CONSOLIDATE MULTIFUNCTIONAL SOLDERING MACHINE (24V HIGH-SPEED)

JIT-SD205H

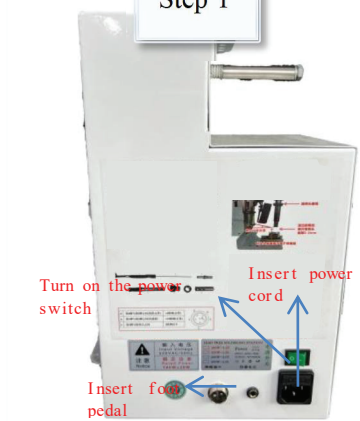
Machine model：JIT-SD205H

Instructions

Thank you for purchasing our consolidating and consolidating multifunctional soldering machine, equipped with a dedicated automated 160W high-frequency CNC soldering station. This product is designed for multi wire welding of switches, resistors, terminals, connectors, LED lights, diodes and transistors, aluminum based lamp boards, DB9-25 heads, DC heads, audio heads, lotus heads, grade heads, aviation heads, waterproof heads, USBII, A-male, microphone, iron sheets, springs, coils, speakers, motors, potentiometers, sensors, circuit boards, and wiring harnesses. It is a practical product with a wide variety of soldering stations, various welding methods, high efficiency, tin first, easy operation, and low usage threshold. Please read this manual carefully before use and keep it safe for future reference

