



T200 Smart Soldering Station
User Manual



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CONTENT

| | |
|---|-----------|
| NOTE | 3 |
| 1. Overview | 3 |
| 2. Parts | 4 |
| 3. Specifications | 6 |
| 4. Interface | 7 |
| 5. System flow | 9 |
| 6. Operation | 9 |
| 7. Upgrade | 12 |
| 8. Customize boot gif and images | 13 |
| 9. Services | 14 |

NOTE

Thank you for purchasing this product. In order to better understand and use this product, please be sure to read the following precautions:

- ◆ The temperature of the tip can reach 80~500℃ during operation, please be careful to prevent burns and fire.
- ◆ This product has ESD function, please use a grounded socket for power supply.
- ◆ Before welding, please check if the welding object is electrified to avoid damaging the host or welding object.
- ◆ After welding, immediately tin the tip surface to prevent surface oxidation.
- ◆ The maximum power of the TYPE-C output interface is 65W, please do not use overpower.
- ◆ The new tip may have smoke, temperature jumps, etc., which will stabilize after repeated use.

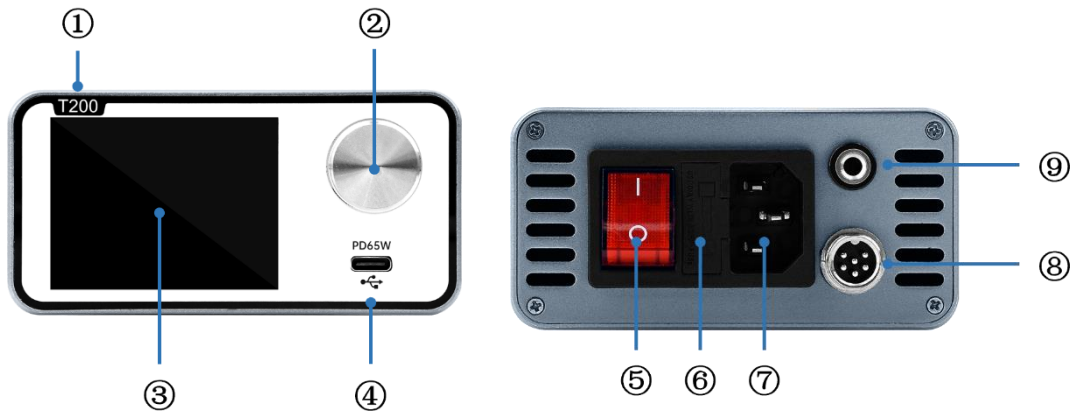
1. Overview

T200 intelligent welding table built-in high-power switching power supply, support a variety of heating core and handle, such as: C115\ C210\ C245\ T12; Support TYPE-C PD fast charge. output.



2. Parts

T200 host



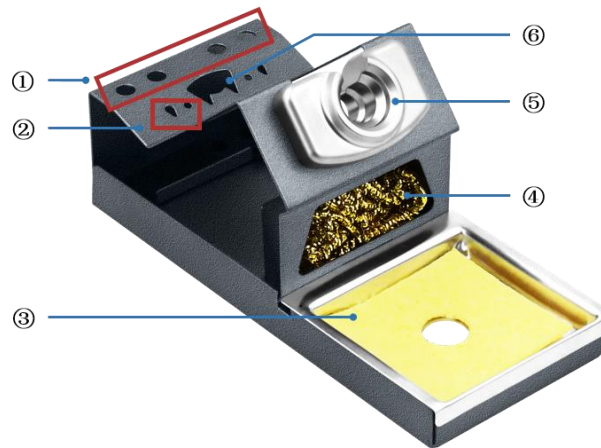
- ① Model (T200)
- ② Knob (encoder)
- ③ 2.4-inch IPS LCD (320*240)
- ④ Type-C output: firmware upgrade interface, output PD3.0 65W (Max)
- ⑤ Power switch
- ⑥ Fuse
- ⑦ AC 100~240V power supply interface
- ⑧ Handle interface
- ⑨ Ground interface

Handle



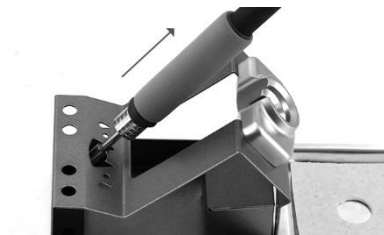
T200 supports four types of tip handles, users can choose according to their needs.

