

AiXun

T413 Integrated

Smart Soldering Station User Manual



Please read this manual carefully before use

1 Product Features

- **Intelligent, networking and integration.** A new revolution in soldering station interaction, initiate soldering tip touch and control technology

- **Square industrial frequency transformer**
130W rated power, 200W peak power; static electricity and interference resistance, more stable, support 24-hour high power operation
- **Exclusive neural network temperature control algorithm**
Rapid heating without overheating and re-heating without cooling down
- **Compatible with multiple handles and tips**
Support T245 handles; support the new smart T225 handle through software upgrade in the future
- **WiFi+Bluetooth module, support OTA upgrade**
Powerful networking upgrade technology, more intelligent with use; the first automatic fault location system in the industry, the complete after-sales service ensures worry-free purchase
- **Self-designed soldering system with 2.4inch HD color screen**
Support multiple languages, M1-M3 temperature shortcut channels, curve and digital interfaces switching with one -key, easier operation
- **Support AI voice control**
Connect to AiXun BS08 smart voice center control via Bluetooth, realize AiXun equipments ecological joint control
- **Hands-free innovative metal touch sensor design**
The first design that enables temperature channels switching, heating suspension and temperature adjustment by touching the sensor with the soldering tip, adopt the multi-scale buzzer to realize automatic control through sound
- **Built-in temperature monitor system**
When the temperature inside the case exceeds the set value due to long-time working, the fan will startup automatically to cool down
- **The first in the industry that support self-media**
Enable the T413 screen to be displayed on the computer by connecting to AiXun platform, support to edit the personal information displayed on the screen and set personal operation habits

2 Structures Instruction

Front side



Back side



Accessories



Power cord



Grounding wire



User manual card



Cable hanger



Certificate

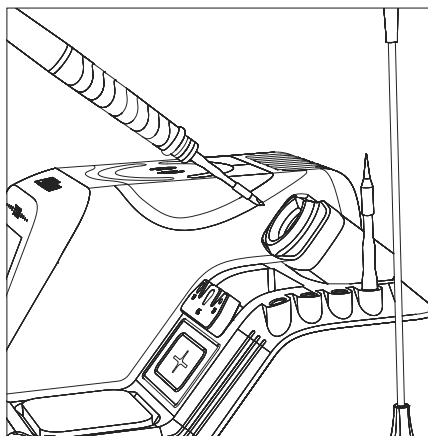
3 Product Parameters

Name: Integrated Smart Soldering Station	Model: T413
Peak power: 200W	Supported handles: T245/T225 (C080.C150)
Rated power: 130W	Temp range: 90-450°C
Input voltage: 230V AC	Input fuse: 2A
Net weight:3.48KG	Gross weight:4.16KG
Host dimensions: 180×173×120.5mm	

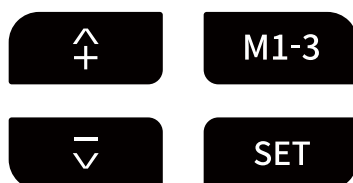
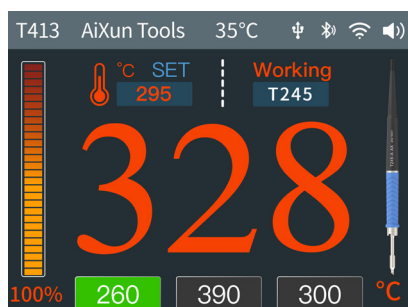
4 Buttons And Main Interface



