

Pro'sKit®

SS-306

Temperature-Controlled Soldering Station



User's Manual

1st Edition: 2022

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Thank you for purchasing the **Pro'sKit**® SS-306 Temperature-Controlled Soldering Station.
Please read this manual before operating the SS-306 the manual in a safe, easily accessible place for future reference.

Features

- Comply with CE, ESD safe certification.
- Temperature range 200 - 480°C (392-896°F)
- Soldering iron handles are insulated and ergonomic-designed for ease and comfort.
- Plug in alumina ceramic heater
- High power, heating fast
- Accurate temperature control
- Anti ESD design
- Lead free process

Packing List

Please check the contents of the Soldering station package and confirm that all the items listed below are included.

Soldering Station.....	1	Iron Stand (with cleaning sponge)	1
Soldering Iron.....	1	User's Manual.....	1
Grounding lead	1		

Precautions

In this instruction manual, "caution" are defined as follows.

⚠ CAUTION:

- Misuse may potentially cause injury to the user or physical damage to the objects involved.
- For your own safety, be sure to comply with these precautions.

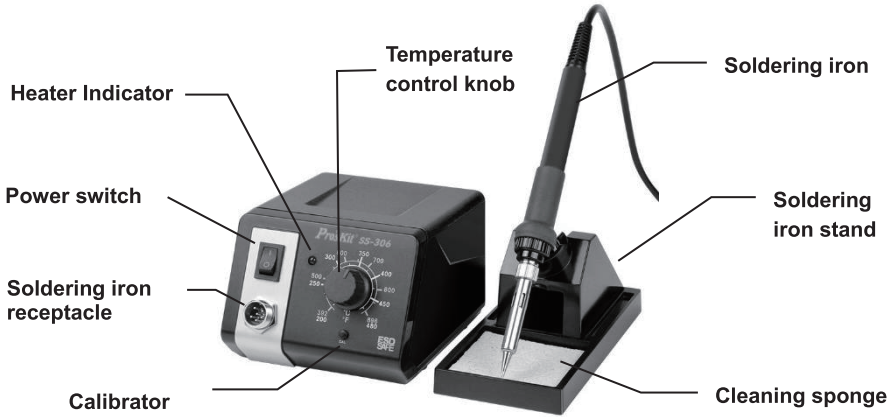
When the power is on, the tip temperature is between 200°C/392°F and 480°C/ 896°F. Since mishandling may lead to burns or fire, be sure to comply with the following precautions.

- Do not touch the metallic parts near the tip.
- Do not use the product near flammable items.
- Advise other people in the work area that the unit can reach a very high temperature and should be considered potentially dangerous.
- Turn the power off while taking breaks and when finished using the unit.
- Before replacing parts or storing the unit, turn the power off and allow the unit to cool to room temperature.

To prevent damage to the unit and ensure a safe working environment, be sure to comply with the following precautions.

- Do not use the unit for applications other than soldering.
- Do not rap the soldering iron otherwise subject the iron to severe shocks.
- Do not modify the unit.
- Use only genuine replacement parts.
- Do not wet the unit or use the unit when your hands are wet.
- The soldering process will produce smoke, so make sure the area is well ventilated.
- While using the unit, don't do anything which may cause bodily harm or physical damage.

Names of Parts



Specification

Model No.	SS-306B	SS-306E
Voltage(V)	AC 220~230V 50Hz	AC 110-120V 60Hz
Power consumption	75W	
Output voltage	AC 24V	
Heater	Ceramic heater	
Temperature range	200°C-480°C(392°F-896°F)	
Station size (mm)	(W)115x(D)140x(H)90mm	
Standard Plug	B type	E type
Fuse	250V / 1A	250V / 2A
Replacement heater	9SS-306-HT	
Replacement hand piece	9SS-306-SI	

Replacement Tips:

OAL: 43mm I. D : 4.0mm O.D: 6.3mm

	5SI-216N-B		5SI-216N-3.2D
	5SI-216N-B1.0		5SI-216N-1C
	5SI-216N-BC		5SI-216N-2C
	5SI-216N-0.8D		5SI-216N-3C
	5SI-216N-1.2D		5SI-216N-4C
	5SI-216N-1.6D		5SI-216N-J
	5SI-216N-2.4D		5SI-216N-K

Setting up & operating the Soldering Station

A. Iron Holder

Before using the unit, dampen the sponge with the water and squeeze it dry.