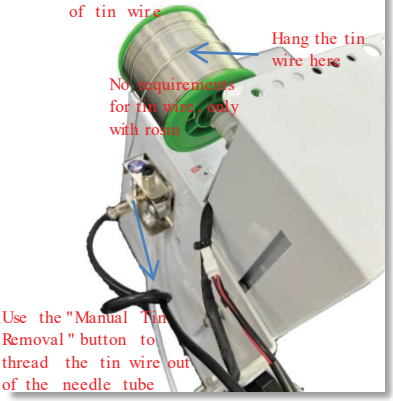
Installation instructions

Step 1

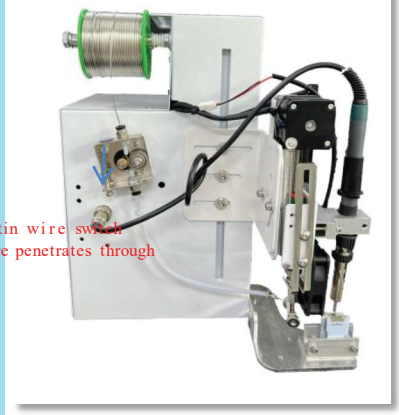


Step 2

The extended hanging tin rod can hang 1000g of tin wire



Step 3

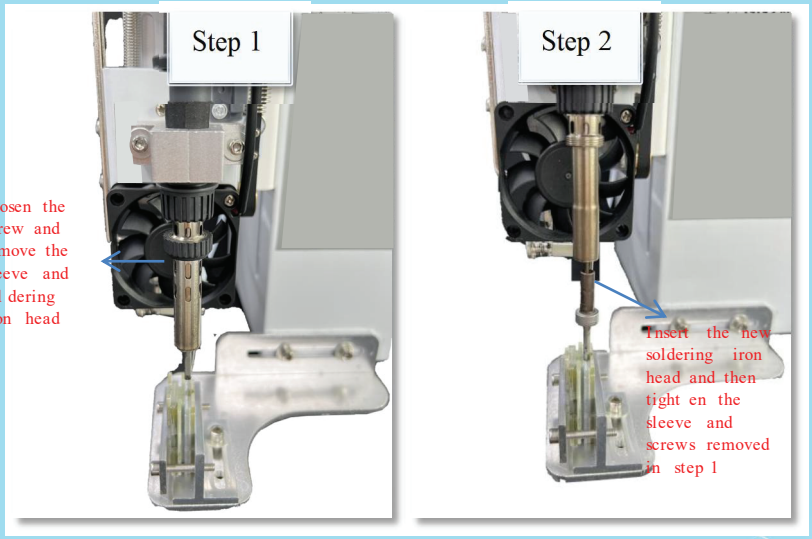


Step 4

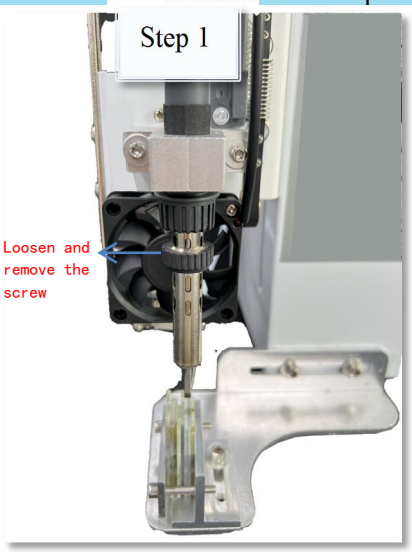
Attention!!!
Before starting the machine for the first time, it is necessary to press the welding gun with your hand and make contact with the fixture to correctly sense the welding gun stroke. Otherwise, it will cause the welding gun to shake

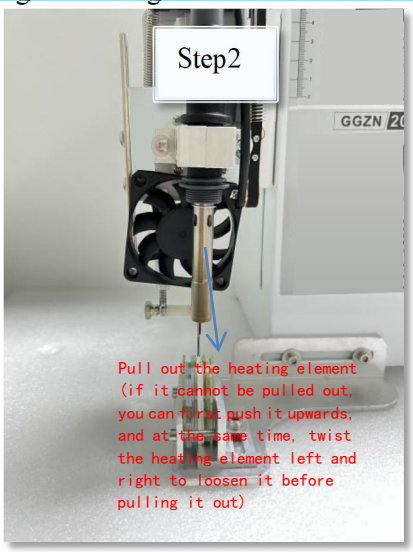
The installation of the entire machine is now complete!!!

Instructions for installing the soldering iron head



Instructions for replacing the heating element





【Front structural diagram

Welding station standby power consumption 3W
The standby power consumption of the whole machine is 13W

Solve the shortcomings of insufficient power and 9W higher standby power consumption of existing welding stations on the market

Kind reminder: Welding precision components is afraid of static electricity and requires equipotential hole grounding

matters needing attention

A Warning

The definitions of "Warning" and "Caution" in this user manual are as follows:

Warning: Abuse may cause death or serious injury to the user

Attention: Abuse may cause injury to the user or substantial damage to the object involved

Please pay attention to whether the screws are loose and whether the guide rail and bearings are lubricated during long-term use.

To avoid damage to this equipment and maintain a safe working environment, the following precautions should be followed:

1. This equipment should be used in accordance with the operating instructions of the welding station, as it is intended to be used in conjunction with the welding station.
2. This product uses rated voltage and frequency, 200-240V/50HZ input adapter power output 24V/2A.
3. It is strictly prohibited to use this product when it is damaged, especially when the power cord is damaged.
4. Do not tap the workbench to remove residual solder, as this may seriously damage the equipment.
5. Do not modify the equipment without authorization.

When replacing equipment components, original factory parts should be

used.

7. Do not wet the equipment. Do not use or disassemble the equipment when your hands are wet, and do not pull the power cord source.

During welding, there may be smoke, and the factory should have good ventilation equipment.

When using the soldering table, do not make any reckless movements that may harm the body or damage objects.

10. Children are not aware of the dangers of electrical products, so this product is used and stored in places that are not easily accessible to children or supervised by adults.

To use on a stable workbench or table, it is necessary to use a three wire plug board with good grounding.

Attention: When connecting or unplugging ports, or changing welding heads, be sure to turn off the power to avoid damaging the equipment (do not pull wires)

Installation and explanation

1. Supports 24-hour uninterrupted use

2. The controller is a four position 0 5-inch green digital screen display (large and clear text at a glance)

3. Equipped with a 376D tin discharge device and a stepper motor drive (not suitable for flow reduction motors to ensure that the entire roll of tin wire can be fed the same length from beginning to end each time)

4. Easy to operate, convenient to use, flexible product replacement, high efficiency, low cost, and low noise. (Input numbers 1-17 on the controller image table)

1. USB light socket 5V/1A

USB charging port 5V/2A

3. Selection of tin dispensing method (1: Press to dispense tin first before soldering, 2: Do not press to dispense tin and wait for soldering)

