



BK375B⁺

Automatic tin feeding system

Manual



WARNING:

- Please follow the instruction to avoid accidents.
- Misuse may potentially cause injury to the user or physical damage to the objects involved.
- For you own safety, be sure to comply with these precautions.

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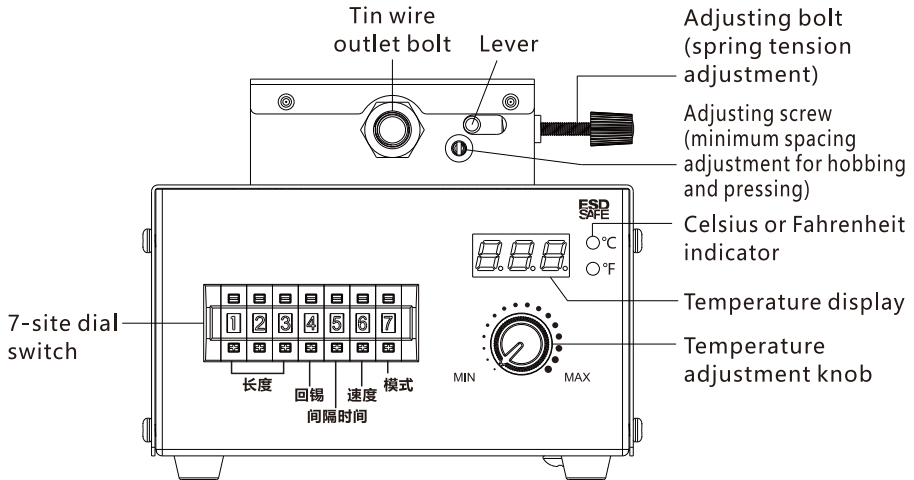
Attention point

When in use, the temperature of the soldering iron tip is between 100°C and 480°C. In order to avoid damaging the product and keep the working environment safe, the follow items should be observed.

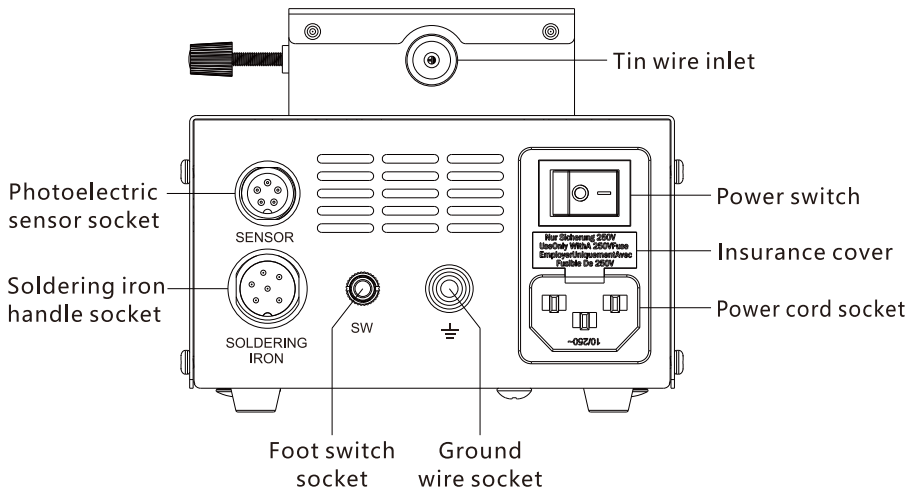
- The power supply voltage used by this product should be consistent with the voltage value on the machine label.
- The product should be placed indoors for use.
- When replacing the soldering iron tip, please turn off the power and wait until it cools down to room temperature before replacing the soldering iron tip.
- Never touch metal parts near the soldering iron tip.
- Do not use a soldering iron tip for work other than soldering.
- Never strike the solder on the workbench to remove flux residues as this can severely damage the iron.
- There will be smoke during soldering, and the factory should have good ventilation facilities.
- When using the soldering iron, do not do anything that may hurt the body or damage objects.
- The product uses a three-wire grounding plug, which must be inserted into a three-hole grounding socket. Do not change the plug.

