# **REWORK SYSTEM**

# Instruction Manual



Thank you for purchasing our products. Please keep the instruction manual properly for future reference.

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# **1.Safety Instructions**



- During the installation and use of this product, all electrical safety regulations of the country and regions must be strictly observed.
- The power supply must be disconnected when disassembling the product. Do not operate with power on.
- If the product does not work properly, please contact the supplier or our company, and do not disassemble or change the product in any way. We are not responsible for any problems caused by unauthorized maintenance or modification.



- Don't install the product in a place where the surface is easy to shake or be impacted, as it may damage the product.
- Don't place the product in places where it may be exposed to rain or moisture.
- Don't use in flammable and explosive environments.
- Pay attention to the air outlet and its surroundings. High temperature operation, be careful of burns.
- Power supply should be turned off during breaks or after work to avoid safety accidents.
- Please keep the air outlet unblocked and ensure there is no obstruction.
- Check and maintain the product regularly. Do not use the product when it is damaged, especially when the power cord or hot air desoldering handle is damaged.
- The hot air desoldering handle must be correctly placed on the holder, and do not place it on the work surface. After operation, the unit will stop working when it automatically cools down to below 100°C.
- Please unplug the power cord when the product is not used for a long time.

## 2.Overview

This product is a 2-in-1 rework system that integrates soldering and hot air desoldering. Two kinds of tools can work together, easy and fast to operate, suitable for the desoldering and soldering of various packaging components, suitable for maintenance and R&D electronic engineers.

## **3.Product Characteristics**

- Large LCD display.
- Integrating temperature control and air flow control.
- Digital temperature calibration, easy operation.
- Compatible with a variety of soldering tips, easy to use.
- Soldering handle is light and comfortable to use.
- Easy to operate, the hot air desoldering handle is placed on the holder, when the temperature is lower than 100 °C, it will automatically enter sleeping.

# 4. Product Specification

Model	
Display	LCD
Power consumption	800W (soldering-70W)
Voltage	AC 220V
Soldering temperature range	100∼480°C
Hot air temperature range	100~500°C
Hot air temperature stability	±5°C (Still air, no load)
Soldering temperature stability	±2°C (Still air, no load)
Airflow capacity	30L/min (Max)
Air volume range	10~100 Level
Operation ambient	0~40°C
Tip to ground potential	<2mV
Tip to ground resistance	$< 2\Omega$
Dimensions(L*W*H)	98*170*151mm
Weight	About 2.6 kg

# **5.**Functional Descriptions

## 5.1.Dimensions







## 5.2.Part Descriptions



No.	Designation	Function
1	Hot air desoldering handle	/
2	Hot air desoldering holder	/
3	Main unit	/
4	Soldering handle	/
5	Soldering holder	/
6	Air volume adjusting knob	Clockwise air volume increases Counterclockwise air volume decreases
7	LCD	/

# 5.3.Key Descriptions

key	Function	key	Function
▲ (Left)	Hot air temperature increases	▲ (Right)	Soldering temperature increases
▼ (Left)	Hot air temperature decreases	▼ (Right)	Soldering temperature decreases
▼(Left & Right)	Press and hold "♥&♥" keys to enter hot air temperature calibration interface	▲(Left & Right)	Press and hold " <b>A</b> & <b>A</b> " keys to enter soldering temperature calibration interface
" <b>▲</b> & <b>▼</b> " (Left)	In the main interface, press and hold "▲&▼" keys to switch ON/OFF the hot air function. In the hot air temperature calibration interface, press the two keys at the same time to confirm the calibration.	"▲&▼" (Right)	In the main interface, press and hold "▲&▼" keys to switch ON/OFF the soldering function. In the soldering temperature calibration interface, press the two keys at the same time to confirm the calibration.

## 5.4. Function Descriptions of the Main Interface







Hot air ON

Hot air sleeping

Hot air OFF

Soldering ON

Soldering working

Soldering OFF

Symbols	Descriptions	Symbols	Descriptions
t	Hot air desoldering station	ŧ	Soldering station
<b>\$</b>	Fan rotation indicates the hot air under working state; Fan stop indicates the hot air is not working.	S-E	Sensor error
70	Hot air volume	F-E	Fan error
	Power consumption of corresponding work station	H-E	Heater error
OFF	The corresponding station function is OFF.	CAL	Calibration display

## **6.Installation and Connection**

#### 6.1. Connection of Soldering Handle

1) Insert the connecting plug of the soldering handle into the five-core so cket on the front of the main unit and tighten it. Note that the protrusion inside the plug should be aligned with the groove of the socket.

2) Place the soldering handle in the holder.