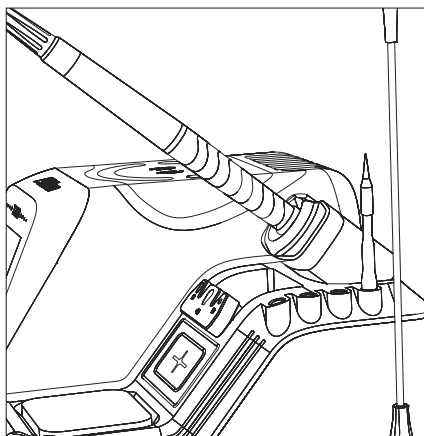
5 Basic Operation



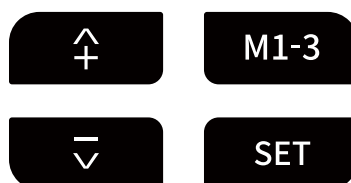
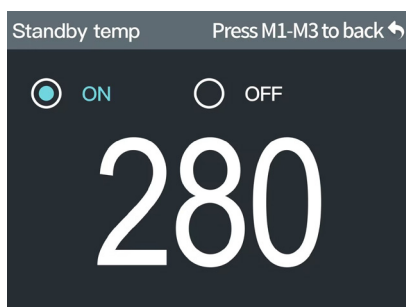
- When the tool is removed from the standby holder, the tip will heat up to the set temperature.



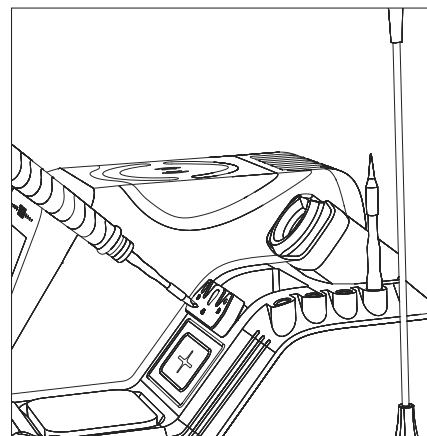
- Press "M1-3" button to switch memory channel with a fixed temperature
Press the "+, -" button to change the temperature (from 90 to 450°C)



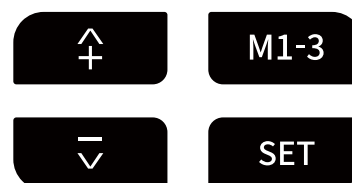
- When the tool is placed in the standby holder, the temperature will drop to the preset standby temperature.



- Set standby time
Set standby delay (Set the time according to your own needs)
Press the "M1-3" button to exit

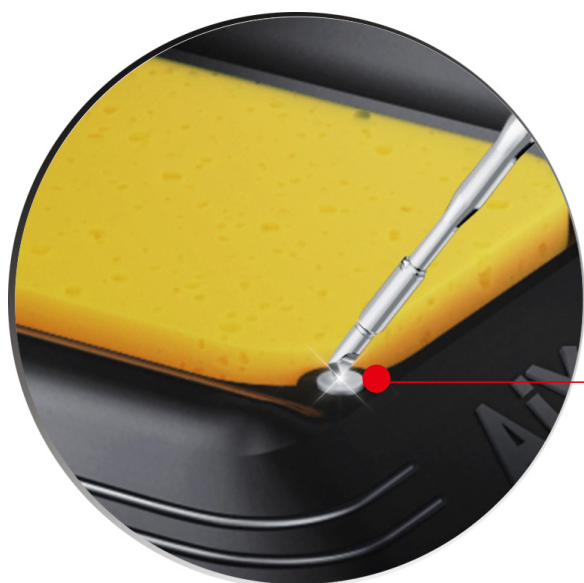


- When the tool is placed on the socket, it will enter the standby mode automatically.



- The soldering station enters the standby interface automatically, and the soldering tip can be replaced now
(After replacing the soldering tip, touch the swapping socket lightly to activate heating)

6 Soldering tip touch control technology

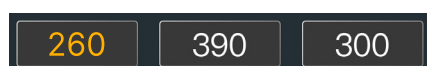


Soldering tip touch control technology
More convenient than drive-by-wire

Touch the metal sensor with tip

I Touch twice: switch memory channel

Quickly touch the metal sensor twice with the tip to switch memory channel M1-M3



Switch memory channel M1-M3

II Long touch: increase temperature

Touch the metal sensor with tip for more than 1 second, the set temperature will increase

