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› [YIHUA 853D 2A USB 3-in-1 Soldering, Rework, and Power Supply Station Instruction Manual](#)

YIHUA 853D 2A USB

YIHUA 853D 2A USB 3-in-1 Soldering, Rework, and Power Supply Station Instruction Manual

Model: 853D 2A USB | Brand: YIHUA

1. INTRODUCTION

The YIHUA 853D 2A USB professional soldering, rework, and power supply station is a versatile tool designed for a broad range of electronic tasks, including soldering, desoldering rework, testing, and powering applications. This unit combines a hot air rework station, a soldering station, and a DC power supply into one compact device. It is designed to operate on US mains electricity (110-127V). **DO NOT use this product on mains electricity at 220V.**



Figure 1: YIHUA 853D 2A USB 3-in-1 Soldering, Rework, and Power Supply Station with included accessories.

2. PACKAGE CONTENTS

The YIHUA 853D 2A USB station bundle includes the following items:

- 1 x YIHUA 853D 2A USB Professional Soldering, Rework, Power Supply Station
- 1 x 17.32" x 12.20" M180 Professional Soldering Work Mat
- 1 x 50g 0.8mm LEAD-FREE solder wire
- 10 x assorted iron tips
- 4 x assorted hot air nozzles
- 1 x solder wick
- 1 x solder sucker
- 1 x pair of ESD-safe tweezers
- 2 x holders (for hot air gun and soldering iron)
- 1 x cleaning kit (brass ball)
- 1 x IC extractor

- 1 x pair of test leads

M180

The items shown in the photos are for illustration purposes only. Please refer to list of the items in the product description for what the actual product includes.



Figure 2: M180 Professional Soldering Work Mat, designed to prevent accidental burning and organize components.



Figure 3: Included soldering accessories: lead-free solder wire, solder wick, solder sucker, and ESD-safe tweezers.



Figure 4: Hot air gun with a selection of assorted nozzles for various rework tasks.

3. SETUP

Follow these steps to set up your YIHUA 853D 2A USB station:

1. **Unpacking:** Carefully remove all components from the packaging.
2. **Placement:** Place the main unit on a stable, heat-resistant surface, preferably on the M180 work mat.
3. **Connect Hot Air Gun:** Plug the hot air gun into the designated 'SMD REWORK' port on the front panel. Ensure it is securely seated in its holder.
4. **Connect Soldering Iron:** Plug the soldering iron into the 'SOLDERING' port on the front panel. Place the iron in its stand.
5. **Connect Power Supply Leads (Optional):** If using the DC power supply function, connect the test leads to the 'OUTPUT DISPLAY' terminals (red for positive, black for negative).
6. **Power Connection:** Ensure the main power switch on the rear of the unit is in the 'OFF' position. Connect the power cord to the unit and then to a 110-127V AC power outlet.

Your browser does not support the video tag.

Video 1: An introductory video demonstrating the YIHUA 853D 2A USB 3-in-1 Multi-Station, including its components and basic connections. This

4. OPERATING INSTRUCTIONS

4.1 Power On/Off

1. **Main Power:** Flip the main power switch on the rear of the unit to the 'ON' position. The digital displays will illuminate.
2. **Component Power:** Use the individual 'POWER' switches on the front panel for the 'REWORK' (hot air) and 'SOLDER' (soldering iron) stations to turn them on or off independently.

4.2 Temperature Control (Soldering & Hot Air)

Both the soldering and hot air stations feature temperature stabilization to maintain the set temperature steadily.

1. **Setting Temperature:** Use the 'TEMP. SET' up/down arrow buttons next to each display to adjust the desired temperature. The hot air temperature range is 212-896°F (100-480°C), and the soldering station temperature range is 392-896°F (200-480°C).
2. **Temperature Unit Conversion (°C/°F):** To switch between Celsius and Fahrenheit, simultaneously press and hold the 'REWORK STATION ▲' button and the 'SOLDERING STATION ▼' button for 2 seconds. Then, press the 'REWORK STATION ▲' button to display °C or the 'REWORK STATION ▼' button to display °F. The selected mode will be saved after 5 seconds of inactivity.