#### 6.2. Installation of Hot Air Desoldering Handle

When the unit is used for the first time, the hot air holder must be installed, as shown in the figure below.

1) Remove the two screws on the left side of the unit that fixed the holder.

2) Align the mounting hole of the hot air holder with the two screw holes on the unit, and tighten the two screws that are removed.

3) Install the hot air holder, place the handle on the holder, and check whether it is suitable.

**Note:** The hot air holder can be installed on the left or right side of the unit according to actual needs.



## 6.3.Connection of Main Unit

Connect the power supply to the unit, turn it on and start working.

# 7. Temperature Settings

#### Hot air temperature



#### Soldering station temperature



# 8.Password Settings

The initial password is "000", and in this state, you can set the temperature. If you need to limit the temperature adjustment, you must change the password.

#### Enter password setting mode

1) Turn off the unit, press the " $\blacktriangle$ " and " $\blacktriangledown$ " keys (on the right side) at the same time, and then turn on it.

2) Long press the " $\blacktriangle$ " and " $\blacktriangledown$ " keys (on the right side), "C" will be displayed after a beep sound, and the "---" display on the interface.

3) After inputting the correct password, the unit enters parameter setting.

#### Input the initial password

1) The screen shows "- - -" and the leftmost hundreds digit flashes, at this time the digit can be adjusted (input the initial password).

2) Input the initial password: adjust the air volume adjustment knob to change the hundreds digit number, press the "▲" key (on the right side) to select the digit, when the tens digit starts to flash, it can be set. The setting method of the tens digit and one digit are the same as the hundreds digit. When the one digit setting is completed, press and hold the "▲" and" ▼" keys (on the right side) at the same time to confirm the setting.
3) If the first password is wrong: directly enter the second password input mode, and the password input way is the same as the first time.

(There are two chances of password input.)

4) If the password input twice are wrong: the screen displays "ERR", and directly enter the main interface.

5) If the first or second password is correct: go directly to parameter setting and the screen displays "-1-".

## 9. Parameter Settings

1) If the password is input correctly, the parameter menu can be entered, as shown in the following figure:



2) Press the "▲" or "▼" key (on the right side), after selecting the -1parameter menu, press the "▲" and "▼" keys (on the right side) at the same time to return to the main interface; after selecting the parameter menu -2-, press the "▲" and "▼" keys (on the right side) at the same time to enter the new password setting.

## **10.New Password Settings**

1) After entering the new password setting, the screen shows "---" and the hundreds digit flashes.

2) Adjust the airflow adjustment knob to change the hundreds digit, press the " $\blacktriangle$ " key (on the right side) to move the digit, when the tens digit starts flashing, it can be set. The setting method of the tens and one digit is the same as that of the hundreds digit. When the one digit setting is completed, press and hold the " $\checkmark$ " and " $\checkmark$ " keys (on the right side) at the same time to confirm. Entering the second password input mode, and the password input way is the same as the first time.

**Note:** If the two passwords input are not the same, the screen will display "ERR", indicating that the password setting is unsuccessful. It will return to the parameter setting, and the password will remain unchanged.

If two passwords input are the same, the screen displays "OK", indicating that the password setting is successful, and it returns to the parameter setting. Shut down and restart the unit, the new password takes effect.

# **11.Temperature Calibration**

## 11.1.Soldering Temperature Calibration

1) Set the temperature of the soldering to 350°C.

2) When the temperature is stable, use the soldering tip thermometer to measure the tip temperature and write down the readings.

3) Press and hold the " $\blacktriangle$  &  $\blacktriangle$ " keys on the left and right side at the same time to enter the soldering temperature calibration mode.

4) Press the " $\blacktriangle$ " or " $\blacktriangledown$ " key (on the right side) to change the soldering temperature, and long press the " $\bigstar$ " and " $\blacktriangledown$ " keys to save.



**Note**: It is recommended to use QUICK 191/192 series thermometer to measure the tip temperature.

## 11.2.Hot Air Temperature Calibration

1) Set the hot air temperature to 300°C.

2) Press and hold the " $\mathbf{\nabla} \& \mathbf{\nabla}$ " key on the left and right side at the same time to enter the hot air temperature calibration mode.

3) When the temperature is stable, use the hot air temperature tester to measure the hot air temperature, press the " $\blacktriangle$ " or " $\blacktriangledown$ " key (on the left side) to change the hot air temperature, long press " $\blacktriangle$ " and " $\blacktriangledown$ " keys at the same time to confirm, and return to the main interface.



Note: It is recommended to use QUICK 196 series hot air temperature tester to measure hot air temperature.