328

Temperature
increases rapidly

III Touch once + long touch: decrease temperature

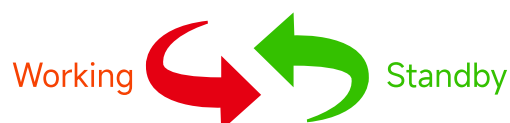
Quickly touch the metal sensor with the tip, and then long touch it for more than 1 second, the set temperature will decrease

328

Temperature
decreases rapidly

IV Touch once: switch between heating/standby

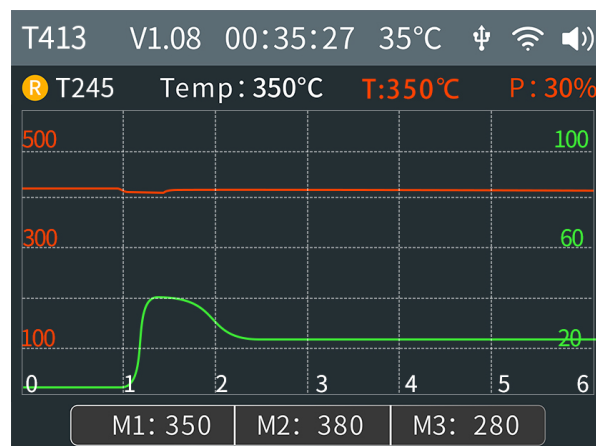
Quickly touch the metal sensor with the tip, it will stop heating, touch once again after entering the standby mode, it will start heating, the temperature increases rapidly



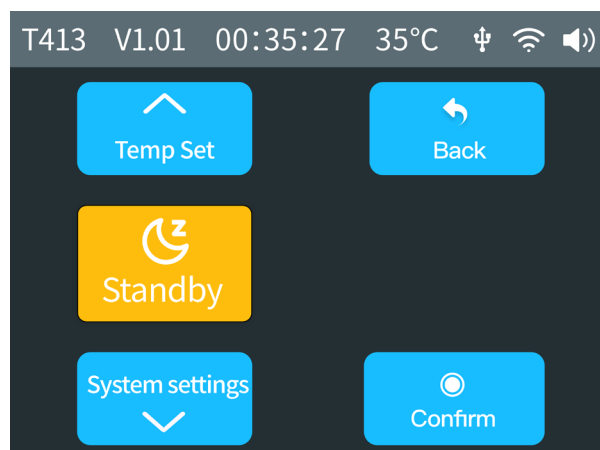
7 Basic Parameters Operation

● Curve interface settings

- Press the **SET** button to enter the curve setting interface, users can observe the real-time working status of the soldering tip in curve mode.
- Press the **M1-3** button to switch the M1-M3 memory channel, long press to exit the interface

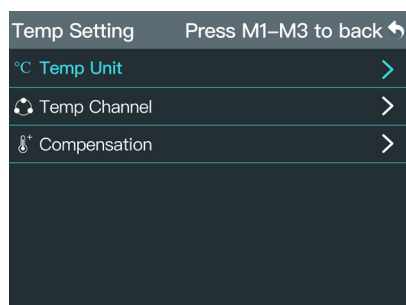


● Temperature, standby and system settings



- Long press the **SET** button to enter the settings interface of temperature, standby and system
- Press **↓** or **↑** button to switch functions upwards or downwards in the setting interface
- After selecting the parameter to be adjusted (such as adjusting "Standby"), select "Standby" and press the **SET** button to enter the interface to adjust its parameters. The same applies to other functions.
- Press the **M1-3** button to return to the previous menu. Long press to exit and go back to the main interface.

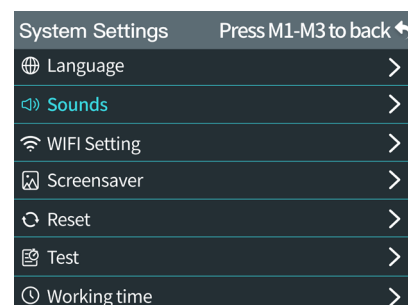
[Temperature Settings]



[Standby Settings]



[System Settings]



8 Soldering Tip Replacement

- T413 enables swapping soldering tips with bare hands, it is a safe, stable and smart soldering station.



