



Digital Display Constant Temperature Soldering Station Instruction Manual

SUNLINE ELEKTRONİK SANAYİ VE TİCARET ANONİM ŞİRKETİ

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Notes :

- ! The product belongs to electronic products, in order to avoid accidents please abide by safety items.
- ! The contents of instruction manual are included the product operation method and prevention of accidents, please read carefully and make sure operate correctly.
- ! After read, please keep the instruction for future consults.

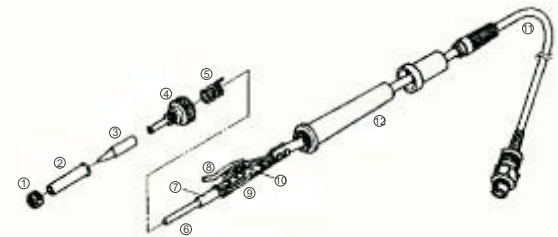
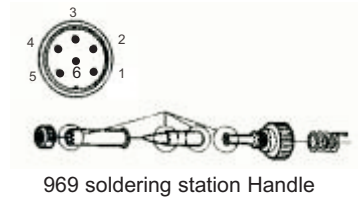
Checking Methods of heating element

Pull out the soldering station handle from machine, and checking resistance value between Pin 1-Pin 5 of the plug(Please refer to the right picture or form)

If there have any resistance value difference "a" or "c",please try to change new one heating element(Sensor) or power wire, please refer to the following procedure to perform operations.

If the resistance value more than "b" resistance value, usually can use the sandpaper or cleaning steel to remove the oxidation layer or replace soldering tips

a	Pin 1 and Pin 2 (Heating element)	2.3Ω-3.5Ω(Normal)
b	Between Pin 3 and soldering iron metal	Below 2Ω
c	Pin 4 and Pin 5 (Sensor)	43Ω-58Ω(Normal)



- 1.Unscrew the nut in counterclockwise direction and take out the protective tube 2 and soldering tips 3.
2. Unscrew the bakelite thread head in counter-clockwise direction and take out.
- 3.Pull-out the heating element 6 and power wire 11(In soldering tips direction pull-out)
- 4.Pull-out the spring to grounding 5 from "D" type tube

Please measurement the heating element (or Sensor) at room temperature:

1. Heating element resistance value(red) :2.5-3.5 Ω
2. Sensor resistance value(blue) :43-58 Ω

If the resistance value is difference normal value, please replace the heating element. After it, please measurement them again as following:

1. Measurement the resistance value between Pin4 and Pin1 (or Pin2), and Pin5 to Pin1(or Pin 2),if not display "∞",it should be the heating element(or sensor) in poor contact, also will be damage the PCB board.
- 2.please measurement resistance value of the "a","b","c" and Spring to ground again, in order to checking it if correctly.

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Attentions

- ⊘ Warning: The definition of the "warning" and "Attention" in this manual as follows:
- ⊘ Warning: Unreasonable use may lead to accidents or injury to the user.
- ⚠ Attention: Improper operation may injury to the user or damage the products, even affect the use of the product.
please observe the following precautions while using this product:

⚠ Attentions

Under operating condition, the temperature of the soldering tips is between 50°C - 480 °C. Unreasonable use may lead to accidents or fire disaster. Please follow the following matters strictly:

- Don't touch the metal parts of the heater tip so as to avoid being burnt.
- Do not use this product in flammable environment and keep the room ventilated.
- Please turn off the power supply after the completion of the work and place it to the place beyond the reach of children.
- Need to replace the welding tip during use, please turn off the power first, and then replace it after cooling.

In order to avoid damage the soldering station, and keep the safety out of flammable environment, please follow the following matters strictly:

- Do not use an electric soldering iron for any works other than welding.
- Do not pound the electric soldering iron forcibly in order to avoid damaging heating element.
- Without permission, it is not allowed to change the soldering iron structure and replace the accessories of other brands.
- Original brand accessories should be used when replacing parts.
- Harmful gases may be produced during welding. Please use Lead-free soldering wire and keep the room ventilated.
- Soldering station with malfunctions shall be returned to the factory for test and repair during the warranty period.

Mark: If the design of the product changes, this content can still be used.

- ⊗ When not in use ——— Do not let the soldering tips in heating or high temperature state for a long time, when not in use should cut off the soldering station power supply, in order to extend the usable life of the soldering tips.
- ⊗ Maintenance ——— When soldering operation is completed, please clean up the residual soldering flux by sponge, and evenly coat the soldering part of the solder head with a layer of solder or tin layer to prevent the soldering tips from being oxidized.

Maintenance of soldering tips

1. Without special requirements, please setup the temperature at 350°C for use.
2. When the temp. of the soldering iron reaches the set value, please clean the soldering tips before welding by clean sponge.
3. If the tip of soldering tips contains black oxide, can be plated a new tin layer until the oxide is completely removed.
4. If the soldering tip is deformed or rusted, please replace it with new one.

Troubleshooting Guide

- ⚠ Warning: please turn off the power supply before repair or replace other accessories, otherwise it will lead to accidents, please consult the relevant technical personnel or complete the operation under the technical guidance of the product manufacturer

Failure 1: the indicator light of heater is not on.	1. Checking the fuse if blown, if true please replace new one. A. Checking the soldering iron internal whether short out. B. Checking the spring whether touch the heating element.
Failure 2: the indicator light of heater is on but soldering tips without temp..	2. Checking the heating element's pin whether damaged.
Failure 3: the Temp of the soldering tip is abnormal:	3. Checking the soldering iron wire whether damaged. 4. checking the heating element whether damaged.
Failure 4: the soldering tip can not Tin.	Refer to checking. 3
Failure 5: The temp. of the soldering tips is too lower.	5. The temp. of the tip is too high, please reset it. 6. Checking the tip of the soldering tips have cleaned
Failure 6: Can not remove the soldering tip	7. Checking the tip of the soldering tips if contains black oxide. 8. Checking the temp. of the soldering iron if it's calibrated correctly. and please reset it.
Failure 7: the temp. of the soldering tip cannot reach the setting value.	9. Checking the soldering tip installed is correct or not. please replace it. Refer to checking .8

E.g. :If the current setting temperature is 400, but the testing temperature is 405, the alignment value is -5 [alignment range: ± 60].



