AiXun

T3A

Smart Soldering Station

Product Manual

T3A Smart Soldering Station Product Manual

1 Station Caution Notice

⚠ Station Caution Notice

To avoid station damage and keep safe working environment, the following items should be observed:

- Do not use the DC power interface of the platform when soldering.
- 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 terminal adapter. To lengthen the wire, use a grounded three wire power cord
- Do not make any changes to the station without permission
- When replacing parts, original factory parts should be used.
  Do not wet the soldering station. It is forbidden to use the station or pull the power cord with wet hand.
- There will be smoke during soldering, the working environment should have good entilation facilities.
- When using the station, do not do anything that may harm the product.
- Keep the station in a dry environment if not use it for a long time.

⚠ Soldering Iron Tip Caution Notice

When power turns on, the soldering tip is in a high temperature state, as abuse may cause burns or fire, please strictly observe the following:

- Avoid the abuse of this soldering station, follow operating instructions to use.
- Do not touch the metal part near the soldering iron tip. Do not use soldering tip near flammable objects.
- Inform other personnel that the soldering iron head is easy to burn and may cause dang erous accidents. Turn off the power during rest or after completion.
- Do not touch directly with hands to prevent scalding when replacing the oldering iron tip.
- Do not strike the soldering iron on the workbench to remove the flux residual, which may seriously damage the soldering iron.
- Do not use soldering iron tip for other work other than soldering.

⚠ This product has anti-static measures, please be sure to use grounding

2 List of Packing

Following parts are included in T3A Smart Soldering Station

Host

Stan dby Holder

Standby Line

Power Cord.

Product Manual

Three handles for option:

T245 handle

soldering iron tip:

T12 handle

soldering iron tip:

936 handle

soldering iron tip:

3 Product Features

T3A intelligent soldering station has the following characteristics

- It can be automatically updated by connecting to AiXun platform, and the function of soldering station software can be upgraded infinitely
- Using 200W super power supply, it only takes 4 seconds for T245 soldering pen to rise to 380 °C
- Intelligent recognition of soldering target and environment, intelligent power compensation and automatic protection.
- 2.4 inch color display, 100-500 °C temperature adjustable, with real-time standby induction.
- Support 936, T12, T245 three handles, automatic identification of model and working state
- Personal habit temperature self memory, three channel temperature fast switching, knob adjustment
- The host has built-in environment temperature sensor to avoid high temperature operation
- Automatic record of working time, automatic reminder of fatigue operation
- With DC output power supply, maximum support of 24V-8A
- Super anti static isolation design, meet the industrial ESD standard

4 Parameters

Station Host Parameters

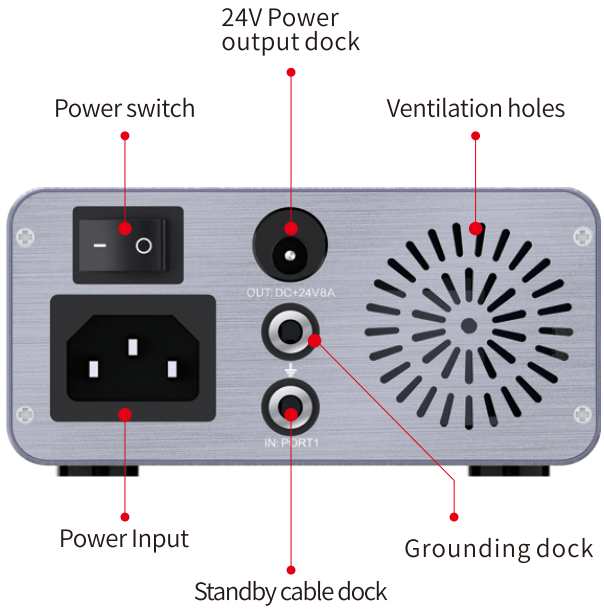
Part number:T3A	Input voltage:220V/110V	Output voltage:DC24V
Current range: 0-8A	Temperature range:100°C~500°C	Total power:200w
Weight:520g	Size:145*110*54mm	

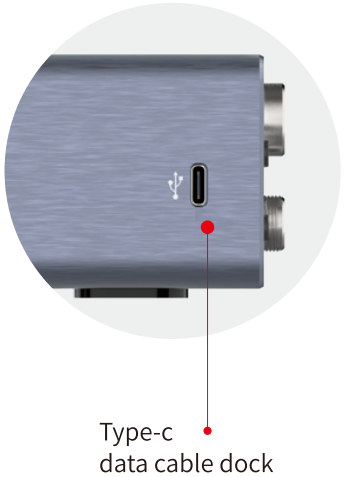
Soldering Iron Parameters

Handle PN：T12/936/T245	Handle socket：5 sockets
Soldering iron tip material：Copper	Handle material：Alu/Plastic/Silicone
Heating core：five core stainless steel plug-in type	Ground impedance of soldering tip:<2ohms
Input voltage：220V/110V	Temperature range：100°C~500°C