B. Connections

⚠ CAUTION: Be sure to turn off the power before connecting or disconnecting the soldering iron. Failure to do so may damage the P.W.B.

1. Connect the soldering iron cord into the receptacle.
2. Place the soldering iron on the iron holder.
3. Plug the power cord into the power supply. Be sure to ground the unit.

C. Set the Temperature

1. Turn the power on.
2. Set the temperature control knob to the desired temperature.
3. When the tip temperature reaches the setting temperature, The heater indicator of SS-306 will flash then off, it means the temperature under control now, if it lights up red, means on heating now.

⚠ CAUTION: The soldering iron must be placed on the iron holder when not in use.

Tip maintenance and use

Tip temperature

High soldering temperature can degrade the tip. Use the lowest possible soldering temperature. The excellent thermal recovery characteristics ensure efficient and effective soldering even at low temperatures. This also protects the soldered items from thermal damage.

Cleaning

Clean the tip regularly with a cleaning sponge, as oxides and carbides from the solder and flux can form impurities on the tip. These impurities can result in defective joints or reduce the tip's heat conductivity. When using the soldering iron continuously, be sure to loosen the tip and remove all oxides at least once a week. This helps prevent seizure and reduction of the tip temperature.

When not in use

Never leave the soldering iron sitting at high temperature for long periods of time, at the tip's solder plating will become covered with oxide, which can greatly reduce the tip's heat conductivity.

After use

Wipe the tip clean and coat the tip with fresh solder. This helps prevent tip to oxidation.

Maintenance

Inspect and clean the tip

1. Set the temperature to 250°C (482°F)
2. When the temperature stabilizes, clean the tip with the cleaning sponge and check the condition of the tip.
3. If there is black oxide on the solder-plated position of the tip, apply new solder (containing flux) and wipe the tip on the cleaning sponge. Repeat until the oxide is completely removed, and coated with

new solder.

4. If the tip is deformed or heavily eroded, replace it with a new one.

⚠ CAUTION: Never file the tip to remove oxide.

Calibrating the iron temperature

The soldering iron should be recalibrated after changing the iron, or replacing the heating element or tip.

1. Connect the cord assembly plug to the receptacle on the station.
2. Set the temperature control knob to 400°C (750°F).
3. Turn the power on, wait until the temperature stabilizes, Remove the CAL pot plug.
4. When the temperature stabilizes, use a straight-edge(-) screwdriver or small plus(+) screwdriver to adjust the screw (marked CAL at the station) until the tip thermometer indicates a temperature of 400°C(750°F). Turn the screw clockwise to increase the temperature and counterclockwise to reduce the temperature. Replace the CAL pot plug.

Tips

The tip temperature will vary according to the shape of the tip. The preferred method of adjustment uses a tip thermometer. (See calibrating the iron temperature.)

Troubleshooting Guide

Warning:

Disconnect the power plug before servicing. Failure to do so may result in electric shock. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid personal injury or damage to the unit.

Problem 1. The heater lamp does not light up.	Check 1. If the power cord and/or connecting plug disconnected? *Connect it. Check 2. If the fuse blew and eliminate the cause, replace the fuse.
Problem 2. The heater lamp lights up, but the tip does not heat up.	Check 3. Is the soldering iron cord broken? *Replace soldering iron. Check 4. Is the Heating element broken? * Replace the heating element.
Problem 3. The tip heats up intermittently.	Refer to Check 3 * Check PCB soldering point
Problem 4. Solder will not wet the tip.	Check 5. Is the tip temperature too high? *Set an appropriate temperature. Check 6. Is the tip clean? *Refer to Tip maintenance and Use.
Problem 5. The tip temperature is too low.	Check 7. Is the tip coated with oxide? *Refer to inspect and clean the tip. Check 8. Is the iron calibrated correctly? *Recalibrate.
Problem 6. The tip can not be pulled off.	Check 9. Is the tip seized? Is the tip swollen because of deterioration? *Replace the tip and the heating element.