4. Manual tin discharge (press to discharge tin, do not press to stop)

5. Manual tin return (press to return tin, do not press to stop)

6. Expand input and output ports 1 (GND), 2 (XI), 3 (X2), 4 (Y1), 5 (Y2), 6 (+24V)

1 and 2 are trigger signals (manual switch)

1 and 3 reserved input signals

4 and 6 are connected to the cooling solenoid valve (24V/0.5A) interface

5 and 6 are connected to the interface of the slag removal solenoid valve (24V/0.5A)

7. Count display (1-9999,+key and OK key can be pressed together for 1 second to reset or power off to reset)

Set display (9 welding parameters)

0) Set the tin discharge method to 0, first discharge, and then discharge

1) Set tin discharge length to 0-50mm

2) Set tin output speed from 1 to 10 gears (10 is the fastest, 1 is the slowest)

3) Set the tin return length to 0-10mm (to prevent the tin wire head from being baked into tin beads at high temperatures)

4) Set the up and down travel range to 0-50mm (the smaller the travel, the higher the efficiency)

5) Set travel speed from 1 to 10 gears (10 fastest, 1 slowest)

6) Set the tin plating time from 0 to 60 0S (determined by the temperature

of the solder joint and the thickness of the tin wire)

7) Set the soldering length to be 0-50S (determined by the solder joint temperature and the size of the product solder legs)

8) Set the welding time to 0-60S (determined by the size of the product's welding legs, which can shorten the cooling time to improve efficiency)

9) Set delay Y1 0.0-60S (set the cooling time for blowing the blue tube and how long it will take to blow after pressing the foot pedal)

A) Set Y1 time to 0.0-60S (set the cooling time for blowing the blue tube and how long it will last)

b) Set delay Y2 0.0-60S (set blowing tin slag copper tube, how long does it take to blow after stepping on the foot pedal)

C) Set Y2 time to 0.0-60S (set the duration of blowing tin slag copper tubes)

D) Set a delay welding time of 0.0-60S (press the foot pedal for a long time before pressing down the soldering iron head)

E) Set the deceleration distance to 0.0-5mm (there are still a few millimeters left after the soldering iron head is pressed down before the stroke decelerates when it reaches the product)

F) Set the tin filling speed range 1-5 (the length of the tin filling and the speed at which the tin is discharged)

Note: 9abcd requires external connection of DC24V solenoid valve and requires external air supply

8. Press and hold the button for three seconds to set the first parameter, NEXT, and so on for 1-F parameters

The (+) key increases the setting number, and the (-) key decreases the setting number. You must press the OK key to save and then exit the setting interface. Press the (+) key to move the stroke upwards (please pay attention to the limit position, otherwise it will be damaged)

Press the (-) key to move the stroke downwards when exiting the settings interface (please pay attention to the limit position, otherwise it may be damaged)

9. FAN fan interface (24V/5A)

10. Jcl reserved interface 1

11. Xcl stroke motor interface 1

12. Cxi tin discharge motor interface 1

13. JC2 reserved interface 2 (only available for dual heads)

14. XC2 stroke motor interface 2 (only available for dual heads)

15. Cx2 tin discharge motor interface 2 (only available for dual heads)

16. Foot switch interface (normally open)

17.17.24V/2A power interface (positive inside and negative outside))

Operating instructions:

Press 4 or 5 to manually release and return tin, used for re threading the tin wire and adjusting the angle of the tin wire.

Press the (+) key to move the soldering iron up the stroke, and press the (-) key to move the soldering iron down the stroke. In actual welding, it is considered appropriate to compress the outer spring by about 2mm. If the welding pressure needs to be increased, the spring compression should not exceed 10mm at most.

Press the (+) key and (OK) key together for 1 second to reset the count (sound 2 times to prompt) or reset the power off.

If soldering the same point again without requiring tin, press the OK key directly to remove tin or no tin will be produced (sound once to prompt).

Parameter settings:

Long press the setting button NEXT to display (0-), which sets the tin discharge method to 0, first and then 1.