Product schematic

Front



Back



Package list

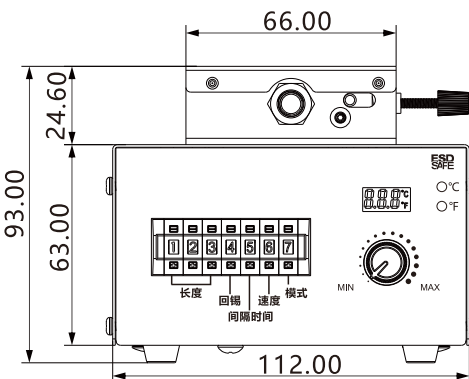
Host	1PCS
Soldering iron handle	1PCS
Automatic tin tube	1SET
Handle stand	1SET
Bracket	1PCS
Foot switch	1SET
Tin wire roller	1PCS
Manual	1PCS
Tin nozzle	Φ1.0(Standard), Φ0.8/Φ1.2(Optional)
Photoelectric sensor(Including stand)	Optional
Hand tin tube	Optional
Grounding wire	Optional

Product specifications

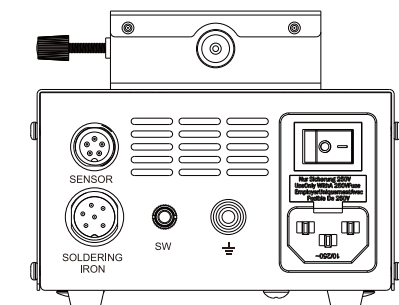
Input voltage	AC 230V / 50Hz
Power	70W
Working voltage of heating element	24V
Using environment	Temperature:-10~45°C; Humidity:45~80%RH
Soldering iron tip temperature	200°C-480°C(392°F ~896°F)
Temperature stable	±2°C
Soldering iron tip leakage voltage	≤2mV
Ground resistance	≤2Ω
Driving motor	Stepper motor
Tin out speed	2.7mm/s~27mm/s (36°/s~360°/s)
Tin output	0~150mm
Tin interval time	0~2.7s
Back to tin time	0~0.9s (0~25mm, fixed speed: 360°/s)
Tin feeding mode	0:manual;1-8:automatic;9:Photoelectric induction
Tin wire diameter	0.8、1.0、1.2 (mm)
Product size	L112×W178×H93mm
Net/Gross weight	≈3kg/3.3kg

Product features

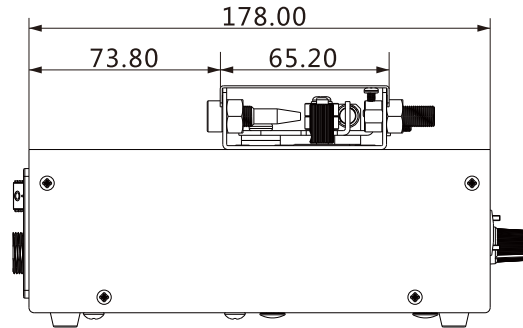
Product size chart



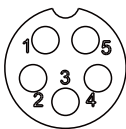
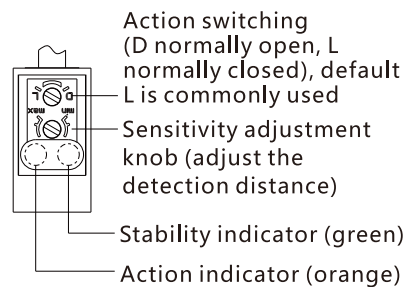
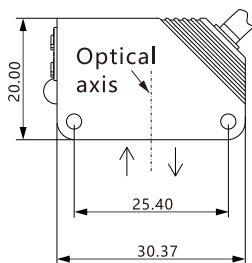
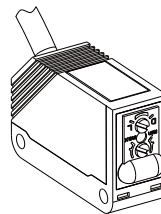
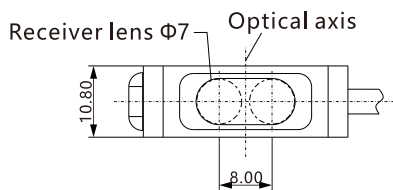
Discussion



Side



b. Sensor size



Lead	Corresponding plug(GX12-5P) lead pin
Positive (blue)	4pin
Negative (blue)	1pin
Signal output (black)	3pin
/	The rest is empty pin

Parameter settings

一、Tin feeding parameter setting

1、Length of tin

Set the first to third parameter values of the dial switch. Setting method: Press the "+/-" button to increase/decrease the value.

The amount of tin feeding adopts the angle system. The length of the tin is expressed by the angle rotated by the motor. The tin feeding is set in 3 digits.

001~999 means the tin length is about 0.15~150mm; the resolution is 0.15mm (1.8 degrees). Every 1 value means 0.15mm (1.8 degrees). The value setting method is the same as the tin feeding speed.