Problem 7.
The tip doesn't hold the desired temperature.

*Refer to Check 8

Checking for breakage of the heating element and cord assembly

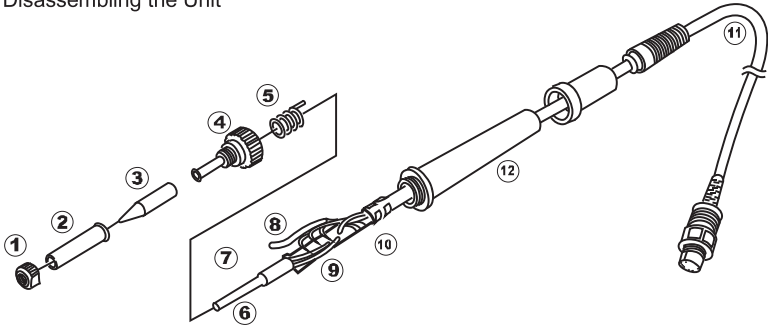
Disconnect the plug and measure the resistance value between the connecting plug pins as follows. If the values of "a" and "b" are outside the above value, the Replacement heater /or Replacement hand piece. If the value of "c" is over the above value, remove the oxidization film by lightly rubbing with sand-paper or steel wool the points as shown.



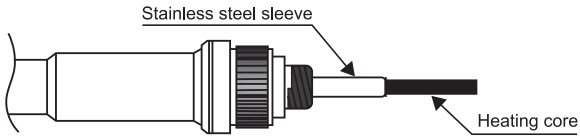
a. Between pins 1 & 2 (Sensor)	≈50Ω
b. Between pins 4 & 5 (Heating Element)	≈4Ω
c. Between pin 3 & Tip	Under 2Ω

Heating Element Broken

Disassembling the Unit



1. Turn the nut 1 counterclockwise and remove the tip enclosure 2 , the tip 3 .
2. Turn the nipple 4 counterclockwise and remove it from the iron.
3. Pull both the heating element 6 and the cord assembly 11 out of the handle 12. (Toward the tip of the iron.)
4. Pull the grounding spring 5 out of the D-sleeve.
5. Pull out the damaged heating core and insert a new one.



Note: Care must be careful not to lock the sleeve too tightly, otherwise it will damage the heating core.

SS-306 控溫焊台

感謝您選購 **Pro'sKit®** SS-306控溫焊台。使用焊台前請詳閱本使用說明書，閱後請妥為收存，以備日後查閱。

特性

- 符合CE、ESD 安全規範。
- 溫度範圍200 - 480°C (392-896°F)
- 烙鐵手柄隔熱效果佳，符合人體工學操作舒適
- 拔插式陶瓷發熱芯，維修便利
- 高功率、加熱速度快
- 防靜電設計
- 無鉛工藝製作

包裝清單

請檢查產品包裝，以證實所列清單項目正確無誤：

電焊台.....	1	烙鐵座（包含清潔海綿）.....	1
烙鐵.....	1	使用說明書.....	1
接地線.....	1		

注意事項

本使用說明書"注意"的定義如下：

注 意：濫用可能導致使用者受傷或對涉及物體造成實質破壞。為你本人安全著想，請嚴格遵守"注意事項"

當接通電源時，烙鐵頭溫度高達攝氏 200 至 480 °C（華氏 392 至 896°F）濫用可能導致灼傷或火災，請嚴格遵守以下事項：

- 切勿觸及烙鐵頭附近的金屬部份
- 切勿在易燃物體附近使用電焊台
- 烙鐵頭極為灼熱，可能引發危險事故，休息時或完工後應關掉電源。
- 更換部件或裝配烙鐵頭時，應關閉電源，並待烙鐵頭冷卻至室溫

為避免損壞電焊台和作業環境，應遵守下列事項：

- 切勿使用於焊接以外的工作，勿擅自改動電焊台
- 更換部件時，應採用原廠配件
- 切勿將烙鐵敲擊工作臺以清除焊劑殘餘，此舉可能嚴重震損發熱體
- 切勿弄濕電焊台，手濕時也勿使用電焊台避免觸電
- 焊接時溶錫會冒煙，現場應有良好通風設備
- 使用電焊台時不作任何可能傷害身體或損壞物體的舉動

