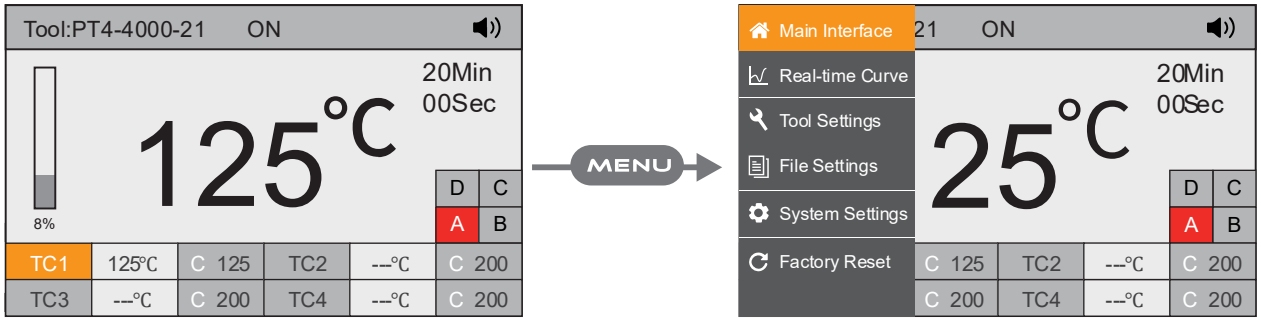
NOTE: A thermocouple must be attached to input TC1, or the preheater will present an error message.

NOTE: When not using the unit for an extended period, please turn off the power and unplug the power cord.

7. Main Interface, Menu Settings & Functions

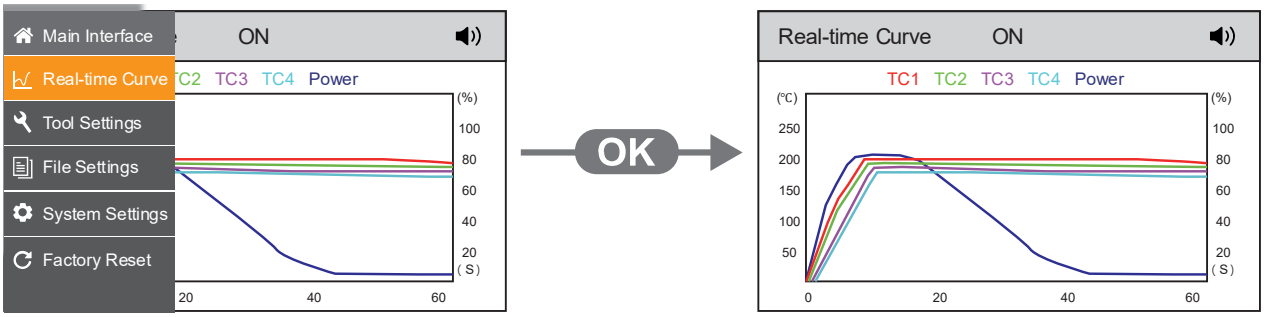
Press the "MENU" button to access the side bar Menu. The selectable functions include:

Real-Time Curve (6.1)
Tool Settings (6.2)
File Settings (6.3)
System Settings (6.4)
Factory Reset (6.5)



The Real-time Curve interface displays the temperature and power curves of the current heating zone.

[TC1] Red, [TC2] Green, [TC3] Purple, [TC4] Cyan, [Power] Blue.



7.1. Tool Settings

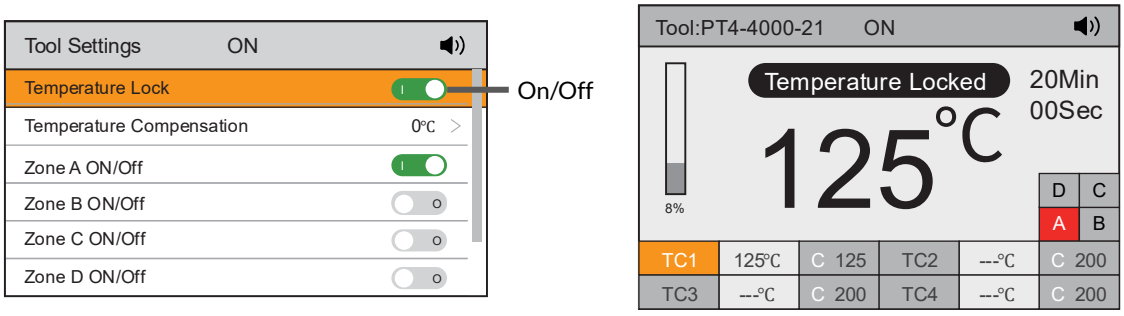
MENU > Tool Settings

Tool Settings allow configuration of:

Temperature Lock (6.2.1)
Temperature Compensation (6.2.2)
Heating Zone Switch (6.2.3)
Thermocouple Mode (6.2.4)
Counter (6.2.5)
Parameter Reset functions (6.2.6)

7.1.1. Temperature Lock

MENU > Tool Settings > Temperature Lock

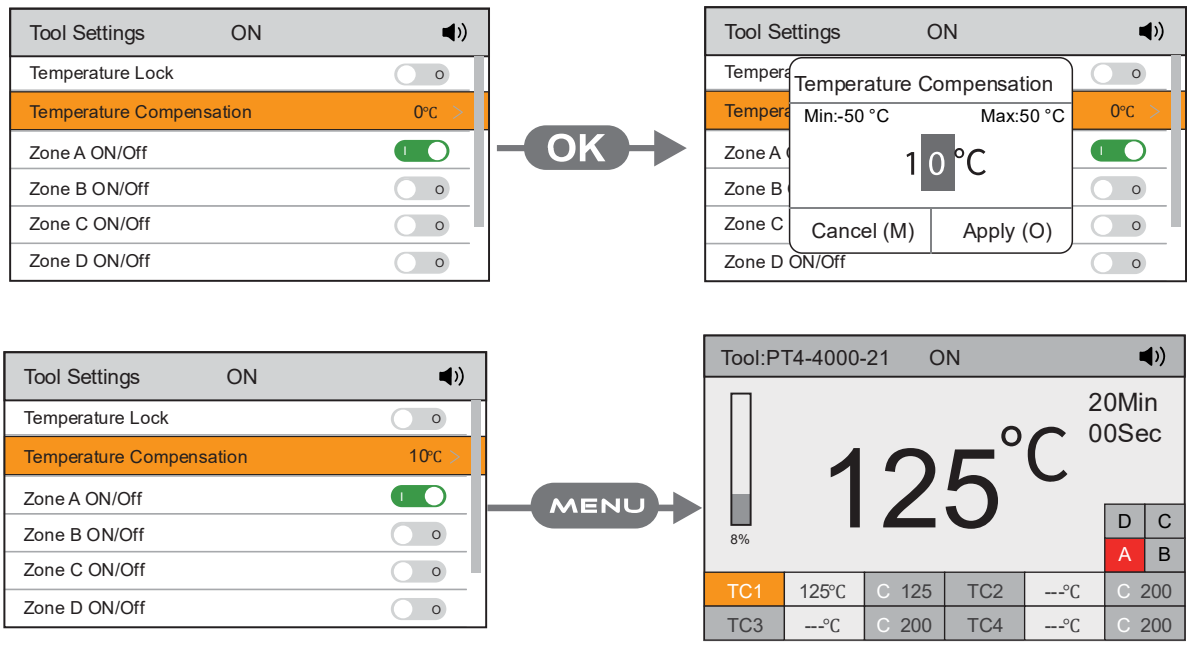


The temperature setting is now locked.

7.1.2. Temperature Compensation

MENU > Tool Settings > Temperature Compensation

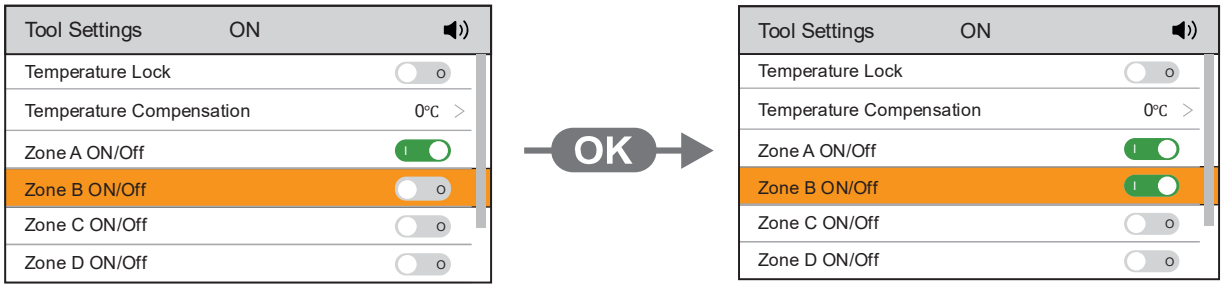
Temperature compensation can be set within the range of ±50 °C / ±122 °F.



