High-power

Touch-screen rework station

INSTRUCTION MANUAL

993D

English

Statement: The company reserves the right to improve and upgrade products, product specifications and design are subject to change without notice.

Thanks for purchasing this intelligent rework station, this product is specifically designed for lead-free welding, please read instructions carefully before using. After reading, please keep it for future reference.

Safety Guidelines

To use this product, the following basic measures should be strictly followed to avoid hazards of electric shock, bodily injury, and fire.

1. **To ensure personal safety, please turn off the power switch after power work is completed; if it will not be used for a long time, please unplug the power cord! !!**
2. Failure to use parts approved or recommended by the manufacturer may have serious consequences.
3. Power failure must be fixed by professionals or by maintenance personnel designated by our company.
4. This product uses a three-wire grounded plug that must be inserted into a three-hole grounded outlet. Do not change the plug or use an ungrounded three-headed adapter as it will cause poor grounding.
5. After the soldering station is switched on, its temperature can exceed 400 degrees centigrade. Do not use near flammable or explosive objects. To avoid burns, do not touch the metal part of the soldering iron.
6. Do not leave the work area when the soldering station is switched on.
7. The power cord must be unplugged and the iron must be allowed to cool before installing or replacing soldering iron parts.
8. The soldering iron should only be used for soldering. Do not hit the soldering iron against the work surface to remove flux residues, as doing so may seriously damage the soldering iron.
9. Soldering produces fumes, ensure there is adequate ventilation.

WARNING

1. If the power cable is damaged, it must be replaced by the manufacturer or by a maintenance department professional in order to avoid danger.
2. This tool must be placed in its stand when not in use.
3. Be careful when using this device in the vicinity of flammable materials; Never use this device for extended periods in the same location.
4. Be aware that heat may be transferred to distant flammable materials; Someone must be present at all times while the device is connected.
5. This device is not intended to by operated by individuals with diminished physical, sensory, or mental capacities or by those who lack experience (such as children), except in the presence of individuals qualified to provide necessary supervision and guidance; Ensure that children do not play with this device.

I. Product Features

1. Uses touch screen technology, stylish and convenient to use
2. Features 3 working channels, allowing storage at different temperature and air flow parameters; parameters can be quickly selected based on the IC type
3. Features Fahrenheit/Celsius display switch and digital calibration.
4. Closed loop sensor, no-touch temperature control by microcomputer, high output, rapid heating; temperature regulation is convenient and precise.
5. Uses brushless vortex blower with large airflow, adjustable.
6. System features automatic cold air function, prolonging the life of the heating element and protecting the handle.

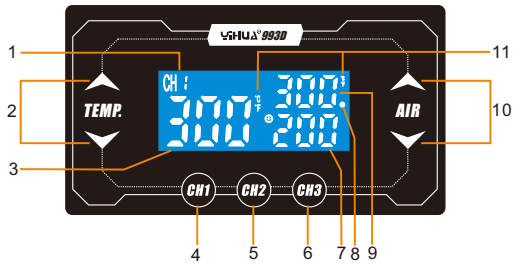
II. Usages

1. Suitable for soldering of many types of original parts, including SOIC, CHIP, QFP, PLCC, and BGA.
2. Suitable for heat shrinkage, drying, paint removal, adhesive removal, thawing, preheating, disinfection, and plastic welding.
3. Suitable for heating using different levels of airflow and heat.
4. Suitable for lead free hot air reworking.

III. Parameters

Power	1300W
Voltage range	200V~240V 50Hz ~ 60Hz
Temperature range	100°C to 500°C
Air volume stalls range	6 ~ 200
Maximum air flow	200L / min
Dimensions (length x height x width)	230x205x170mm
Weight (including handle bracket)	about 4.5kg
Working environment	0~40°C / 32~104°F
Storage environment	-20~80°C / -4~176°F
Storage Humidity	35% to 45%

IV. Panel Diagram



1. Memory channel indicator
2. Temperature/data plus-minus setting
3. Temperature setting
4. Memory channel CH1 setting /digital temperature calibration button
5. Memory channel CH2 button
6. Memory CH3 button/ °F\°C switch
7. Air analog value
8. Operating light
9. Actual temperature
10. Air plus-minus button
11. °C /°F display mode (displays only one mode)

V. Operating Instructions

1. Set up the rework station, place the handle on the handle holder. If you want to use the holder while working, fix the handle to the holder.
2. Connect the power cord and fit the required nozzle (recommend using a large nozzle)
3. Switch on the power.
4. Set the desired temperature and air flow (provided requirements for the task are met, try to use low temperatures and a large air flow in order to extend the life of the heating element and ensure safety when desoldering chips).

5. Lift the handle of the rework station, so the station start normal heating operations; start work when constant temperature is reached.
6. On completion of work, place the handle back in the holder. The rework station will automatically cut off power to the heating wire and enter the cooling heating element mode. When the temperature is below 100°C, the display shows "---", air flow is stopped and the rework station enters standby mode.
7. The power switch should be switched off if the rework station is not used for a long period of time.

