phrozen Sonic Mini 8K S

Phrozen Sonic Mini 8K S LCD Resin 3D Printer User Manual

Brand: **phrozen**

Model: **Sonic Mini 8K S**

1. INTRODUCTION

This user manual provides essential information for setting up, operating, and maintaining your Phrozen Sonic Mini 8K S LCD Resin 3D Printer. Designed for precision and ease of use, this printer is ideal for creating highly detailed models, miniatures, and action figures with its 8K resolution and 7.1" monochrome LCD.

The Sonic Mini 8K S offers an impressive 22μm XY resolution, ensuring exceptionally smooth surfaces and intricate details in your prints. Its user-friendly design makes it suitable for both beginners and experienced users in the 3D printing community.

Figure 1: Phrozen Sonic Mini 8K S LCD Resin 3D Printer.

2. WHAT'S IN THE BOX

Upon unboxing your Phrozen Sonic Mini 8K S, please ensure all the following components are present:

- Sonic Mini 8K S 3D Printer Unit
- After Sales Service Card (Warranty Information)
- Gloves (for handling resin)
- Power Adapter
- Plastic Funnel (for filtering resin)

- Scrapers (for print removal and vat cleaning)
- Allen Wrench (for assembly and maintenance)
- USB Drive (containing test prints and software)
- Toolbox (for accessories)

