

AiXun

T420

Dual Channel Smart Soldering Station

User Manual ▶▶▶



Please read this manual carefully before use

01 Product features

Global networking upgrading, continuous innovation

- Support T210 handle (Standard with one holder, can be expanded to two holders, operate with one handle)
- AC pure isolation, 100W peak power, high-power ring transformer
- Real time standby, prolong the service life of soldering tips
- Smart identification system, monitor the working statuses in real time
- Modular handle holder, separable and combinable
- IPS HD LCD interface, personalized settings, easier to operate

02 Parameters

Host parameters

Model: T420	Input voltage: 110/230V	Peak power: 100W
Temp range: 90~450°C	Host size: 178.4*112*125mm	
Input fuse: 3A.	Standby holder size: 154*65*77.4mm	
N.W. : 4.16kg	Support handles: T210	

Tip parameters

Tip model: C210	Handle material: plastic/metal	Handle connector: circular connector
Temp range: 100~450°C	Tip grounding resistance: <2ohms	Tip grounding voltage: <2mV

03 List of packing

The package of T420 includes the following components



1 Host----- ×1

2 Cable hanger----- ×1



3 Grounding wire----- ×1



4 Handle holder----- ×1



5 T210 handle----- ×1



6 K tip----- ×1



7 Power cable----- ×1

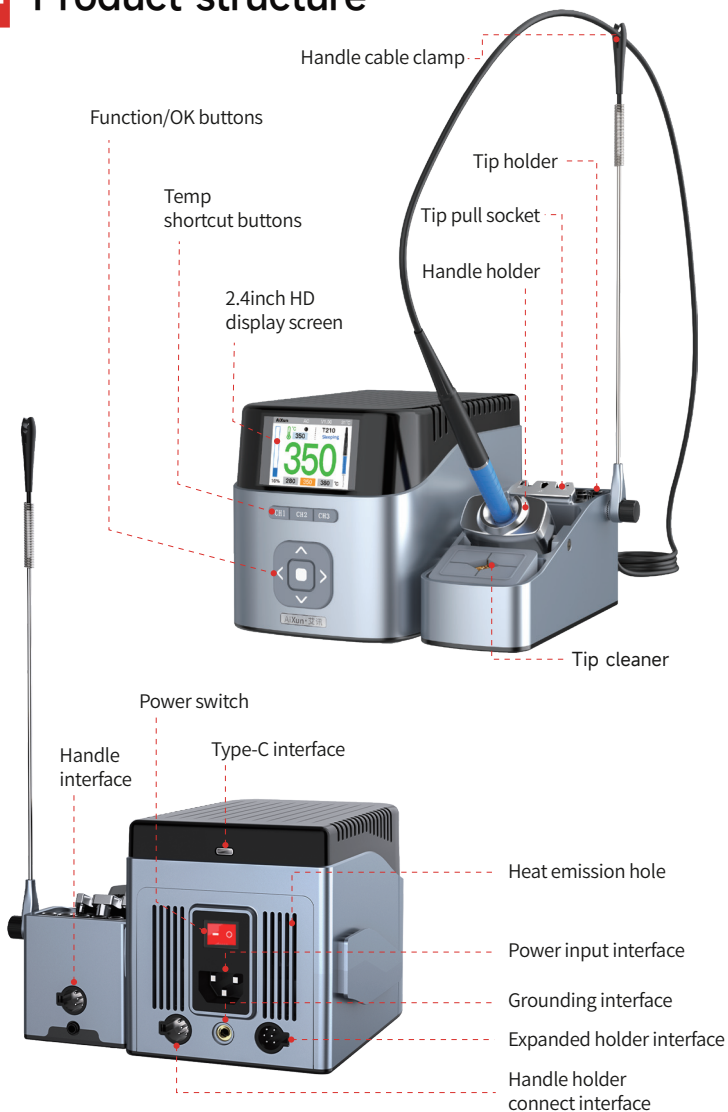


8 Manual card----- ×1



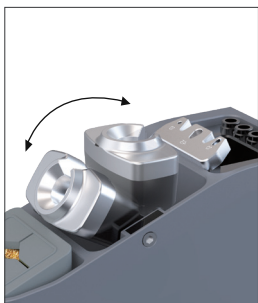
9 Certificate----- ×1

04 Product structure



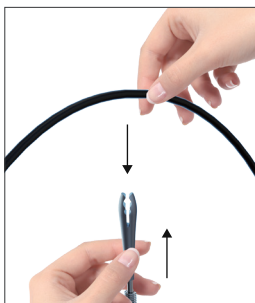
- **Adjustable holder**

Adjust angles of handle holder, meeting needs for working position



- **Handle cable clamp**

Place the cable on the clamp to avoid twine



- **Support expanding to two holders, operate with one handle**

Two channels are heated one by one rather than simultaneously



Splash shield

Prevent solder from splashing when cleaning with brass wire

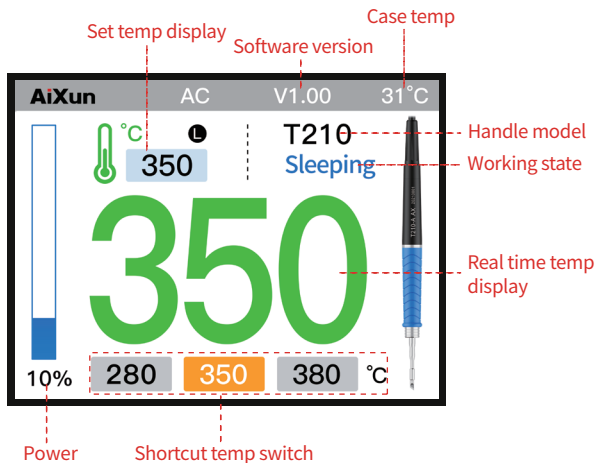


Brass wire cleaning ball

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

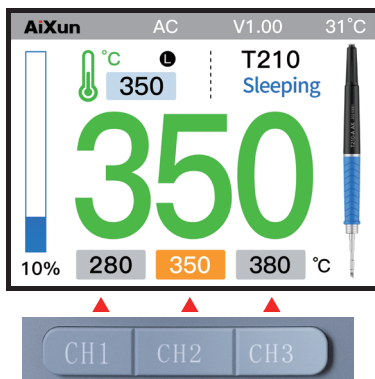
05 Main interface and buttons introduction

- Main interface introduction

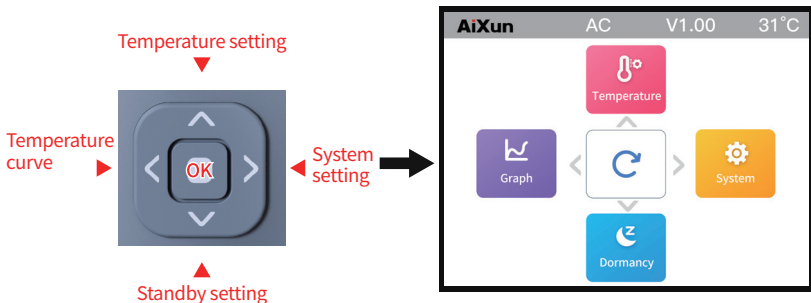


- Fast temp switching





The “CH1, CH2, CH3” buttons corresponds to a temperature channel. Users can adjust the set temperature according to their own needs, press the button to switch the temperature channel quickly (as shown in the figure)



● Function buttons operation



The power on interface of the station default to be the main interface. Click the middle function button to enter the function setting interface. The functions displayed on the interface correspond to the function buttons one by one, and the user can operate according to the prompts.

- Press  to enter the temperature setting interface. The user can set "temperature unit, channel temperature setting, temperature compensation" and other functions as required. Press the left button to return to the function interface, and press the right button to exit to return to the main interface.
