

3600S HIGH POWER SOLDERING STATION WITH TIN FEEDER AND TIN CUTTING FUNCTION

Operation Manual



Note:

- Please follow the instructions to avoid accidents.
- For your own safety, please read the instruction carefully, fully understand how to use the product, to prevent any accidents due to improper use.
- Please keep it for your reference after reading.

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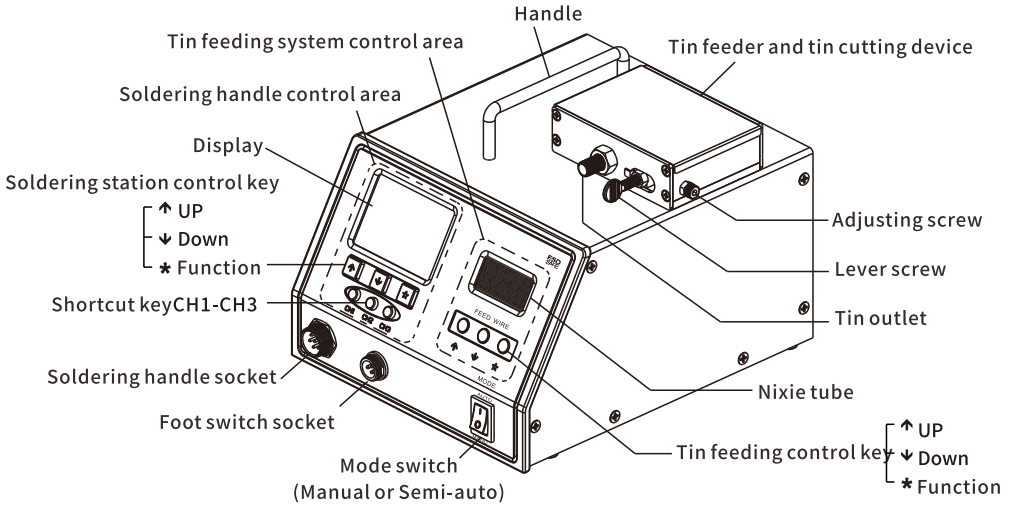
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Attention

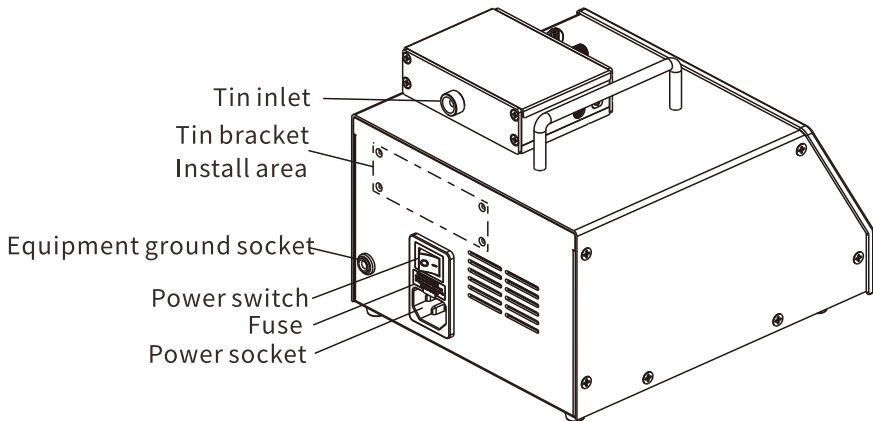
- Please read the instruction carefully before using.
- Before plugging in the power supply, please check whether the voltage used is consistent with the working voltage of the soldering station, so as not to cause permanent damage to the soldering station.
- Make sure the power line ground.
- Please turn off the power when not in use.
- The tin feeder module has knife, please be careful so as not to hurt.
- When working, soldering station is in high temperature state, please do not touch tips and metal part.
- When replacing the tip, please wait for the tip to cool down to the room temperature.
- Do not modify the internal components of the soldering station without authorization.
- When replacing parts, use original parts.
- Do not get the soldering station wet, or work with wet hands.
- Smoke will be generated during soldering, the environment should have good ventilation facilities

PRODUCT STRUCTURE DIAGRAM

Front



Back



PACKING LIST

Name	Quantity
Soldering station	1PC
Soldering handle	1PC
502 Soldering stand with tip cleaner brass ball	1PC
Power line	1PC
Bracket with screws	1PC
Foot switch	1PC
Tin tube	1PC
Tin roller	1PC
Manual	1PC

SPECIFICATION

Output power	200W (max) ; soldering handle:180W
Input voltage	AC100–240V, 50/60HZ
Temp range	100–480 °C/212–896 °F
Working environment	Temp:–10–45 °C ; Hum:45–80%Rh
Temp stability	± 2 °C
Tip ground resistance	< 2 Ω
Driver motor	Stepper motor
Tin out speed	0.3–20mm/s
Tin out length	0.3–200mm (auto/semi–auto)
Tin feeding time	0.1–30s
Tin out interval time	0–10s
Draw back tin time	0–1s
Tin out mode	Manual/Semi–automatic/Automatic
Tin out diameter	0.8–1.5mm(standard 0.8–1.0mm, tin excluded)
Dimension	173.5(L)X207.5(W)X145(H)mm
N,W/G,W	≈ 4.3/4.59kg

- The tip temperature was measured by BK191/BK192 thermometer.
- Specification and design are subject to change without notice.