Handle seat

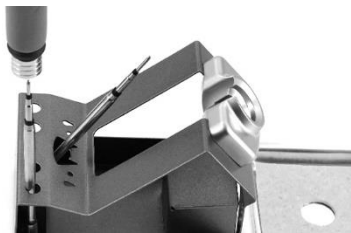


- ① Tip storage hole
- ② Tip mounting hole
- ③ Cleaning sponge
- ④ Cleaning copper wire ball
- ⑤ Handle fixing seat
- ⑥ Tip removal hole

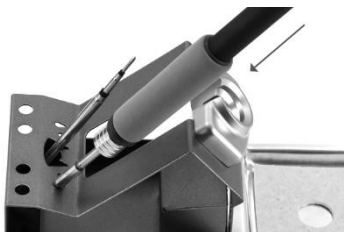
Tip replacement steps:



1. Use the tip removal hole to pull out the tip



2. Aim the handle at the new tip and press down gently.



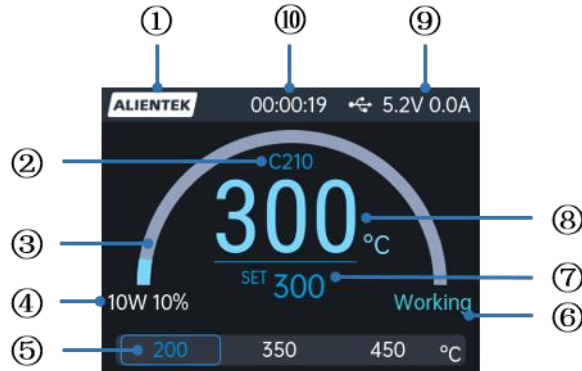
3. Place it into the mounting hole and press it into place.

3. Specifications

| Model | T200 |
|-----------------------|---|
| Output Power | 160W(Max) |
| Temperature range | 80°C ~500°C |
| Operating voltage | AC220V |
| TYPE-C Output | PD3.0 65W(Max) |
| C245 Heating power | ≈120W |
| C210 Heating power | ≈60W |
| C115 Heating power | ≈27W |
| T12 Heating power | ≈72W |
| Handle wire length | ≈1.2M |
| Screen specifications | 2.4' IPS LCD |
| Smart Features | Automatic sleep and shutdown, RGB LED effects, short circuit and leakage protection, etc. |
| Body size | 150x100x50mm |
| Weight | ≈550g |

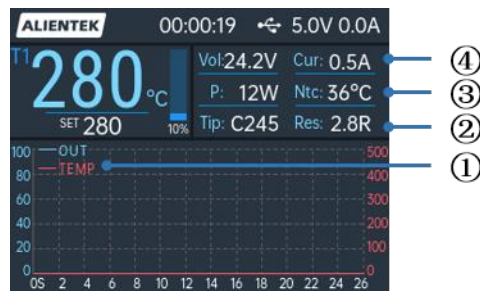
4. Interface

T200 Main interface



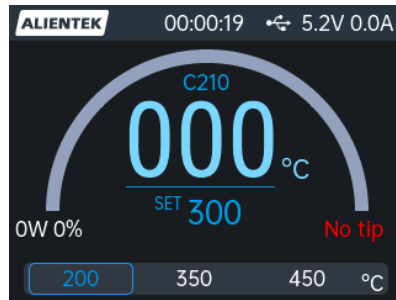
- ① LOGO
- ② Handle model
- ③ Heating power bar
- ④ Power and output percentage
- ⑤ Quick temperature (click the knob to switch)
- ⑥ Working status
- ⑦ Set temperature
- ⑧ Real-time temperature
- ⑨ TYPE-C output voltage and current
- ⑩ Power-on time

Curve



- ① OUT: Heating output percentage curve, 0~100%
TEMP: Real-time temperature curve
- ② Tip: Tip type Res: Detected resistance value
- ③ P: Heating power Ntc: Internal temperature
- ④ Vol: Working voltage Cur: Heating current

NO tip



- **Note:** When the handle is not inserted into the tip or the tip is damaged (open circuit), the interface prompts no tip.