For example: when the value is set to 001, the angle of tin outlet is 1.8 degrees, and the length of tin outlet is 0.15mm; the value is set to 002, the tin feeding angle is 3.6 degrees, and the length is 0.3mm.

when the selected value is 999, the longest, the tin feeding angle is 1798.2 degrees, and the length is about 150mm.

Dial switch to select the corresponding value according to the work requirements. Adjustable range: 0~150mm.

2、Tin return time

Set the fourth parameter value of the dial switch.

The tin return time is a 1-digit setting, 0~9 means 0~0.9s, and the resolution is 0.1s, every 1 value means 0.1s.

For example: when the value is set to 0, the tin return time is 0s, and the tin return length is 0mm; when the value is set to 1, the time is 0.1s, the length of the tin return is 2.8mm; when the value is set to 2, the tin return time is 0.2s, and the length of the tin return is 5.6mm; when the value is set to 9, the tin return time is 0.9s, and the tin return length is about 25mm.

Adjustable range: 0~0.9s (about 0~25mm).

3、Interval time for tin feeding

Set the value of the fifth parameter of the dial switch.

The tin feeding interval time refers to the interval time between each tin-out when automatic tin feeding is performed more than twice.

The interval time is set by 1 bit, 0~9 means 0~2.7s. The resolution is 0.3s, each value represents 0.3s. The value setting method is the same as the tin feeding speed.

For example: when the value is set to 1, the interval time is 0.3 seconds; when the value is set to 2, the interval time is 0.6 seconds; and set the value to 9 and the interval time is 2.7 seconds (the longest time). Dial switch to select the value.

Adjustable range: 0~2.7s.

4、Tin feeding speed

Set the value of the sixth parameter of the dial switch.

The tin feeding speed is set to 1 bit, 0~9 means the tin speed is about 2.7mm/s~27mm/s (36°/s~360°/s). The resolution is 2.7mm/s, each value represents the tin speed of 2.7mm/s (36°/s).

For example: when set to 0, the tin output speed is the slowest, which is 2.7mm/s (36°/s); when set to 1, the speed is 5.4mm/s (72°/s); when set to 9, the tin feeding speed is the fastest, 27mm/s (360°/s).

Dial switch, and select the corresponding value according to the work requirements.

Adjustable range: 2.7mm/s~27mm/s (36°/s~360°/s).

5、Tin feeding mode

Set the seventh parameter value of the dial switch.

The tin mode is 1-bit setting, and the corresponding functions of each value are as follows:

0: Manual tin feeding	1: Automatic tin feeding 1 time
2: Automatic tin feeding 2 times	3: Automatic tin feeding 3 time
4: Automatic tin feeding 4 time	5: Automatic tin feeding 5 time
6: Automatic tin feeding 6time	7: Automatic tin feeding 7time
8: Automatic tin feeding 8time	9: Photoelectric induction mode

The tin will be returned after each tin feeding.

二、Other setting

1、Temperature unit

Press and hold the temperature adjustment knob for 2 seconds to switch between Celsius/Fahrenheit.

2、Temperature compensation

Double-click the knob to enter the setting interface. After modifying the parameters, double-click to exit.

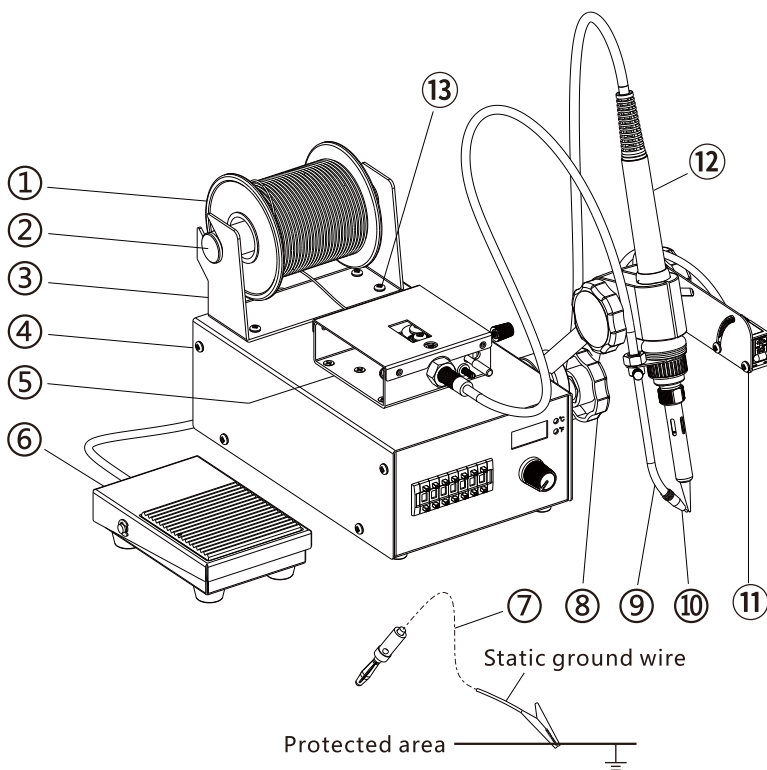
Unit: Celsius(Note: The temperature compensation value is in "Celsius", and the adjustment is based on the units of Celsius and Fahrenheit display is valid)

