375A+/375B+
Self-Feeder Soldering Station

Instruction Manual

Thank you for purchasing a Self-Feeder Soldering Station. Please read this manual before operating the unit. Store this manual in a safe, easily accessible place for future reference.

Warning

- Before installation, please check the parts and make sure whether the power supply voltage accords with the nameplate.
- The unit is used in the room.
- Before replacing parts or storing the unit, turn the power off and allow the unit to cool to room temperature.
- Do not touch the metallic parts near the Tip.
- Do not use the unit for applications other than soldering.
- Do not rap the soldering iron against the workbench to shake off residual solder, or otherwise subject the iron to severe shocks.
- The soldering process will produce smoke, so make sure the area is well ventilated.
- While using the unit, don’t do anything that may cause bodily harm or physical damage.
- This machine is equipped with a 3-wires grounding plug and must be plugged into a 3-terminal socket. Do not modify plug.
- Children don’t recognize the danger of electrical appliances. Therefore use or keep the appliance only under supervision of adults and out of the reach from children.

SECTION 1 Summary

The unit is Automatic self-feeder system. Easy to operate. With step motor, feeding is precise and the precision is controlled optionally. Feeding speed and time, backing are all adjustable and steady, perfect soldering effect and high efficiency. With the optimized combination frame, it can work together with the soldering iron without the Soldering Station. The ceramic heating element is imported from Japan, rapid and stable heating, safe and reliable.

The difference between two models is feeder tube:

The feeder tube of A model is a metal tube.

The feeder tube of B model is a soft tube.

SECTION 2 Specification

Max Power consumption of unit	60W
Working Voltage of heating element	24V
Range of Temperature	200℃~480℃
Temperature Stability	±2℃
Tip to Ground Potential	<2mv
Tip to Ground Resistance	<2Ω
Motor	Step Motor
Feeding speed	about 2.7mm/s~27mm/s (36°/s~360°/s)
Feeding Length	0~150mm
Feeding Interval Time	0~2.7s
Returning Time	0~0.9s (About 0~25mm, Speed: 360°/s)
Feeding Mode	Auto (1~9) / Manual (0)
Dia. of Solder Wire	0.5,0.6,0.8,1.0,1.2,1.4,1.6 (mm)
Weight	About3.0Kg

SECTION 12 Replaceable Parts

NO.	Parts Name	Instruction
1	Pedal Switch	
2	Handle Assembly ESD (Soldering Iron)	
3	Handle Assembly (Soldering Iron)	
4	Feeder Tube Assembly (0.46m) ø0.6mm	
5	Feeder Tube Assembly (0.46m) ø0.8mm	
6	Feeder Tube Assembly (0.46m) ø1.0mm	
7	Feeder Tube Assembly (0.46m) ø1.2mm	
8	Feeder Tube Assembly (0.46m) ø1.4mm	
9	Feeder Tube Assembly (0.46m) ø1.6mm	
10	Guide Tube Assembly ø0.6mm	Using on the top of Tip
11	Guide Tube Assembly ø0.8mm	Using on the top of Tip
12	Guide Tube Assembly ø1.0mm	Using on the top of Tip
13	Guide Tube Assembly ø1.2mm	Using on the top of Tip
14	Guide Tube Assembly ø1.4mm	Using on the top of Tip
15	Guide Tube Assembly ø1.6mm	Using on the top of Tip
16	Guide tube assembly ø0.6mm	Using on the bottom of Tip
17	Guide Tube Assembly ø0.8mm	Using on the bottom of Tip
18	Guide Tube Assembly ø1.0mm	Using on the bottom of Tip
19	Guide Tube Assembly ø1.2mm	Using on the bottom of Tip
20	Guide Tube Assembly ø1.4mm	Using on the bottom of Tip
21	Guide Tube Assembly ø1.6mm	Using on the bottom of Tip
22	Feeder Tube (0.46m) ø0.6mm	
23	Feeder Tube (0.46m) ø0.8mm	
24	Feeder Tube (0.46m) ø1.0mm	
25	Feeder Tube (0.46m) ø1.2mm	
26	Feeder Tube (0.46m) ø1.4mm	
27	Feeder Tube (0.46m) ø1.6mm	

SECTION 11 Replace Part

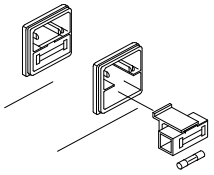
Damageable part can be replaced by customers themselves.

