

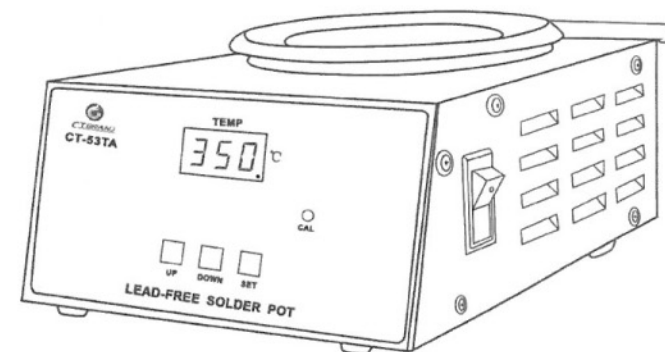


CTBRAND
Since 1985

AMERICAN CT

**CT-53TA/TB/TE/TF
LEAD-FREE SOLDER POT**

User Manual



Catalogue

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Notice

- The solder pot should be placed on a flat table when it is working to prevent the solder from spraying outside the melting pot.
- The solder and the melting pot are very hot when the pot is working. Please be careful when operating it!
- It is prohibited to operate the solder pot around the flammable gas and articles.
- Before moving the pot, shut off the power first and wait until the solder pot cools down.
- The product is a machine of high temperature. Remember to cut off the power when it is not used.
- To ensure the operator's safety and normal operation, please make sure the earth wire of the pot is well connected to the earth.
- For the safety and the life of the machine, the pot should not work consecutively over 12 hours.

General

CT-53T Series adopt the technology of lead-free solder corresponding. The accurate temperature control is realized through the micro-computer and digital display. CT-53T series is composed of control and heating. The working course is: The signal from the temperature sensor of the solder pot is conveyed to the micro-computer processor through the magnifying filtering wave. After processing, the micro-computer will send out the control signal to control the heating extent of the heater to realize the precision closed-circuit control.

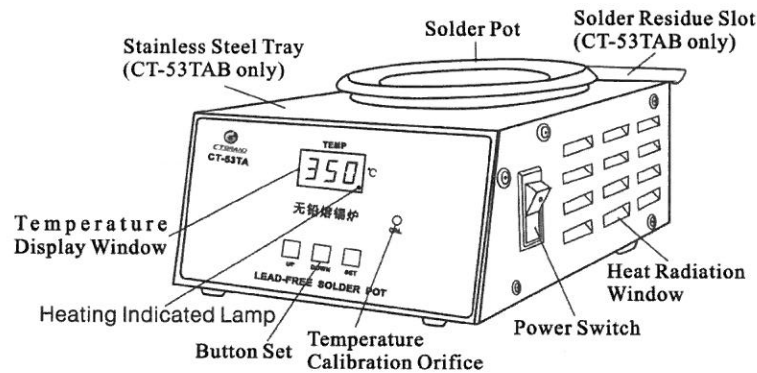
Performances and Features

- Adopt the lead-free corresponding technology for temperature control especially designed for the high melting point of the lead-free tin solder. It can also work at the same temperature as melting Sn-Pb.
- The product is of great power. It heats up quickly.
- Temperature resumes rapidly. During solder soaking, it can resume to the setting temperature quickly.
- High precision temp control and small temp fluctuate in constant temp.
- Input the data by lightly touching the buttons. It is simple and accurate.
- Adopt LED digital tube to display the temperature data. It is direct and accurate.
- Can save the temp prolongs the life of the heater and save the energy. erature setting value which is not influenced by switch-off and power cut-off.
- Standby function: It prolongs the life of the heater and save the energy.
- Locking temperature adjustment function: It prevents randomly changing of the temperature.
- Malfunction self-judgment: It can detect the malfunction of the heating system.
- The solder pot is made of high-quality stainless steel with the titanium-plated layer to prevent leaking. It is heat resistant, anti-corrosive and durable.

Specifications

Model No. and Name	Lead-free Solder Pot CT-53T Series	
Working Voltage	127V ±10V AC	
Consumption Power	A style : 400W (Max)	B Style : 500W (Max)
	E Style : 150W (Max)	F Style : 200W (Max)
Range of Temperature	200°C-450°C	
Fluctuation of Temperature	±2°C	
Display Mode	Digital display of 3 numbers	
Sleeping Temperature	240°C	
Size of Solder Pot (mm)	A Style : Φ 80	B Style : Φ 100
	E Style : Φ 38	F Style : Φ 50
Solder Fillings (g)	A Style : 1600	B Style : 2300
	E Style : 300	F Style : 500
Outer Measurement (mm)	A、 B: 160(W) × 100 (H) × 230(D)	
	E、 F: 110(W) × 85(H) × 165(D)	
Weight of whole Product	A Style : 1700g B Style : 1900g	
	E Style: 1200g F Style: 1250g	

Introduction of the Whole Product



Operation

1、 Switch-on

Push the button to the connection position. The temperature display window will display the room temperature in 2 seconds. The heat-up light is on (the decimal point on the window is lighted up.)