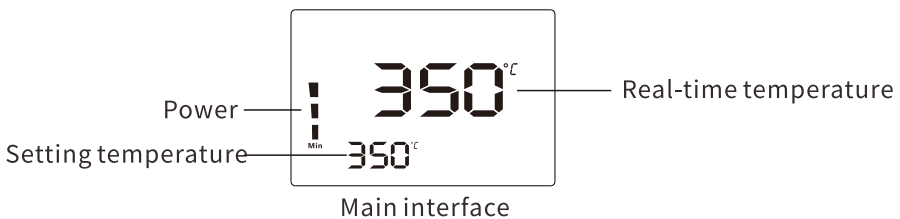
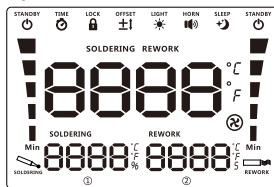
PRODUCT FEATURE

- Large LCD display with temperature display, new and unique appearance. Temperature and tin out length is visible and accurate.
- High power lead free soldering, 2 in 1 tin feeding and tin cutting function prevent tin splashing when soldering.
- Using plug-in heating core electromagnetic heating, high-precision PID temperature control, extremely fast heating speed and stable temperature.
- Soldering handle has auto-sleep function, energy saving and environmental protection. At the same time, it can effectively reduce the oxidation problem of soldering iron tip, prolong the life of soldering tip.
- Compatible with 500 series soldering tips, using in high-power solder spot work.
- Feeding device adopts the advance stepping motor, accurate tin out, low heating, run stable, low noise.
- Cutting device adopts the alloy material, high abrasion resistance, accurate cutting tin.
- Tin out mode : Manual/Semi-automatic/Automatic can be switched at random.
- Feeding time, draw back time, tin out speed, interval could be setting, auto draw back function reduce waste effectively.

SOLDERING IRON INTERFACE INSTRUCTION

Full display interface of information

Model name and version date



Operation under the main interface

Shortcut function for temperature adjustment: Under no password protection status, press up or down key to adjust the temperature.

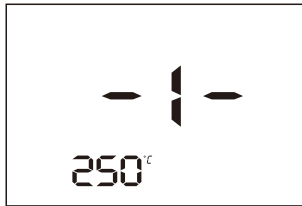
Preset value function: Short press CH1/CH2/CH3 can change setting temperature to preset temperature. (Factory default: CH1=350°C/662°F, CH2=400°C/752°F, CH3=450°C/842°F) Long press CH1/CH2/CH3 over 1S, enter revising preset temperature function, press up and down key to

MENU SETTING

1、SOLDERING IRON TEMPERATURE SETTING

Press “*” enter menu setting, press up and down key to switch the option. Switch to “1” , press” *” , then press up or down to setting, finally press “*” to save.

(Setting arrange: 100-480°C; 212-896 °F; Default:350°C)



2、SOLDERING IRON COMPENSATION TEMPERATURE SETTING

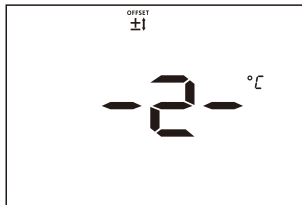
Press “*” enter menu setting, press up and down key to switch the option. Switch to “2” , press” *” , then press up or down to setting, finally press “*” to save.

(Setting arrange: -50-50°C; -90-90°F; Default:0°C)

E.g. Setting temperature 350°C, real temperature 345°C, refer to above step to add 5°C

Setting temperature 350°C, real temperature 355°C, refer to above step to 5°C

•We suggest you to test temperature of iron tip with191/192 temperature tester.

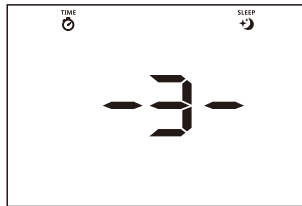


3、SETTING SOLDERING IRON SLEEP DELAY TIME

Press “*” button to enter menu setting option interface, press “↑” “↓” to switch menu, when switch to “-3-”, press “*” to start setting, press “↑” “↓” to setting and press “*” to save.(Setting range: OFF, 10Min-60Min, factory default: OFF)When open sleep mode, handle put on holder without shake and no operate of buttons, system counting automatically until setting time then sleep,(sleep temperature please see “sleep temperature sheet”) Screen show “---”, sleep symbol will be lighten.If you need to rouse sleep mode, press any button, system start work mode. If continuous in sleep mode more than 1 hour, system will enter into standby state, at the same time quit heating. Standby symbol will be lighten.