Inside The Box , You will Have

Sonic Mini 8K S

After Sales Service Card

Gloves

Power Adapter

Plastic Funnel

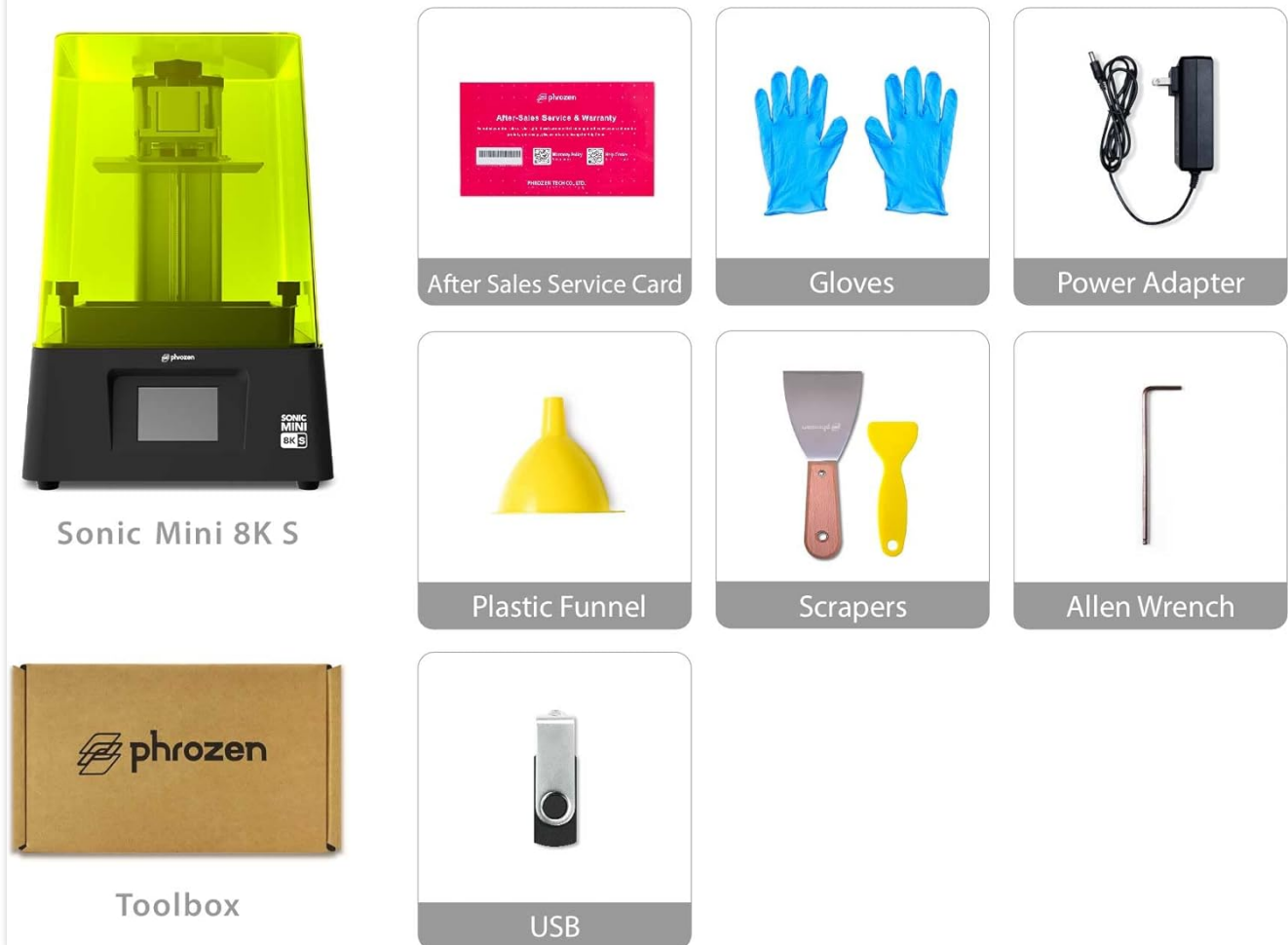Scrapers

Allen Wrench

Toolbox

USB

Figure 2: Included accessories with the Sonic Mini 8K S.

3. SETUP GUIDE

Follow these steps to set up your Phrozen Sonic Mini 8K S 3D Printer for its first use:

3.1 Unboxing and Initial Inspection

1. Carefully remove the printer from its packaging.
2. Remove all protective films and foam inserts from the printer and its components.
3. Inspect the printer for any visible damage that might have occurred during shipping.

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Video 1: Unboxing and initial setup of the Phrozen Sonic Mini 8K S 3D Printer.

3.2 Installing the Resin Vat

1. Place the resin vat onto the LCD screen area, ensuring it sits securely and flat.
2. Tighten the two screws on the sides of the resin vat to secure it in place.

3.3 Leveling the Build Plate

Accurate leveling is crucial for successful prints. Follow these steps:

1. Remove the resin vat from the printer.
2. Place a piece of A4 paper (or similar thickness) on the LCD screen.
3. Loosen the screws on the build plate.
4. On the printer's touchscreen, navigate to **TOOLS** > **Z CALIB**. The build plate will lower until it presses against the paper.
5. While holding the build plate firmly against the paper, tighten the screws on the build plate.
6. Confirm the leveling on the touchscreen. The build plate will then raise slightly.
7. Remove the paper.