1. Replace Soldering tip

Screw off the metal Locking nut ① of Handle Assembly anti-clockwise and remove Tip enclosure ② and Soldering tip ③. Put a new Soldering tip in Tip enclosure and tighten Locking nut.

2. Replace Fuse

1) Pull Power plug out of Power socket.
2) Take out the fuse holder on the rear side of the unit with screwdriver.
3) Remove the broken fuse and replace it with a new one.
4) Fix the fuse holder.



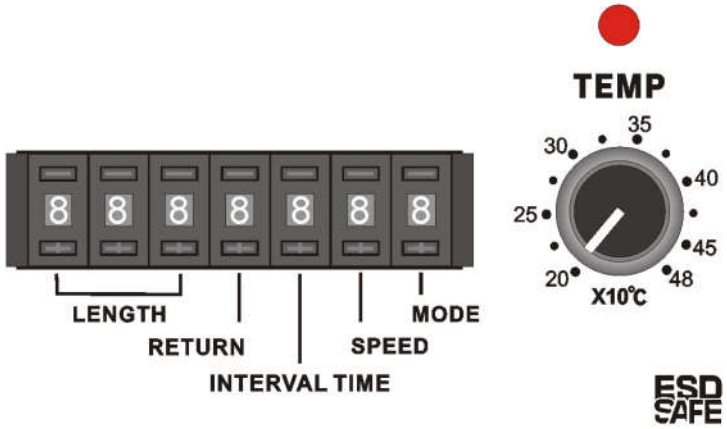
⚠Note:

- To avoid scald, replacing when it cools down.
- When replace the soldering tip, please be careful not to damage the heating element.

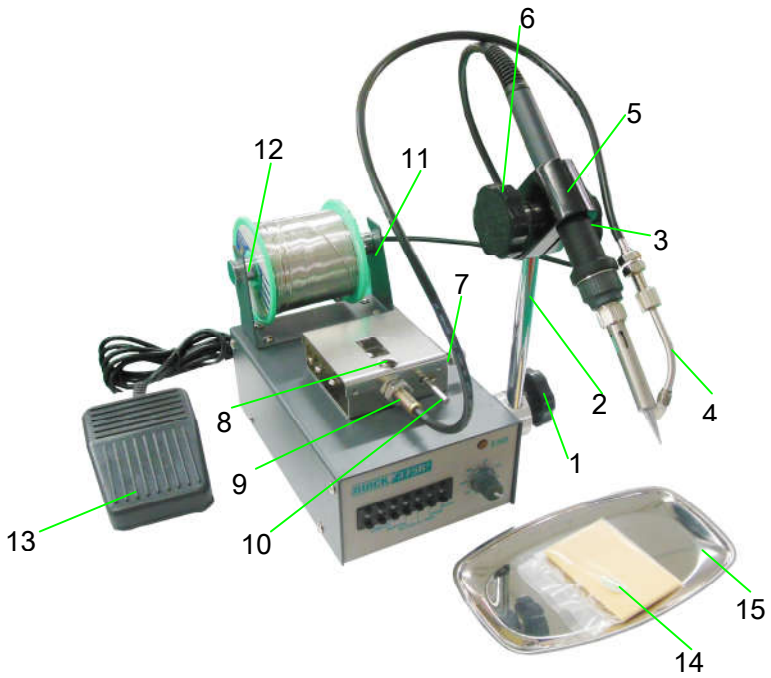
SECTION 3 Character

- Ceramic heating element imported from Japan, temperature controlled by RTD sensor, rapid heating and temperature stable, 24V DC heating, safe and reliable, many long service life soldering tips optional, easy to use.
- Feeding Speed and Feeding Length and Feeding Interval Time adjustable, further more it is designed with Returning function to reduce solder wire consumption.
- ESD safe design to avoid damaging sensitive element because of static.
- Auto and Manual Feeding Mode optional and the times adjustable.
- The feeder tube of B+ model is a soft tube, and designed on the handle.