Adjustment range: -50°C~70°C

3、Roller gap setting

Since the roller gap defaults to 1.0mm tin wire, if you use other wire diameter tin wires, you need to adjust the roller gap, set the gap through the "adjustment screw" on the front of the tin feeding device, use a small flat-blade screwdriver to turn the screw, add clockwise Large gaps, counterclockwise to decrease gaps.

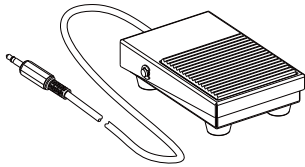
Exploded view of product



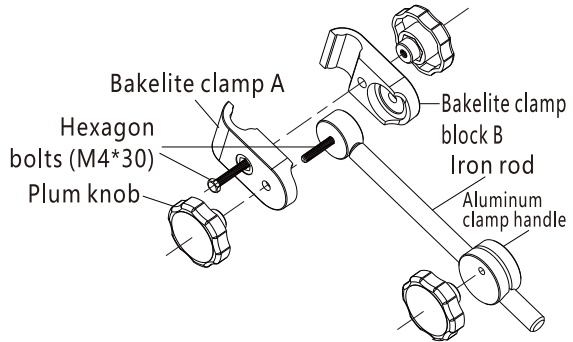
Number	Bill of Materials	Quantity	Number	Bill of Materials	Quantity
①	Tin roll(0.8-1.2)	0PCS(Buying)	⑧	Handle stand	1SET
②	Tin wire roller	1PCS	⑨	Automatic tin tube	1SET
③	Bracket	1PCS	⑩	Tin feeding nozzle(1.0)	1PCS
④	Automatic tin machine host	1PCS	⑪	Photoelectric sensor(With stand)	Optional
⑤	Tin feeding device	1PCS	⑫	Soldering iron handle	1PCS
⑥	Foot switch	1SET	⑬	Phillips screws(PM3*6)	4PCS
⑦	Ground wire	1PCS			