7.1.3. Heating Zone Enable/Disable

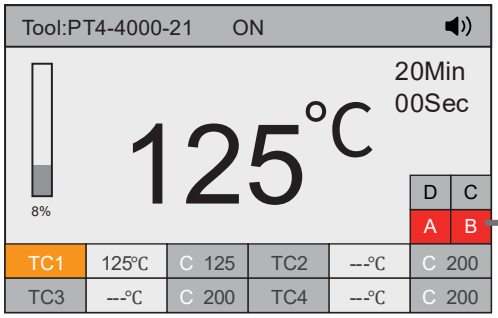
MENU > Tool Settings > Zone A/B/C/D

Enable or disable heating zones.



Example: Heating Zones A and B are in the enabled state.

Press the button to turn On/Off heating in Zone A and B.



Red indicates the current heating zone is on

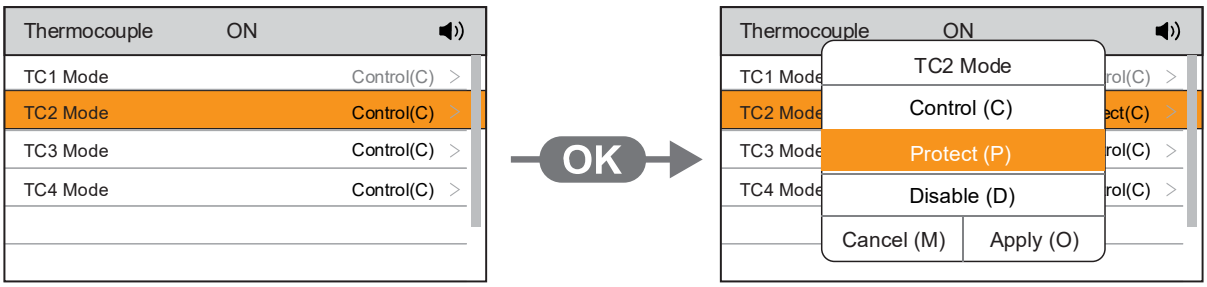
7.1.4. Thermocouple Mode

MENU > Tool Settings > Thermocouple Mode

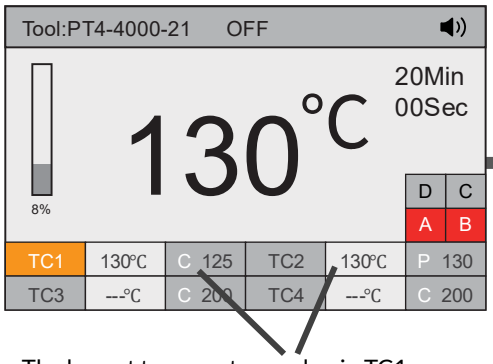
Control, Protect, or Disable the Sensor Modes for TC2, TC3, and TC4.

NOTE: TC1 is always in Control mode.

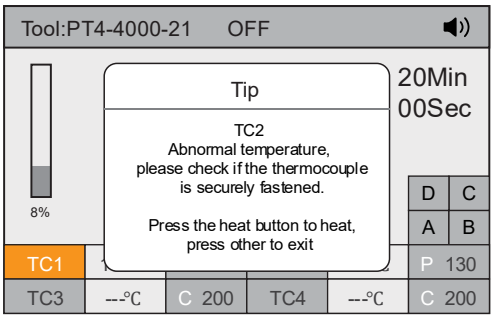
- **Control Mode (C)**: Heating area reaches and maintains the target temperature.
- **Protect Mode (P)**: Monitoring temperature point. When exceeded, will trigger a Stop Command.
- **Disable mode (D)**: Monitor only.



Example: TC2 is in (P) Protection Mode. When the specified temperature is reached, heating stops.



The lowest temperature value in TC1, TC2, TC3, and TC4 is the Heating Upper Limit Temperature

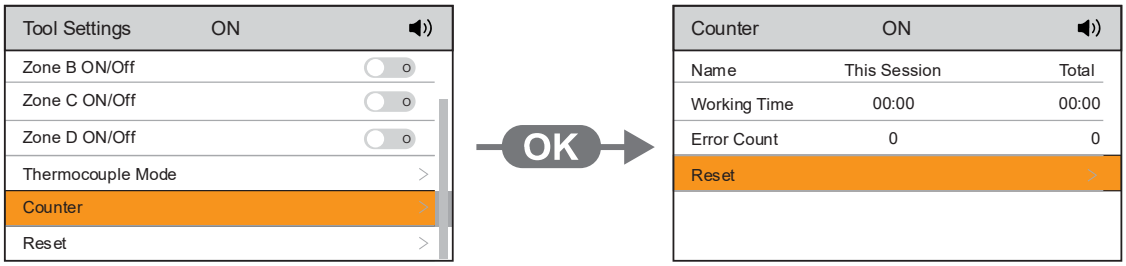


In Protection Mode, when the current temperature of TC2 is higher than the specified temperature, Temperature Protection is triggered and heating stops.

7.1.5. Counter

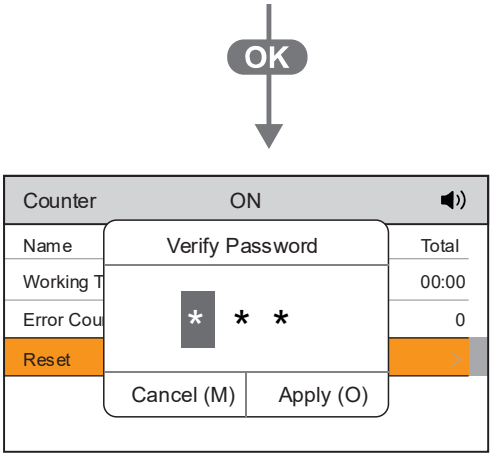
MENU > Tool Settings > Counter

In the Tool Settings, selecting the Counter allows access to the current tool information.



NOTE: The Counter Reset function requires the correct password for resetting.

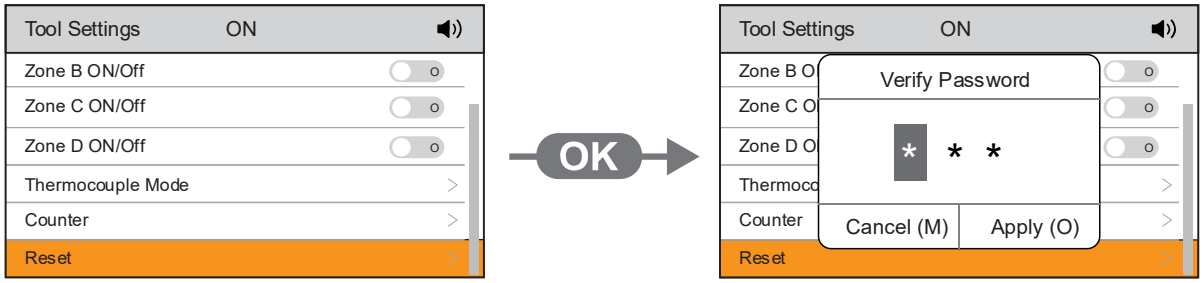
The factory default password is "000".
To set a new password, refer to Section 6.13.



7.1.6. Tool Settings Reset

MENU > Tool Settings > Reset

For the Tool Settings Reset, select the Reset Function under the Tool Settings and enter the unit's password.



7.2. File Settings

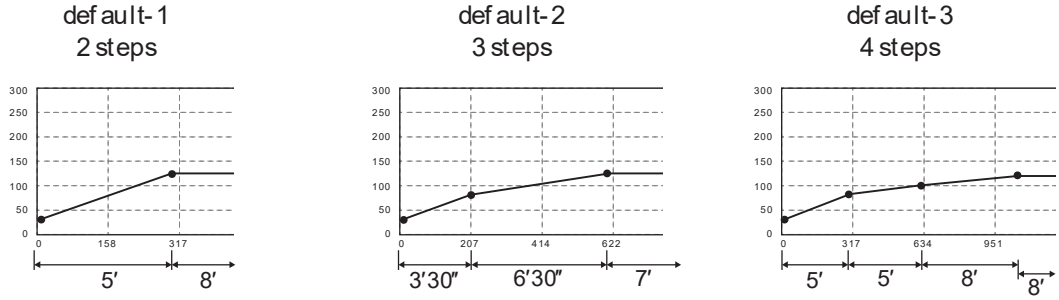
MENU > File Settings

File Settings allow you to set:

- Profile Learning (6.3.1)
- Set Profile File (6.3.2)
- Create New Profile (6.3.3)
- Import Profile (6.3.4)
- Export Profile (6.3.5)
- Export Real-time Curve Files (6.3.6)
- Reset Function (6.3.7)

7.2.1. Preset Profile Parameter

There are 3 profiles predefined by OK International: default-1, default-2 and default-3。 The difference between them is the number of steps: 2, 3 or 4. The thicker your PCB is and the more layers it contains, the more steps are needed to obtain a gradual warming These profiles are not modifiable but can be used as a template to create your own profiles.