° F/° C Temperature Display

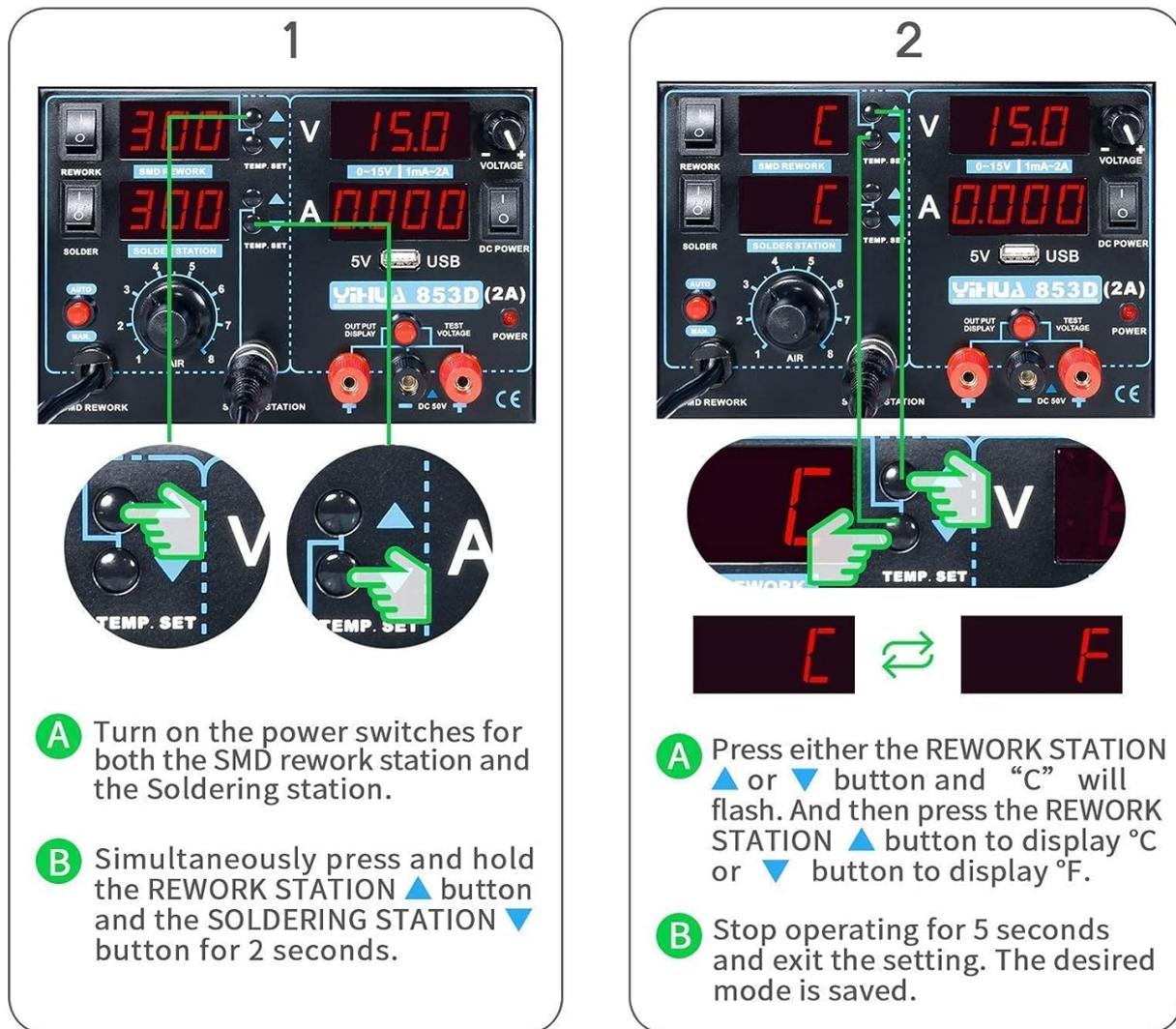


Figure 5: Instructions for converting the temperature display between Celsius and Fahrenheit.

4.3 Hot Air Rework Operation

The hot air gun features an automatic mode for enhanced safety and reduced wear.

- **Automatic Mode:** When the hot air gun is placed in its holder, it automatically cools down to 100°C (212°F) and enters standby mode. When lifted from the holder, it quickly heats up to the preset temperature.
- **Manual Mode:** For continuous operation, press the 'MAN' button. The hot air gun will remain at the set temperature regardless of whether it's in the holder. Press 'AUTO' to return to automatic mode.
- **Airflow Adjustment:** Use the 'AIR' knob to adjust the airflow intensity.

4.4 DC Power Supply Operation

The integrated DC power supply allows you to power and test devices.

- **Voltage/Current Adjustment:** The power supply can output up to 15V and 2A. Use the 'VOLTAGE' knob and 'TEMP. SET' buttons for voltage and current adjustment.
- **Test Voltage:** The unit can test voltages up to 35V. Connect the test leads to the 'TEST VOLTAGE' terminals and to the circuit you wish to measure.
- **USB Charging Port:** A 5V USB port is available for charging compatible devices.

5. MAINTENANCE

Proper maintenance ensures longevity and optimal performance of your station.

- **Soldering Tip Maintenance:** Always clean the soldering iron tip when the operation is complete. After cleaning, coat the tip with a thin layer of solder to prevent oxidation and extend its lifespan. Use the included brass ball cleaner.
- **Hot Air Nozzle Cleaning:** Ensure hot air nozzles are free from debris. Clean them gently when cool.
- **General Cleaning:** Keep the main unit and accessories clean and free from dust and solder splatter. Use a soft, dry cloth.



Figure 6: Demonstrating the use of the brass ball cleaner for soldering iron tip maintenance.

6. TROUBLESHOOTING

If you encounter issues, consider the following:

- **No Power:** Check the main power switch on the rear, the individual power switches on the front, and the power cord connection. Ensure the unit is plugged into a 110-127V outlet.
- **Incorrect Temperature Reading:** Verify the temperature unit setting (°C/°F). Ensure the soldering iron or hot air gun is properly connected.
- **Hot Air Gun Not Heating:** Check if the hot air gun is lifted from its holder (if in automatic mode) and if its power switch is on. Verify the temperature setting.
- **Soldering Iron Not Heating:** Check if the soldering iron's power switch is on and verify the temperature setting. Ensure the tip is clean and properly seated.
- **Power Supply Output Issues:** Check the voltage and current settings. Ensure test leads are correctly connected and not short-circuited.

7. SPECIFICATIONS

| Feature | Value |
|-------------------------------------|------------------------------|
| Brand | YIHUA |
| Model | 853D 2A USB |
| Hot Air Temperature Range | 212-896°F (100-480°C) |
| Soldering Station Temperature Range | 392-896°F (200-480°C) |
| DC Power Supply Output | 0-15V, 1mA-2A |
| USB Output | 5V |
| Max Test Voltage | 35V |
| Temperature Stability | ±5°F |
| Wattage | 30 watts (Soldering Iron) |
| Display Type | Digital |
| Material | Copper (for some components) |

8. WARRANTY & SUPPORT

YIHUA provides a 12-month US-exclusive manufacturer technical coverage for this product. For any technical assistance or inquiries, please contact YIHUA's professional support team available 24/7 on Amazon.