

WnewTools 853AAA

WnewTools 853AAA 3-in-1 Rework Station User Manual

Model: 853AAA

1. INTRODUCTION

The WnewTools 853AAA is a versatile 3-in-1 rework station designed for professional electronics repair and soldering tasks. It integrates a preheating station, a hot air gun, and a soldering iron into a single compact unit, offering comprehensive functionality for various applications including BGA rework, SMD component soldering, and general electronic assembly. This manual provides essential information for the safe and effective operation, setup, and maintenance of your 853AAA rework station.

2. SAFETY INSTRUCTIONS

Always adhere to the following safety guidelines to prevent injury and damage to the equipment:

- Ensure the unit is connected to a 220V AC power supply with proper grounding.
- Do not operate the station in damp or wet environments.
- Allow components to cool down before handling or storing. The hot air gun and soldering iron tips reach very high temperatures.
- Use appropriate personal protective equipment (PPE), such as safety glasses and heat-resistant gloves.
- Keep flammable materials away from the work area.
- Do not block the air vents on the unit.
- Unplug the unit from the power source before cleaning or performing maintenance.
- Only use genuine replacement parts and accessories.

3. PRODUCT COMPONENTS AND OVERVIEW

The WnewTools 853AAA rework station includes the main control unit, a preheating plate, a hot air gun with a stand, a soldering iron with a stand, and various accessories.



Figure 3.1: Complete WnewTools 853AAA 3-in-1 Rework Station with included accessories such as soldering iron, hot air nozzles, and tip cleaner.



Figure 3.2: Front view of the 853AAA rework station, highlighting the control panel with LED displays for temperature settings.



Figure 3.3: The 853AAA unit showcasing the hot air gun mounted on its adjustable stand and the soldering iron in its holder.



Figure 3.4: Side view of the 853AAA rework station, showing the power switch and power input on the rear panel.

4. SETUP AND ASSEMBLY

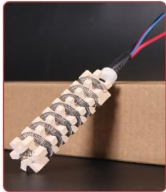
Follow these steps to set up your 853AAA rework station:

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any shipping damage.
2. **Placement:** Place the main unit on a stable, heat-resistant, and non-flammable surface. Ensure adequate ventilation around the unit.
3. **Hot Air Gun Stand Assembly:** Attach the hot air gun stand to the main unit using the provided screws. Ensure it is securely fastened and allows for flexible positioning of the hot air gun.

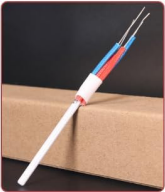
4. **Soldering Iron Holder:** Position the soldering iron holder on a stable surface near the main unit. Ensure the tip cleaner is accessible.
5. **Connecting Components:**
 - Connect the hot air gun cable to the designated port on the main unit.
 - Connect the soldering iron cable to its respective port.
 - Ensure the preheating plate is integrated or properly connected if it's a separate module.
6. **Power Connection:** Connect the power cord to the unit's power input and then to a grounded 220V AC outlet.

Great Value Package As Gift

Value USD44.42



USD 13.3



USD 8.55



USD 14.5



USD 0.5



USD 1.4

Figure 4.1: Illustration of the hot air gun holder, demonstrating its 360-degree adjustable flexibility for precise positioning during rework tasks.

5. OPERATING INSTRUCTIONS

5.1 General Operation

Turn on the main power switch located on the rear or side of the unit. The LED displays will illuminate, showing current temperature settings.

5.2 Preheating Station Operation

The preheating station is designed to uniformly heat PCBs and components from below, reducing thermal stress during soldering or desoldering with the hot air gun or soldering iron.

- **Temperature Control:** Use the dedicated controls for the preheating plate to set the desired temperature. The temperature range is 50~400°C.
- **Placement:** Place the PCB or component directly on the preheating plate. Ensure it is stable and centered.
- **Monitoring:** Monitor the temperature on the LED display. Allow the plate to reach the set temperature before proceeding with rework.