Exploded view of accessories

a. Foot switch

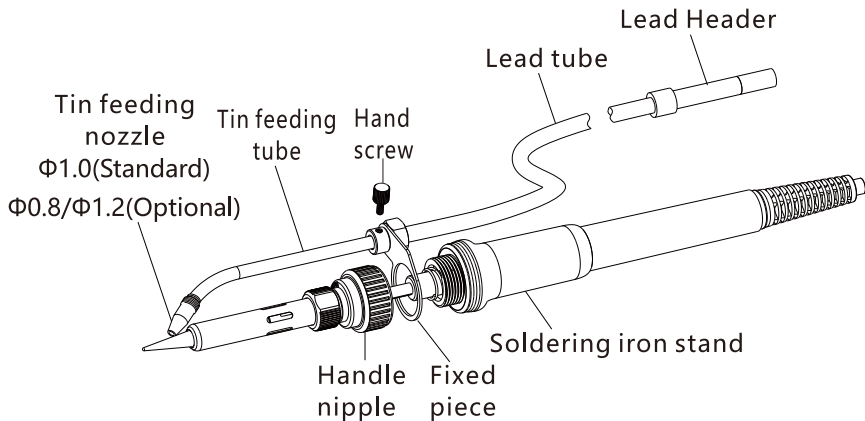


b. Handle stand



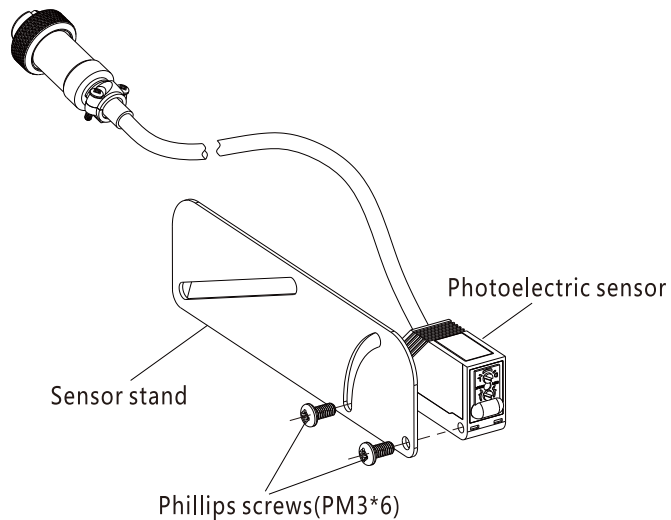
Note: 1.The aluminum clamp handle need to be installed on the side stud of the host.
2.Bakelite clamps A and B are used to clamp the soldering iron handle.

c. Tin feeding tube

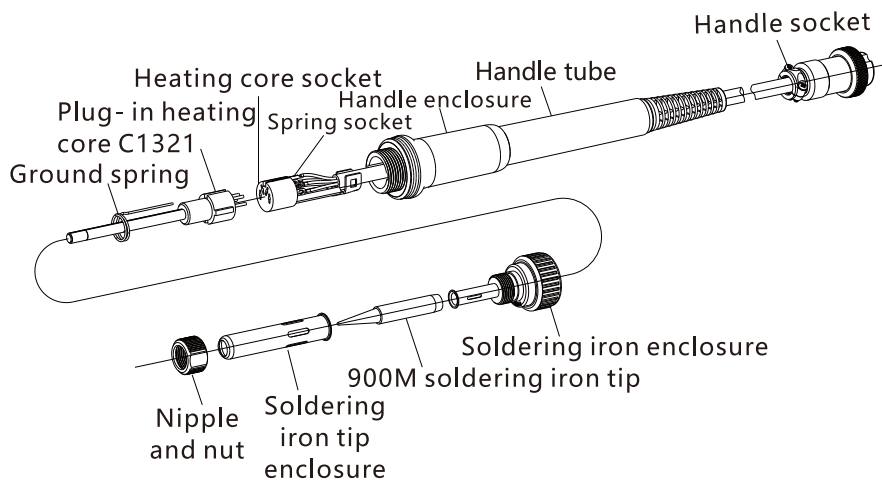


Note: 1.The fixed piece of the tin feeding tube is put on the soldering iron handle, and is pressed with the nipple.
2.Adjust the angle of the tin nozzle and align it with the soldering iron tip.
3.Adjust the bending route of the lead tube to make the lead tube run smoothly without disturbing torque, and then install the lead head to the tin nozzle of the tin feeding device.

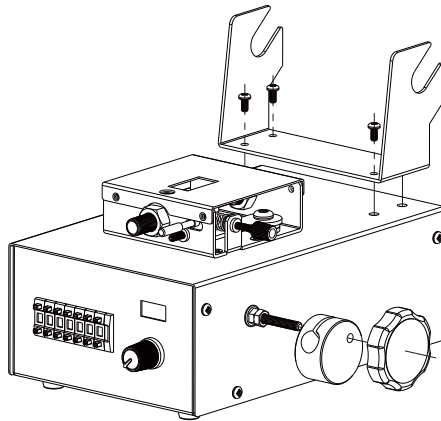
d. Photoelectric sensor(Optional)



e. Soldering iron handle



Installation schematic

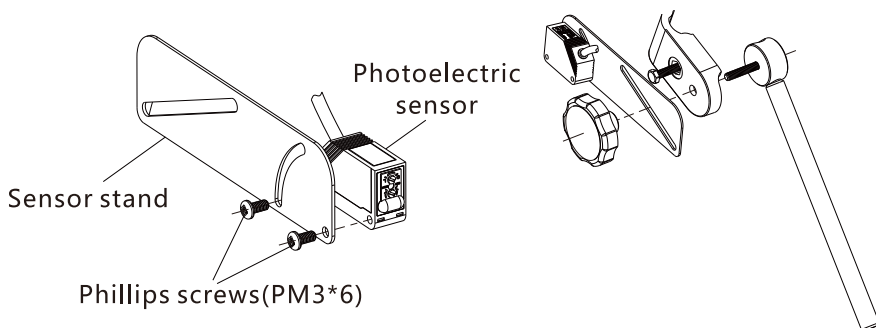


Step 1: Open the installation bracket, take out the host, bracket and PM3*6 screws, place the bracket as shown in the figure below, and lock the screws to fasten it.

