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› SUNLU Filament Dryer S4 User Manual

SUNLU S4

SUNLU Filament Dryer S4 User Manual

Model: S4

1. INTRODUCTION

Thank you for choosing the SUNLU Filament Dryer S4. This device is designed to efficiently dry 3D printer filaments, improving print quality and preventing common issues caused by moisture absorption. The S4 features a large capacity for up to four spools, rapid heating, multiple safety mechanisms, and intelligent humidity control. Please read this manual thoroughly before operating the device to ensure safe and optimal performance.

SUNLU

FILADRYER S4

New Generation



Large
Space



Efficiency



Fast
Heating



Temperature
Balance



Universal
Compatibility



Auto Humidity
Control

Image 1.1: The SUNLU Filament Dryer S4, showcasing its sleek design and digital display.

2. SAFETY INSTRUCTIONS

To prevent injury or damage to the device, always adhere to the following safety precautions:

- Ensure the power supply voltage matches the requirements specified on the device label.
- Do not operate the device with wet hands or in damp environments.
- Keep the device away from flammable materials and heat sources.
- Do not block ventilation openings during operation.
- Unplug the device from the power outlet before cleaning or maintenance.
- Do not attempt to disassemble or repair the device yourself. Contact qualified service personnel for assistance.
- Keep out of reach of children.
- The device operates at elevated temperatures. Avoid touching internal components during or immediately after operation.

3. PRODUCT OVERVIEW

3.1 Key Features

- **Large Capacity:** Accommodates up to four 1KG spools of 3D printer filament simultaneously.
- **Fast Heating:** Equipped with a 350W PTC heater, reaching 50°C from 25°C in approximately 30 minutes.
- **Triple Security:** Features PTC, temperature switch, and software protection for enhanced operational safety.
- **Uniform Drying:** Three built-in fans ensure consistent temperature distribution (within $\pm 3^{\circ}\text{C}$) for thorough filament drying.
- **Smart Auto Humidity Control:** Automatically starts drying when humidity is between 30% and 50%, and stops when below 25% to prevent over-drying.

3.2 Components

The SUNLU Filament Dryer S4 consists of the main drying unit, a power adapter, and a user manual. The main unit includes:

- Filament drying chamber with spool holders.
- Digital display panel for temperature, humidity, and time settings.
- Control buttons (SET, Up, Down, Power).
- Ventilation openings and internal fans.
- Power input port.

4 SPOOLS, 1 BOX

The First Large-Space Filament Dryer



Image 3.1: The S4 dryer accommodating four spools of filament, illustrating its large capacity.



Image 3.2: Visual comparison of a 3D print made with wet filament versus one made with dried filament, highlighting improved surface quality.

4. SETUP

1. **Unpacking:** Carefully remove the SUNLU Filament Dryer S4 from its packaging. Retain the packaging for future storage or transport.
2. **Placement:** Place the dryer on a stable, level, and heat-resistant surface. Ensure there is adequate clearance around the device for proper ventilation. Avoid placing it near water sources or in direct sunlight.
3. **Power Connection:** Connect the provided power adapter to the power input port on the back of the dryer, then plug the adapter into a suitable electrical outlet.
4. **Initial Power On:** Press the power button on the control panel to turn on the device. The display will illuminate.

5. OPERATING INSTRUCTIONS

5.1 Loading Filament

1. Open the lid of the filament dryer.
2. Place up to four spools of filament onto the designated spool holders inside the drying chamber. Ensure the filament can unroll freely.
3. Close the lid securely.

5.2 Setting Drying Parameters

The S4 offers various settings for optimal drying. Use the control panel to adjust parameters.



Image 5.1: The S4's digital display, illustrating the humidity and temperature control interface.

- **Temperature Setting (SV):** Press the **SET** button to enter temperature adjustment mode. Use the **Up** and **Down** arrows to set the desired drying temperature. Press **SET** again to confirm. The current temperature (PV) will be displayed.
- **Drying Time Setting:** After setting the temperature, press **SET** again to adjust the drying duration. Use the **Up** and

Down arrows to set the desired hours. Press **SET** to confirm.

- **Humidity Control Mode (MO):** The S4 features an automatic humidity control mode (Mode 2). In this mode, the dryer will automatically start drying when the internal humidity is between 30% and 50% Relative Humidity (RH) and stop when it drops below 25% RH. This prevents excessive drying.

Note: Recommended drying temperatures and times vary by filament type. Refer to filament manufacturer guidelines for optimal settings.

5.3 Starting and Stopping Drying

- Once parameters are set, the dryer will begin heating and drying automatically.
- To stop the drying process manually, press and hold the power button until the device powers off.