部件名稱



規格

型號	SS-306B	SS-306E
電壓	AC 220~230V 50Hz	AC 110- 120V 60Hz
消耗功率	75W	
輸出電壓	AC 24V	
發熱體	陶瓷發熱體	
溫度範圍	200°C-480°C(392°F-896°F)	
焊台尺寸(mm)	(W)115x(D)140x(H)90mm	
插頭	B 型插頭	E 型插頭
保險絲	250V / 1A	250V / 2A
選購發熱體	9SS-306-HT	
選購烙鐵	9SS-306-SI	

選購烙鐵頭

OAL: 43mm I. D: 4.0mm O.D: 6.3mm

	5SI-216N-B		5SI-216N-3.2D
	5SI-216N-B1.0		5SI-216N-1C
	5SI-216N-BC		5SI-216N-2C
	5SI-216N-0.8D		5SI-216N-3C
	5SI-216N-1.2D		5SI-216N-4C
	5SI-216N-1.6D		5SI-216N-J
	5SI-216N-2.4D		5SI-216N-K

裝置和使用焊台

A. 烙鐵架

△ 注意：海綿是可以擠壓物體，水濕則漲大，使用海綿時，先濕水再擠乾，否則會損壞烙鐵頭。

B. 連接

△ 注意：進行連接和解開烙鐵時，切記要關掉電源，以免損壞電路板。

1. 將烙鐵電源裝置連接電焊台之插座。
2. 將烙鐵置放於烙鐵架。
3. 將插頭插入電源插座，切記要接地。

C. 設定溫度

1. 啟動開關
2. 將控溫旋鈕定在所需溫度點
3. 當達到設定溫度時，溫度指示燈紅燈亮起時為升溫狀態，指示燈交替閃爍時，代表進入控溫可使用狀態

△ 注意：烙鐵不使用時，請放置於烙鐵架。

烙鐵頭的維護和使用

烙鐵頭溫度

溫度過高會降低烙鐵頭壽命，因此應選擇適合工作溫度，烙鐵頭的溫度回溫速度快，較低的溫度也可充分的焊接，可保護對於溫度敏感之元件。

清理

定期使用清潔海綿清理烙鐵頭，焊接後烙鐵頭的殘餘焊劑所衍生的氧化物和碳化物會損壞烙鐵頭，造成焊接誤差，或使烙鐵頭導熱功能減退。長時間連續使用烙鐵時，應每週一次拆開烙鐵頭清除氧化物，防止烙鐵頭受損而減低溫度並降低導熱速度。

當不使用時

不使用烙鐵時，不可讓烙鐵長時間處在高溫狀態，會使烙鐵頭上的焊劑轉化為氧化物，致使烙鐵頭導熱功能大為減退。

使用後保養

使用後應抹淨烙鐵頭，鍍上新錫層，以防止烙鐵頭引起氧化作用。

檢查和清理烙鐵頭

△ 注意：切勿用銼刀剔除烙鐵頭上的氧化物。

1. 設定溫度為攝氏250度（華氏482度）。
2. 溫度穩定後，以清潔海綿清理烙鐵頭，並檢查烙鐵頭狀況。
3. 如果烙鐵頭的鍍錫部份含有黑色氧化物時，可鍍上新錫層，再用清潔海綿抹淨烙鐵頭，如此重複清理，直到徹底除去氧化物為止，然後再鍍上新錫層。

4. 如果烙鐵頭變形或生銹，必須替換新的烙鐵頭

校準烙鐵溫度

每次更換烙鐵或替換發熱體、烙鐵頭後，應重新校準烙鐵溫度。

1. 將烙鐵電線的插頭插入焊台插座。
2. 利用控溫旋鈕設定所需溫度點。
3. 當使用溫度與所定溫度有小量誤差時，請以"一"字螺絲起子旋轉焊臺上帶有CAL字樣的校準計，順時針方向扭轉是升溫，反時針方向是降溫。

烙鐵頭

不同款型烙鐵頭的溫度可能有所不同，調節的最理想方法是使用測量烙鐵頭之專用溫度計。
(參照"校準烙鐵頭溫度")

