

MINIWARE MHP50

MINIWARE MHP50 Mini Heating Station User Manual

Model: MHP50 (AL50 Variant)

1. INTRODUCTION

The MINIWARE MHP50 is a compact and portable mini heating station designed for precision heating tasks, particularly in electronics soldering and preheating applications. Its small form factor, detachable design, and dual power input options make it a versatile tool for various work environments. This manual provides essential information for the safe and effective operation and maintenance of your MHP50 heating station.



Image 1.1: The MINIWARE MHP50 Mini Heating Station, showcasing its compact design and integrated display.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the MINIWARE MHP50 heating station. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **High Temperature Hazard:** The heating plate reaches temperatures up to 350°C. Avoid direct contact with the heating surface during operation and cool-down. Use appropriate heat-resistant tools.
- **Ventilation:** Ensure adequate ventilation in your workspace to dissipate heat and any fumes generated during soldering.
- **Power Supply:** Use only approved power adapters (DC 19-24V or USB Type-C PD 20V). Do not use both power inputs simultaneously.
- **Flammable Materials:** Keep flammable materials, liquids, and gases away from the heating station.
- **Children and Pets:** Keep the device out of reach of children and pets.
- **Moisture:** Do not expose the device to moisture or operate it in wet conditions.
- **Maintenance:** Disconnect power before cleaning or performing any maintenance.
- **Damage:** Do not operate the device if it is damaged. Contact customer support for assistance.

3. PRODUCT OVERVIEW AND FEATURES

The MHP50 heating station is engineered for efficiency and portability, incorporating several key features:

- **Compact Design:** Its small size allows for easy transport and use in confined spaces.
- **Detachable Parts:** The heating unit and controller base are separable, facilitating easier storage and potential future upgrades.
- **Integrated Ventilation:** An internal fan automatically adjusts its speed based on temperature, ensuring efficient cooling and component protection.
- **Lighting Indicators:** The base unit features a display screen and a breathing light that changes color to indicate heating status and temperature levels.
- **Dual Power Supply:** Supports both DC 5525 (19-24V, max 150W) and USB Type-C PD (20V, max 100W) for flexible power options. Note: Do not use both simultaneously.
- **Rapid Heating:** Capable of heating from 28°C to 300°C in approximately 150 seconds.
- **AL50 Heating Plate:** Features an aluminum heating surface with an anodized finish for even heat distribution.

Separate Design Flexible Replacement SPLIT DESIGN



Image 3.1: The MHP50's split design, showing the detachable heating unit and controller base for flexible replacement and transport.

4. SETUP

4.1 Unpacking and Assembly

1. Carefully remove the MHP50 heating station from its packaging.
2. Ensure all components are present and undamaged.
3. If the heating unit and controller base are separated, gently align and connect them. The connection is typically magnetic or uses a simple locking mechanism.

4.2 Power Connection

The MHP50 supports two types of power input:

- **DC 5525 Port:** Connect a DC 19-24V power adapter (max 150W) to the DC 5525 port.
- **USB Type-C PD Port:** Connect a USB Type-C PD 20V power adapter (max 100W) to the Type-C port.

Important: Do not connect both DC and USB Type-C power sources simultaneously. Choose only one power

input.