VI. Description of Function Settings

Digital temperature correction setting

1. Turn on the power switch and set the temperature to be corrected, usually set to 300°C, and set air flow to the maximum.
2. Start the air gun, place the handle to the air gun test instrument to measure the temperature, when a constant temperature is measured press the CH1 button for 3 seconds and the display below will be shown. Enter the calibration mode. If no operation is carried out for 12 seconds, the original setting will be retained and the rework station is returned to settings mode.

3. Press the temperature/data plus-minus button to enter the temperature on the temperature control instrument and press CH1 to confirm. Automatic calibration of temperature, save temperature, restore temperature calibration state, temperature calibration complete.

Note: In case of a small deviation following temperature calibration, the process can be repeated.

Switch between Fahrenheit/Celsius temperature display

1. Turn on the power switch
2. Press CH3 button for 3 seconds and the display below will be shown. If no operation is carried out for 12 seconds, the original setting will be retained and the rework station is returned to settings mode.

3. Press temperature/data plus-minus button to switch between Fahrenheit or Celsius temperature display mode, and press CH3 to confirm. The setting will be automatically saved and the rework station is returned to settings mode.

VII. Terms of Use

1. When turning on the power supply air gun, the handle must be placed on the handle holder.
2. Please keep the air vent open and free of obstructions.
3. After completion of work, the heating handle must be placed on the handle holder. Let the machine cool down by itself until it displays "---" (stop air supply) to be able to turn off the air gun power switch.
4. When using a smaller nozzle other than the standard machine nozzle, you must adjust the air flow to the max and to use lower temperatures within a short period of time. Avoid long-term use of the air gun as it causes damage.
5. In accordance with work needs, choose the right air nozzle. Different air nozzles may have slightly different temperatures. The distance between the outlet and the object is at least 2 mm.
6. Do not forcefully install the nozzle or use pliers to pull the nozzle edge. Do not tighten the screw firmly.
7. Before installing the nozzle, both the heat pipe and the nozzle must be cooled first.

8. Do not touch the heat pipe or directly spray someone's face with hot air, as there is a risk of burning the human body. When it is just started, white smoke may be emitted - this is a normal occurrence, which will later disappear.
9. When replacing the heating element, be careful not to damage the ground wire.
10. During replacement, pay attention to the order and color of the connection cable. Never make a mistake in the connection!
11. Please replace with the same model of heating element or heating core.

Special Note:
Hello, dear user! Because the machine air gun and the soldering iron handle use high-strength stainless steel tube, in the production process the machine must go through inspection or calibration four times under normal working conditions. The cylinder will turn slightly yellow due to high temperature. When the new machine is disassembled or used, and slight yellowing is discovered around the steel cylinder, this is to be regarded as normal occurrence, so please remain at ease when using it!

VIII. Error Symbols

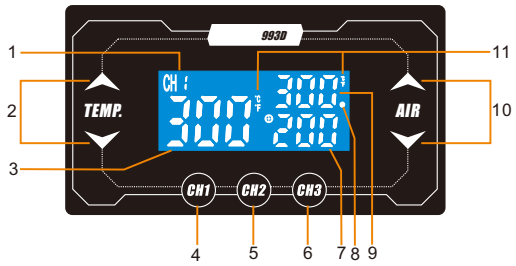
When a problem occurs with the equipment, the system will display a variety of error symbols and an alarm sound will be emitted until the system power is cut off. If the following symbols are displayed, please follow the prompts to troubleshoot them.

S-E **Sensor Error:** If any part of the sensor or sensor circuit fails, the temperature parameter window will display "S-E" to be conveyed to the handle in order to cut off the electric current, after which the system will stop working.

H-E **Heated Element Error:** If the system cannot supply power to the heating element of the handle, the temperature parameter window will display the " H-E" symbol, which means the heating core may already be damaged.

ERR **Motor Error:** If any part of the motor or electric circuit fails, the air volume parameter window will display the "ERR" symbol, to be conveyed to the motor in order to cut off the electric current, after which the system will stop working.

IV. Panel Diagram



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Note: In case of a small deviation following temperature calibration, the process can be repeated.

IX. Replaceable Components

1. Heating element replacement must be done after it has cooled down.
2. Remove the spring on the original handle and unscrew the three screws holding the steel tube. Pull out the steel pipe from the handle case (as in Figure 1).
3. Cut off the cable tie on the outlet and unplug the sensor cable. Release the grounded outlet and the grounding cable in the internal frame of the steel pipe and handle. Pull out the heating core from the steel pipe and take out the steel pipe and the damaged heating core.
4. Insert the attached mica paper roll on the new heating core (must fittingly be inserted into the steel tube, with the excess cut off) into the steel pipe.

Note: The heating core sensor wire should be opposite the ground lead of the steel pipe. The red and yellow heat shrink tube is the sensor wire.

