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› ANYCUBIC Photon M3 Max Resin 3D Printer Instruction Manual

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Model: Photon M3 Max

Brand: ANYCUBIC

1. INTRODUCTION AND OVERVIEW

The ANYCUBIC Photon M3 Max is a high-precision resin 3D printer designed for large-scale and detailed printing. It features a 13.6-inch 7K UV LCD screen, automatic resin feeding, and a powerful light source for fast and accurate printing. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your printer.

ALL3DP
BUDGET PICK

**BEST
3D PRINTER**
LARGE RESIN

— 2023 —



Figure 1.1: Overview of the ANYCUBIC Photon M3 Max Resin 3D Printer.

Larger Print Volume



Figure 1.2: The Photon M3 Max offers a significantly larger print volume compared to other models, enabling the creation of bigger models or multiple smaller ones simultaneously.

13.6" 7K High-definition Screen

Well-defined Details | 6450 x 3600 px



Figure 1.3: The 13.6-inch 7K high-definition screen provides exceptional detail and precision for your prints.

2. SETUP

Proper setup is crucial for successful printing. Follow these general steps for initial installation:

1. **Unboxing and Inspection:** Carefully remove all components from the packaging. Inspect for any visible damage.
2. **Placement:** Place the printer on a stable, level surface in a well-ventilated area, away from direct sunlight and heat sources.
3. **Build Plate Installation:** Attach the build plate securely to the Z-axis arm.
4. **Build Plate Leveling:** Follow the detailed instructions in the official user guide for precise build plate leveling. This step is critical for print adhesion.
5. **Resin Vat Installation:** Place the resin vat onto the LCD screen, ensuring it is properly seated and secured.
6. **Resin Loading:** Pour the appropriate resin into the resin vat. The Photon M3 Max features an automatic

resin feeding system for convenience.

7. **Power Connection:** Connect the power adapter and turn on the printer.



Figure 2.1: The smart resin filling system automatically replenishes resin during printing, reducing manual intervention.

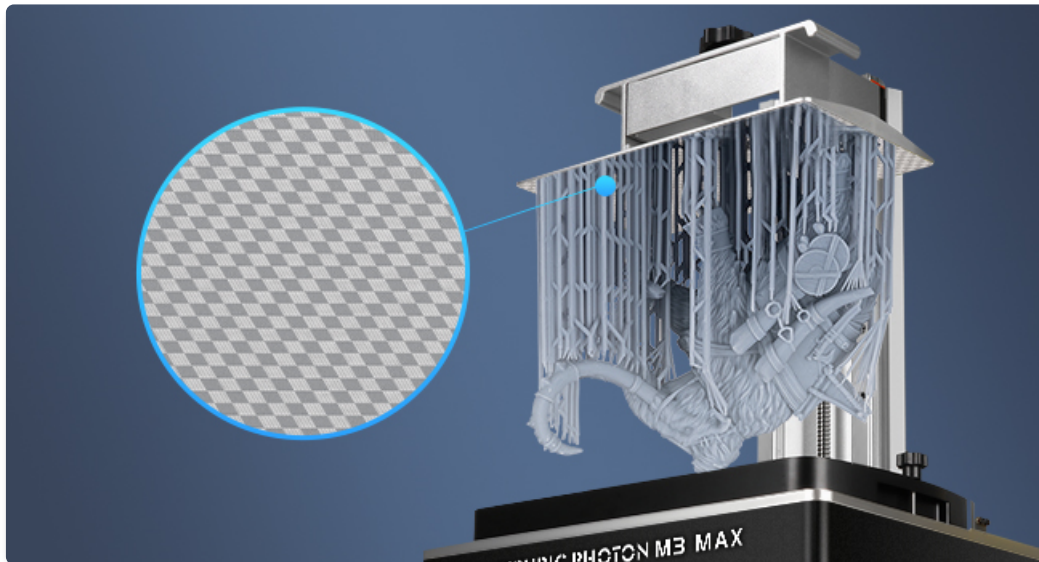


Figure 2.2: The laser-engraved build plate features a textured pattern designed to significantly improve print adhesion and success rates.

3. OPERATING

Operating the Photon M3 Max involves preparing your 3D models and initiating the printing process.

1. **Model Preparation (Slicing):** Use a compatible slicing software, such as Anycubic Photon Workshop 3.0, to prepare your 3D model. This involves adding supports, orienting the model, and setting print parameters (layer height, exposure time, etc.).
2. **File Transfer:** Save the sliced file (typically .pwmb or .pwmo format) to a USB drive. Insert the USB drive into the printer's designated port.
3. **Start Printing:** Navigate the printer's touchscreen interface to select your file and begin the print. The printer will automatically lower the build plate and start the exposure process.
4. **Monitoring:** Monitor the initial layers to ensure proper adhesion. The printer's powerful light source and high resolution contribute to efficient and detailed printing.

5. **Post-Processing:** Once printing is complete, carefully remove the build plate. Use a scraper to detach the printed model. Clean the model with isopropyl alcohol (IPA) to remove uncured resin, then cure it under UV light to fully harden.



Figure 3.1: Anycubic Photon Workshop 3.0 software is used to prepare 3D models for printing, including slicing and adding supports.