• Method 1

1. Separate the soldering tip and the handle through the swapping socket. The soldering station enters standby mode, waiting for the temperature to drop to a touchable value.
2. Users can insert the soldering tip to be replaced into the handle with bare hands
3. After replacement, lightly touch the swapping socket with the tip, it will heat up quickly, no need to worry about burns.

• Method 2

1. Touch the metal sensor with the soldering tip, it will enter the standby mode. Waiting for the temperature to drop to a touchable value
2. Pull out the soldering tip by hand and replace it with a new one
3. After replacement, lightly touch the metal sensor with the handle, and the temperature will increase quickly, no need to fear of burns

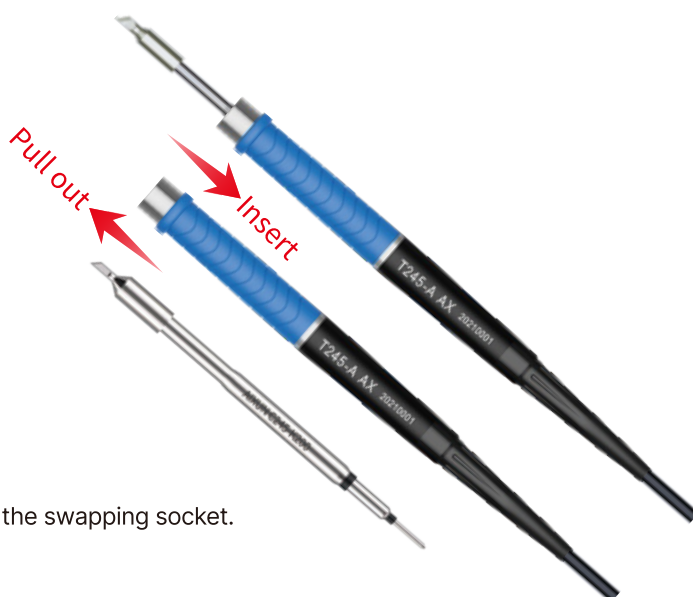
|| Soldering tip installation (The method is the same for T245/T225)

Installation:

Insert the soldering tip into the handle directly, and the soldering station will recognize it automatically.

Disassembly:

Pull the soldering tip out of the handle with hands directly.
If the soldering tip is in heating, it needs to be pulled out with the swapping socket.



9 Soldering Tip Cleaning

Choose the best one that suits your needs

Splash shield

Prevent tin splashing and ensure a clean working environment

Sponge cleaning area

When using it for the first time, please inject clean water into the sponge to expand it, which is very effective in cleaning the residual tin on the soldering tip.

Brass wire cleaning ball

Very effective cleaning method. Leave a thin layer solder on the tip after use to prevent oxidation during cleaning and tin planting



Cleaning board

The high temperature resistant grooves allow the operator to remove residual tin by tapping or wiping gently

Steps to replace the brass wire cleaning ball:

1. Remove the splash shield by hand



2. The brass wire cleaning ball can be replaced



Precautions

Precautions for soldering station

To avoid damage to the soldering station and consider safety of the working environment, the following matters shall be observed:

- ◆ This product uses a three wire grounding plug, which must be inserted into a three hole grounding socket. Do not change the plug or use an ungrounded three head adapter to make the grounding poor. To lengthen the wire, use a grounded three wire power cord.
- ◆ Please do not make any change to the soldering station without authorization.
- ◆ When replacing parts, the original factory parts shall be used.
- ◆ Please do not wet the station. Do not use the station nor pull the power cord when hands are wet.
- ◆ There is smoke during soldering, good ventilation facilities should be available in the working environment.
- ◆ Please do not do anything that may harm the product when using the station.
- ◆ Please place the station in a dry environment when it's not in use for a long time.