5. Insert the installed heating core element into the internal frame of the handle and tighten the set screw. (The heating element connector of the heating core must be inserted in place) Connect all the cables well as shown in the diagram and set the cable tie. The sensor wire has polarity, so please pay attention to the color difference. Wires of the same color are connected to each other.
6. Finally, put on the external handle cover and fix the screws and springs (reassemble the handle in the reverse order of its disassembly).

CAUTION: Be careful not to damage the ground wire on the steel pipe when replacing the heating element.

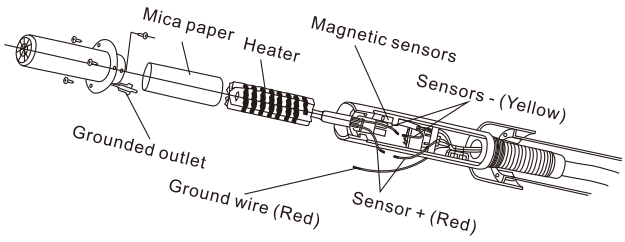
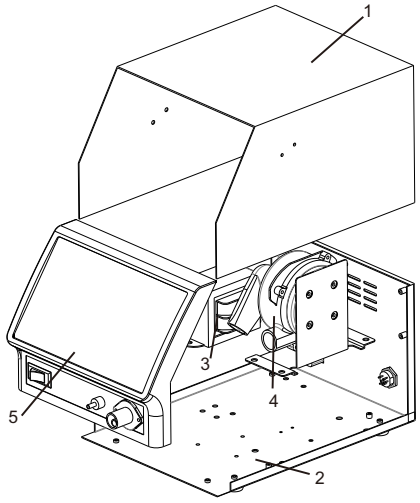


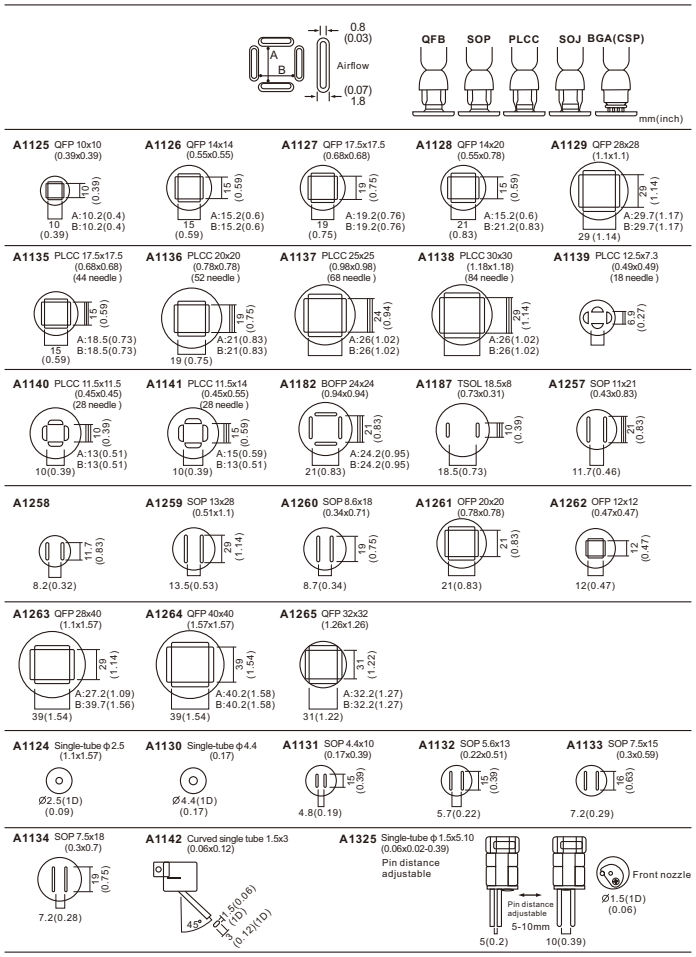
Figure 1

X. Internal Structure Diagram



1. Machine Cover
2. Bottom Plate
3. Transformer
4. Blower
5. Panel

General parts
*Nuzzle specification
and sizemeans the IC size



Product certification

Model NO.	
Product ID	
Examine	Upon examination products meet technical standards (QC PASS)
Sales Date	
Date of manufacture	

Warranty Card

Thank you for choosing this type of products, please read the following terms before using:

1. From purchasing date within 7 days, under normal use(Artificial damage),new package, not be disassemble and repaired ,enjoy replacement service.
2. From purchasing date within one year, under normal use, if there are quality problem, not be disassemble and repaired ,enjoy free repair service.
3. For more than warranty, we provide a lifetime warranty service, free of labor costs, charge only spare parts costs.
4. Failure to present warranty card during warranty period, the company will not be a free service.
5. Users need warranty service, please contact your original sales unit.
6. When users need warranty service, please provide warranty card and purchase invoice, or receipt of the certificate of the company seal.
7. Warranty does not include transportation costs and provide on-site service.

Maintenance records

NO.	Date for repair	Cause	Fix date	Repairer