BGA Professional Welding Tool

Hot air gun & Soldering station
& Preheat station

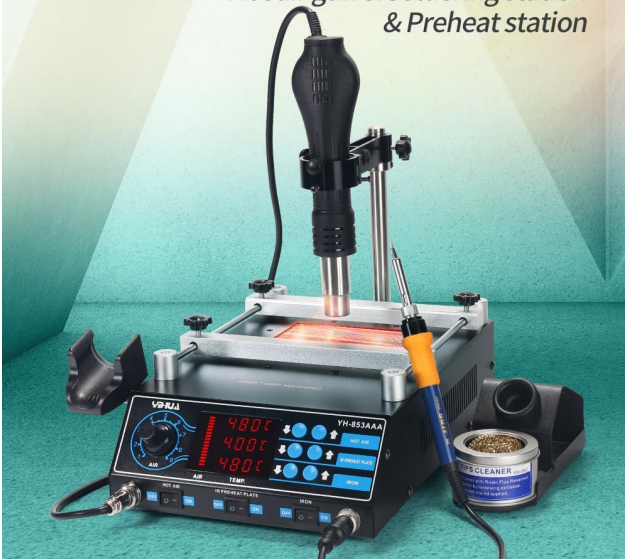


Figure 5.1: The preheating plate in operation, illustrating its function in uniformly heating a circuit board from below to prepare for soldering or desoldering.

Preheating plate Multi-layer heat transfer

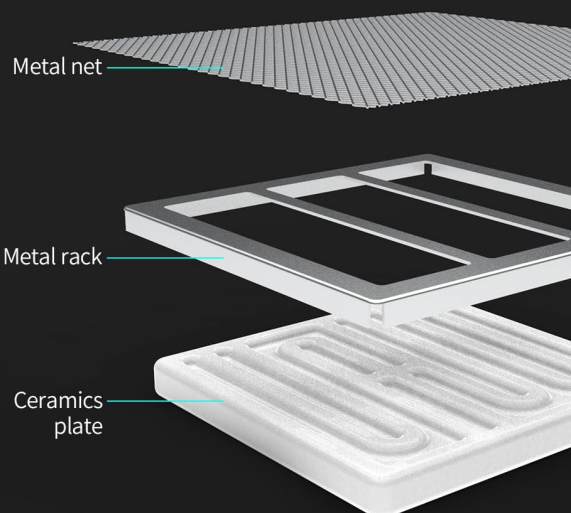


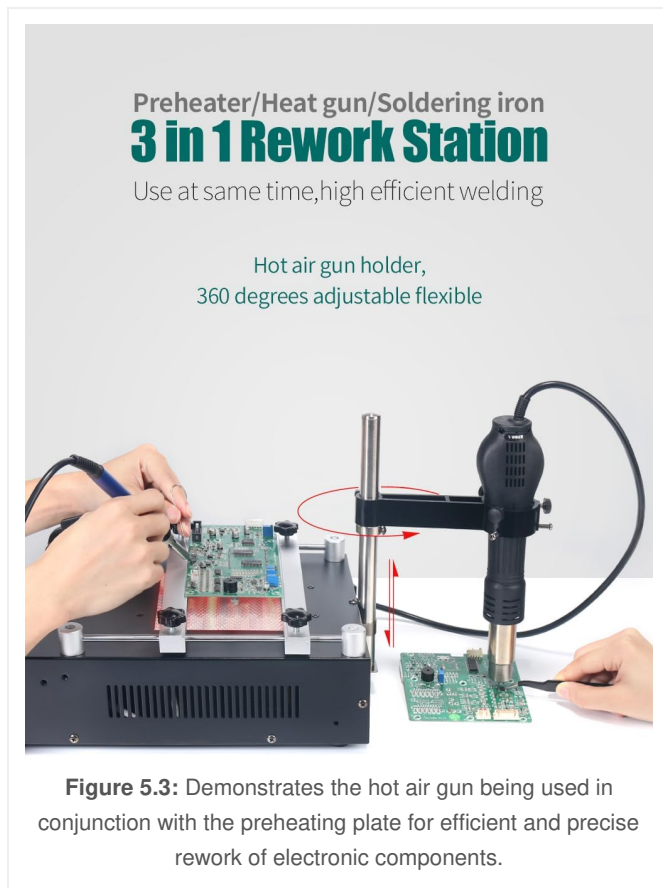
Figure 5.2: Diagram illustrating the multi-layer heat transfer design of the preheating plate, showing the metal net, metal rack, and ceramic plate components.