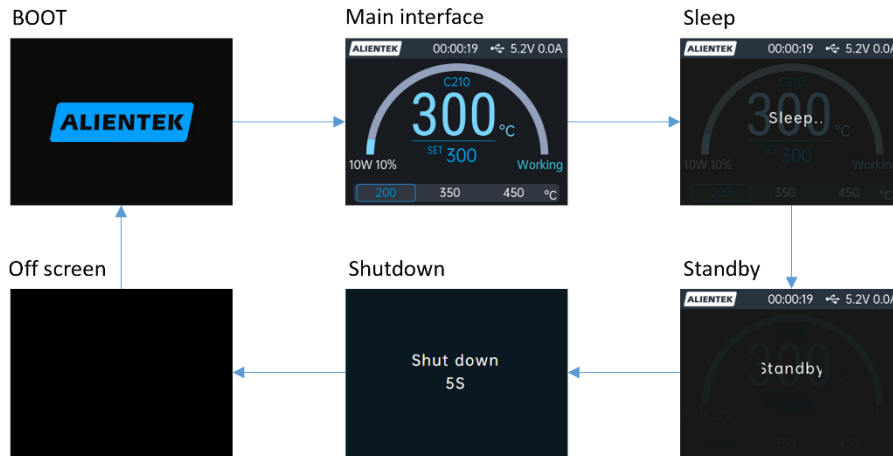
Warning



Category:

| code | content | solution |
|------|--|---|
| E1 | Leakage warning! | Please check if the welding object is electrified. After troubleshooting, turn the knob to exit the warning. |
| E2 | Short circuit warning! | The host detects heating overcurrent. Use a multimeter to measure the resistance of the tip to see if it is normal. After troubleshooting, turn the knob to exit the warning. |
| E3 | Transformer temperature is too high | The transformer temperature is too high, the host stops heating, turn the knob to exit the warning. |
| E4 | Type-C output exception please contact the manufacturer! | Stop using and contact the manufacturer. |
| E5 | MOS output exception please contact the manufacturer! | Stop using and contact the manufacturer. |

5. System flow



Flow:

- **BOOT:** Display boot animation or image.
- **Main interface:** The host is in working state.
- **Sleep:** The handle remains stationary and enters a sleep state after a sleep period. The temperature drops to the sleep temperature, default is 200.
- **Standby:** The handle remains stationary and enters standby mode after a certain amount of standby time. The host is not heating up, and the temperature continues to drop.
- **Shutdown:** When the temperature of the two channels drops to 50 °C, the host enters the countdown to shutdown.
- **Off screen:** The countdown ends and the screen closes. When you pick up the handle or rotate the knob, the host will restart.

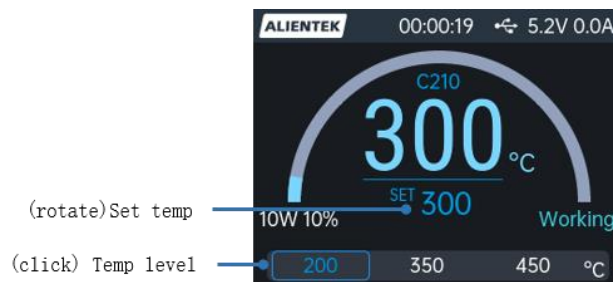
Tips:

1. When in sleep, standby, or shutdown state, picking up the handle or rotating the knob will wake up the host and return to the main interface.
2. The boot animation and images can be modified by the user, please refer to the electronic manual for details.