Precaution for soldering tips

When turning on the switch, the soldering iron tip is in a high temperature state. In view of the possibility of burns or fire caused by abuse, please strictly abide by the following items:

- ◆ Please avoid the abuse of this station and use this product according to the operating instructions.
- ◆ When replacing the soldering iron tip, do not touch it directly by hand to prevent scalding.
- ◆ Do not use the iron tip near flammable objects.
- ◆ Inform other personnel that the iron tip is very easy to burn and may cause dangerous accidents. The power shall be turned off when not using.
- ◆ Do not knock the soldering iron on the workbench to remove the residual flux, which may seriously damage the soldering iron.
- ◆ Do not use the soldering iron tip for work other than soldering.
- ◆ Keep out of the reach of children to prevent burns.

 **This product has anti-static measures.
Please be sure to use it grounded.**

11 Use And Maintenance Of Soldering Tip

! Note: do not use a file to remove the oxide on the iron tip

1. After the temperature is stable, clean the iron tip with a cleaning sponge and check the state of the soldering iron.
2. If there is black oxide, plate with a new tin layer, and then wipe with a cleaning sponge. Cleaning like that repeatedly until the oxide is completely removed, and then plate with a new tin layer.
3. If the soldering iron tip is deformed or rusted, replace with a new soldering iron tip.

II Use of soldering iron tip

◆ Soldering iron tip temperature	Too high temperature will weaken the function of tip, choose the temperature as low as possible. This tip has an excellent temperature resilience, and support soldering at the lower temperature, which can protect components that are sensitive to temperature.
◆ Cleaning	Clean the soldering iron tip regularly with a cleaning sponge. After soldering, the oxides and carbides derived from the residual flux will damage the tip, cause soldering errors or reduce the thermal conductivity of the tip. If using the tip continuously for a long time, please disassemble the tip once a week to remove the oxide to prevent it from being damaged and reduce the temperature.
◆ When not in use	When not in use, do not keep the tip at high temperature for a long time, or the flux on the tip will be converted into oxide and greatly reduce the heat conduction ability.
◆ After use	After use, the tip shall be wiped clean and plated with a new tin layer to prevent oxidation.

II “Tin planting failure” may be caused by:

1. When the soldering iron is idle, it is not covered with new tin layer.
2. The soldering iron tip is at high temperature.
3. Insufficient melting during soldering.
4. Clean the tip on a dry or unclean sponge or cloth. [The clean and moist industrial grade sulfur-free sponge should be used]
5. The solder or iron coating is impure, or the soldering surface is not clean.

How to prolong the service life of soldering iron tip?

- | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ◆ Soak with fresh solder after each use to prevent the oxidation and prolong its service life. |
| ◆ Apply the temperature as low as possible to fulfill the work, low temperature can not only reduce the oxidation of the iron tip, but also easy to solder. |
| ◆ Use a thin iron tip only in necessary, the coating of a thin iron tip is not as durable as that of a thick iron tip. |
| ◆ Do not use the soldering tip as a detection tool, bending of the soldering tip will lead to The rupture of the coating and shorten the service life. |
| ◆ Use less active rosin flux, because the high content of active rosin will accelerate the corrosion of iron tip coating. |
| ◆ When not in use or stop soldering, put the handle into the handle holder or turn off the power in time. |
| ◆ Do not exert heavy pressure on the soldering tip, higher pressure does not mean fast heat transfer. In order to provide heat transfer, the solder must be melted to form a heat transfer solder bridge between the soldering tip and the solder joint. |

 **Note: Proper daily maintenance will effectively improve the service life of the soldering iron tip**

11 After Sales

● Warranty regulations

- This product is guaranteed for one year from the date of purchase (subject to the purchase certificate).
- The warranty service is only valid under normal use. Any man-made damage, such as the use of inappropriate accessories, failure to use in accordance with the instructions, damage caused by non official maintenance, wrong use or negligence, the warranty service will be invalid immediately.
- AiXun company has the final right to interpret the above regulations.

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