5 Parameters

Soldering station introduction

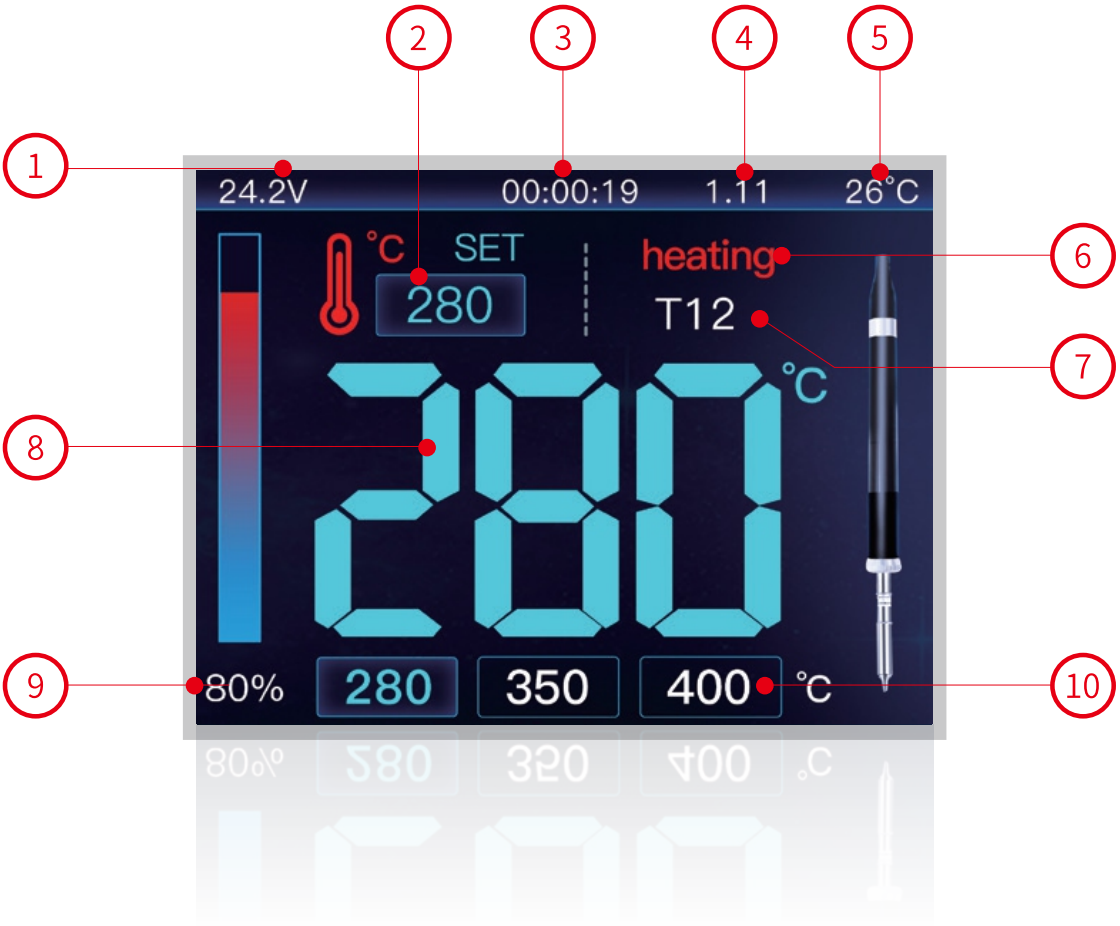




6 Parameters

Soldering station introduction

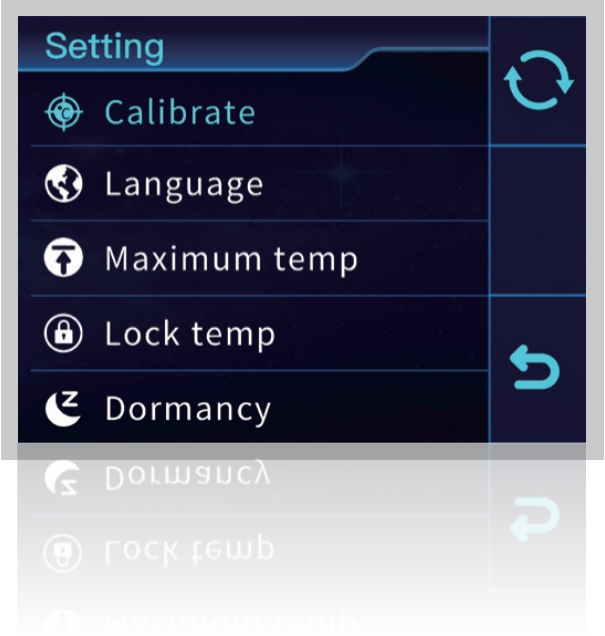
The working interface of the soldering station