Press the setting button NEXT to display (1-). To set the solder length, press (+) once to add 0.1mm, and press (-) once to subtract 0.1mm. The length corresponds to the width of the solder head. Range 0-40.0mm, customizable.

Press the setting button NEXT again to display (2-), to set the tin discharge speed, press (+) once to increase 1, and press (-) once to decrease 1. 10 is the fastest, 1 is the slowest.

Press the setting button NEXT again to display (3-). To set the return tin length, press (+) - down to add 0.1mm, and press (-) once to subtract 0.1mm. Depending on the product, it is generally 3-5mm, with a range of 0-10mm.

Press the setting button NEXT again to display (4-), to set the stroke length, press (+) - down to add 0 1mm, press (-) - down to subtract 0 1mm, determined based on product and efficiency. Range 0-50 0mm, customizable.

Press the setting button NEXT again to display (5-), to set the travel speed, press (+) once to increase 1, and press (-) once to decrease 1. 10 is the fastest, 1 is the slowest.

Press the setting button NEXT again to display (6-), to set the soldering time, press (+) once to add 0.1, and press (-) once to subtract 0.1. According to the thickness and melting point of the tin wire, it is generally 0.5-0 8 is 0.1S, tin wire 1.0 is 0.2S, and tin wire 1.2 is 0.3S.

Press the setting button NEXT again to display (7-). To set the solder

filling length, press (+) once to add 0.1, and press (-) once to subtract 0.1. After setting the length of the first tin discharge, determine the length of the second tin discharge. Adjust according to the amount of solder required for the solder joint, and the specific length depends on the solder joint after welding.

Press the setting button NEXT again to display (8-). To set the welding time, press (+) once to add 0.1, and press (-) once to subtract 0.1.

Press the setting button NEXT again to display (9-). To set the delay Y1, set the cooling time for the blue tube blowing. After pressing the foot pedal, how long does it take to blow? Press (+) once to add 0.1, and press (-) once to subtract 0.1

Press the setting button NEXT again to display (A -), to set the Y1 time, set the cooling time for the blue tube blowing, and how long it will last. Press (+) once to increase by 0.1, and press (-) once to decrease by 0.1

Press the setting button NEXT again to display (b -). To set the delay Y2, set the blowing time for the tin slag copper tube. After pressing the foot pedal, how long does it take to blow? Press (+) once to add 0.1, and press (-) once to subtract 0.1

Press the setting button NEXT again to display (c -). To set the slag removal time, set the blowing time for the tin slag copper tube and how long it will last. Press (+) once to add 0.1, and press (-) once to subtract 0.1

Press (+) - down to add 0 1 second, press (-) - down to subtract 0 1S

Press the setting button NEXT again to display (d -), and to set the delay welding, press (+) - down to add 0 1mm, press (-) - down to subtract 0 1mm

Press the setting button NEXT again to display (E -), and to set the deceleration distance, press (+) - down to increase by 0 1mm, press (-) - down to subtract 0 1mm

Press the setting button NEXT again to display (F -), and press (+) to set the tin filling speed - down to 0 1mm, press (-) - down to subtract 0 1mm

Comparison table between tin wire and solder nozzle

There is no requirement for the quality of tin wire in the range of 0.5-1.2mm for tin production (1.5mm and 2.0mm can be customized)

0.5-0.6 tin wire should use No.18 tin discharge nozzle (tin discharge wheel needs to be adjusted)

0.8 tin wire should be used with a No.16 solder nozzle
1.0 Tin wire should use No.15 solder nozzle
1.2 Tin wire should use No.14 solder nozzle
1.5 Tin wire should use No.13 solder nozzle
2.0 Tin wire should use No.11 solder nozzle
Attention: When changing tin, do not press the soft guide tube inside the tin feeding into the tin wheel, as it may cause poor tin return. The size of the tin wire can be adjusted and the pressure of the wheel is moderate. There are steps inside the tin nozzle. First, pull out the tube on the side of the tin nozzle to allow the tin wire to come out about 2cm and aim into the thin tube inside the tin nozzle. Then, plug back the tube and it can be used (tighten with a little force).
There are three ways to release the solder nozzle: rear delivery, left delivery, and fixed bottom

Additionally, there are products with dual head soldering for long-distance soldering