3.4 Adding Resin

1. Ensure the resin vat is clean and properly installed.
2. Shake your resin bottle well before opening.
3. Carefully pour the resin into the resin vat, ensuring it does not exceed the MAX fill line.
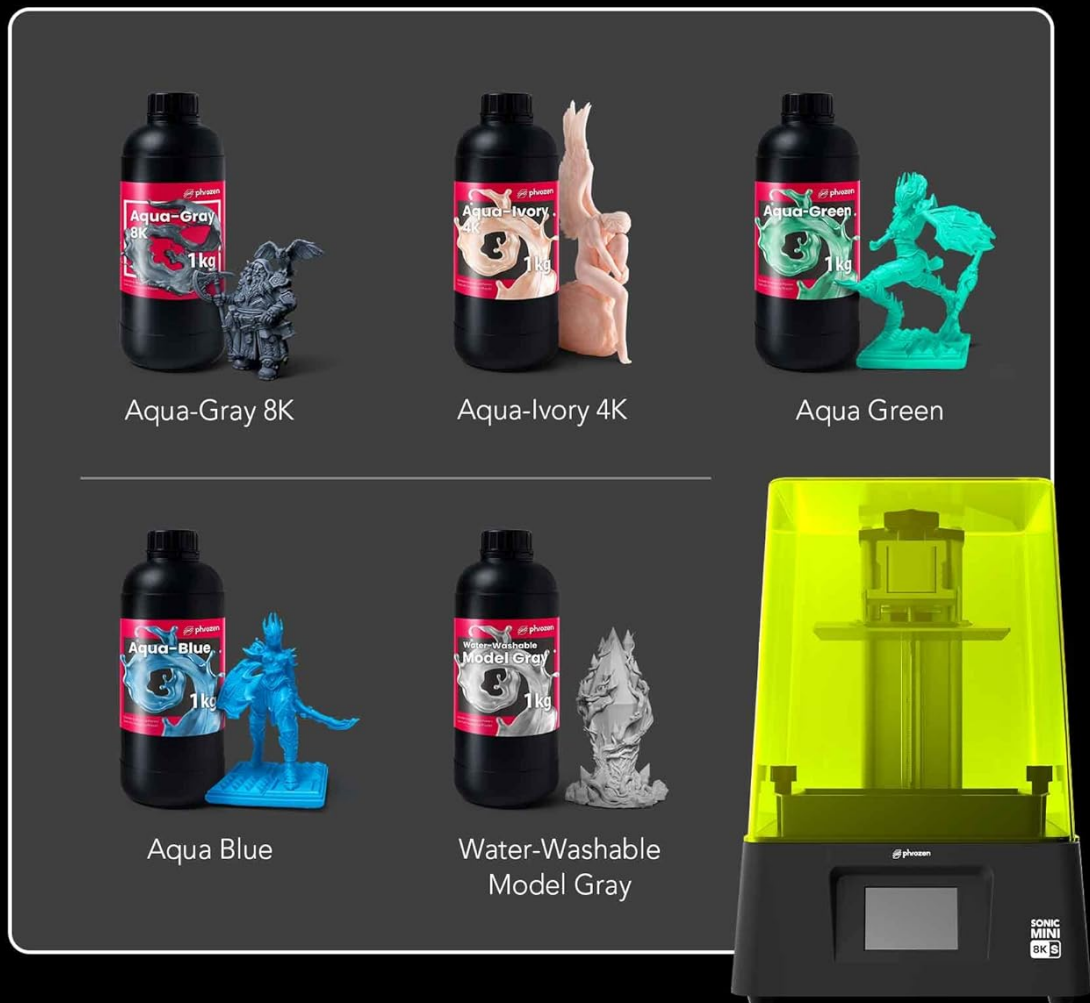4. Place the UV cover back onto the printer.

Figure 3: Phrozen Sonic Mini 8K S is compatible with various resin types.

4. OPERATING INSTRUCTIONS

Once your printer is set up, you can begin your first print:

4.1 Preparing Your Model

- Use a compatible slicing software (e.g., Lychee, Chitubox, Tango) to prepare your 3D model.
- Ensure your model is properly supported and sliced according to your resin and printer settings.
- Save the sliced file to the provided USB drive.

Figure 4: The printer supports various slicing software.

4.2 Starting a Print

1. Insert the USB drive into the USB port on the front of the printer.
2. On the touchscreen, select **3D PRINT**.
3. Browse and select your desired print file from the USB drive.
4. Confirm your selection to begin the printing process. The build plate will descend into the resin, and the LCD will begin exposing layers.

Monitor the first few layers to ensure proper adhesion to the build plate. The printer's monochrome LCD allows for faster curing times, enhancing printing efficiency.

Figure 5: Experience ultra-high resolution with 8K printing.

5. MAINTENANCE

Regular maintenance is essential for optimal performance and longevity of your printer. Always wear gloves when handling resin or cleaning components.