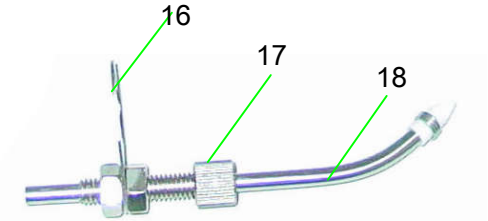
SECTION 4 Panel Picture



SECTION 5 Product Diagram and Part list



Self-Feeder System of B+ Model



Guide Tube Assembly (Using for bottom

Guide Tube Assembly (Using

Interval and Feeding Mode are all useless when the Feeding Mode is set as manual.

Auto: Turn on Power Switch and adjust Temperature Knob. The unit will work in accordance with setting parameters when step on pedal switch or press Touch Switch once. All functions are useful.

SECTION 10 Tip care and use

1. Choose an appropriate temperature, too high temperature can weaken soldering tip function and accelerate oxidation and shorten its service life. Under the circumstance of able to work normally, choose the temperature as low as possible. Lower temperature can also solder adequately and protect sense elements. Suggest to set temperature to 350℃.
2. Make sure set the temperature of soldering iron to 220℃ when use first time. Make the soldering tip be tinned adequately. Best of all, dip it in tin for 5 minutes and then clean it with cleaning sponge, set the temperature to 300℃ again. Repeat above steps. Finally set the temperature to work temperature. The purpose of this is to form a protecting film on tinned layer of soldering tip, so it can prevent the oxidation at high temperature and failure of heat transport.
3. If the tinned part of soldering tip has black oxide, it can be covered with new tin. Clean it with humid sponge repeatedly until the oxide is completely removed, and then covered with new tin. Please do this cleaning regularly.
4. Turn off the Power supply when not use. Clean the soldering tip with a cleaning sponge and then covered with new tin. Repeat above steps when use it again.
5. Replace soldering tip if it is twisted or eroded badly.

8: Auto Feeding eight times 9: Auto Feeding nine times

After each feeding, it has returning.

5. Returning Time setting

Press Returning Switch to set the match digit in accordance with working demand.

Returning Time is designed with one digit. 0 to 9 denotes 0 second to 0.9 second. The resolution is 0.1 second, namely, each digit denotes 0.1 second. The returning speed is fixed with 360°/s.

Example: When the digit is set as 1, the returning time is 0.1s and the returning length is 2.8mm. The digit is set as 2, the returning time is 0.2s and the returning length is 5.6mm. When the digit is set as 9, the returning time is 0.9s and the returning length is 25mm.

The range is about 0 to 25mm. (0 to0.9s)

6. Feeding Pressure setting

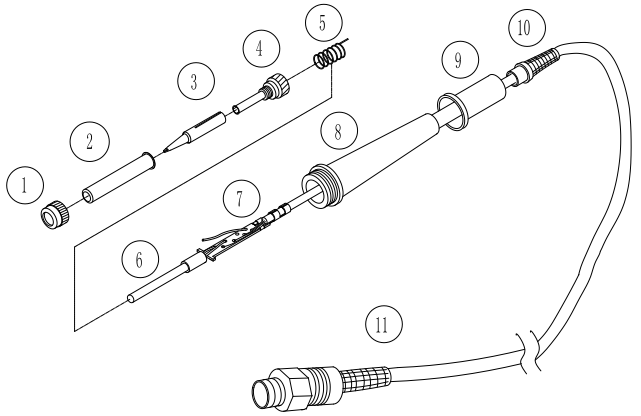
The solder wire isn't sent out automatically because of inadequate feeding pressure, you can adjust Pressure Adjusting Screw on top of unit to increase feeding pressure clockwise. Solder wire is twisted because of too strong feeding pressure. You can adjust it anticlockwise.