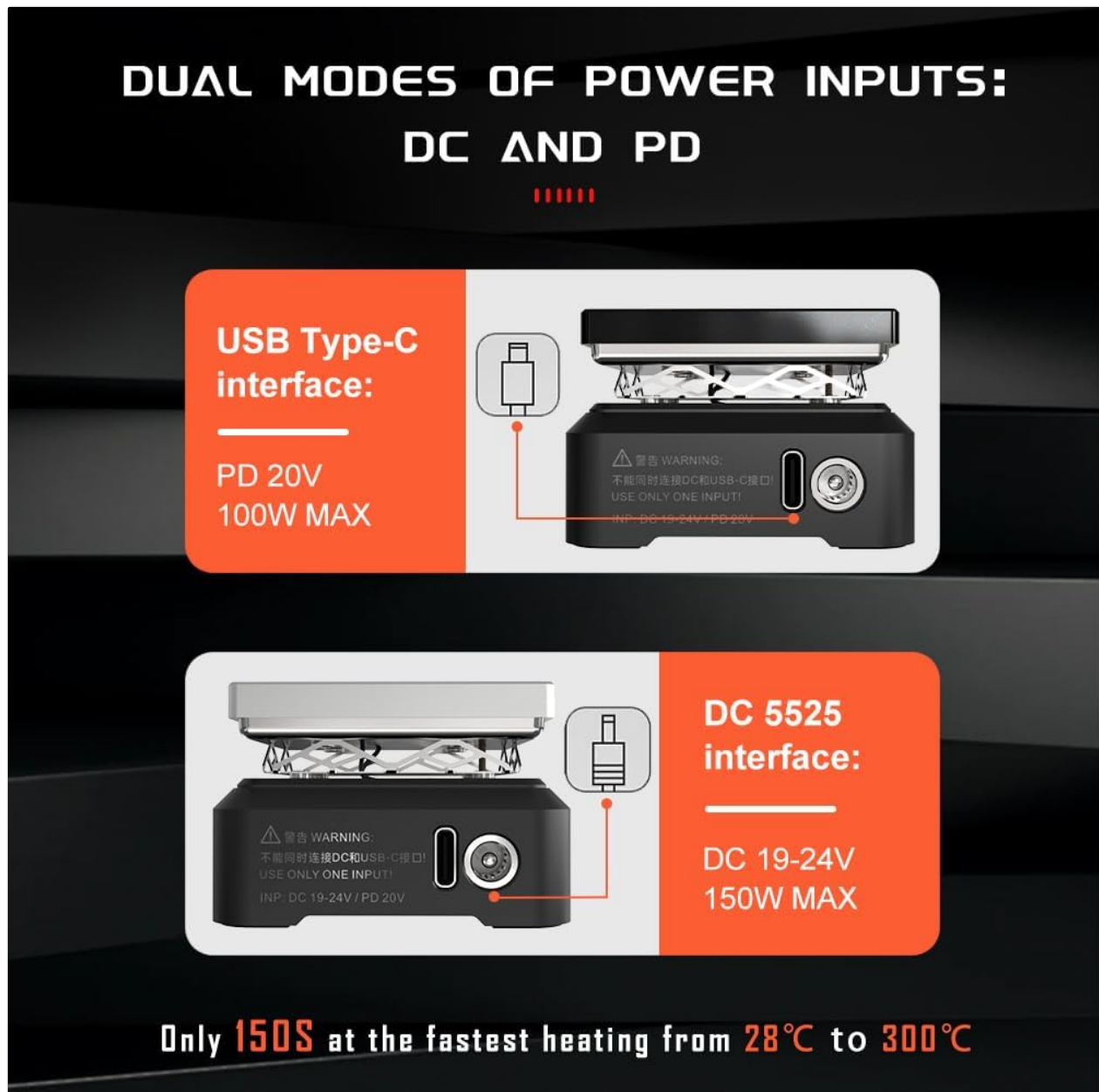


Image 4.1: Illustration of the dual power input options (DC 5525 and USB Type-C PD) for the MHP50, with a warning against simultaneous use.

5. OPERATING INSTRUCTIONS

5.1 Powering On and Initial Display

Once connected to a power source, the device will power on automatically. The integrated LED display will show the current temperature and other operational parameters.

UPGRADE SCREEN DISPLAY NEW UI INTERACTIONS



Image 5.1: The MHP50's upgraded screen display, showing temperature, rise time, and other user interface elements.

5.2 Setting Temperature

Use the control buttons on the base unit to navigate the menu and set the desired heating temperature. Refer to the on-screen prompts for specific adjustments. The temperature range is typically 100°C to 350°C.

5.3 Heating Process and Indicators

Once the target temperature is set, the heating station will begin to warm up. The breathing light on the base unit provides visual feedback on the heating status:

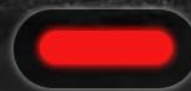
- **Green Light:** Indicates low temperature (below 50°C).
- **Yellow Light:** Indicates increasing temperature.
- **White Light:** Indicates temperature approaching target.
- **Red Light:** Indicates high temperature (above 200°C) or target temperature reached.
- **Blue Light:** May indicate firmware upgrade mode.
- **Red Flicker:** Indicates a warning or error.

COLOR LIGHTS INDICATION KNOWING THE HEATING TEMPERATURE



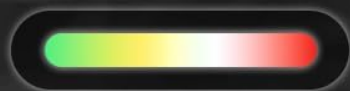
Blue Light

Firmware upgrade



Red Flicker

Warning Error



Green Light < Yellow < White < Red Light

Low than 50°C

Higher than 200°C

Image 5.2: Explanation of the MHP50's color light indications for temperature status and warnings.

5.4 Using the Heating Station

Place the component or PCB requiring heating directly onto the AL50 heating plate. Monitor the temperature on the display. Always use appropriate tools and safety precautions when handling hot items.



Image 5.3: The MHP50 in operation, demonstrating its use for soldering tasks on a circuit board.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your MHP50 heating station.

- **Cleaning:** Disconnect the power supply before cleaning. Allow the device to cool completely. Wipe the heating plate and body with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a dry, dust-free environment when not in use.
- **Inspection:** Periodically inspect the power cables and connectors for any signs of damage.