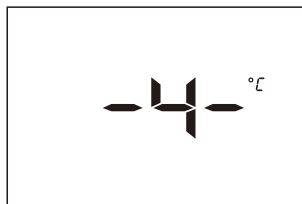
SLEEP TEMPERATURE SHEET

On work temperature setting	Sleep mode temperature
Smaller than 150°C	50°C
Smaller than 200°C	100°C
200°C and bigger than 200°C	180°C



4、SWITCH °C / °F

Press “*” button to setting option interface, press “↑” “↓” to switch menu, when switch to “-4-”, press “*” to start setting, press “↑” “↓” to setting and press “*” to save.(Setting range: °C / °F)



5、PASSWORD SETTING

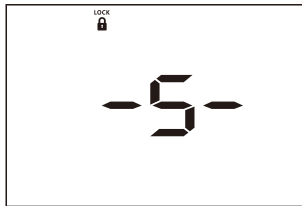
Initial Password setting: Press "*" button to enter into menu setting option, press "↑" "↓" to choose menu, when switch to "-5-", press "*" to start setting, press "↑" "↓" to set password, and then press "*" to confirm.

Initially enter password need to enter twice times of new password, confirm and save, finish setting. (Setting range:0000-9999)

Change password: need to enter once last password and then enter twice new password.

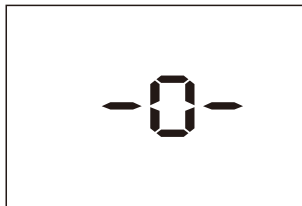
How to clean remove password when you forget it?

Long press "*" "↑" "↓" buttons when device is on shut down state, hold on and open power main switch until screen display "0000", then you can let go "*" "↑" "↓" buttons, password removed.



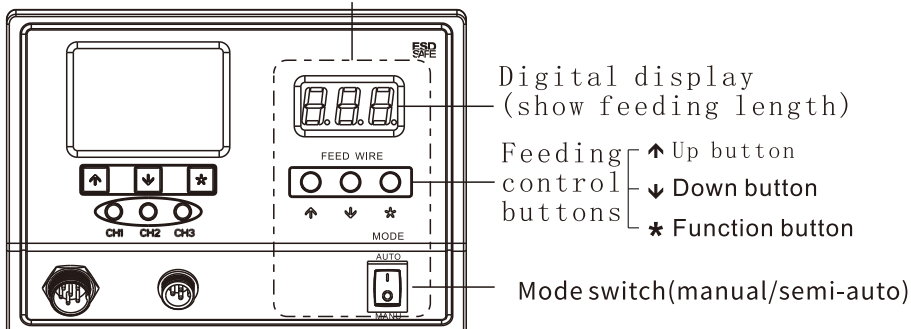
6、EXIT

Press "*" button to enter into menu setting option, press "↑" "↓" to choose menu, when switch to "-0-", press "*" to exit.



INTERFACE DESCRIPTION OF FEEDING SYSTEM

Feeding system control area



FEEDING SETTING

1、FEEDING PARAMETER SETTING

Press “↑” “↓” buttons at the same time, into menu setting interface.
Press “↑” or “↓” to switch option, press “*” choose setting item.

Menu	Setting Item
-1-	Feeding time
-2-	Return time
-3-	Feeding speed
-4-	Interval time

- a. Feeding time: screen display “-1-”, press “*”, and then press “↑” or “↓” to set, range: 0.1-30.0s, default 1.0s, precision 0.1s;
 - b. Returning time: screen display “-2-”, press “*”, and then press “↑” or “↓” to set, range: 0.00-1.00s, default 0.00s;
 - c. Feeding speed: screen display “-3-”, press “*”, and then press “↑” or “↓” to set, range: 0.3-20mm/s, default 5.0mm/s;
 - d. Interval time: screen display “-4-”, press “*”, and then press “↑” or “↓” to set, range: 0.0-10.0s, default 1.0s, precision: 0.1s;
- Finish setting and press “*” to save and exit.

2. MODE DECLARATION

a. Manual mode: when mode switch on “MANU” , enter into manual mode, at this time return time and feeding speed are valid.

Operating method: press foot pedal switch, will continuous feeding, loosen foot pedal switch, top feeding. Digital initially display “000” , show feeding length according to press time, feeding length(mm)=foot press time (s) *feeding speed (mm/s)

b. Semi-auto mode: when mode switch on “AUTO” , enter into semi-auto mode, at this time feeding time, returning time, feeding speed is valid.

Operating method: Press foot pedal switch, can feeding as setting length. Feeding length(mm)=Feeding time(S)*Feeding speed

Digital screen initially display setting length, for example, feeding time was set 2 second in menu, speed is 10mm/s, then initially display value is 20mm, press foot pedal switch, will feed as set speed.

