QK850AD

User Manual

SMTmax

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SMD REWORK STATION
OPERATION MANUAL

1. Summary of product

1－1 Specifications

Consumption of power	When start: maximum 540W When work: maximum 320W
Air pump	Special diaphragm pump
Capacity	24L/min (max)
Temperature of hot air	100～480℃
Overall dimensions	187(W)X135(H)X245(D)mm

1－2Functions

* Closed loop of sensor, microcomputer to display digital and control temperature, large power in starting, rapid in temperature raising, accuracy and constant in temperature, no effect caused by amount of air exhaust;
* Design of static electricity proof: prevent from damaging PCB caused by static electricity and creepage;
* Because of adapting the soldering method of unnecessary touching solder joint, it can avoid the elements displacement and heat shocking;
* Can adjust amount of air and temperature greatly and can solder IC of QFP and SOP type. When solder or remove tin, different nozzles can be selected in accordance whit different requirement;

* Adapt imported heating elements and the nozzle is same as international brand;
* After the work of pulling solder is finished, stop the machine, the air is still blown a little time in order to prolong the life of heating elements and handle.

1-3Applications

* It is suitable for disassembling soldering for most of parts an the surface, for example, SOIC, CHIP, QFP, PLCC, BGA so on;
* It is suitable for contractive flexible tube.

2. Set temperature

Turn the temperature control knob, the set temperature will flash first. After setting the desired temperature it will be displayed for 2 seconds, and then the actual temperature of hot air will be shown on the screen again.

3. Explanation to operation.

3-1Preparation before operation

* Choose the picking up wire that matches the size of IC. The FP picking up device is equipped with small wire (14 mm), but a large picking up wire (30 mm) may be necessary. Please choose the suitable picking up wire in accordance with the size of IC;
* Choose the nozzle that will be matched with the size of IC;
* Loose the screw on the nozzle;
* Attach the nozzle as shown in the drawing;
* Fasten the screw properly.

3-2Process of detinning

* Press the switch of power supply.

The display screen displays the set temperature. After 2 seconds, begin to heat it normal. When air is injected automatically, turn on the switch of power supply at any time. When turn on, the heating raw materials begins to heat.

Adjust the airflow and set the knob of temperature control After the temperature is set and the airflow is adjusted, wait for a while till the temperature is stable. We suggest that you may adjust the temperature to 300～350℃. As for airflow, in case of single nozzle, the knob of airflow may be set at 1～5. For other nozzle, the knob of airflow may be set at 4～7.

Place the picking up device under IC block.

Place the picking up device under IC block. If the with of IC block can not matched the size of picking up wire, adjust the width of the wire through pressing.

Melt the solder

Hold the iron and make the nozzle aim at the part to be melted. Let the hot air melt the solder.

Be carefully not touch the leads of IC.

Remove the IC block

When the solder is melting, lift the picking up device and remove the IC block.

Turn off the switch of power supply

After the switch of power supply is turned off , the automatic air injecting function begins to work. The cool air is passed through the pipe. It makes the temperature of heating elements and handle drop . Therefore during the stage of cooling, don't pull out the plug. When the temperature of air at nozzle is below 100℃, it can be turn off automatically. In case of not use the unit for a long time, pull the plug out.

Remove any residue of solder

After remove the IC block, remove the residue of solder with a tin socking wire of detinning pump.

lotes: In case of SOP, PLCC, raise the IC block with tweezer.

3－3Soldering

* Apply the solder paste

Apply proper solder paste and put SMD on the IC board.

* Preheat SMD. L

* Solder

Inject the hot air to lead frame uniformly.

* Clean

After finished, clean the residue of molten materials.

Notes: it is effective to solder it with hot air . But it is possible to cause the defects such as solder balls, solder bridges and so on. We suggest that you should check the condition of solder care fully.

4. Precautions

* When attach the nozzle, don't exert too much force on it or pull the edge of nozzle by pliers. Also don't exert too much force to fasten the screw.

* When attach the nozzle, it is necessary to attach it only when the heating pipe and nozzle have been cooled.

* Caution - operation at high temperature

Don't use the disassembling station near easy inflammable gases, paper or other easy inflammable materials. The nozzle and hot air are very hot. It can burn human body. Never touch the heater or allow the hot air to blow against your skin. Initial, the iron may emit white smoke, but this will disappear soon.

* After use, be sure to cool the unit

After turn off the switch of power supply, the unit will blow cool air for a short time automatically. During the period of cooling, don't pull the plug of power supply out. When the temperature of blowing air is below 100℃, the unit can stop automatically.

* Don't drop it and shock it heavy

The heating pipe contains quartz glass. If it is dropped or shocked

* Don't disassemble the pump.
* If the unit does not use for a long time, the switch of power supply should be turned off.
* The last decimal on the screen of display means the marks to heat.
* Don't turn off power supply when set the temperature.
* When the screen of display appears "S—E" and flashes in a long time, it indicates that the sensor has troubles. It is necessary to repair or exchange.
* When the temperature is over 350℃, when start it, the knob of airflow control should be at 3～8 position.
* When the working temperature is over 450℃, the knob of airflow control must be over 4 position.

5. Replace the heating elements

5－1 Replacing parts

No.	Name/specifications
47007	Heating element/100V～300W(A1143B)
47008	Heating element/110V～300W(A1144B)
47009	Heating element/120V～300W(A1145B)
47010	Heating element/(220V～240V) 300W(A1146B)
42010	Picking up device (B1438)
44025	Picking up wire (small)(B1439)
44024	Picking up wire (big)(B1440)

5－2 Replace the heating materials

* Loose the screw and take out the wire tube.

  Loose three screws of handle and take out the wire tube.

* Loose the handle

  Loose the protect sheath of grounding wire and take out the tube.

  It contains quartz glasses and heat insulator in it.

  Don't drop or loss them.

* Take the heating materials out

  Loose the terminal and take the heating materials out.

* Insert new heating material

  Treat it carefully. Don't rub the electric line of heating materials.

  Insert new heating material and connect their terminals. The sensor has polar. It is necessary to distinguish its colors. Connect it with same color.

  According to the reverse procedures of disassemble to install the handle. Make the protruding part of handle telescope the hole of pipe part.