PCB Reference Specifications:	FR4 1,6mm thick and 2 layers.	FR4 1,6mm thick and 6 layers	FR4 2,2mm thick and 6 layers.

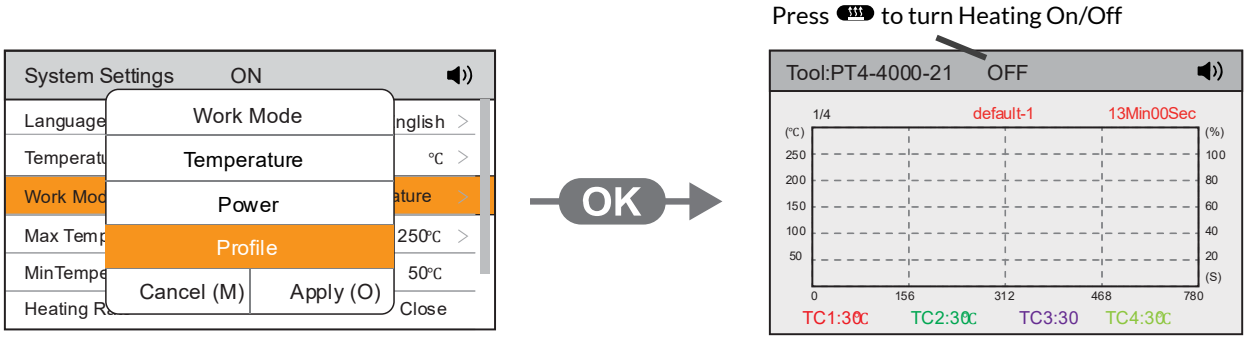
Profiles set using the low position of the BH-4000 Support (18 mm in height between the PCB and the heating area).

7.2.2. Profile Learning

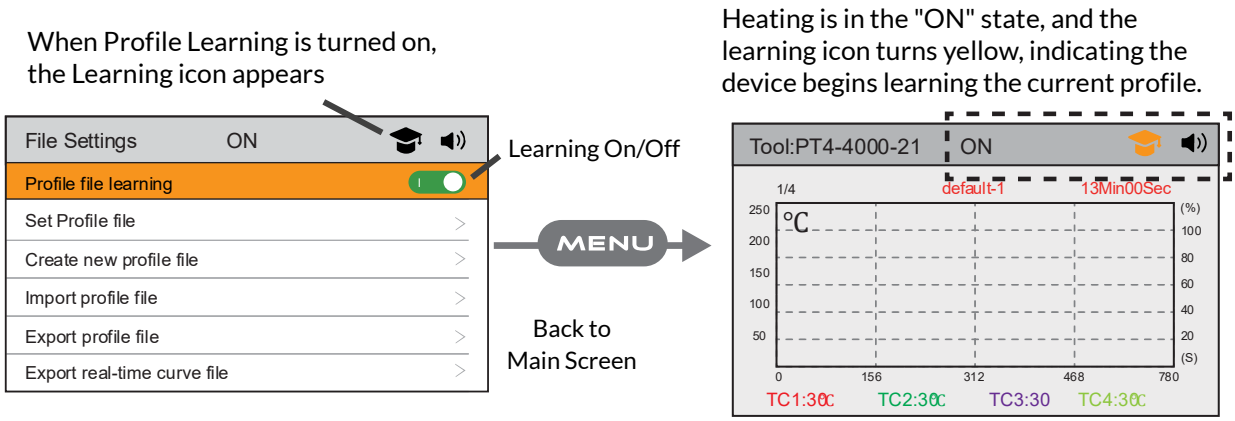
MENU > File Settings > Profile Learning

The Profile Learning function can only be used when the Work Mode is set to Profile Mode.

(Please refer to Section 6.6 for Work Mode Settings)



Enter Profile Settings to enable Profile Learning (HOW?)

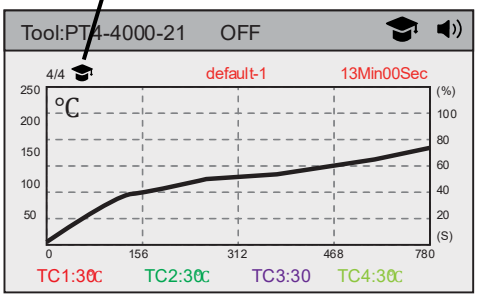


Enter Profile Settings to enable Profile Learning.

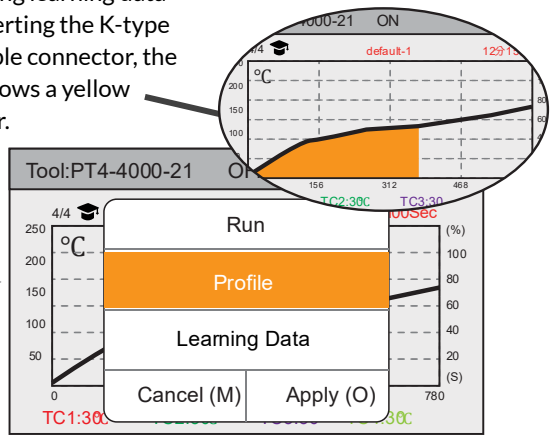
Return to the main interface, press ▲ or ▼ to select the profile to learn, then press to start learning the current profile (Note: Interrupting the learning process will result in an incomplete learning).

Learning Complete. The current learned profile becomes a learning profile.

The icon in the suffix of the profile number indicates that the current profile is a learned profile.



When running learning data without inserting the K-type thermocouple connector, the interface shows a yellow progress bar.

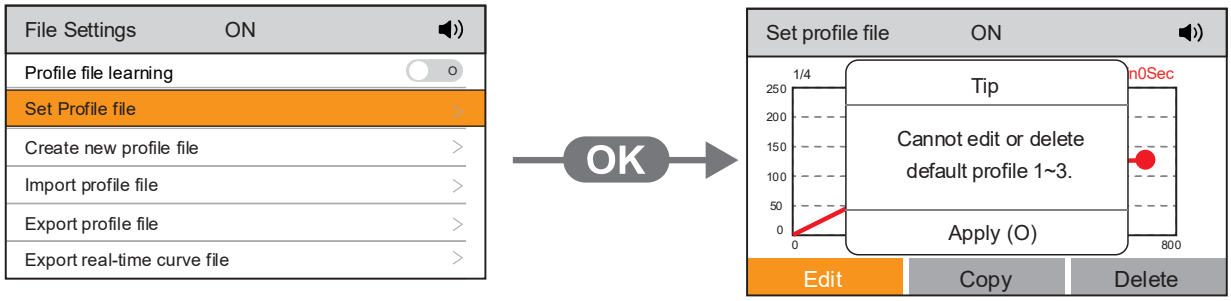


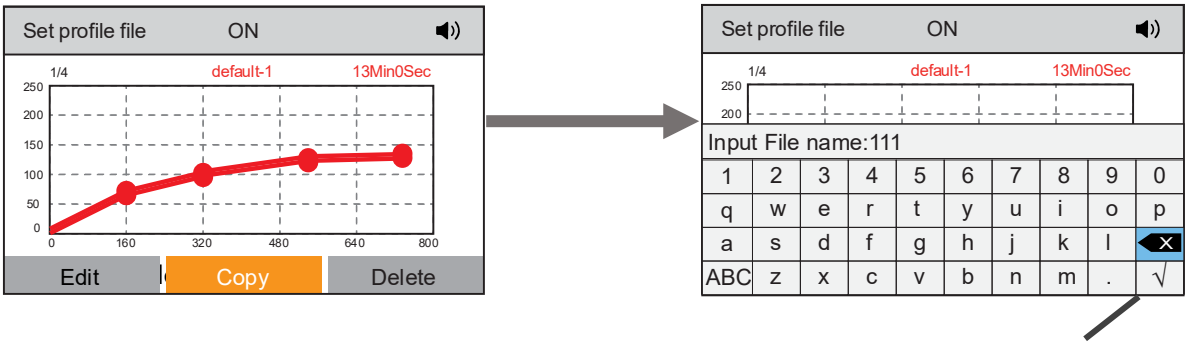
Press to select **Run Profile** to run the current profile. **Run Learning Data** can also run without inserting the K-type thermocouple connector.