Note: repeating press foot pedal is invalid operate while on auto feeding, auto feeding will stop once feeding finish, press switch again will feeding secondly.

c. Auto Mode: press “ ↓ ” “ * ” at the same time till screen display “ OF F ” ,press “ ↑ ” or “ ↓ ” switch to “ ON ” , then press “ * ” to save and exit. “ ON ” to open auto mode, “ OFF ” to close. On auto mode, feeding time, returning time, feeding speed, interval time are valid in menu.

Operate method: press switch one time, can feeding automatically as setting, then returning, after stay as “interval time” will feeding as set length again, till press switch again, will stop feeding.

Digital screen display “000” , press foot pedal switch, display set length.

Note: ① Feeding length=Feeding time*Feeding speed, Eg: length 150mm, feeding time set as 15s; speed is 10mm/s, 15*10=150mm.

② Maximum feeding length is 200mm, on semi-auto mode, when set length (time*speed) bigger than 200mm, feeding system don’ t work, setting is invalid.

③ Feeding precision: 0.1mm

④ When setting length bigger than 99.9mm, only display integer value.

⑤ When auto mode is “ ON ” , mode switch (auto/semi-auto) is invalid. ⑥

Restore factory settings: on shutdown mode, press “ ↑ ” “ ↓ ” “ * ” at the same time, and then starting up, will auto restore factory settings.

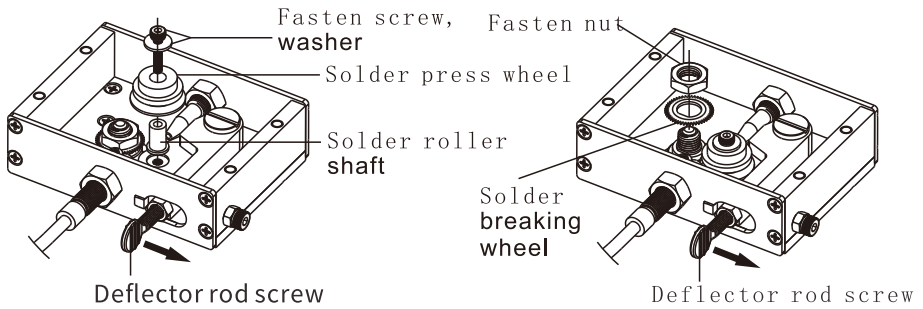
REPLACE CONSUMABLE ACCESSORIES

1. Replace solder wire press wheel

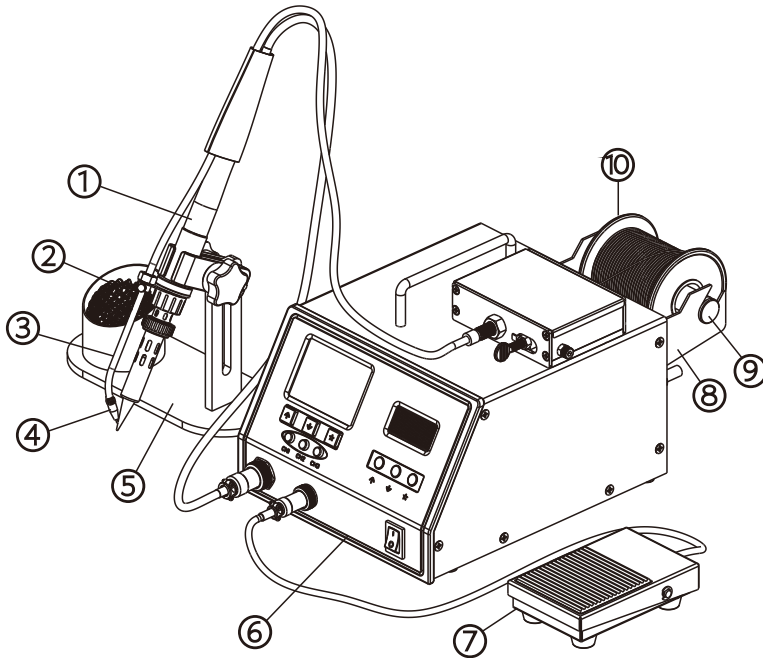
- Take off fasten nut;
- Push aside deflector rod screw, take out damaged breaking wheel
- Replace with new one, put on axis.

2. Replace solder breaking wheel

- Take off fasten screw and washer;
- Push aside deflector rod screw, take out damaged wheel;
- Replace with new one, put on solder roller shaft, install as install as picture below.