Smart Resin Filling

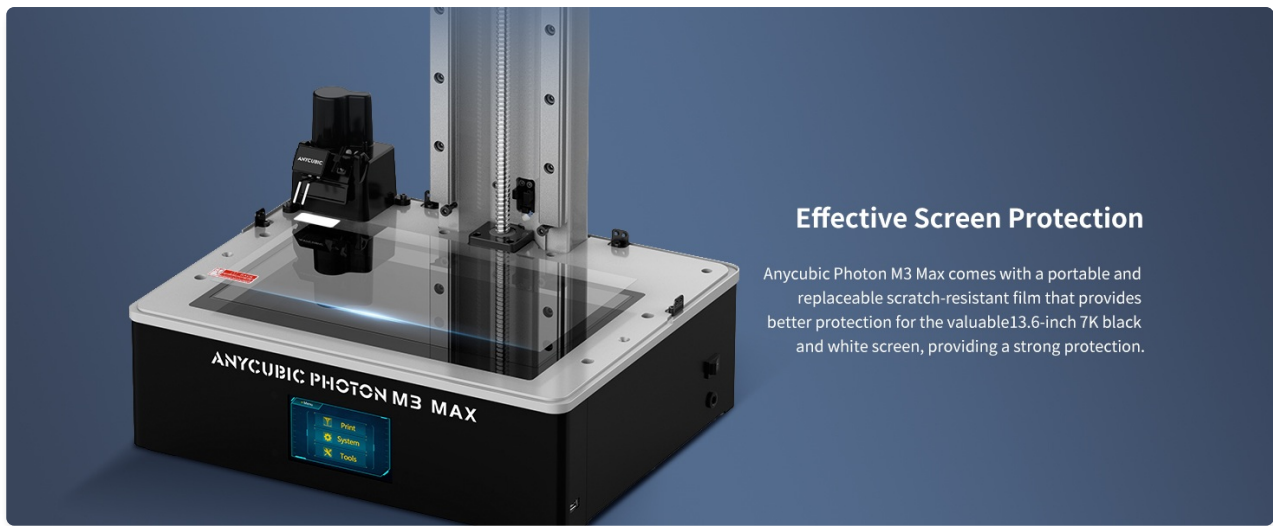


Figure 3.2: The 7K resolution of the Photon M3 Max ensures exceptionally fine details and smooth surfaces on your printed models.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your 3D printer.

- **Cleaning the Resin Vat:** After each print, or if changing resin types, carefully clean the resin vat. Remove any cured resin particles from the FEP film using a soft, non-abrasive tool.
- **Cleaning the Build Plate:** Clean the build plate with IPA after each print to remove any residual resin.
- **Screen Protection:** The printer comes with a replaceable anti-scratch film to protect the LCD screen. Replace this film if it becomes damaged to prevent resin leaks onto the screen.
- **General Cleaning:** Keep the printer's exterior and internal components free from dust and resin spills. Use a soft cloth and IPA for cleaning.
- **FEP Film Replacement:** The FEP (Fluorinated Ethylene Propylene) film in the resin vat is a consumable part. Replace it if it becomes cloudy, scratched, or damaged, as this can affect print quality.



Effective Screen Protection

Anycubic Photon M3 Max comes with a portable and replaceable scratch-resistant film that provides better protection for the valuable 13.6-inch 7K black and white screen, providing a strong protection.

Figure 4.1: The replaceable anti-scratch film provides effective protection for the valuable 13.6-inch 7K screen.

5. TROUBLESHOOTING

This section addresses common issues you might encounter during operation.

- **Print Not Sticking to Build Plate:**

- Ensure the build plate is properly leveled.
- Increase bottom exposure time in your slicer settings.
- Check the resin temperature; it should be within the recommended range.
- Verify the FEP film is clean and not damaged.

- **Partial Prints or Missing Layers:**

- Check for cured resin debris in the vat blocking the light path.
- Increase normal exposure time.
- Ensure the resin is well-mixed.

- **Deformed or Warped Prints:**

- Add more supports or adjust support placement in your slicer.
- Reduce lift speed.
- Ensure the ambient temperature is stable.

- **Printer Not Responding:**

- Restart the printer.
- Check all cable connections.
- Ensure the USB drive is properly formatted and the file is not corrupted.

For more detailed troubleshooting, refer to the official user guide or contact ANYCUBIC customer support.

6. SPECIFICATIONS

Feature	Specification
Model Number	Photon M3 Max
Printing Size (L x W x H)	11.8" x 11.7" x 6.5" (30.0 x 29.8 x 16.4 cm)
LCD Screen Size	13.6 inches
Resolution	7K (6480 x 3600 pixels)
Contrast Ratio	450:1
Printing Speed (Max)	60mm/h
Material	Plastics and Aluminum Alloys
Color	Yellow
Product Dimensions	29.92 x 22.83 x 23.23 inches
Item Weight	56.3 pounds
Manufacturer	ANYCUBIC

7. WARRANTY AND SUPPORT

For detailed warranty information and customer support, please refer to the official ANYCUBIC resources.

- **Official User Guide:** A comprehensive user guide in PDF format is available for download. This document contains detailed instructions, safety guidelines, and troubleshooting tips. You can access it via this link: [ANYCUBIC Photon M3 Max User Guide \(PDF\)](#).
- **Customer Support:** For technical assistance, service, or warranty claims, please contact ANYCUBIC customer support directly through their official website or the contact information provided in the product packaging.