6. Operation

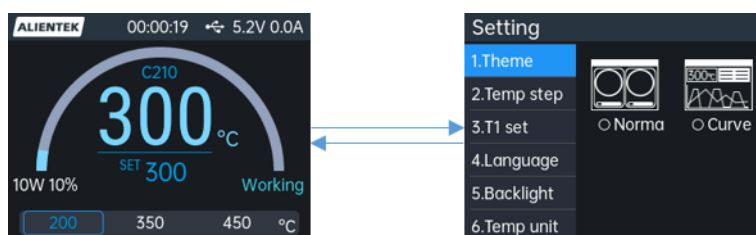
Temperature adjustment:

In the main interface, rotate the knob to step adjust or click the knob to quickly set the target temperature.



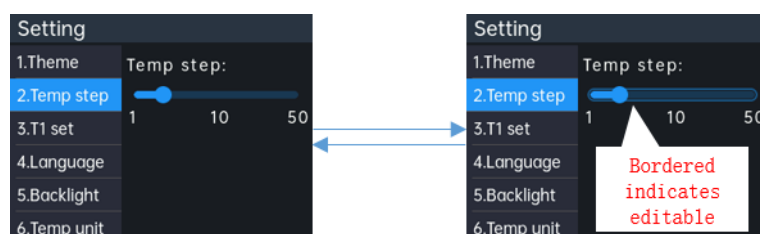
Enter the menu:

In the main interface, long press the knob. After entering the menu interface, long press the knob or if there is no operation within 10 seconds, it will return to the main interface.



Parameter settings:

In the menu interface, click to enter the sub item. In the sub item, rotate the knob to adjust the parameters. After adjustment, long press to save and return to the previous level.



| Item | Explanation | Default | Setting Range |
|---------------|-----------------------------------|---|---|
| 1. Theme | Main interface display theme | Normal | <ul style="list-style-type: none"> ● Normal ● Curve |
| 2.Temp step | Temperature adjustment step value | 10 | 1~50 °C |
| 3.T1 set | 3.1 Sleep temp | Target temperature after entering sleep state | 200 °C 80~500 °C |
| | 3.2 Sleep time | The time for the handle to stand still and enter the sleep state from the working state | 3min 0~20 min OFF: No sleep 0: Sleep immediately |
| | 3.3 Standby time | The time for the handle to stand still and enter the standby state from the sleep state | 3min 0~20 min OFF: No sleep 0: Sleep immediately |
| | 3.4 Temp level 1 | Temp level 1 preset value | 200 °C 80~500 °C |
| | 3.5 Temp level 2 | Temp level 2 preset value | 350 °C 80~500 °C |
| | 3.6 Temp level 3 | Temp level 3 preset value | 450 °C 80~500 °C |
| | 3.7 Trim ^① | Fine tune the error between the actual temperature and the displayed temperature | 0 |
| 3.8 T1 Enable | Enable and disable the T1 channel | ON | <ul style="list-style-type: none"> ● Turn off ● Turn on |
| 4.Language | Language selection | English | <ul style="list-style-type: none"> ● Simplified Chinese |

| | | | | |
|--------------|--|------------------------------|--|---|
| | | | <ul style="list-style-type: none"> ● Traditional Chinese ● English | |
| 5.Backlight | Screen display brightness | 100% | 0~100% | |
| 6.Temp unit | Display temperature unit | °C | <ul style="list-style-type: none"> ● Celsius(°C) ● Fahrenheit(°F) | |
| 7.Volume | Buzzer volume | Medium | <ul style="list-style-type: none"> ● Off ● Low ● Medium ● High | |
| 8.Others | Auto shutdown | Turn this feature off and on | ON | <ul style="list-style-type: none"> ● Turn off ● Turn on |
| | Boot GIF | Turn this feature off and on | ON | <ul style="list-style-type: none"> ● Turn off ● Turn on |
| | RGB-LED | Turn this feature off and on | ON | <ul style="list-style-type: none"> ● Turn off ● Turn on |
| | Leakage detect ^② | Turn this feature off and on | ON | <ul style="list-style-type: none"> ● Turn off ● Turn on |
| 9.Enter boot | Enter the firmware upgrade mode. In the upgrade mode, you can only restart to return to the main interface | | | |
| 10.Restore | Restore the parameters to the factory state | | | |
| 11.Version | Display version information | | | |