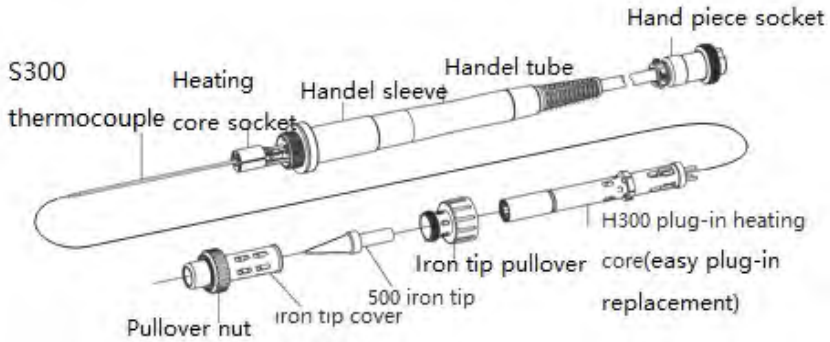
PRODUCT DECOMPOSITION DIAGRAM



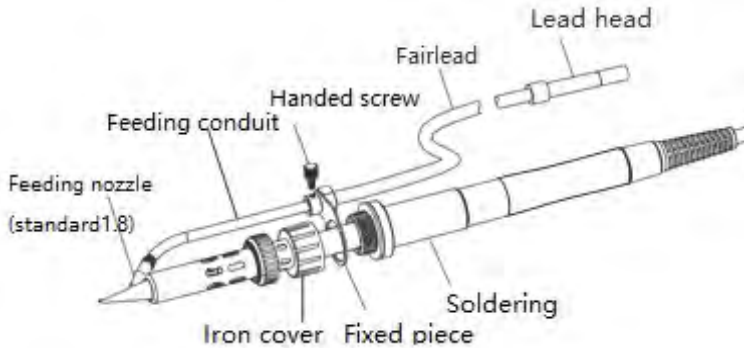
No.	Component list	Qty	No.	Component list	Qty
①	LF301 hand piece	1PCS	⑥	Host	1PCS
②	Feeding conduit	1PCS	⑦	Foot pedal switch	1PCS
③	Feeding nozzle(standard 1.8)	1PCS	⑧	Holder(4pcs screws PM3*6)	1SET
④	Clean sponge	1PCS	⑨	Solder roller shaft	1PCS
⑤	500 soldering iron holder	1PCS	⑩	Solder wire roll(0.8-1.0mm)	Not included

ACCESSORIES DECOMPOSITION DIAGRAM

1. Hand Piece



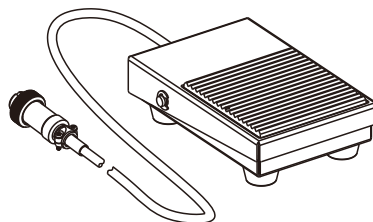
2. Feeding Conduit



Note:

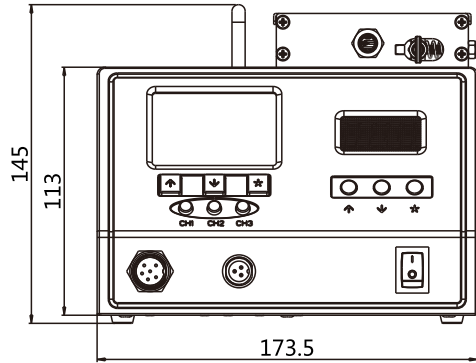
- 1.Fixed piece of feeding conduit shall cover the soldering iron, tightly pressed by pullover.
- 2.Adjust feeding nozzle and align with iron tip where melt solder wire.
- 3.Adjust fairlead winding path, let it smooth, without interference torque, and then install lead head to feeding

3. Foot pedal switch

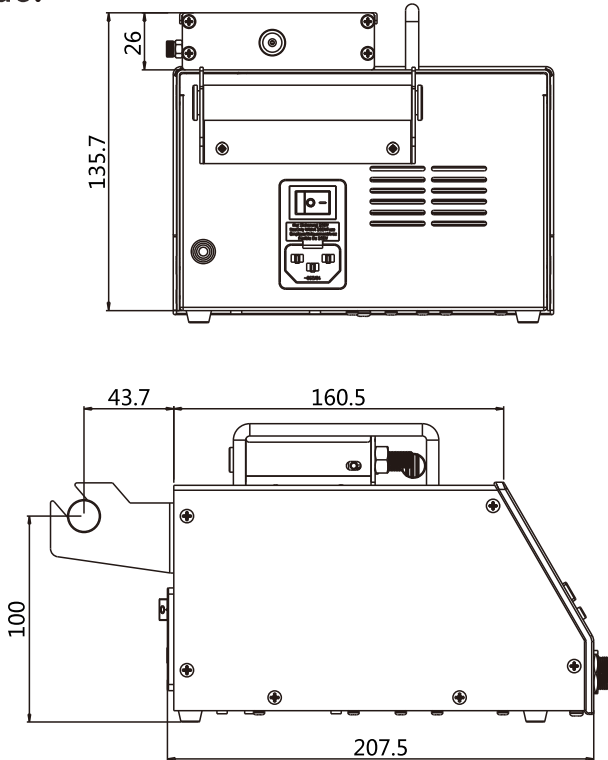


PRODUCT DIMENSION

Front side:
(Unit: mm)