7.2.3. Set Profile file

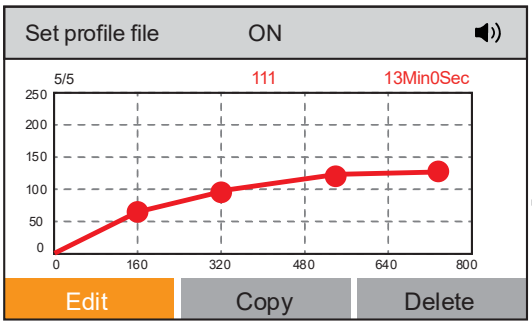
MENU > File Settings > Set Profile file

Set Profile allows you to edit, copy, and delete profiles. (Note: Default-1 through Default-3 are default profiles and can be copied, but cannot be edited or deleted)

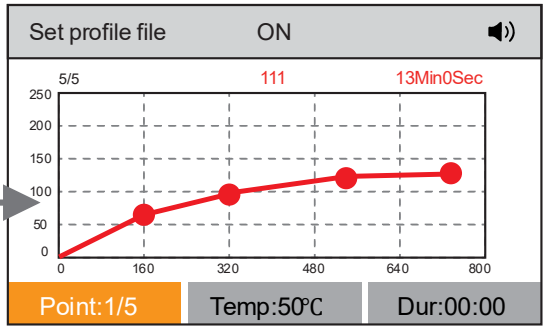




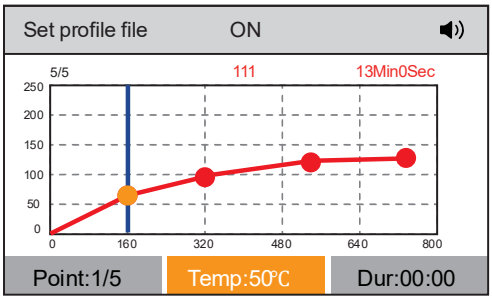
Select √ and press OK to confirm the file name and enter the profile editing page



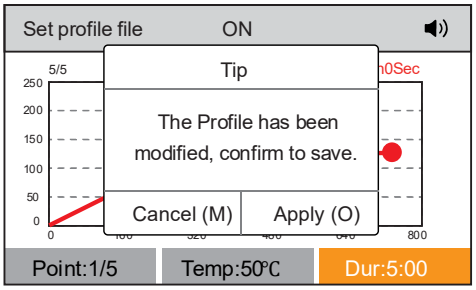
Press ⇌ to switch the cursor and select **Edit** to edit the current profile.



Press "OK" to select **Add Nodes** or **Delete Nodes** (Maximum 16 nodes can be added)



Press ⇌ to switch the cursor and set the temperature and duration for "Point 1".

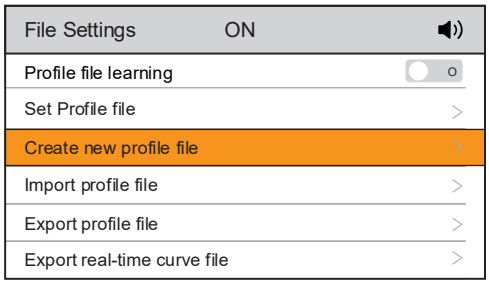


If the profile has been modified and not saved, a prompt will appear asking if you want to save it.

Press **OK** to select **Save Profile** to save the current profile. If the profile is already saved, exit directly by selecting **Exit Editing**. If the profile has been modified but not saved, you will be prompted whether to save.

7.2.4. Create New Profile File

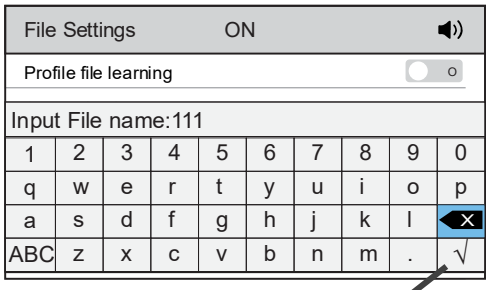
MENU > File Settings > Create new profile file



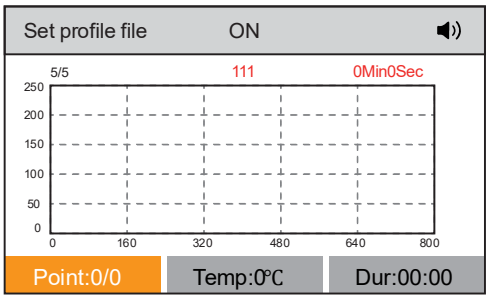
ABC Toggle the letter case

X Delete

Input File name



Select √ and press OK to confirm the file name and enter the profile editing page



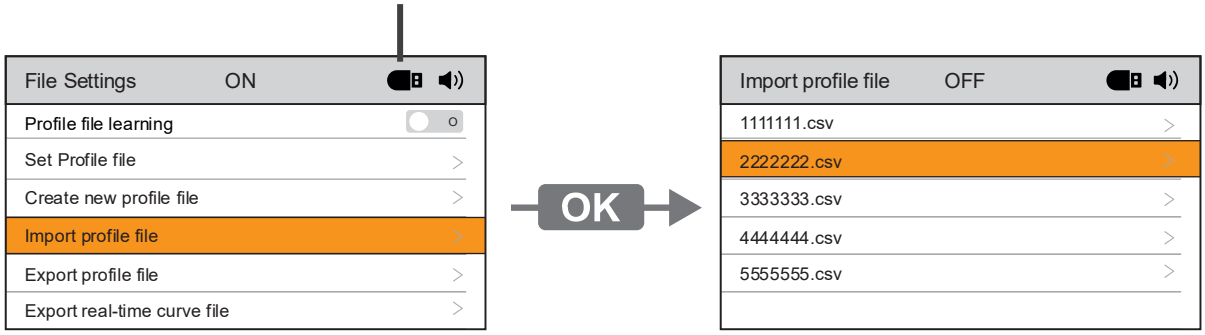
Press **OK** to save the new name.

7.2.5. Import Profile File

MENU > File Settings > Import profile file

Insert the USB drive into the USB interface on the front of the preheater, and the curve file in the USB drive can be imported to the unit.

The USB drive icon appears after the USB drive is inserted



Press ▼ and ▼to select the profile to import.

Press **OK**.

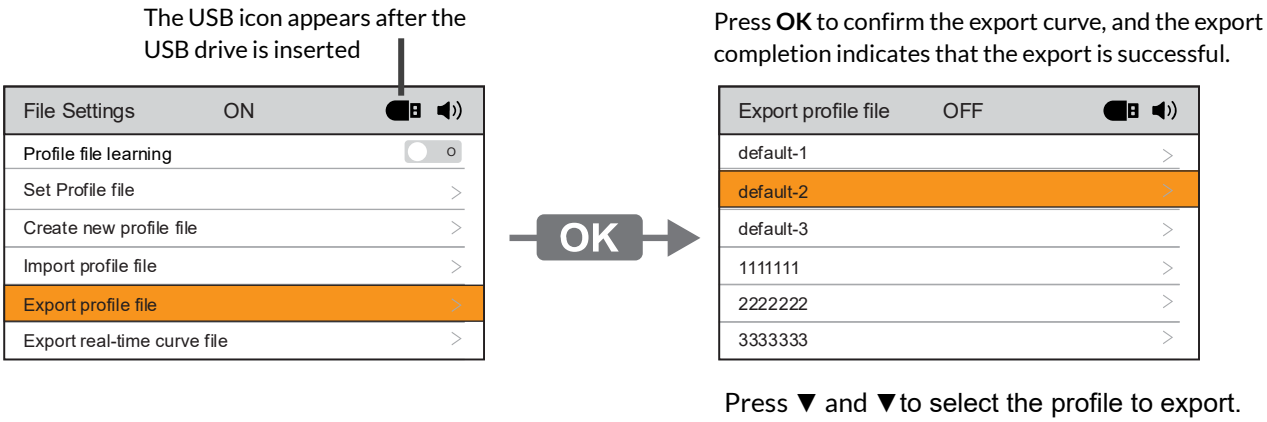
You can edit the profile using the Profile Settings feature, detailed in Section 6.4.6.

When the working mode is set to Profile Mode, the imported profile can be viewed on the Main Interface.