1 Work voltage
2 Set temperature display
3 Work time
4 Firmware version
5 Chassis temperature
6 Work condition
7 Handle model
8 Real time temperature display
9 Power bar
10 Quick temperature Switch

Setting page

There are temperature calibration, language, temperature limit, temperature lock, standby setting, sound setting, quick temperature setting, factory reset, system information functions



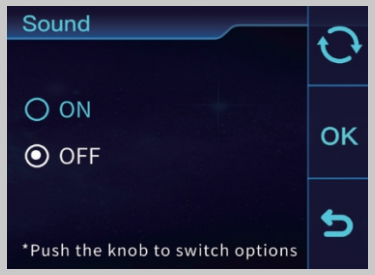
【Temperature calibration】

【Language setting】

【Maximum temp】

【Temperature lock】

【Sound setting 】



【Quick temperature setting】

【Factory reset】

【System】

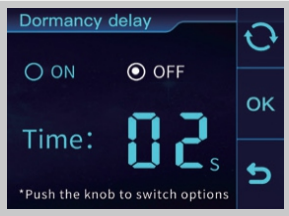
Standby setting

Set the standby temperature, standby delay, standby time and screen rest time of the soldering station

【Standby temperature】

Set the standby temperature after the soldering iron tip rested on the stand

【Standby delay】



Set the standby delay time after the soldering iron tip rested on the stand

【Sleep time】

Set the sleep time after the soldering iron tip rested on the stand, no heating in this state

【Screen rest time】

Set the screen rest time after the soldering iron tip rested on the stand, screen turn off and no heating in this state

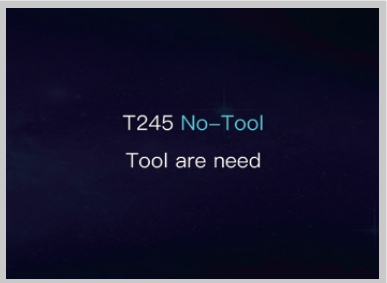
【Fatigue operation reminder】

Fatigue operation reminder will pop up for continuous work of 4 hours

【No-Tool】

It indicates that the soldering station is power on with no handle and soldering iron tip connected

【Handle without soldering tip】



It indicates that the soldering station is power on and handle connected, while with no soldering iron tip connected

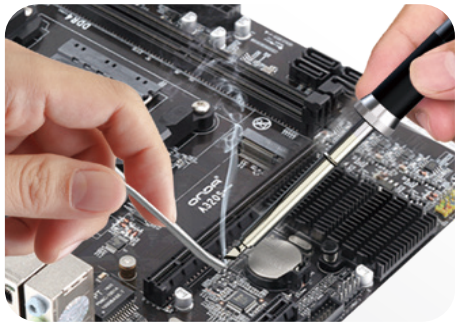
7 Station Usage

1 Connect power supply and preheat

2 Temperature adjust

3 Clad

The lifespan of the soldering tip can be prolonged by cleanig it with tin.



4 Soldering

When the temperature is reached, the solder paste wire can be melted

5 Clean

Clean the tip with a soaked sponge

6 Power off for cooling

Place the soldering station when it is not in use, and put it away when the iron head is cool down

8 Disassemble the soldering iron tip

T245 soldering tips

Assembly: Insert the soldering tip into the T245 handle, the soldering station will identify it automatically.

Disassembly: Unplug directly.

T12 soldering tips

Assembly: Loosen the handle fixing cap a little to the right, insert the soldering iron tip into the handle, for automatic recognition by the soldering station, then tighten the fixing cap to the left to complete the installation.

Disassembly: Loosen the handle fixing cap to the right, pull out the iron tip.

936 soldering tips

Assembly: Put the soldering iron tip in the heating core, then put the soldering iron sleeve on the tip, and tinghten it down.

Disassembly: Loosen the soldering iron sleeve upward, remove it, then remove the soldering tip from the heating core.