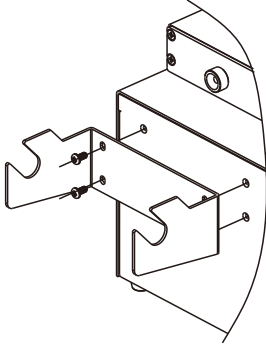
Back side:



INSTALLATION DIAGRAM

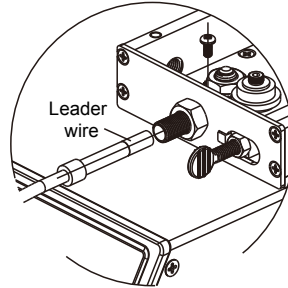
Step1. Install bracket

Open package, take out host, bracket and PM3*6 screws, install at backside of host as picture below, fix with screws.



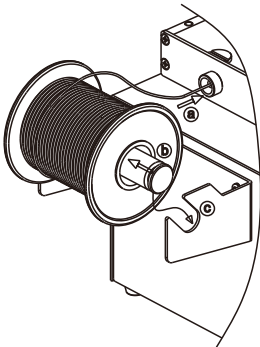
Step2. Install feeding conduit lead head

- Take off top cover of feeding device, loosen screw of feeding nozzle;
- Put lead head into feeding nozzle, tighten screw and impact.



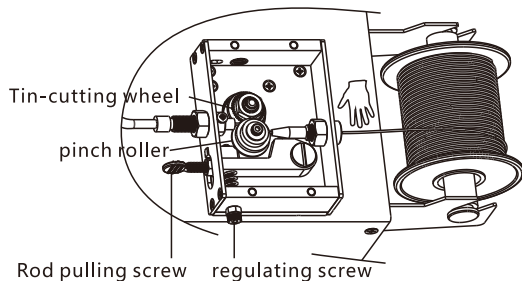
Step3. Install solder wire roll

- Open package, put solder wire into inlet port of feeding device
- Put solder roller shaft across the middle hole of solder wire roll
- Place both sides of the roller into bracket slot.



Step4. Thread the solder wire

- Push aside the deflector rod screw of feeding device, pull away press wheel and solder breaking wheel
- Thread solder wire from tail, through wheel slot, then through feeding conduit, finally let out from feeding nozzle.
- Loosen screw of deflector rod, press solder wire wit gear teeth. note: use allen wrench ($\Phi 3$) to adjust screw, you can adjust depth of gear teeth stab into solder wire.



Step5. Connect soldering iron, foot pedal switch, power cord to host.

Step6. Make sure all connected cord and device installed, turn on power.



Notice

- Feeding module includes cutting blade, be careful when use, beware of cutting your fingers.
- When push deflector rod, never put into your finger, to prevent jam your fingers.

MAINTENANCE

Check and clean soldering iron

1. Set temperature as 350°C
2. When temperature be stable, use cleaning steel wire ball to clean soldering iron, and inspect it' s situation.
3. If tin plated part on soldering iron have black oxide, you can plate with layer of new tin, and then clean iron tip with cleaning steel wire ball. Repeat these steps until oxide removed totally, then plate new tin.

Reason and treatment methods for unsuccessful tinning of iron tip

Soldering iron can' t be tinned because of high temperature on surface, very easy to be oxidized when contact with air, once oxide coating on surface it would be very difficult to be tinned. Use 80#Polyurethane grinding foam block or 100#silicon carbide paper to remove dirt and oxide



Note: Never use file to get rid of oxide on soldering iron.

Appropriate daily maintenance will effectively improve situation of can not tin iron tip.

Prolong life-span of soldering iron

1. Soak the fresh solder after every use, in this way can prevent oxidization of iron tip thereby prolong life-span.
2. As long as it works, use lower temperature to solder as possible as you can.
3. Use slender iron tip only when necessary, layer of slender iron tip is not as durable as thick iron tip.
4. Don' t use iron tip as detection tool, tip being curved will crack the coating, shorten serving life.
5. Use rosin flux with less activity as far as possible, due to high content of activity rosin will accelerated coating corrosion of iron tip.
6. Try to off power to prolong life-span if soldering iron is on unusing state.
7. Don' t heavy press the iron tip, to improve heat transportation, must melt tin, and build heat transporting bridge between iron tip and welding point.
8. Use cleaning steel wire ball, compare to wet sponge, it' s not easy to be oxidized(water is oxidizing agent), to increase life span greatly.

ABNORMAL MANAGE

Error sign

When soldering station have problems, will display kinds of error sign. If display sign as below, please follow Troubleshooting Guide.

S-E sensor error(display on soldering control LCD screen)

If sensor or any part of circuit of sensor is failure, screen display **S-E**, current transport to soldering iron would be cutted off.