7.2.6. Export Profile File

MENU > File Settings > Export profile file

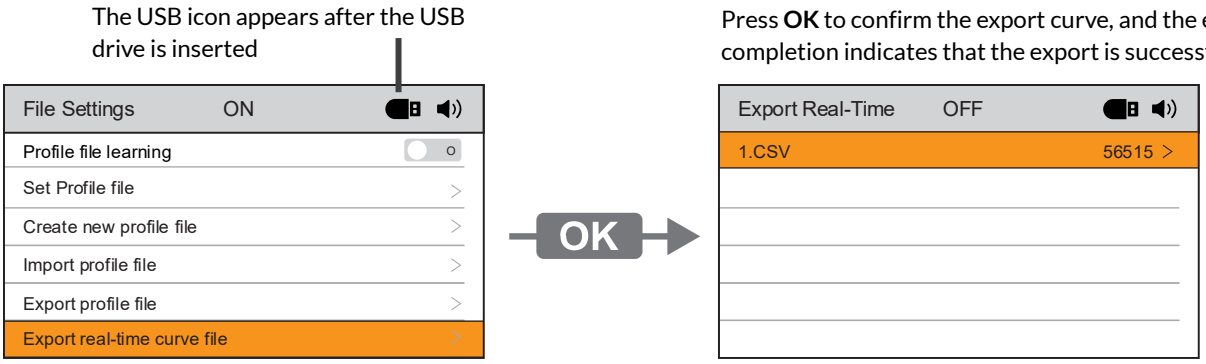
Insert the USB drive into the USB interface on the front of the preheater, and the curve archive files in the device can be exported to the USB drive.



7.2.7. Export Real-time Curve File

MENU > File Settings > Export real-time curve file

Insert the USB drive into the USB interface of the preheater, and the real-time curve information of the unit can be exported to the USB drive.

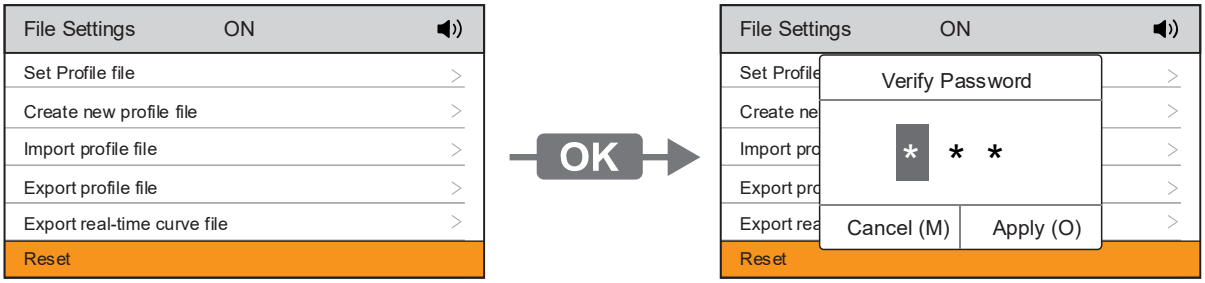


Press **OK** to confirm the export curve, and the export completion indicates that the export is successful.

7.2.8. Profile Settings Reset

MENU > File Settings > Reset

For the Profile Settings Reset, select the reset function under Profile Settings and enter the unit password. (Note: Clear All Curves - default curves are not cleared)



7.3. System Settings

MENU > System Settings

System settings to set:

- Language (6.4.1)
- Temperature Units (6.4.2)
- Work Mode (6.4.3)
- Temperature Limits (6.4.4)
- Max/Min Power (6.4.5)
- Heating rate (6.4.6)
- Stop Time (6.4.7)
- Sound (6.4.8)
- Password (6.4.9)
- Change Password (6.4.10)
- Communication Parameter (6.4.11)
- Information (6.4.12)
- Reset function (6.4.13)

7.3.1. Language

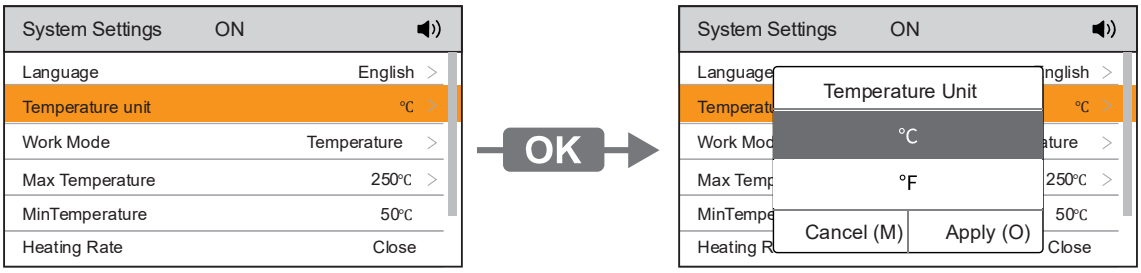
MENU > System Settings > Language

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

7.3.2. Temperature Units

MENU > System Settings > Temperature unit

Choose the Temperature Unit function under System Settings to set the temperature units.



7.3.3. Work Mode

MENU > System Settings > Work Mode

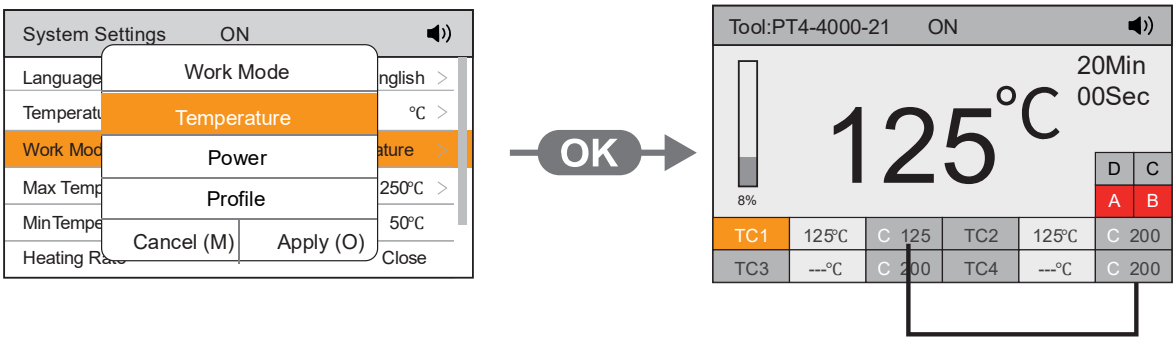
There are several Work Modes to choose from:

- Temperature (6.4.3.1)
- Power (6.4.3.2)
- Profile (6.4.3.3)

7.3.3.1. Temperature Mode

MENU > System Settings > Work Mode > Temperature

In Temperature Mode, the Main Interface displays temperature values. In this mode, the lowest temperature value in TC1, TC2, TC3, and TC4 is the heating upper-limit temperature (the default operating mode of the system is Temperature Mode).

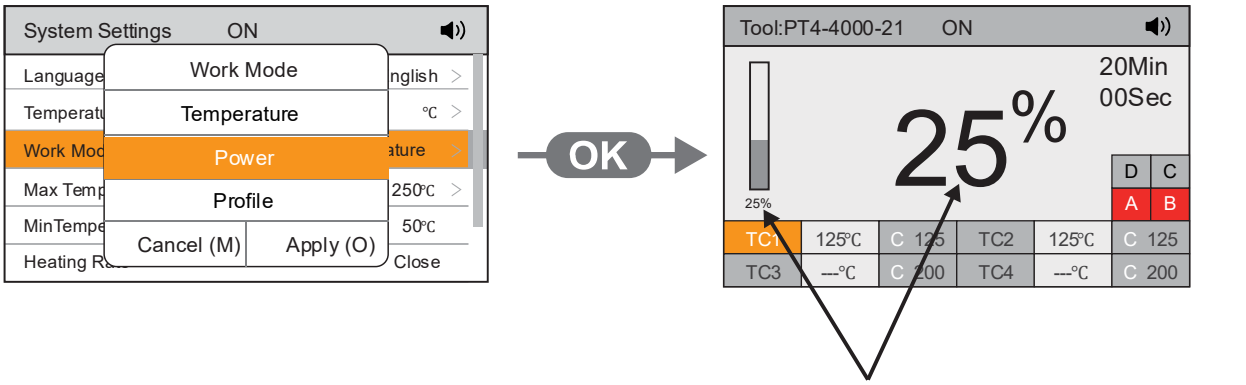


The lowest temperature value in TC1, TC2, TC3, and TC4 is the heating upper limit temperature.

7.3.3.2. Power Mode

MENU > System Settings > Work Mode > Power

In Power Mode, the Main Interface will display the power percentage value. (The higher the power, the higher the temperature of the heating area; the lower the power, the lower the temperature)



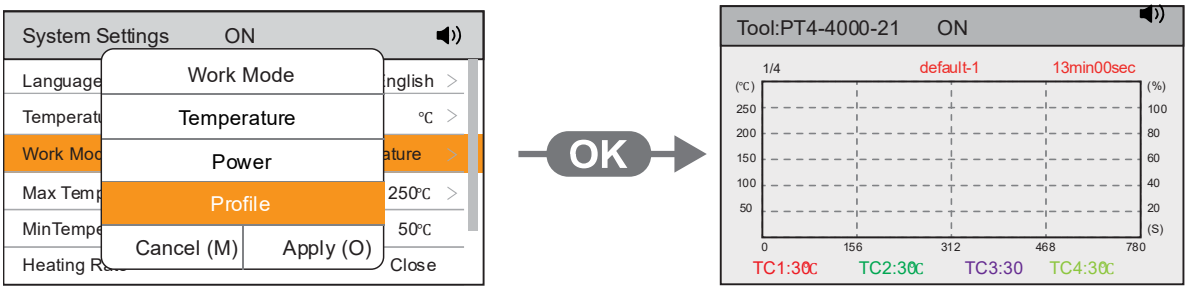
The displayed power corresponds to the heating simulation bar power

Note: When the power setting is equal to or greater than 80%, the maximum working time is limited to 10 minutes.