The normal position relationship between the solder nozzle and the soldering head should be slightly downward by 10-20 degrees. The lowest position of the solder nozzle should be higher than the soldering product of the soldering head to prevent the solder wire from being lifted by the product and affecting the next welding

Consolidate the multifunctional soldering machine

name	Consolidate the multifunctional soldering machine
power	MAX<20w
input voltage	200-240V/50HZ output 24V/2A
Welding mode	Set according to working mode
Operating ambient temperature	o-4or
Operating environment humidity	0-70%

Equipment materials	aluminium alloy
Overall size	L320 * W240* H 300
Weight (excluding packaging) approximately	5. 5kg

The above specifications and designs may be subject to change, and we will not comply with them separately!

Parts List

Consolidate the multifunctional soldering machine

Number	name	quantity	Remarks	
1	Shell chassis	1		
2	Travel motor	1	24V	
3	Tin discharge motor	1	24V	
4	EUC main controller	1	24V+-10%	
5	Small turbine blower	1	24V	
6	Fixed base	1		
7	Equipped with 24V/2A power supply	1		
8	205H/160W high-frequency host	1		
9	205H/160W high-frequency plastic handle	1		
10	Accessory box	1		
11	High brightness USB work light	1		Gifts

JIT-SD205H

matters needing attention

△warning

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Atake care

When the power is turned on, the temperature of the soldering iron head is in a high temperature state.
Considering that abuse may cause burns or fire hazards, please strictly adhere to the following:
Please avoid misuse of this welding station and use this product according to the operating instructions.
Do not touch the metal parts near the soldering iron head.
Do not use a soldering iron tip near flammable objects.
Notify other personnel in the factory that the soldering iron tip is highly susceptible to burns and may cause dangerous accidents.
Turn off the power during rest or after completion.
When replacing components or devices with soldering iron heads, the power should be turned off and the soldering iron head should be allowed to cool to room temperature.

To avoid damaging the welding station and maintain the safety of the working environment, the following precautions should be followed:

This product uses rated voltage and frequency. (Please refer to the trademark on the back of the machine)
It is strictly prohibited to use this product when it is damaged, especially when the power cord is damaged.
This product uses a three wire grounding plug and must be inserted into

a three hole grounding socket. Do not change the plug or use an ungrounded triple adapter to cause poor grounding. If you need to extend the wire, please use a grounded three wire power cord.
Do not use a soldering iron tip for work other than welding.
Do not strike the soldering iron on the workbench to remove residual flux, as this may seriously damage the soldering iron.
Do not modify the welding station without authorization.
When replacing components, original factory parts should be used.
Do not wet the welding table. When hands are wet, do not use or disassemble the welding table, and do not pull the power cord.
Smoking may occur during welding, and the workshop should have good ventilation facilities.
When using the welding station, do not make any reckless movements that may harm the body or damage objects.
Children are not aware of the dangers of electrical products, so this product should be used and stored in places that are not easily accessible to children or supervised by adults.

The use of soldering iron tips

• Use of soldering iron tips	Excessive temperature can weaken the function of the soldering iron head, so choose the lowest possible temperature. This soldering iron head has excellent temperature recovery and can be fully welded at lower temperatures, protecting temperature sensitive components.

• Cleaning	Regularly use a cleaning sponge to clean the soldering iron tip. The oxides and carbides derived from the residual flux of the soldering iron head after welding can damage the soldering iron head, cause welding errors, or reduce the thermal conductivity of the soldering iron head. When using soldering iron continuously for a long time, the soldering iron head should be disassembled once a week to remove oxides, to prevent damage to the soldering iron head and reduce temperature.
• When not in use	When not using a soldering iron, it is not allowed to remain in a high temperature state for a long time, as it will convert the flux on the soldering iron head into oxides, resulting in a significant decrease in the thermal conductivity of the soldering iron head.
• After use	After use, the soldering iron head should be wiped clean and coated with a new tin layer to prevent oxidation caused by the soldering iron head.