SECTION 9 Operation

Do corresponding operations in accordance with the chosen Feeding Mode.

Manual: The Mode switch is set as 0. Turn on power switch and adjust Temperature Knob-TEMP to choose right temperature. Step on Pedal Switch or press the red Touch Switch and the unit works. After loosing it returns once and then stops working**. Feeding Length and Feeding**

Self-Feeder System of A+ Model



Handle Assembly

Part list:

Item No.	Part Name	Remark
1、3、6	Nut	Handle Bracket Assembly
2	Bracket	Handle Bracket Assembly
4	Feeder tube	A+：Metal tube
	Feeder tube	B+：Soft tube（Feeder Tube Assembly）
5	Handle clamping element	Handle Bracket Assembly
7	Pressure adjusting screw	
8	Fixation screw hole	
9	Feeder tube Connector	
10	Clutch pole	
11	Solder Wire holder	Install Solder Wire Axis
12	Solder Wire Axis	Install Solder Wire
13	Pedal Switch	
14	Cleaning sponge	
15	Metal plate	
16	Connector	Guide Tube Assembly
17	Locking Screw	Guide Tube Assembly
18	Guide tube	Guide Tube Assembly

Namely, each digit denotes 0.15mm (1.8 degree). The setting method is the same as feeding speed.

Example: When the digit is set as 001, the angle is 1.8 degree and the Speed Length is 0.15mm. When the digit is set as 002, the angle is 3.6 degree and the Speed Length is 0.3mm. When the digit is set as 999, the Speed Length is longest with 150mm, and the angle is 1798.2 degree.

Press the Length Switch to set the suitable digit in accordance with working demand. The range is about 0.15mm to 150mm.

3. Feeding Interval Time setting

Feeding Interval Time means the interval time between every feeding when the automatic feeding over two times. Feeding Interval Time is designed with one digit. 0 to 9 denotes the interval time is 0 second to 2.7seconds. The resolution is 0.3 second, namely, each digit denotes 0.3 second. The setting method is the same as Feeding Speed.

Example: When the digit is set as 1, the interval time is 0.3 second. When it is set as 2, the interval is 0.6 second. When it is set as 9, the time is longest with 2.7 seconds.

Press the Interval Time Switch to choose the digit. The range is 0 second to 2.7 seconds.

4. Feeding Mode setting

Press the Feeding Mode Switch to choose suitable digit.

Feeding Mode is designed with one digit and the setting method is the same as above. The digital match function as follow:

0: Manual Feeding 1: Auto Feeding once

2: Auto Feeding twice 3: Auto Feeding three times

4: Auto Feeding four times 5: Auto Feeding five times

6: Auto Feeding six times 7: Auto Feeding seven times

- If step on Pedal switch and the solder wire isn't sent out automatically, it

needs to adjust feeding pressure—Pressure adjusting screw ⑦.

- The Feeder tube cannot be bended overly, so that the Solder Wire will not be blocked.
- When turn on the power Switch, the soldering Iron begin to heat up (Temperature lamp is light). In order not to be scalded, please be careful when installing.
- Make sure the power voltage in accord with working voltage of unit.

SECTION 8 Parameter Set

1. Feeding Speed setting

Feeding speed is set with digital switch. Press "+" button on the digital switch and the match digit will increase by one step. Similarly, press "-" button, and the match digit will decrease by one step.

Feeding speed is designed with one digit. 0~9 denotes the feeding speed is about 2.7m/s~27m/s (Angle: 36º/s~360º/s). The resolution is 2.7mm/s, namely, each digit denotes feeding speed is 2.7m/s (36º/s) .

Example: When the digit is set as 0, the speed is slowest with 2.7mm/s. When it is set as 1, the speed is 5.4mm/s. When it is set as 9, the speed is fastest with 27mm/s.