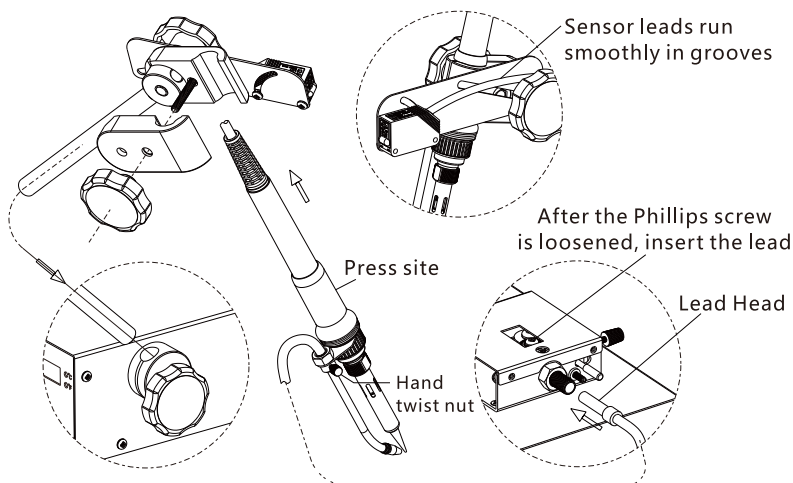
Step 2: Install the aluminum clamp handle and remove the plum knob from the side of the host, put on the aluminum clamp handle, and then lock the plum knob (do not lock it tightly).

Step 3: Assemble the photoelectric sensor and the bracket (no accessories, this step can be omitted), turn the photoelectric sensor adjustment knob outward, install it on the bracket, and lock 2 screws M3*9 (do not lock it too tightly, and then adjust the close according to the soldering position site).

Step 4: Assemble the photoelectric sensor and the handle stand. Set the bakelite clamp A on the iron rod bolt, and then insert the outer hexagonal soldering bolt (M4*30) into the hole first, and then put the sensor bracket on the iron rod bolt. Use the plum knob to lock and compress the sensor stand.



Step 5: Assemble the soldering iron handle, assemble the bakelite clamp B to the bakelite clamp A set, and screw on the plum blossom knob (do not lock tighten), insert the soldering iron handle from the tail into the slot of the clamping block, and press the locking knob to the position of the handle nipple.



Step 6: Insert the iron rod of the handle stand into the aluminum clamp handle, and lock the knob to fix it.

Step 7: Insert the lead head of the tin feeding tube into the nozzle of the tin feeding device, and press the locking screw.

Note: a. The tin nozzles correspond to three specifications of 0.8/1.0/1.2 nozzles according to the tin wire.

b. Adjust the angle of the tin feeding tube so that the tin nozzle is aligned with the soldering iron tip, and hand twist the nut to fix the tube.

Step 8: Install the foot Switch

Insert the foot switch plug into the 'SW' socket on the back of the machine.

Step 9: Install the tin wires

a. Thread the tin wire coil into the tin wire roller, and then place the roller on the bracket, and the card can be placed firmly.

b. The tin wire is drawn out from the bottom, penetrated from the wire inlet nozzle of the tin feeding device, push the dial rod to the right, open the gap between the hobbing teeth, and forcefully thread the tin wire into the tin feeding tube.

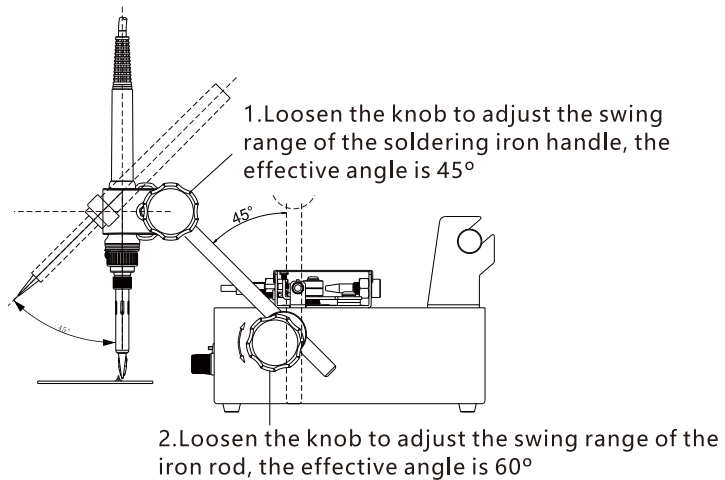
c. Set the 7th mode number of the dial switch on the panel to 0 (manual mode), connect to the power supply, and step on the foot switch until the tin wire is sent out.