H-E heating element error(display on soldering control LCD screen)

If soldering iron can not warm up, screen display **H-E**, it indicate heating element might be damaged

Err Electric motor error(display on tin feeding control LED screen)

If over current on motor, screen display **Err**, it indicate motor abnormal.

TROUBLESHOOTING



WARNING: Must cut off power before repair, or electric shock accident might happen, if power damaged, should be repaired by manufacturer or other maintenance service agent or similar qualified maintenance person, to avoid hurt humanbody or damage soldering station.

FAULT1: UNABLE TO OPERATE SOLDERING STATION

1. Check if power cord being loose, if yes, connect it again.
2. Check if fuse was burned out, make sure reason of fuse burned out, replace with new fuse. Reasons as below will cause fuse to be burned out: •Whether inside the soldering iron have short out; •Whether grounded cord touch to heating element; •Whether down-lead of heating element twist or short out;
3. Check if cord is damaged, if yes, replace with new cord.

FAULT2: DISPLAY SOLDERING IRON CAN NOT WARMING, SENSOR OR HEATING CORE ERROR

1. Check if soldering iron loose connect with socket, if yes, connect it again.
2. Check if any damage of cord and connect plug. Check method refer #soldering iron cord damaged.
3. Check sensor element, check method refer #heating and sensor parts damaged

FAULT3: SOLDERING IRON WARMING OFF AND ON

1. Check if loose connect of cord and plug, if yes, connect it again.
2. Check if any damage of cord and connect plug. Check method refer #soldering iron down-lead damaged.

FAULT4: IRON TIP CAN NOT STAIN WITH TIN

1. Check if temperature of soldering iron is too high, if yes, set temperature again.
2. Check if soldering iron have been cleaned out, check method please refer #check and clean soldering iron.

FAULT5: TOO LOW TEMPERATURE OF SOLDERING IRON

1. Check if derive oxide on soldering iron, check method please refer #check and clean soldering iron.
2. Check if soldering iron calibrate in correct way, if not, please recalibrate.

FAULT6: HEATING ELEMENT DAMAGED C-E DISPLAY

1. Check if soldering iron assemble with iron tip, if not, please assemble a appropriate iron tip.
2. Check if cord of soldering iron damaged, check method refer #soldering iron cord damage.
3. Check if heating element damaged, check method refer #heating and sensor part damaged.

FAULT7: FLICKER OF TEMPERATURE DISPLAY

1. Check if cord of soldering iron damaged, check method refer #soldering iron down-lead damaged.
2. Check if welding point too big, if yes, please use higher power soldering station.

FAULT8: CAN NOT SETTING TEMPERATURE

1. Check if temperature of iron tip bigger than rated temperature, if yes, soldering iron enter into protection state, can not setting TEMP any more.
2. Due to wrong operation, soldering iron enter into program hold state, power off and turn on again.

FAULT9: GET STUCK OF TIN

1. Check if tin wire been stuck in tin feeding tube.

FAULT10: CUT BLADE HAVE ABNORMAL SOUND WHEN SPLIT TIN

1. Whether tin wire too thick or skewing to tin guiding roller,.

FAULT11: ABNORMAL OF MOTOR, DISPLAY “ERR”

1. restart up still error, it is fault on motor / driver board, must send back to original factory for repair.

FAULT12: DISPLAY “--” REMINDER, MOTOR NO RESPOND

Please check setting of “tin feeding time” and “tin feeding speed” , on semi-auto, auto mode, when set single time feeding length(feeding time* feeding speed) bigger than 200mm, motor stop working.

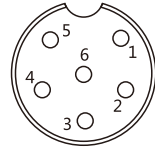
HEATING ELEMENT INSPECTION

PULL OUT THE PLUG, TEST RESISTANCE VALUE BETWEEN PIN TO PIN PLUG AS BELOW:

If resistance value between “a” and “b” different to the value of below sheet, need to replace heating element(sensor) or cord. Please follow ■ disassembly soldering iron. If resistance value of “c” bigger than value of below sheet, then need to wipe oxide layer with sandpaper or steel wool , position as following picture shown.。

RESISTANCE VALUE OF SOLDERING IRON

a.	Pin4 to pin5(heating element)	<1 Ω (normal)
b.	Pin1to pin2(sensor)	<10 Ω (normal)
c.	Pin3 to iron tip	Lower than 2 Ω



TEST RESISTANCE OF HEATING ELEMENT AND SENSOR

When heating element return to room temperature, test resistance value of heating element and sensor, please review ■resistance of soldering iron

INSPECTION AFTER REPLACE HEATING ELEMENT

AFTER REPLACE HEATING ELEMENT, PLEASE DO INSPECTION AS BELOW:

- 1.Test the resistance value of pin1 to pin4 or to pin5, pin1 to pin2 or to pin3, pin4 or pin2 to pin3, it should be ∞, if not ∞, indicates heating element touch to sensor or outside shell, will cause soldering station working abnormal.
- 2.Test the resistance value of a b c, make sure down-lead didn't distorted, grounded cord is connect correct.