7.3.3.3. Profile Mode

MENU > System Settings > Work Mode > Profile

In Profile Mode, the device can retrieve the curve data stored by the user, and the Main Interface will be displayed as a curve (Default-1 to Default-3 are system default curves).



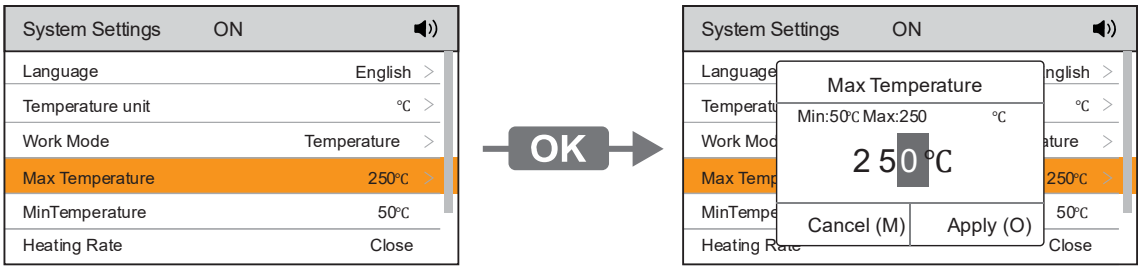
Press ▼ or ▼ to switch the curve in the Main Screen. The curve cannot be switched while it is running.

Press to Run or Stop the Current Curve (see page 15 for Curve Settings).

7.3.4. Temperature Limits

MENU > System Settings > Max Temperature/Min Temperature

When the system is set to Temperature Mode, selecting the temperature upper or lower limit function enables setting temperature warning parameters.



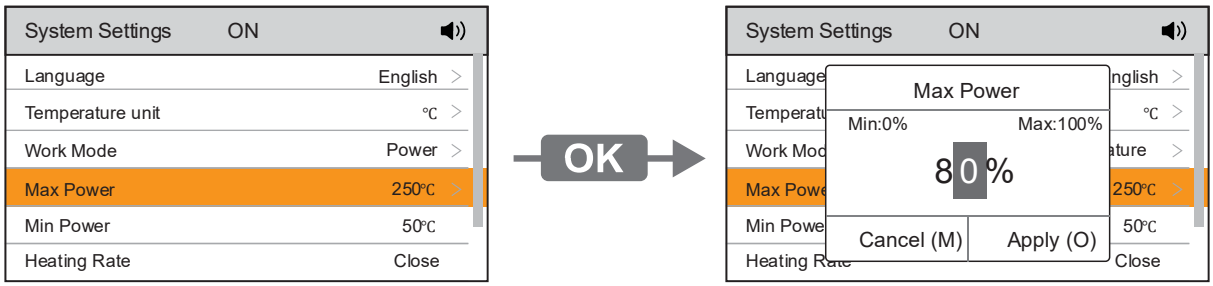
Note: Temperature upper and lower limits can restrict the maximum and minimum ranges of the unit's temperature settings. The factory default temperature upper limit is 250 ℃/482 °F.
The default temperature lower limit is 50 ℃ /122 °F. The adjustable range is 80℃ to 50℃ ~250℃ /122 °F ~482 °F.

7.3.5. Maximum/Minimum Power

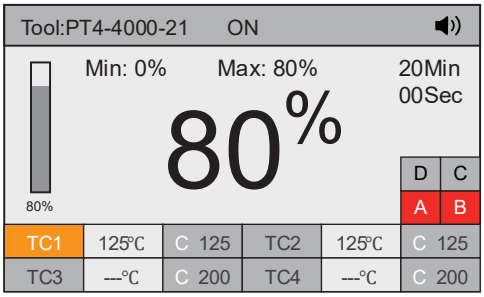
MENU > System Settings > Max Power/Min Power

When the Work Mode is set to Power Mode, select the Max/Min Power function under the System Settings, and the Max/Min Power parameters can be set.

Note: When the power setting is equal to or greater than 80%, the maximum working time is limited to 10 minutes.



Note: The Max Power and Min Power can limit the max and min value of power adjustment. The higher the power, the higher the temperature of the heating area, and the lower the power, the lower. The factory default Min Power is 0%, Max Power default is 100%.

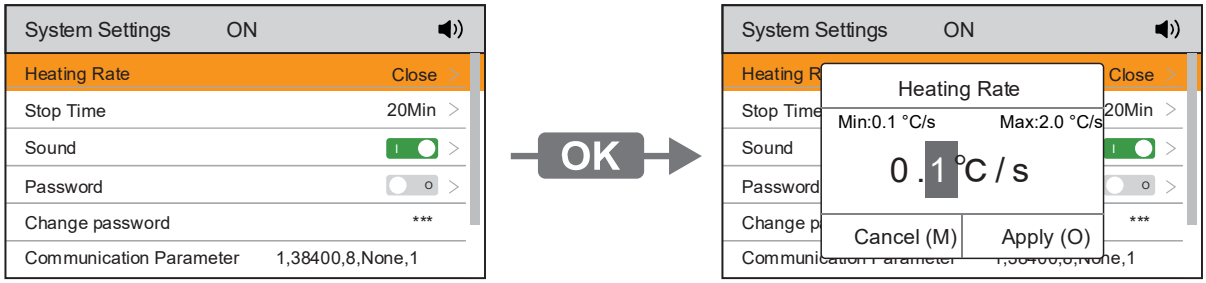


The current min power can be set to 0% and the max power can be set to 80%.

7.3.6. Heating Rate

MENU > System Settings > Heating Rate

By adjusting the Heating Rate, you can customize the machine's heating rate per second. Factory default is Off, with a range of 0.1 ℃ /s to 2.0 ℃ /s.). Heating Rate can only be used when the Working Mode is set to Temperature.



The current heating rate is set to 0.1 ℃ /s. When the device is heated, it will heat up by 0.1 ℃ per second

Calculation Formula:
Heating Rate (℃/s) = Temperature difference (℃) / Time difference (s)

Example:

① In Profile Mode, set Parameter Node 1 to 50 ℃, and Parameter Node 2 to 100 ℃, with a duration of 01:40 (100 seconds).

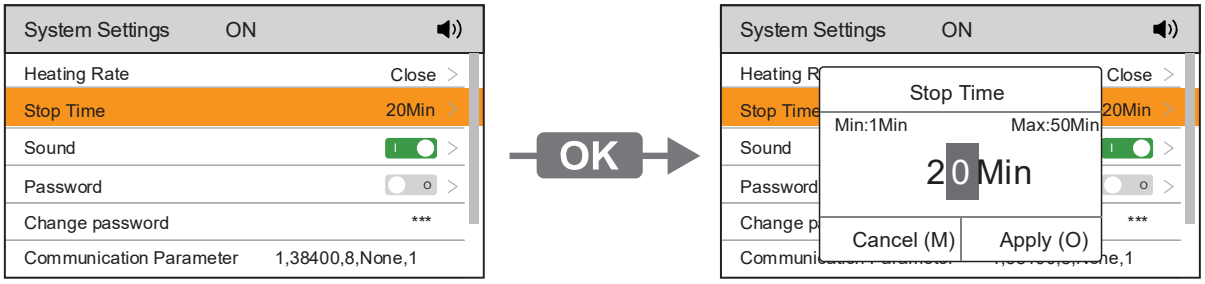
② Calculate: 50 ℃ (temperature difference) /100s (time difference) = 0.5 ℃/s (Heating Rate).

Note: It is recommended to set the Heating Rate between 0.3 ℃/s and 1.0 ℃/s. Exceeding this range may cause deviation from the preset profile during actual operation. If the deviation is too large, try reducing the heating rate.

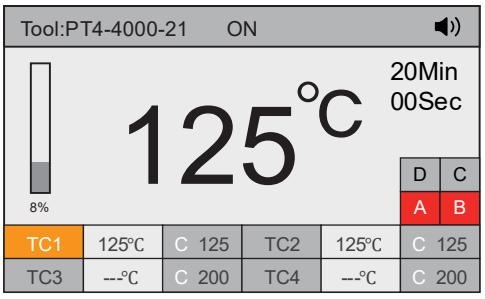
7.3.7. Stop Time

MENU > System Settings > Stop Time

The heating time of each heating area can be controlled by adjusting the Stop Time.
The factory default is 20 minutes.