- Press  to enter the standby setting interface. The user can set "standby temperature, standby delay, rest time" and other functions as required. Press the left button to return to the function interface, and press the right button to exit to return to the main interface.
- Press  to enter the temperature curve interface. The temperature and power curve is displayed, and the soldering state can be monitored in real time. Press the left button to return to the function interface, and press the right button to exit and return to the main interface.
- Press  to enter the system setting interface. Users can set "language, sound, factory reset, system info" and other functions as required. Press the left button to return to the function interface, and press the right button to exit and return to the main interface.

05 Soldering station operation

◆ Working mode

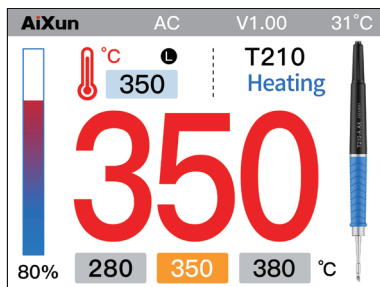


When the soldering handle is picked up from the holder, the iron tip will automatically heat to the selected temperature. Then start operating

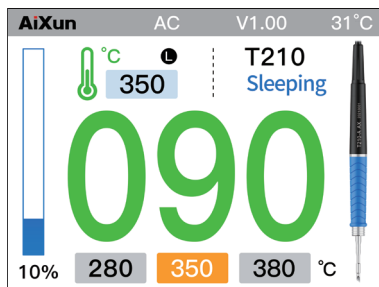
◆ Standby mode



When the soldering handle is placed in the handle holder, the host will automatically enter the standby mode and the temperature will automatically drop to the preset standby temperature.



Change the temperature setting (90°C to 450°C)
Through the temperature setting interface:
• Change fast temperature settings



Through the standby setting interface:
• Change standby temperature (temperature can be customized)
• Change standby delay (standby delay time can be customized)

06 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.

Precautions for soldering iron tip

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 matters:

- ◆ Please avoid the abuse of this station and use this product according to the operating instructions.
- ◆ Do not touch the metal part near the soldering iron tip.
- ◆ 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.
- ◆ When replacing the soldering iron tip, do not touch it directly by hand to prevent scalding.
- ◆ 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.

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

Use and maintenance of soldering iron tip



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

1. Set the temperature at 250 degrees Celsius (482 degrees Fahrenheit).
2. After the temperature is stable, clean the iron tip with a cleaning sponge and check the state of the soldering iron.
3. 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.
4. If the soldering iron tip is deformed or rusted, replace with a new soldering iron tip.

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.

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

08 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.

AiXun

The Intelligent & Precision Soldering Expert

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