If there is no QUICK196, it is recommended that the temperature measuring head of the external sensor of the thermometer be placed  $3\sim$  5mm away from the nozzle for temperature testing.

# 12.Maintenance of Tips

1) When the new tip is used for the first time, add solder to protect it when the temperature is  $250 \sim 280$  °C.

2) Select the appropriate tip size according to the size of soldering joint.

3) In order to prevent the oxidation of tip a layer of solder should be plated before placing it into the holder.

4) In order to avoid rapid cooling of tip, the cleaning sponge should not be wet with too much water. But using cleaning sponge that is not wet will damage the tip and lead to failure of tinning the tip.

5) When the tip is oxidized due to improper use, do not clean the surface coating by grinding but use metal filament or resurrection ointment to clean it at  $250 \sim 280$  °C.

6) When soldering, do not apply gravity to tip and avoid adding solder to the same place to operate.

7) Try to solder at low temperature, and the temperature is usually controlled at  $320 \sim 380$  °C. If it is necessary to solder at high temperature, please analyze the adaptability of soldering station and tip before soldering.

# 13.Soldering Heater Replacement

(1)Tip (2)Tip enclosure (4)Insert (5)Heater

OCircuit board OSoldering handle body

#### 13.1.Steps of Removing the Heater

1) Unscrew 2) Tip enclosure and 3) Nut.

2) Pull out ①Tip.

3) Unscrew ④ Insert.

4) Pull out <sup>(5)</sup> Heater and <sup>(7)</sup> Circuit board.

5) Disassemble the four wires of (5) Heater with soldering handle, and then remove (5) Heater.

 $\triangle$ Note: All operating steps are performed with the power disconnected and the handle cooled.

#### 13.2. Steps of Replacing the Heater

1) Put the (5) Heater through the (6) Grounding spring, perforate and solder the heater wire according to the hole position for wire removal, and cut off the excess wire ends.

2) Align (5) Heater with handle groove and install it into (8) Soldering handle body.

3) After screwing ④ Insert, install ① Tip.

 $4\,)$  Put the 0 Tip enclosure and 3 Nut on the 4 Insert and tighten them.

5) After replacing the heater, the following measurements are recommended.



6)After replacing the heater, it is recommended to recalibrate the temperature (refer to the temperature calibration steps).

# ANote:

1) Do not burn the wiring when you replace the heater, and do not solder the wiring for too long time.

2) The two blue wires on the sensor have positive and negative polarities. (The negative electrode can attract the magnetic beads, and the blue line of the negative electrode is longer).

# 14.Hot Air Desoldering Heater Replacement



## 14.1.Steps of Removing Heater

1) Unscrew the handle at the end of the two 6 Screws.

2) Turn down the ① Heat resistant bushing at the front of the handle counterclockwise and remove the ⑤ Handle upper shell.

3) Take out the  $\bigcirc$  Fan, and unscrew the three  $\bigcirc$  Screws fixing the circuit board.

4) Remove the two white wires and the red and blue wires of the ④ Heater with the soldering handle.

5) First remove the 858 mica ring, and take the ④ Heater out of the ② Steel pipe.

 $\triangle$ Note: All operating steps are performed with the power disconnected and the handle cooled.

## 14.2. Steps of Replacing the Heater

1) Put ④ Heater assembly into the ② Steel pipe. Solder heater wire into the hole according to the hole position of the removal wire, cut off the excess wire, and pay attention to the correct position of red and blue wires.

2) Place the circuit board against the hole in the (8) Handle lower shell and fix it with three (9) Screws.

3) Place the  $\bigcirc$  Fan in position, align the convex points of  $\bigcirc$  8 the upper and lower shells of the handle with the steel pipe holes, and close them. Then tighten  $\bigcirc$  Heat resistant bushing.

4) Tighten the two <sup>(6)</sup> Screws at the end of the handle.

5) After the heater is replaced, please do the following measurements:



6) After the heater is replaced, it is recommended to calibrate the temperature. (Refer to the hot air temperature calibration steps for details).

 $\triangle$  Note: Do not burn the wiring when you replace the heater, and do not solder the wiring for too long time.

## 15.Installing and Removing the Nozzle

1) Place the selected nozzle in the air outlet steel pipe of the handle, and the four positioning catches on the nozzle must enter the installation slot of the steel pipe.

2) Lock the nozzle with the wrench provided and turn it clockwise. The two fixing points of the wrench should be placed in the two slots of the nozzle.

3) To remove the nozzle, use a wrench to lock the nozzle and turn it counterclockwise to take out the nozzle.



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# **16.Selection of Tips**