Step 10: Adjust Handle Assembly direction

a. When adjusting the direction, first loosen the hand tightening knob to make the bracket move, adjust the angle of the iron rod, swing it to a suitable position, and then tighten the knob.

b. To adjust the direction of the handle, loosen the upper hand tightening knob to move the handle and adjust the angle of the handle. After swinging to the proper position, tighten the knob again.

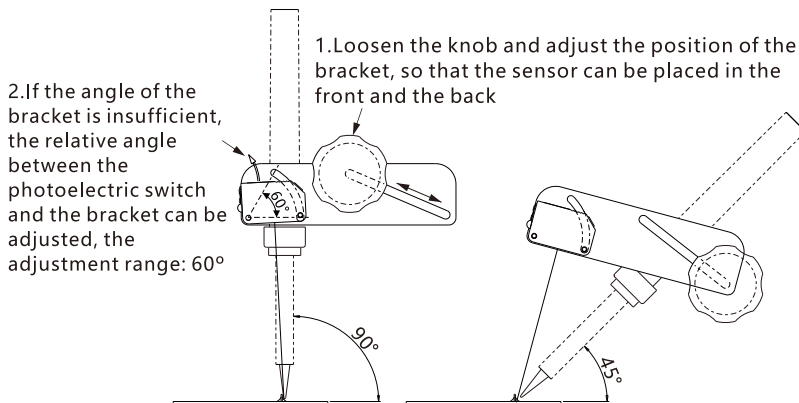
Note: If there is a photoelectric switch, you need to install the photoelectric switch on the upper hand-tight knob, and then adjust the handle and the angle of the photoelectric switch as a whole.



Step 11: Adjust the Photoelectric Switch direction

- The value of the dial switch mode is set to 9 for the photoelectric induction mode, and a photoelectric switch needs to be installed.
- It is necessary to adjust the position of the photoelectric switch before using the photoelectric switch: the optical axis must be aligned with the object before it can be recognized, so as to judge that the object being soldered is approaching and begin to emit tin.
- According to the placement angle of the soldering iron handle, adjust the bracket so that the optical axis is aligned with the object.

Note: a. When soldering the board, take the board as the detection reference point.
b. When welding the wire, use the human hand as the detection reference point.



Maintenance

To ensure that the soldering station works properly, please note the following recommendations.

1. Tin the new soldering iron tip

Soldering iron tips are consumables, and proper use and maintenance can prolong the service life of the soldering iron. Before using a new soldering iron tip for the first time, the temperature of the soldering iron should be adjusted to 200 °C, and a layer of solder should be fully applied to the tinned part of the soldering iron. After fully eating the tin, it should be cleaned on a cleaning sponge. Then adjust the temperature to 300 °C, repeat the tinning step just now, and set the temperature to the appropriate temperature after cleaning on the cleaning sponge.

2. Daily use and maintenance

- 1) Before each use, the tip of the soldering iron should be wiped clean on the cleaning sponge, and then re-tinned before soldering.
- 2) Do not let the soldering iron tip stay at too high temperature for a long time, it is easy to crack the electroplating layer on the surface of the soldering iron tip.
- 3) When soldering, do not rub the solder joint with too much pressure in the soldering iron tip, this process will not change the thermal conductivity performance, but will damage the tip of the soldering iron.
- 4) Before shutting down the machine, wipe the tip of the soldering iron clean, and then apply a layer of tin on the tip of the soldering iron.

3. Cleaning surface of the soldering iron tip

- 1) When there is black oxide or dirt on the tin-plated part of the soldering iron head and cannot be tinned, it should be cleaned with a cleaning sponge immediately.
- 2) First adjust the temperature of the soldering iron to 200°C, then use a cleaning sponge to clean the tip of the soldering iron, and then apply tin. Repeat until the oxide is cleaned up.
- 3) If there are serious oxides on the tip of the soldering iron, if necessary, use a 600-800 mesh fine emery cloth and alcohol to carefully wipe it to remove dirt or oxides.

4. Replace the soldering iron tip

Please use the Bakon 900M series soldering iron tips to replace the soldering iron tips. Please turn off the power of the soldering station before replacing the soldering iron tips. After the temperature of the soldering iron tips has dropped to room temperature, remove the soldering iron tips and clean the foreign objects in the nipple. Tin on the new soldering iron head] Operation steps to tin.