5.1 Cleaning the Resin Vat

To remove cured resin residue and maintain print quality, use the vat cleaning function:

1. Ensure the resin vat is installed and contains resin.
2. Fold a piece of paper in half and place it in the corner of the vat, with half submerged in resin and half hanging over the side.
3. On the touchscreen, navigate to **TOOLS** > **VAT CLEANING**.
4. Set the exposure time (e.g., 15 seconds) and press **START**. The LCD will expose, curing any resin residue onto the paper.
5. Once complete, gently lift the paper to remove the cured resin film.

5.2 Handling Leftover Resin

After printing, if you have leftover resin in the vat:

- Use a funnel to pour the excess resin back into its original opaque bottle to prevent further curing.
- You can use a squeegee to help scrape any remaining resin into the funnel.

5.3 Deep Cleaning the Vat

For a thorough cleaning of the resin vat:

- Remove the resin vat from the printer and pour out all resin.
- Wipe the vat clean with a soft cloth or tissue.
- Spray 95% alcohol onto the release film (FEP film) and wipe it clean.
- **Important:** Do not soak the metal resin vat in liquid for extended periods, as this can damage the paint and cause screws to rust.
- Ensure the vat is completely dry before reinstalling it into the printer.

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Video 2: Guide to properly cleaning your 3D printer resin vat.

6. TROUBLESHOOTING

If you encounter issues with your Phrozen Sonic Mini 8K S, consider the following common troubleshooting steps:

- **Print Failures/Poor Adhesion:**

    - Ensure the build plate is properly leveled.
    - Check the resin vat's FEP film for damage or cloudiness.
    - Verify resin temperature is within recommended range (typically 25-30°C).
    - Adjust bottom exposure time and lift speed in your slicing software.

- **No Data Found (USB Issue):**

    - Ensure the USB drive is properly inserted.
    - Try a different USB port or a different USB drive.
    - Verify the print file format is compatible with the printer.

- **Resin Curing Issues:**

    - Check the LCD screen for proper function using the LCD Test feature in the TOOLS menu.
    - Ensure the UV cover is properly placed during printing to block ambient UV light.

For more detailed troubleshooting and advanced solutions, please refer to the official Phrozen Sonic Mini 8K S User Manual (PDF).

7. SPECIFICATIONS

Feature	Detail
Brand	phrozen
Model	Sonic Mini 8K S
Product Dimensions	11.4 x 11.4 x 16.9 inches (29 x 29 x 43 cm)
Item Weight	22 pounds (10 kg)
Printing Volume	6.5 x 2.8 x 6.7 inches (16.5 x 7.2 x 17 cm)
XY Resolution	22μm
LCD Type	7.1" Monochrome LCD
Material	Metal, Acrylic
Manufacturer	PHROZEN TECH CO., LTD.
Compatible Devices	Personal Computer
On-mode Power Consumption	48 watts

Sonic Mini 8K S		Sonic Mini 8K
22 μm	**XY Resolution**	22 μm
29 x 29 x 43 cm	**Printer Size**	29 x 29 x 43 cm
16.5 x 7.2 x 17 cm	**Print Volume**	16.5 x 7.2 x 18 cm
10 kg	**Printer Weight**	13 kg
Single Linear Rail	**Rail**	Dual Linear Rails

Figure 6: Key specifications and comparison.

8. WARRANTY AND SUPPORT

Phrozen is committed to providing high-quality products and excellent customer service. Your Phrozen Sonic Mini 8K S comes with a manufacturer's warranty. For specific warranty details and to register your product, please refer to the "After Sales Service & Warranty" card included in your product box or visit the official Phrozen website. For technical support, troubleshooting assistance, or any inquiries regarding your printer, please contact Phrozen customer support through their official channels or refer to the comprehensive User Manual (PDF) available online. You can also explore the Phrozen Brand Store on Amazon for additional products and resources.