Press **OK** to set.

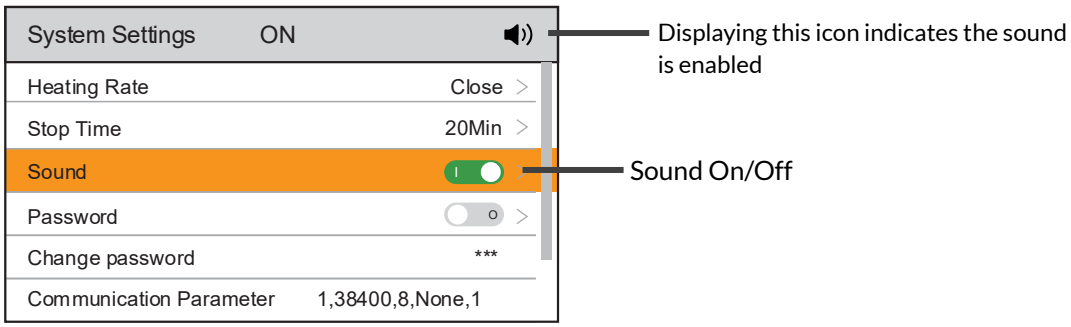


The Stop Heating Time is 20 minutes. Press on the Main Interface to start heating and display a countdown of 20 minutes and 0 seconds. After the end of the timer, the device will automatically turn off the heater. Press again to restart the heating and countdown.

7.3.8. Sound

MENU > System Settings > Sound

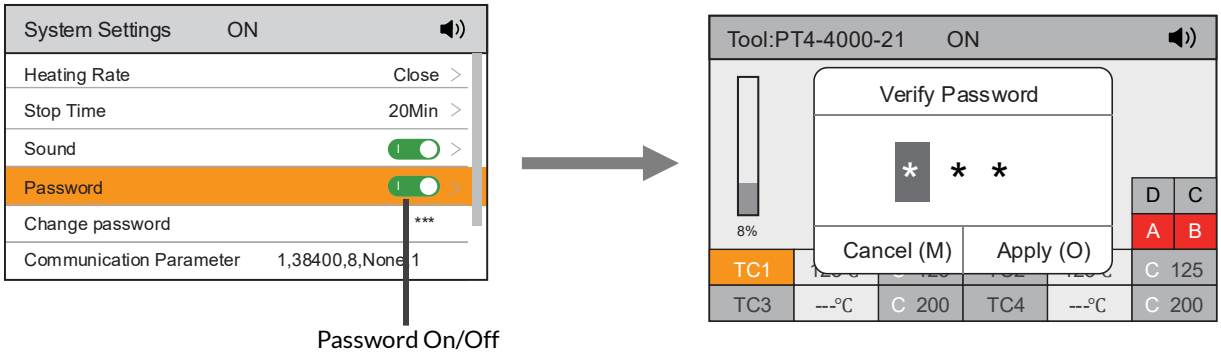
In the System Settings, select the Sound function and press **OK** to turn the unit's sound on or off.



7.3.9. Password

MENU > System Settings > Password

In the System Settings screen, select the Password function and press **OK** to turn the Password On/Off.

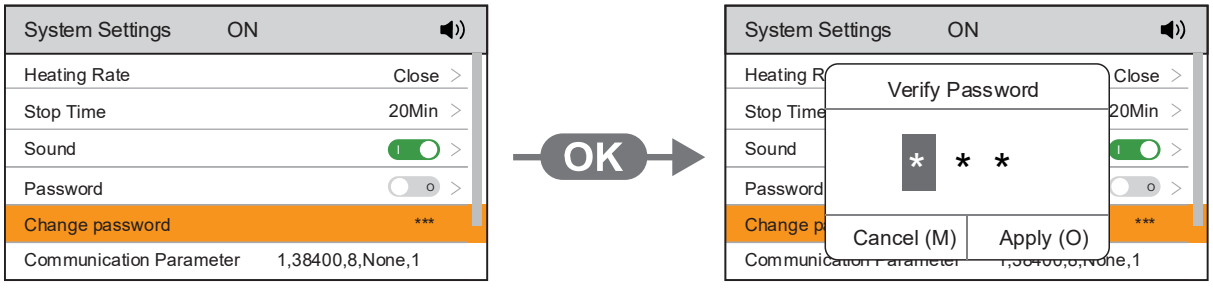


When the password function is enabled, entering the menu interface requires inputting the unit password. For setting the unit's password, please refer to the "Change Password" section below.

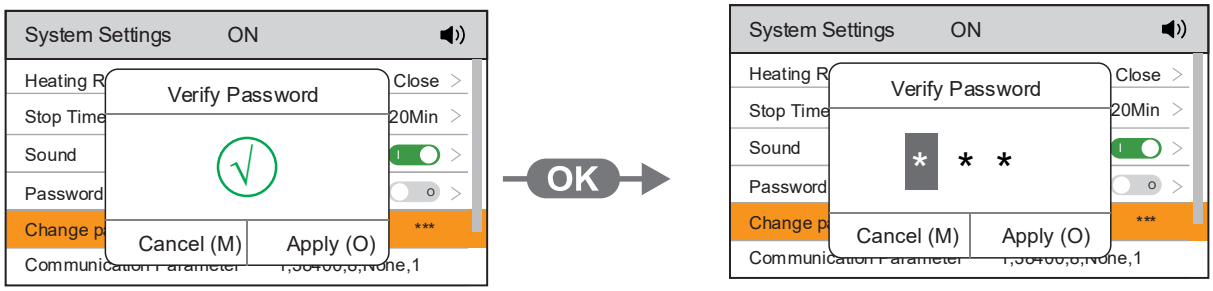
7.3.10. Change the Password

MENU > System Settings > Change password

In the System Settings page, select "Change password," then press **OK** to set a new password after validating the old password (Initial password is 000).



Old password validation is correct



Enter the new password

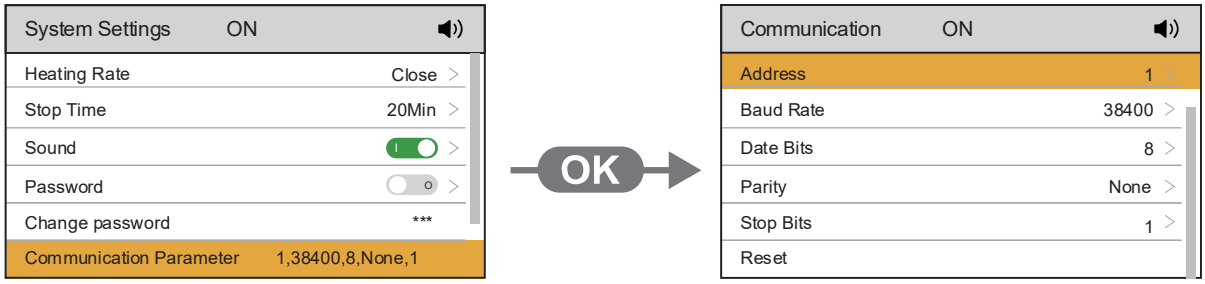
7.3.11. Communication Parameter

MENU > System Settings > Communication Parameter

Choose the Communication Parameter function under System Settings to set the Communication Parameters.

Select the Communication Parameter Reset function and enter the password to reset the parameter.

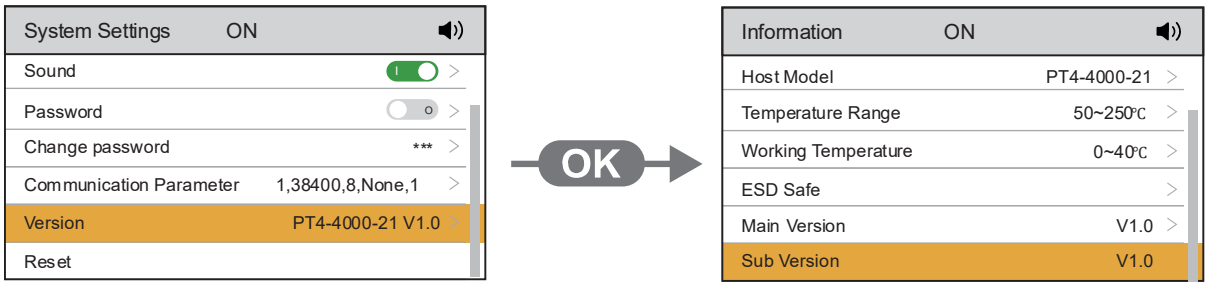
Address: with a range of 1 to 255.