排除故障說明

△警告：進行維修之前應關掉電源，否則可能發生觸電事故。若電線損壞，應請廠家或其維修服務代理商或專業合格人士修理，以免發生傷害身體或損壞焊台。

故障1：發熱器指示燈不亮	檢查1. 電線或連接插頭是否鬆動? · 重新接妥。 檢查2. 保險絲是否燒斷? · 確定保險絲燒斷原因後進行修理，並更換同規格新保險絲。 a.烙鐵內部是否短路? b.接地彈簧是否觸及發熱元件? c.發熱元件引線是否扭曲和短路? d.發熱器指示器是否燒壞?
故障2：發熱器指示燈雖亮，但烙鐵頭不升溫	檢查3. 烙鐵電線是否破損? · 更換烙鐵。 檢查4. 發熱元件是否破損? · 更換發熱芯。
故障3：烙鐵頭斷斷續續升溫	→參考 檢查3. · 內部PCB焊點檢查。
故障4：烙鐵頭不上焊錫	檢查5. 烙鐵頭溫度是否過高? · 重新設定適當溫度。 檢查6. 烙鐵頭是否已清理乾淨? · 請參閱"烙鐵頭維護和使用"。
故障5：烙鐵頭溫度太低	檢查7. 烙鐵頭是否衍生氧化物? · 請參閱"檢查和清理烙鐵頭"。 檢查8. 烙鐵是否正確校準? · 重新校準。
故障6：烙鐵頭無法取下	檢查9. 烙鐵頭是否被緊夾?烙鐵頭是否因銹汗而膨脹? · 更換新的烙鐵頭及發熱元件。
故障7：烙鐵頭未升達所需溫度	→參考 檢查8.

如何檢查發熱元件和組裝電線破損

斷開插頭並測量連接插頭針腳之間的電阻值，如下所示。

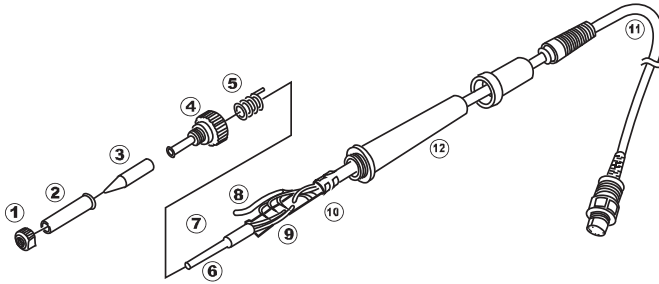
如果“a”和“b”的值超出上述值，則更換陶瓷發熱芯或烙鐵手柄。如果“c”值超過上述值，用砂紙或鋼絲棉輕輕摩擦所示的點，去除氧化膜



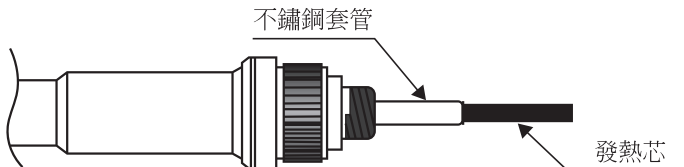
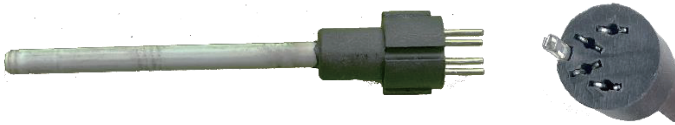
a. 第 1 腳與第 2 腳之間（傳感器）	≈50Ω
b. 第 4 腳與第 5 腳之間（發熱元件）	≈4Ω
c. 第 3 腳與烙鐵頭之間	< 2Ω

更換發熱芯

如何拆裝烙鐵：



- 1.向反時針方向扭開螺帽 1，取出烙鐵頭護套 2 和烙鐵頭 3。
- 2.向反時針方向扭開套頭 4，從烙鐵中拉出套頭。
- 3.從手柄 12 中取出發熱元件 6 和電線11(向著烙鐵頭方向拉出)
- 4.將接地彈簧5從接頭中拔出。
- 5.拔出損壞的加熱芯並插入新的加熱芯。



△ 注意：必須小心，不要鎖的過緊，否則會損壞發熱芯。

Pro'sKit®



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