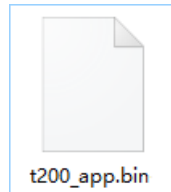
Note:

- ① **Trim method:** Set the temperature to 350°C, use a soldering iron thermometer to measure the actual temperature, and fill in the difference between 350 and the actual temperature.
- ② **Leakage detect:** When connecting to a computer via a USB cable, a leakage warning may pop up. You can turn off the leakage detection if you need to.

7. Upgrade

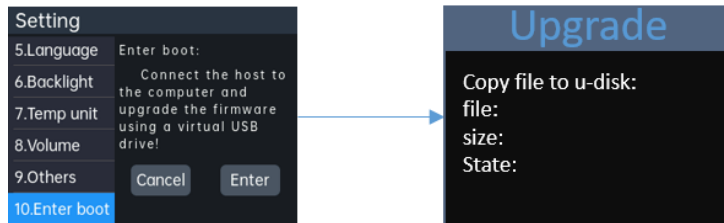
Step:

1. Visit <http://www.openedv.com/docs/tool/solder/T200solder.html> to get the latest firmware.

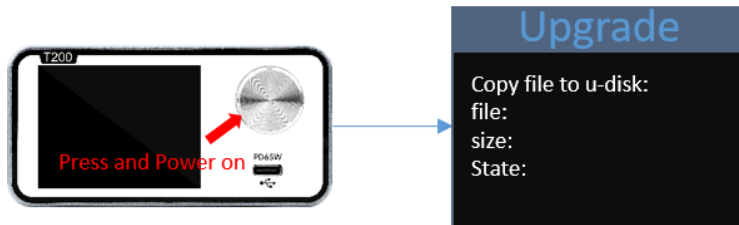


Note: The firmware name must be T200_app.bin, otherwise the upgrade will fail.

2. Enter firmware upgrade mode
 - i. Method 1: Enter from the BOOT mode of the menu, as shown below:



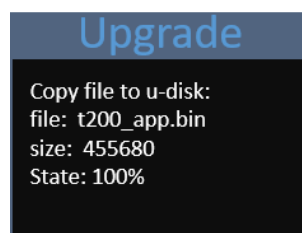
- ii. Method 2: Press and hold the knob and power on the host until the host displays the firmware upgrade interface



3. Connect the computer with a USB cable, and the computer will prompt that there is a USB flash drive.



4. Copy the firmware to the USB flash drive to upgrade the firmware.



8. Customize boot gif and images

1. This operation is the same as firmware upgrade, please refer to firmware upgrade.
2. You can only choose between the boot GIF and the picture, and the host will play the GIF first
3. Press the knob to exit the boot GIF

Here we only explain the file format and size requirements.

Gif requirements:

- a) The file format must be .avi
- b) The size must be $\leq 7.7\text{Mb}$
- c) The final file name is: T200_video.avi
- d) Video configuration as follows:
 - Encoding format: MJPEG
 - Resolution: 320*240
 - Bit rate: 1000
 - Frame rate: 15
 - Aspect ratio: auto

Image requirements:

- a) Image file format: bmp \ jpeg
- b) Resolution: 320*240
- c) Size $\leq 500\text{kb}$
- d) Final file name: T200_pic.jpeg \ T200_pic.jpg \ T200_pic.bmp

9. Services

1. After – sales Service:

T200 host has a one-year free warranty service in the case of non-artificial damage. Please contact the dealer for warranty service. Soldering tips are consumables, if there is no quality problem, once used they will not be returned.

2. Website

Download : <http://www.openedv.com/docs/index.html>

Company : www.alientek.com

Aliexpress : www.aliexpress.com/store/1102909571

3. Contact US

E-mail : fae-smt@alientek.com