7.3.12. Firmware Version

MENU > System Settings > Version

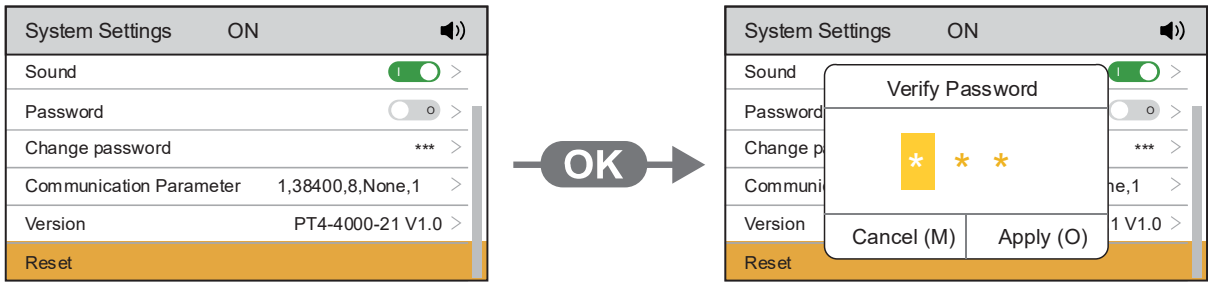
Select the Version function under System Settings page to view device information.



7.3.13. Reset (System Settings)

MENU > System Settings > Reset

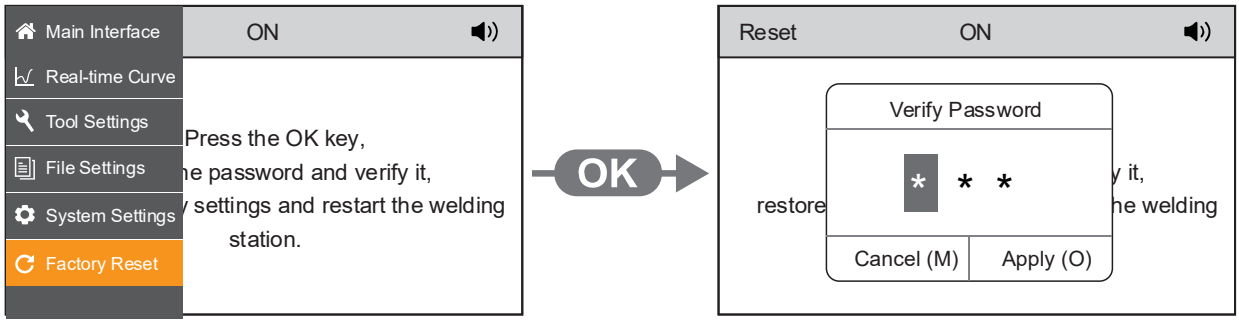
Select the Reset function under the System Settings page and enter the password to reset the System Settings parameters.



7.4. Factory Reset

MENU > Factory Reset

To restore factory settings, a password must be entered. After entering the correct password, the unit will automatically restart and restore the factory settings (Note: Language remains set).



8. Software Update

To update the firmware of your PT4-4000 or PT4-800 Preheater, follow these steps:

1. Please visit **metcal.com/software-updates/** to download the latest firmware update.
2. Copy the upgrade software to a USB drive.
3. With the preheater in the Power Off state, press and hold  and turn on the Power Switch. You will enter the Software Update prompt interface (Figure 1-3).
4. Insert the USB drive connector into the preheater's USB port, and the unit will be upgraded and updated automatically (Figure 1-4).
5. The unit will restart automatically after the update (Figure 1-5).

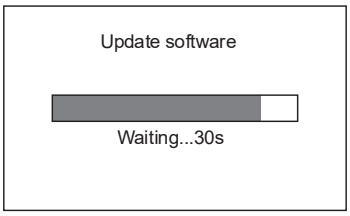


Figure 1-3

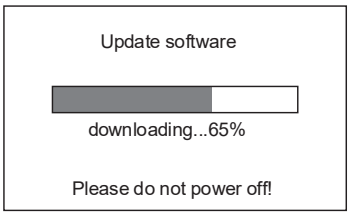


Figure 1-4

Figure 1-5

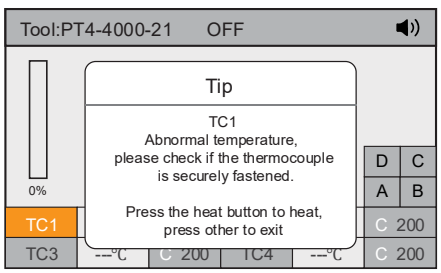
Note: During software update, all buttons are disabled. Do not disconnect the power or turn off the unit, as it may cause damage to the unit.

9. Troubleshooting

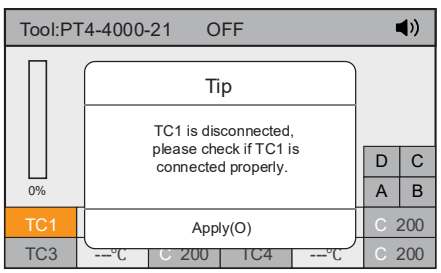
⚠ **WARNING:** Before carrying out any cleaning or maintenance work, always make sure the unit is disconnected from the mains power supply by unplugging the power cord from the outlet. Wait for the preheater to cool down to room temperature before troubleshooting.

Issue	Possible Causes	Steps to Resolve
Can not power on	Fuse is not installed or has 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 between unit and the power cord	Check if the power cord is damaged or deformed. If there is an issue, please contact your local dealer
	Main board is damaged	Please contact your local dealer
Inaccurate temperature measurement	Short circuit in the thermocouple leads	1. Check if the thermocouple leads are twisted together. Manually separate them if needed.  2. If necessary, replace the thermocouples with original Metcal parts.
	Inaccurate thermometer readings	Please contact Metcal for recalibration.

Temperature Anomaly
Steps to Resolve:
Abnormal temperature, please check if the thermocouple is securely fastened. Press the heat button to heat, press other to exit.



Temperature Anomaly
Steps to Resolve:
TC1 is disconnected, please check if TC1 is connected properly. If there is an issue, please contact your local dealer.



10. Specifications

	PT4-4000-21	PT4-8000-21
Input Voltage	230 V~ 50 Hz	380 V~ 50 Hz 3Φ-4W 230 V~ 50 Hz 1Φ
Power	2800 W	4600 W
Controllable Temp. Range	122 °F ~ 482 °F 50 °C ~ 250 °C	
Surface Temp. Range	77 °F ~ 1112 °F 25 °C ~ 600 °C	
Number of Heating Areas	4	
Heating Area (per zone)	4.7" x 4.7" 120 mm x 120 mm	7.1" x 7.9" 180 mm x 200 mm
Total Heating Area	9.4" x 9.4" 240 mm x 240 mm	14.2" x 15.8" 360 x 400 mm
Temperature Sensors	4 K-Type	
Temperature Units	°F / °C	
Heating Power Display	0%~100%	
Temperature Compensation	±122 °F ±50 °C	
Real-time Display	Temperature & Power	
Zone Heating Control	On/Off	
Profile Management	Learning/Import/Export	
Number of Profiles	20	
Heating Mode	Temperature/Power/Profile	
Password Protection	Yes	
Sound Function	On/Off	
Temperature Lock	On/Off	
Language	English / Chinese	
USB	Profile Import/Export Functionality	
Display	2.3" / 58 mm Color	
Operating Environment	32° ~ 104°F / 0° ~ 40°C, < 85% RH	
Safety Compliance	UL & CSA, UKCA, KC, PSE, NOM, CE (ISO-14644), TUV	
Unit Dimensions (L x W x H)	12.6" x 16" x 2.9" 320 mm x 406 mm x 73 mm	24.1" x 17.7" x 2.9" 612 mm x 450 mm x 73 mm
Unit Weight	≈ 10.8 lbs 4.9 Kg	≈ 20.2 lbs 9.1 Kg

11. Warranty

Please visit Metcal.com where you will find information on systems, accessories, technical notes, and more. You may also contact your local representative for pricing and availability.

Metcal warrants PT4-4000 and PT4-8000 Series Preheaters against any defects in materials or workmanship for one (1) year from the date of purchase by the original owner. This Warranty excludes normal maintenance and shall not apply to any opened, misused, abused, altered, or damaged items. If the product should become defective within the warranty period, Metcal will repair or replace it free of charge at its sole option. The repaired or replacement item(s) will be shipped, freight prepaid, to the original purchaser. The warranty period will start from the date of purchase. If the date of purchase cannot be substantiated, the date of manufacture will be used as the start of the warranty period.

For the repair or return of a unit, a Return Material Authorization Number (RMA #) needs to be obtained from Metcal.

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