Hibernation setting

The soldering station in powered off state, press ◀ and ▶ key at the same time, it will be enter to Hibernation setting state, Press ◀ or ▶ key adjust hibernation state “On” or “Off”,and Press “★” key to save settings.

Noted: when you setup the soldering station hibernation mode is “On”, the soldering station system will be auto entering sleeping state without any operation after 20 minutes, but if there have any operation during these time,it will be cancel the hibernation state.

Mark Display

Error mark

● **Sensor Error**

When the sensor is faulty or in poor contact, the screen will display an error identifier **S-E** , and the electric current transmission will be cut off meanwhile.

S-E

⚠ Noted: Once the soldering iron gun didn't fully inserted or setup the temperature value is too high, the screen also will display error identifier, So please make sure the soldering iron gun had fully inserted, and please alignment temperature value again.

Soldering Tips Maintenance

※Temp. of Tips

The temperature of the soldering iron too high will affect the service life of the tips, please adjust the temperature according to the soldering requirements to avoid using the soldering iron at high temperature for a long time, it can reduce the damage to the components at meanwhile.

※Cleaning

Used the clean sponge to cleaning the soldering iron tips at regular intervals. After welding, the point of the soldering iron tips will be produce some oxides or attached others impurities, which will affect the thermal conductivity of the soldering tips, it can lead to welding errors.

(Before cleaning, need to add a small amount of water to the sponge keeping the cleaning sponge moisten)

Packing list

- please checking the packing whether is including these items :
- | | |
|---|------|
| Lead-free soldering station..... | 1pcs |
| Soldering Station Handle | 1pcs |
| Soldering iron Holder(Include clean sponge) | 1pcs |
| User instruction | 1pcs |
| Guarantee Card | 1pcs |



Assemble

A . Soldering Iron Holder

⚠ Noted: Clean sponge is an extruded object that expands when it meets water, when you want to use it, please add a small amount of water into the sponge , keeping the cleaning sponge moisten.

1. Soldering iron holder
Soldering iron holder has four little hole, It can store a small amount of water.
2. Clean sponge
After the clean absorbs the water, it will be expands, Keeping the cleaning sponge moisten will be better.
- 3.put the moisten sponge into the soldering iron holder.

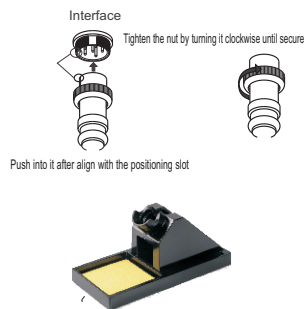


B.Installing or Removing Soldering Iron



Attentions: when installing or removing the soldering iron, Please cut off the power supply at first , in order to avoide damaging the components of soldering iron.

- 1.please connect the soldering iron to the soldering station .
- 2.Put the soldering iron on the soldering iron holder.
- 3.Put the power wire into the soldering station power interface and open power swift to starting soldering station.
(Ensure that the ground wire is connected).



Specifications:

Product Name	
Supply Voltage	□220V/50Hz □110V/60Hz
Output Voltage	AC 24V
Power	75W
Temperature Range	50~480°C
Soldering station Size	(W)115×(H)90×(D)140 mm
Soldering station N.g:	1Kg (without soldering station handle)
Resistance of tips to ground	≤2 ohms (Default)
Voltage of Tips to ground	≤2 mv (Default)
Heating element:	C1321 Ceramic Heating Core
length of wire	1.5m
Temperature Error Value:	±3°C (static: 25°C45%)

※ The temperature of the soldering iron Tips before delivery shall be subject to the calibration of the 191 thermometer.

Features:

- 1、Adopt red trinity digital tube display, temperture through by $\pm 1^\circ\text{C}$ increases or decreases.
- 2、Temperature Range: 50°C ~ 480°C ,The temperature error is within $\pm 3^\circ\text{C}$.
- 3、Temperature Alignment adopt the method of keypad correction value was used for calibration.

Setup and Display



----- Increase setting value or change Alignment Value



----- decrease setting value or change Alignment Value

Display

After you've turned on the power and the machine is starting, the screen displays current temperature value, The actual temperature is displayed after 1.5 seconds, The digital Screen has a three-digit numerical display mode, Based on the selected mode it will be show:

- Normal mode
Sensor Temp. / Soldering Tips Temp.
- Enter Value mode(Flashing state)
- Error mark mode (Please refer to the [Error mark] content).

The lower-right indicator indicates that it is heating.

Usage methods

Temperature setting

1.Temperature setting :

- Press ◀ or ▶ Keypad to setting temperature ($50\sim 480^\circ\text{C}$) .

2.End entering :

- Press ★ Keypad to comfirm the input and Save it automatically.

E.g.: Adjust current Temperature value 350°C to setting value 400°C



Alignment setting

1.Press ◀ ▶ at the same time within 1 second.

- Enter the Alignment setting mode and Dispaly the stored value.

2.Press ◀ or ▶

- Adjust alignment value From -60 to 60 Echo loop.

3.Save alignemt Value

- Press ★ enter to save it automatically and showing current Temperature.