7. TROUBLESHOOTING

If you encounter issues with your MHP50 heating station, refer to the following common problems and solutions:

- **Device does not power on:**
 - Ensure the power adapter is correctly connected and providing the correct voltage (DC 19-24V or USB)

PD 20V).

- Verify that only one power source is connected.
- Check the power outlet.

- **Heating plate not reaching temperature:**

- Confirm the set temperature is within the operational range (100°C-350°C).
- Ensure the power supply meets the wattage requirements (150W for DC, 100W for USB PD).
- Check for any error messages on the display or a red flickering light.

- **Red flickering light:**







- This indicates a warning or error. Consult the device's on-screen error codes if available, or power cycle the device. If the issue persists, contact support.

8. SPECIFICATIONS


Feature	Specification
Model	MHP50 (AL50)
Temperature Range	100°C - 350°C
Temperature Stability	350°C (Upper Rating)
Power Source	DC 5525 (19-24V, max 150W) / USB Type-C PD (20V, max 100W)
Voltage	20V (DC)
Wattage	150W
Heating Plate Material	AL50 (Aluminum with anodized surface)
Display Type	LED
Item Weight	4.9 ounces (140 Grams)
Package Dimensions	5 x 5 x 4 inches
Manufacturer	MINIWARE
UPC	756839844055

9. WARRANTY AND SUPPORT


For warranty information, technical support, or service inquiries, please contact MINIWARE customer support through their official website or the retailer from whom the product was purchased. Please have your product model (MHP50) and purchase details available when contacting support.

	<p>MINIWARE MHP50 -</p> <p>MINIWARE MHP50</p>
	<p>MINIWARE TS100 Mini Soldering Iron: Instruction Manual V1.0.3</p> <p>Official instruction manual for the MINIWARE TS100 Mini Soldering Iron. Covers safety guidelines, product overview, specifications, operation instructions, parameter settings, tip maintenance, troubleshooting, and firmware updates.</p>
	<p>MHP30 Mini Hot Plate Preheater User Manual</p> <p>User manual for the MHP30 Mini Hot Plate Preheater by MINIWARE, covering safety, product overview, power selection, operation, maintenance, FAQ, and legal statements.</p>
	<p>TS100 Mini Soldering Iron User Manual</p> <p>Comprehensive user manual for the MINIWARE TS100 Mini Soldering Iron, covering safety, operation, specifications, maintenance, and troubleshooting.</p>
	<p>MINIWARE TS21 Precision Soldering Iron User Manual</p> <p>User manual for the MINIWARE TS21 Precision Soldering Iron, covering safety instructions, operating procedures, product specifications, and frequently asked questions.</p>
	<p>Miniware TS101 Smart Soldering Iron User Manual</p> <p>Comprehensive user manual for the Miniware TS101 Smart Soldering Iron, covering safety, product overview, power source selection, operation, tips, FAQ, service, and legal statements.</p>

Documents - MINIWARE – MHP50



MINIWARE Mini Hot Plate Preheater MHP50



MINIWARE Mini Hot Plate Preheater MHP50 is the second mini-sized intelligent constant temperature heating plate designed by e-Design after Mini Hot Plate Preheater MHP30. Its heating area has been increased from 3cm*5cm to 5cm*5cm, while retaining pocket size, suitable for a wider scope of application.

MHP50 has a flat sandwich shape and separate design that facilitates flexible replacement of controller and hot plate. MHP50 innovatively adds a high-speed cooling fan for heat dissipation that can smartly adjust fan speed by temperature sensor and blows air to the heat filter piece of hot plate, and a unique air deflector helps deflect the hot air away with unnecessary heat, reducing the overall height of MHP50 to 3.7cm (1.46 inches), making it more stable, not easy to tip over, and more flexible in soldering operations while not affecting the overall performance. The controller is equipped with a 160°/80 resolution color LCD display, which can clearly display device status. There are physical buttons on each end of the screen for quick setup. MHP50's hot plate uses two different materials for heating body: **glass plate with nano-ceramic coating**, the same material as MHP30, special processed and easy to clean; **aluminum alloy heating body**, a classic material and evenly heated. A futuristic stainless steel hollow bracket connects the heating part with the cold end circuit board that can be directly inserted into the controller.

Besides MHP50's inheriting the true color temperature lighting and excellent thermal

[MINIWARE MHP50 Mini Hot Plate Preheater: Features, Specifications, and Use Cases](#)

Explore the MINIWARE MHP50, a compact and intelligent mini hot plate preheater. This document details its features, including a 5cm*5cm heating area, dual power inputs (DC/PD), advanced heating curve functions, and durable construction, suitable for various soldering applications.

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