Maintenance of soldering iron head

Check and clean the soldering iron head	1. Set the temperature to 200-250 degrees Celsius.
Attention: Do not use a file knife to remove the oxide on the soldering iron head.	2. After the temperature stabilizes, clean the soldering iron head with a cleaning sponge and check the condition of the soldering iron. 3. If the tin plated part of the soldering iron head contains black oxygen, a new tin layer can be plated and the soldering iron head can be wiped clean with a clean sponge. Repeat the cleaning process until the oxide is completely removed, and then apply a new tin layer. 4. If the soldering iron head is deformed or corroded again, it must be replaced with a new one.

Why can't a soldering iron tip that doesn't come with tin be used? A soldering iron head that does not receive tin is a soldering iron head that cannot be soaked with solder. This exposed coating is oxidized, causing the heat transfer of the soldering iron head to fail. The soldering iron head that does not solder is caused by the following reasons:	1. Failure to cover the soldering iron head with new solder when the soldering iron is idle. 2. The soldering iron head is in a high temperature state. 3. Insufficient melting during welding work. 4. Scrub the soldering iron tip on a dry or unclean sponge or cloth (clean and moist industrial grade sulfur-free sponge should be used). 5. The solder or iron coating is not pure, or the welding surface is not clean.
Restore a soldering iron head that is not tin coated	1. Remove the soldering iron head from the soldering iron handle after it cools down. 2. Use 80 # polyurethane grinding foam or 100 # emery paper to remove the dirt and oxide on the tin plated surface of the soldering iron head. 3. Install the soldering iron head into the handle using a tin wire containing rosin (0 Wrap the newly exposed tin layer surface of the soldering iron head (8mm or above) and turn on the power supply of the soldering station. Attention: Proper daily maintenance will effectively prevent the soldering iron head from not getting tin.

Extending the lifespan of soldering iron tips	1. Soak in fresh solder after each use, which can prevent oxidation of the soldering iron tip and extend its service life. 2. When working, try to use a lower temperature as much as possible. Low humidity can reduce the oxidation of the soldering iron head and also make it easy to solder components. 3. Only use thin soldering iron heads when necessary, and the coating of small soldering iron heads is not as durable as that of rough soldering iron heads. 4. Do not use a soldering iron head as a detection tool. Bending the soldering iron head can cause the coating to crack and shorten its service life. 5. Use rosin flux with less activity, as the high content of active rosin will accelerate the corrosion of the soldering iron coating. 6. Try to turn off the power as much as possible without using a soldering iron to extend its service life. 7. Do not apply heavy pressure to the soldering iron head, as larger pressure does not necessarily result in faster heat transfer. To improve heat transfer, it is necessary to melt the solder and form a heat transfer solder bridge between the soldering iron head and the solder joint.

Error label

When there is a problem with the welding station, various error markers will be displayed. If the following markings are displayed, please refer to the troubleshooting guide,

**S-E	Sensor error**	If the sensor or any part of the sensor circuit fails, the current sent to the soldering iron will be cut off when the "S-E" mark is displayed.
Temperature display flashing	attention grabbing	If the power is supplied to the soldering iron and the temperature of the soldering iron head is 8 ℃ or more lower than the set temperature, the display temperature will flash, which should be noted by the user.
**H-E	Heating element error**	If the soldering station is not supplying power to the heating element of the soldering iron, the window displays H-E, indicating that the heating core may be damaged.

Troubleshooting

Before maintenance

△ Warning: * Turn off the power supply before maintenance, otherwise electric shock accidents may occur

*If the power supply is damaged, it should be repaired by the manufacturer or its repair service agent or similar qualified personnel to avoid bodily injury or damage to the welding station

Fault 1: The welding table cannot be operated	Check 1. Is the fuse blown? After determining the cause of the blown fuse, repair it and replace it with a new one. a. Is there a short circuit inside the soldering iron? b. Does the grounding spring touch the heating element? C. Are the heating element leads twisted and short circuited? Check 2. Is the wire damaged? Replace with new wires
Fault 2: The soldering iron head does not heat up, and the sensor seat or heater displays an error	Check 3. Are the wires and/or connecting plugs loose or damaged? Reconnect or refer to how to check for damaged soldering iron assembly wires. Check 4. Sensing element? Please refer to the "Inspection method for heating and sensor component damage".
Fault 3: Intermittent heating of the soldering iron head	Check 3
Fault 4: The soldering iron head cannot stick to the soldering	Check 5. Is the temperature of the soldering iron tip too high? • Reset the appropriate temperature Check whether the soldering iron head has been cleaned thoroughly Please refer to "Maintenance and Use of Soldering Iron Head".
Fault 5: The temperature of the soldering iron head is too low	Check 7. Does the soldering iron tip derive oxides Please refer to "Checking and cleaning the soldering iron head". Check 8. Is the soldering iron properly calibrated? • Recalibrate