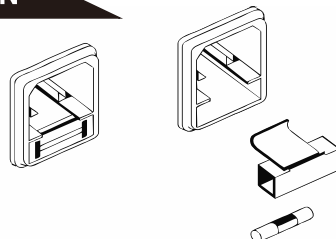
SOLDERING IRON DOWN-LEAD DAMAGE

METHODS TO TEST POWER SUPPLY OF SOLDERING IRON:

- 1.Open power of soldering iron. On different part of soldering iron cord(include the tightness part) shake or tangle, if LED indicator light of heating element glisten, then should replace cord.
- 2.Test resistance value between pin and terminal board of soldering iron plug. Resistance value of pin1, 2- sensor, pin3-shielded wire, pin4,5-heating core should < 1Ω, if bigger than 1Ω or ∞, should replace down-lead.

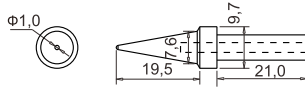
HEATING ELEMENT INSPECTION

- 1.Pull out power plug from socket
- 2.Take off insurance cover
- 3.Take off the damaged fuse
- 4.Replace new fuse(3A/250V)
- 5.Put on the insurance cover

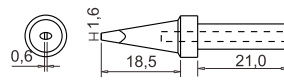


500 SERIES SOLDERING IRON TIP

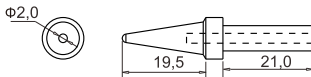
500-B



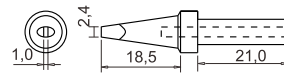
500-1.6D



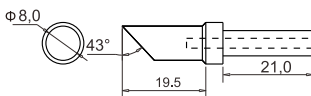
500-2B



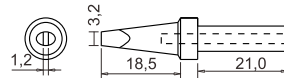
500-2.4D



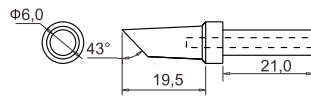
500-8C



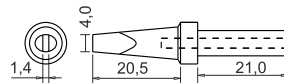
500-3.2D



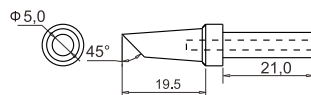
500-6C



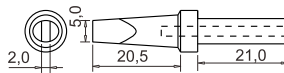
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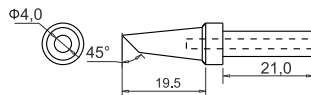
500-5C



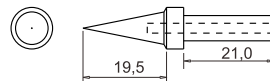
500-5D



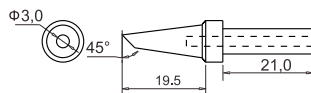
500-4C



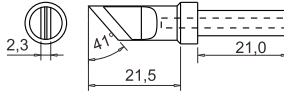
500-I



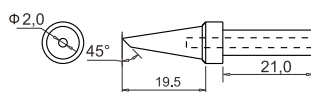
500-3C



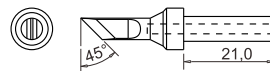
500-K



500-2C



500-SK



Attention:

Please use the original heater and solder tips! The soldering station's work depends on electromagnetic induction eddy current heating to make sure solder tips heating fast, the poor quality of heater and solder tips will influence the productivity and the life time of station much.

Repair Warranty (Principle)

Model: _____ Date of Production: _____

Customer: _____ Date of Purchase: _____

Product No: _____ Issued by: _____

From the date of purchasing, we provide ___months repair warranty

After Sale Suggestion (Subordinate)

Customer: _____

Delivery Date: _____ Tel: _____

Address: _____

Distributor: _____

Invoice NO: _____ Invoice Date: _____

Product Model: _____ Product NO: _____

Warranty Terms:

- 1.The table for feedback from customers should be returned to our company within a month after the date of purchase.In this way,customers may enjoy one-month repair warranty.
- 2.Repair Warranty and Purchase Certificate should be presented.The warranty only applies when all the required documents are available.
- 3.The warranty does not apply when the equipment has received damage through abuse, carelessness,improper installation,accident or mishandling during shipment,connecting to improper line voltage,or has been serviced by anyone other than an authorized factory representative.
- 4.After the warranty period,we are ready to provide charged repair service,perfect as always.

Dear Sir / Madam :

Thank you for purchasing our products.To improve our service and ensure the proper use of our products,please kindly write down your suggestions.

Name of Product: _____

Date of Purchase: _____

Your Suggestions: _____

Package: _____

Functions: _____

Others: _____

Date: _____

GUARANTEE CARD

The product conforms to the technical standards

Q C .



Warranty card

The warranty is valid in one year since the purchase of this ,any quality problem found,please send back to us with courier fee to be collected,upon receipt of the returning unit,we will repair it and send back to customer within two working days.

Notice:Please enclose the warranty card along with the returning product, or else we have the right to reject the repairing,thanks for your corporation.