2、 Heat up

The product begins to heat up after it is connected to the power. The solder pot's temperature goes up and after 10 minutes, it reaches 250°C . During the heat-up, the numbers on the display window will remain for a while. It is because of the melting point of the solder, the temperature does not rise temporarily. After the solder is melted, the temperature keeps going up.

Notice: When reaching the solder melting point, the temperature value will glisten for a short time which is normal. After the solder is melted, the glistening disappears.

3、 Constant Temperature

When the temperature reaches the setting value, the heat-up signal will turn glistening for indicating that the machine is at a temperature-constant state. Then the machine can start the soldering operation.

4、 Standby and Exit

If the machine is not used for a moment, it can be set to the sleeping state: Press button SET (*), the window will display "P24", indicating the machine will sleep at 240°C.

If continually use the machine, press any key, it will exit from the sleeping state and after a few minutes return to the original working temperature. (It takes about 2 minutes from 240°C to 300°C.)

Notice: If it is working under 240°C, the standby function is invalid.

5、 Temperature Setup and Locking of Temperature Adjustment

a、 Setting Temperature

Press button UP (Δ), the temperature will raise 1°C ; press button UP (Δ) and hold on, the figures will rise speedily. In contrast, press DOWN (▽), the value will reduce.

b、 Locking the Setting Temperature Value

Locking When you need to lock a certain temperature value, press and hold on SET(*), the window will display the glistening “———”, then at the same time press and hold on UP (△) and DOWN (▽), the window will display“Luh”, indicating the setting value is locked. Adjustment buttons of UP (△) or DOWN (▽) will become invalid.

Unlocking Press and hold on SET (*), the window will display the glistening“———”, then at the same time hold on UP (△) and DOWN (▽), the window will display“UnL”, indicating the lock is unlocked and temperature can be adjusted.

Notice:

- 1)After the setting value is locked, it will save until it is unlocked before the temperature can be adjusted and is not influenced by shutoff and power cutoff.
- 2)After locking, the machine can still enter sleeping state. Except that the temperature setting is invalid, other operations are not influenced

Temperature Calibration and Malfunction Solving

1、 Temperature Calibration

CT-53T series are solder pots of high precision. Their outstanding advantage is the small fluctuation of temperature. But because of some factors like different position of every temperature sensor, the high oxidizing of the sensor, the performance change of the element, the replacement of the heater, the using of different temperature meters, the accuracy of the temperature of the solder pot will have some differences. The user whose requirement is higher can calibrate the machines regularly.

- ① Prepare a digital temperature meter. The tip should be placed in the solder pot for detecting the temperature.
- ② Set the temperature of the pot to 350℃. Wait until the temperature is constant.
- ③ Place the tip of the temperature meter to the pot. Observe the temperature value of the temperature meter.
- ④ If the display of the meter is not 350℃. Use a small screwdriver to adjust the electronic potentiometer in the orifice of temperature calibration to conform the temperature value of the pot to the temperature value of the temperature meter.
- ⑤ After a while, the temperature value of the pot will return to 350℃. Thus the calibration is finished. If there is a little deviation, repeat the above step④.

Notice: The temperature change of the solder takes some time. So the calibration requires enough time to wait until the pot temperature is stable.

2、 Malfunction Solving

<1>Malfunction display and judgment

CT-53T series automatically detect the heating system. If the machine has diagnosed the fault, it will display the fault icon. Please refer to the following situation:

a. The temperature sensor is broken.

When it is broken, the temperature display window will display Err, indicating the sensor is burnt. Loosen the four fixed screws on the front panel. Pull out the CN1 two-cored plug. (the smallest two-cored plugs) , measure the resistance value. It is about 2Ω under normal temperature. If the value is > > 2Ω (above 20Ω) , then it can be confirmed that the sensor is burnt.

b. The heater is broken.

If the system of the CT-53T is wrong and the temperature can not go up, then the numbers on the screen glisten constantly. Usually it can be concluded that the heating flake is broken. Methods of confirmation: Pull out the CN2 two-cored plug (the big two-cored plug on the bottom) , measure the biggest resistance value. In normal condition : A style : 140Ω-170Ω, B style : 110Ω-130Ω, E style : 310Ω-330Ω, F style : 230Ω-250Ω.


<2> Replace the heater

If heater is broken, please refer to the following methods for replacing the broken parts:

- a. Open the shield cover on the two sides of the pot. Loosen the four screws on the cover bottom, disconnect the wire of the heater. Take out the pot from the top of the machine.
- b. Loosen the screws of the sensors or heating flake to dismantle the broken parts.
- c. Refasten the heater according to the original position.

Notice:

- ① The damaged sensor must be welded by producing factory, or change a suit of new pot (contain sensor)Distinguish the polarities of the sensor. Misconnecting will cause high temperature.
 - ②The heating flake should be closely contacted to the pot side or the flake will burn out easily. Make sure the heating flake is pressed tightly to the outer surface of the pot!
- d、 Reconnect the wires to fix the pot. Cover the bottom.

 **Notice: The technical requirement is high for replacing the heater. Please send it to the dealer or manufacturer if you are not professional.**