Press the Speed Switch to set the suitable digit in accordance with working demand. The range is about 2.7mm/s to 27mm/s.

2. Feeding Length setting

Feeding length is designed with angle system. Namely, with angle what the motor turned denotes Feeding Length.

Feeding Length is designed with three digits. 001 to 999 denotes feeding length is 0.15mm to 150mm. The resolution is 0.15mm.

Handle Assembly

Item No.	Part Name	Remark
1	Locking nut	
2	Tip enclosure	
3	Soldering tip	Replaceable parts
4	Nipple	
5	Grounding Spring	
6	Heating Element	Replaceable parts
7	Terminal Board	
8	Handle	
9	Handle Cover	
10	Cord bushing	
11	Handle Cord	

SECTION 6 Combination Instance

1. Choose an appropriate soldering tip in accordance with solder point.
2. Adjust the diameter ring in accordance with solder wire diameter.
3. Choose guide tube in accordance with solder wire diameter.

NOTE: Please confirm solder wire diameter when purchasing, in order to choose feeder tube and adjusting wire diameter ring.

SECTION 7 Installation

Before installation, please check whether the power voltage accords with input voltage on the nameplate on the unit.

1. Install Feeder tube assembly

The difference between two units is Feeder tube, and the installation step is also different.

Installation of A+: Unscrew the Fixation screw hole ⑧, put Feeder tube ④ in the Feeder tube connector ⑨, tighten the screws lightly.

Installation of B+: Unscrew the Fixation screw hole ⑧, put Feeder tube ④ in the Feeder tube connector ⑨, tighten the screw lightly.

Screw off the black Nipple ④ of Handle Assembly. Install Connector ⑯ of Feeder Tube Assembly onto the handle, screw down the black nipple.

2. Adjust the position of Guide tube and Soldering tip (For B+ Model only)

Turn connector ⑯ can change combination location of Guide tube ⑯ and Soldering tip. Unscrew the locking screw ⑯ of Guide tube and turn around the Guide tube can also change combination location of Guide tube and Solder tip, pull it can change its length.

Adjust the location of Guide tube and Soldering tip according to above instruction to be suitable for own soldering requirement.

3. Install Pedal switch

Put the plug of Pedal switch ⑬ into SW socket behind the unit.

4. Install Solder wire

(1) Pull the solder wire axis ⑫ across the framework of solder wire and install to the solder wire holder ⑪ back of unit. Make the notch on each side of solder wire axis is locked into solder wire holder.

(2) Pull out the solder wire head and insert it into wire guide tube behind the top cover. Push Clutch pole ⑩ to widen the gap between two gear wheels, so it can cross the feeder tube easily.

(3) Set Control Mode behind unit as “Manual” and put in power plug. Turn on power switch –POWER and make the Feeder tube as straight as possibly (for B+ Model). Step on Pedal switch until the solder wire is sent out.

5. Install Handle Bracket Assembly

Screw off Nut ① of unit and install Bracket Assembly in the screw and screw down the Nut.

6. Install Soldering Iron

Screw off Nut ③ in Bracket Assembly and remove Handle clamping element ⑤. Lay Soldering Iron in the other Handle clamping element and install the removed one (Make the Handle in the middle of them) and then screw down Nut ③.

Plug the connector of Handle Assembly into socket behind the unit and screw down locking knob.

7. Adjust direction of soldering iron

When adjust direction, first unscrew the Nut in corresponding direction, and then adjust.

Unscrew Nut ① under Bracket assembly and turning around Bracket assembly can adjust the height of Soldering Iron. Turning around Bracket ② can adjust horizontal position of Soldering Iron, and then screw down Nut ① after adjusting.

Screw off two Nuts ③、⑥ in the top of Bracket simultaneously and turn around Handle clamping element to adjust the height of Soldering tip also.

When adjust A+ model, Feeder tube ④ can be bended little. Make use of all kinds of adjusting functions to set the soldering tip and solder wire at appropriate position.

⚠NOTE:

- Please be careful not to break heating element when screw off sheath to install connector.