Remove of fault

1.LED display "S-E": sensor/sensing circuit failure.

Measure:

- Check whether the soldering iron handle plug and the host socket are connected in place;
- Check whether the sensor is damaged;
- Turn off the power and restart after 5 seconds.

2.LED display "H-E": heating core or circuit failure.

Measure:

- Check whether the heating core is open or damaged;
- Check whether there is voltage at both ends of the heating core;
- Turn off the power and restart after 5 seconds.

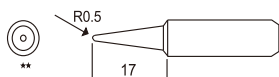
3.The LED displays "Err": the stepper motor or drive circuit is abnormal.

Measure: Turn off the power and restart after 5 seconds.

Note: If the fault cannot be eliminated by the above steps, please contact customer service to return to the factory for repair.

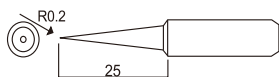
900M soldering tips

900M-T-B

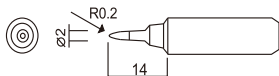


900M-T-BF2

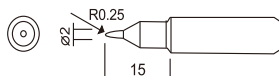
900M-T-LB



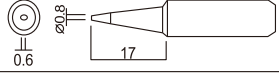
900M-T-SB



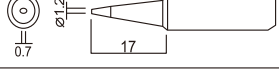
900M-T-S4



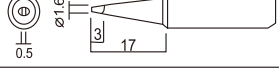
900M-T-0.8D



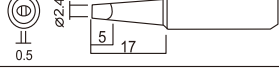
900M-T-1.2D



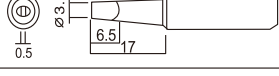
900M-T-1.6D



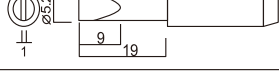
900M-T-2.4D



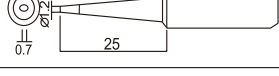
900M-T-3.2D



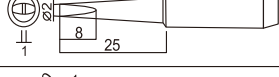
900M-T-S3



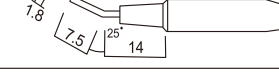
900M-T-1.2LD



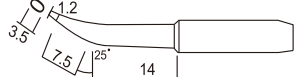
900M-T-2LD



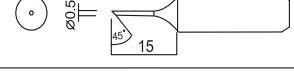
900M-T-1.8H



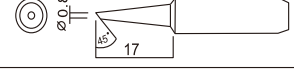
900M-T-H



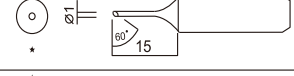
900M-T-0.5C



900M-T-0.8C

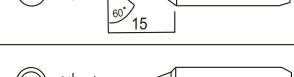


900M-T-1C

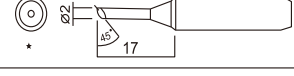


900M-T-1CF

900M-T-1.5CF



900M-T-2C



900M-T-2CF

900M-T-3C

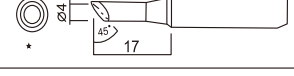


900M-T-3CF

900M-T-S10

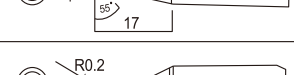


900M-T-4C

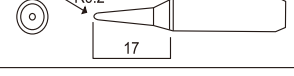


900M-T-4CF

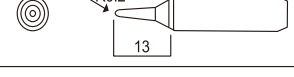
900M-T-S11



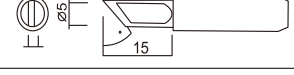
900M-T-I



900M-T-SI



900M-T-K



Attention:

This soldering station adopts ceramic heating core. The quality of the heating core and soldering iron head directly affect the temperature return performance and reliability of the soldering station. In order to ensure the good performance of the soldering station, please select the original heating core and soldering iron head. Thank you!

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: _____

Bakon[®]

GUARANTEE CARD

The product conforms to the technical standards

Q C .



SHENZHEN BAKON ELECTRONIC TECHNOLOGY CO.,LTD.

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.



SHENZHEN BAKON ELECTRONIC TECHNOLOGY CO.,LTD.

ADD: Room 401, Rui Hui Building, MaShanTou Community, Ma Tian Street, Guangming District, Shenzhen, China

MFR: Henan Bakon Tools Co., Ltd.

ADD: No.7 Building, Jinrong Technology Park, Airport Port Zone, Zhengzhou City, Henan Province, China

TEL: 0755-89575688 MP: BAKON 白光

SITE: www.bakon.cn Email: postmaster@bakon.cn