9 Soldering tip use & maintenance

⚠ Note: Do not clean the oxide on the soldering tip with a grater

- Set the temperature to 250 degrees celsius (482 degrees fahrenheit).
- After the temperature is stable, clean the tip with the soaked sponge and check the status of the soldering iron.
- If there is oxide, plate a new tin layer, then clean with the sponge.
- If the soldering tip is deformed or heavy rusty, must replace a new one.

Use of the soldering tip

● Temperature control	Too high temperature will weaken the soldering tip function, control the temperature as low as possible. The soldering tip has excellent temperature recovery and can offer fully welding at low temperature, which can protect the temperature sensitive components.
● Clean	Clean the tip with soaked sponge regularly, to avoid tip damage /welding deviation / thermal conductivity weakening caused by the oxides and carbides derived from the flux residual. With continuous and long time use, please disassembly the soldering tip once a week to remove the oxide, to prevent it from damage nor temperature deduction.
● When not in use	When the soldering iron is not used, do not keep the soldering tip in a high temperature state for a long time, to avoid thermal conductivity weakening by the flux oxide.
● After use	After use, clean the soldering iron head and plate with a new tin layer to prevent oxidation.

Temperature calibration for the soldering tip

Recalibrate to avoid temperature deviation if change a different type soldering tip.

Enter setting page

Choose correct

Choose temperature calibration

Possible reasons for failed tin staining

- Did not cover the tip with tin in idle state
- The soldering tip stays in a high temperature state
- Insufficient melting during welding
- Scrub the iron tip on a dry or unclean sponge or cloth[clean, moist, industrial grade, sulfur-free sponge should be used]
- The solder or iron coating is not pure, or the welding surface is not clean

Solution for failed tin staining

- Remove the tip from the handle after the tip cooled
- Remove the dirt and oxide from the tin surface of the iron tip by using 80# Yaan ester, abrasive foam or 100# emery paper.
- Put the soldering tip into the handle and use the tin wire containing rosin (Φ 8 mm above) to wrap the new exposed tin layer surface of the tip, and turn on the power supply of the soldering station.

⚠ Note: proper routine maintenance can effectively prevent the soldering tip from failed tin staining

Prolong the lifespan of soldering 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 can reduce the oxidation of the iron tip, but also easy to weld.
- Use a thin iron head 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 operation, put the handle into the standby stand 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.

Temperature regulation of soldering tip

The temperature of different types of iron tips may be different.
The best way to adjust is by temperature calibration, or by using the temperature control knob basing on applicable temperature of each type iron tip.

10 Troubleshooting Guide

⚠ Warning:

*Turn off the power before maintenance, to avoid electric shock
*If the power supply is damaged, it should be repaired by the manufacturer or professionals to avoid accidents.

Faults	Solutions
Fault 1: the display screen of soldering station is not on	Check 1: is the power supply or connecting plug loose? ● **Reconnecting**
Fault 2: the soldering tip does not heat up	Check 1: is the wire or connecting plug loose or damaged? ● **Reconnect or replace the wire** Check 2: is the heating element damaged? ● **Replace the heating element again** Check 3: is the spring pad of the soldering pen inserted into the handle not in good contact? ● **Re-rotate the soldering pen to closely fit with the handle spring pad**
Fault 3: the soldering tip is heating up intermittently	Check 1: is the wire or connecting plug loose or damaged? ● **Reconnect or replace the wire**
Fault 4: the soldering tip is not stained with tin	Check 1: is the temperature of soldering tip too high? ● **Reset an appropriate temperature** Check 2: has the soldering tip been cleaned? ● **Clean the soldering tip again**
Fault 5: the temperature of soldering tip is too low	Check 1: is the temperature of soldering tip too high? ● **Reset an appropriate temperature** Check 2: is the soldering iron temperature calibrated correctly? ● **Recalibrate temperature**

Faults	Solutions
Fault 6: temperature display flashing	Check 1: the new soldering pen may have such phenomenon ● **It will be normal after a period of use.** Check 2: is the soldering wire damaged? ● **Check the soldering iron assembly wire** Check 3: is the solder joint too large? ● **Use a higher power soldering station or continue to use it**
Fault 7: the iron tip cannot be removed	Check 1: is the soldering tip clamped tightly? ● **Replace a new soldering tip and heating element** (Recommend to disassemble after cooling)

11 Aftersales

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. All man-made damage, such as improper use of accessories, failure to use according to instructions, damage not caused by our company's repair, wrong use or negligence, the warranty service will be immediately invalid.
- The company has the final right to interpret the above regulations for users who do not comply with the above regulations.

AiXun

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