Fault 6: The heater is damaged H-E | Display	Check 9. Is the soldering wire damaged? See how to check for damaged assembly wires. Check 10. Is the heating element damaged? See how to check for heating and damaged sensing components. Check whether there is a soldering iron tip installed on the soldering iron? Install a suitable soldering iron tip.
Fault 7: Temperature display flashing	Check 12. Is the soldering wire damaged? See how to check for damaged soldering iron assembly wires. Check 13. Is the welding point too large? Use a higher power welding station or continue to use it.
Fault 8: Unable to set temperature	Check 14. Is the password locking the panel button? Enter the set password value (unlock) If you have forgotten your password: Disassemble the front panel of the welding table, plug in the power plug, turn on the power switch, press the "D-S" button on the internal circuit board to set the password, and it will return to the initial value of "000". Reinstallation of welding stations in reverse order.

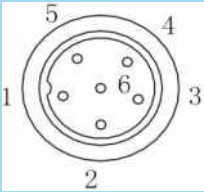
How to inspect the heater and sensor components

Unplug the plug and test the resistance between the pins of the plug as follows:

If the resistance value between "a" and "b" is different from the resistance value in the table below, it is necessary to replace the heating element (sensor) and/or wire.

If the resistance value of "c" is greater than the resistance value in the table below, gently wipe the oxide layer on the area shown in the lower circle with sandpaper or steel wool.

a.	Between the 4th and 5th pins (heating element)	<4 ohms (normal)
b.	Between the 1st and 2nd pins (sensor)	<10 ohms (normal)
c.	Between the third leg and the soldering iron head	2 Ohms in F



Replace the insurance system

1. Unplug the power head from the power socket
2. Remove the fuse cover plate
3. Remove the faulty fuse
4. Replace with a new fuse
5. Install the fuse board

Welding table specifications

name	**JIT-SD205H**
power	**160W+50W**
output voltage	**40V, 400KHZ**
temperature range	**5or-48or (can be selected according to the working mode)**
Soldering iron head to ground resistance	Less than 2 ohms

Solder tip to ground potential	Below 2 millivolts
Maximum ambient temperature	**4or**
Temperature stability	*± 2 ° C (still air, no load)*
Outsourcing materials	aluminium alloy
ESD design	

•The temperature of the soldering iron head is measured using a 191/192 thermometer.

•The above specifications and designs are subject to change without prior notice.

Welding head type

200 Series

200-L, 200-K, 200-1B, 200-2B, 200-1C, 200-2C, 200-3C, 200-1. 2D, 200-1.6D, 200-2.4D, 200-3.2D

*Customized special welding head

500 Series	
Flat head	4. 5*2.0, 6. 0*2. 0, 7. 5*2.0, 8. 0*1. 5, 8. 0*2. 0, 8. 0*2. 5,
Crescent head	3. 0*2.0, 4. 5*2.0, 4. 5*2. 5, 5. 0*5. 0
Round head	Q3, Q4, Q5, Q6, Q7
Oblique head	3C, 4C, 5C, 6C

*Customized special welding head

911G series	
Large and wide head	11*2.5, 13*2.5, 13*3.0, 15*2.5, 15*3.0, 18*3. 0

*Customized special welding head

Warranty Card

This card is a product warranty certificate, please keep it properly

Product Name	
Product model	
Customer Name	
Customer Address	
Customer Phone	
Purchase date	
Dealer Name	signature

Warranty terms

1. Two stepper motors, ECU main controller, welding station with a one-year warranty
2. Welding heads, heating handles, fans, belts, tin discharge hoses, foot pedals, and USB lights are consumables or accessories that are not guaranteed. They are simple and easy to operate, and the welding effect mostly depends on the suitability of the fixture and manual adjustment