5.3 Hot Air Gun Operation

The hot air gun is used for desoldering SMD components, heat shrinking, and other applications requiring controlled hot

air.

- **Temperature and Airflow Control:** Adjust the temperature (100~480°C) and airflow (up to 120L/min) using the dedicated controls.
- **Nozzle Selection:** Choose an appropriate nozzle for the component size and application. Attach it securely to the hot air gun.
- **Usage:** Hold the hot air gun at a safe distance from the component, applying heat evenly. Avoid direct contact with the PCB.
- **Cool-down:** After use, place the hot air gun back into its stand. The unit will automatically enter a cool-down mode to protect the heating element.



5.4 Soldering Iron Operation

The soldering iron is used for precise soldering of components, wire connections, and general electronic repairs.

- **Temperature Control:** Set the desired temperature for the soldering iron (200~480°C) using its dedicated controls.
- **Tip Preparation:** Before first use and periodically during operation, tin the soldering iron tip by applying a small amount of solder. Clean the tip using the provided tip cleaner or a damp sponge.
- **Soldering:** Apply the tip to the joint, then feed solder onto the joint, not the tip. Allow the solder to flow and form a good connection.
- **Storage:** Always return the soldering iron to its holder when not in use.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your rework station.

- **Cleaning the Soldering Iron Tip:** Regularly clean the soldering iron tip with the brass wool tip cleaner or a damp sponge to remove oxidation and solder residue. Re-tin the tip after cleaning.
- **Replacing Soldering Iron Tips:** Replace worn or damaged soldering iron tips as needed. Ensure the unit is off and

cooled before changing tips.

- **Cleaning the Hot Air Gun Nozzles:** Clean any residue from the hot air gun nozzles. Ensure they are clear of obstructions.
- **Unit Cleaning:** Wipe the exterior of the main unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Ventilation:** Ensure the ventilation openings on the unit are free from dust and debris to prevent overheating.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit does not power on.	No power supply; power cord loose; main switch off.	Check power outlet; ensure power cord is securely connected; turn on main power switch.
Hot air gun not heating or low airflow.	Temperature/airflow setting too low; heating element fault; fan obstruction.	Increase temperature/airflow settings; check for obstructions in nozzle/vents; contact support if heating element is faulty.
Soldering iron not heating.	Temperature setting too low; heating element fault; loose connection.	Increase temperature setting; check cable connection; contact support if heating element is faulty.
Preheating plate not reaching temperature.	Temperature setting too low; heating element fault.	Increase temperature setting; contact support if heating element is faulty.

8. SPECIFICATIONS

Feature	Specification
Model	853AAA
Total Power	≤1270W
Voltage	220V
Dimensions (L x W x H)	320 x 220 x 270mm (approx. 12.6 x 8.7 x 10.6 inches)
Weight	Approx. 5.6kg (12.3 lbs)
Preheat Station	
Temperature Control Range	50~400°C
Temperature Stability	±2°C (Static)
Display Mode	LED Digital Display
Heated Region Area	120 x 120mm
Hot Air Heater	
Air Supply Mode	Brushless-motor Fan
Airflow	≤120L/min (Max.)

Feature	Specification
Temperature Control Range	100~480℃
Temperature Stability	±1℃ (Static)
Display Mode	LED Digital Display
Soldering Iron	
Temperature Control Range	200~480℃
Temperature Stability	±1℃ (Static)
Display Mode	LED Digital Display

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact WnewTools customer service. Keep your purchase receipt as proof of purchase.

Manufacturer: Wnew
Model Number: ATTOOL1390780
UPC: 769902982288