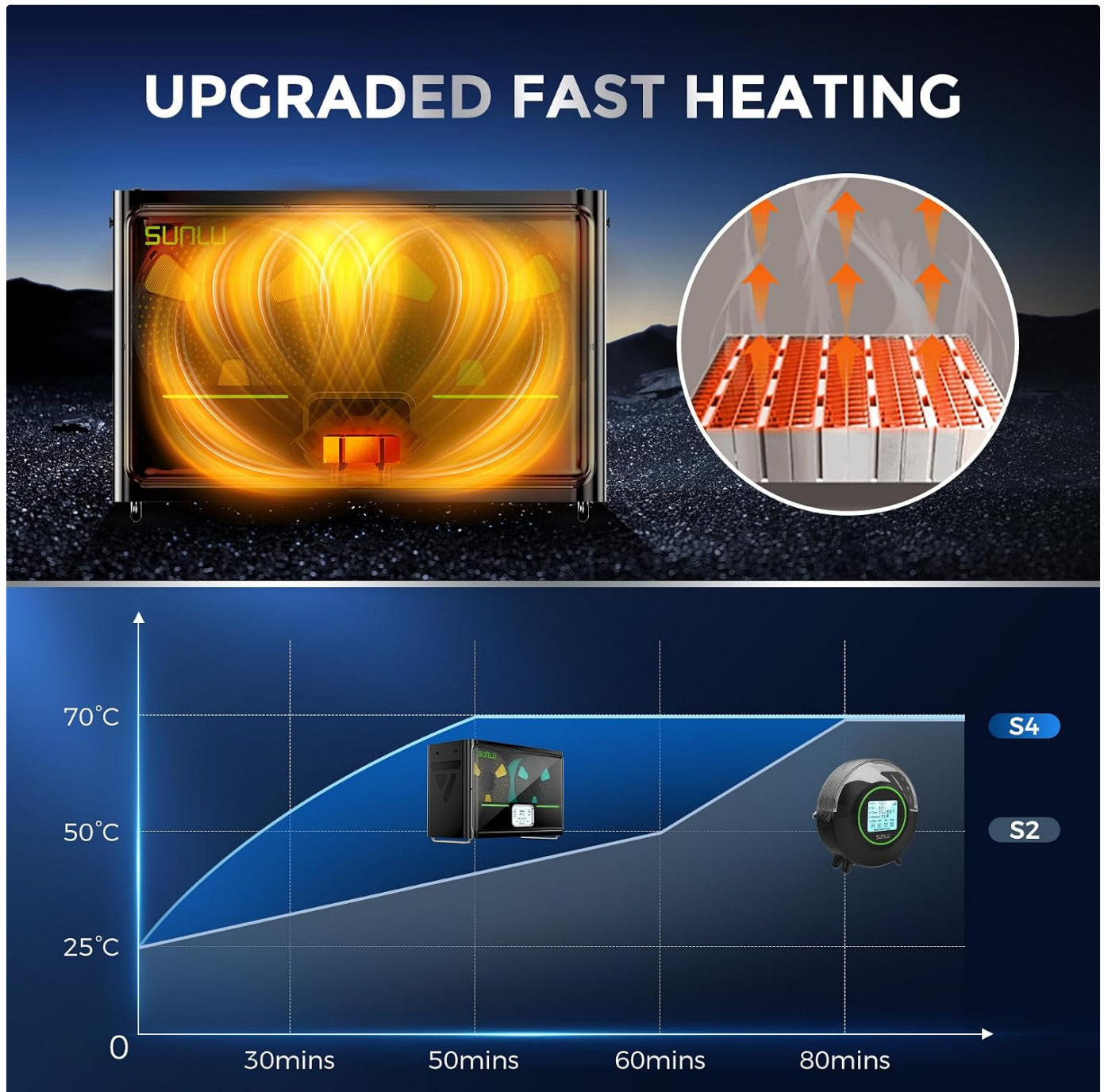


Image 5.2: A graph illustrating the S4's rapid heating capability, reaching target temperatures significantly faster than previous models.



TRIPLE FANS FOR UNIFORM DRYING

3 built-in fans ensure balanced temp
of $\pm 3^{\circ}\text{C}$ inside the case, 360°
perfectly dry filament.

Image 5.3: An illustration of the three internal fans working to ensure uniform heat distribution and drying throughout the chamber.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your SUNLU Filament Dryer S4.

- **Cleaning:**

- Before cleaning, always unplug the device from the power outlet and allow it to cool completely.
- Wipe the exterior with a soft, dry cloth. For stubborn stains, a slightly damp cloth can be used, followed by immediate drying.
- Do not use abrasive cleaners, solvents, or immerse the device in water.
- Ensure ventilation openings are free from dust and debris. Use a soft brush or compressed air if necessary.

- **Storage:** When not in use for extended periods, store the dryer in a cool, dry place, away from direct sunlight and dust.

7. TROUBLESHOOTING

If you encounter issues with your SUNLU Filament Dryer S4, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	No power supply; loose connection; faulty power adapter.	Check power cable connection. Ensure outlet is functional. Try a different outlet.
Filament not drying effectively.	Incorrect temperature/time settings; lid not closed properly; heavily saturated filament.	Verify settings against filament type. Ensure lid is sealed. Extend drying time for very wet filament.
Display shows error code.	Internal sensor issue; overheating protection activated.	Power off the device, wait 5 minutes, then restart. If error persists, contact support.
Unusual noise during operation.	Obstruction in fan; device not on a stable surface.	Ensure no foreign objects are near fan vents. Place on a flat, stable surface.



TRIPLE SECURITY FOR WORRY-FREE PRINTING

S4 provides real-time temp monitoring and alerts for enhanced safety during use.



Triple Security

Level 1: Smart PTC

Level 2: Temperature Switch

Level 3: Software Protection

Image 7.1: An illustration detailing the S4's triple security system, including PTC, temperature switch, and software protection.

8. SPECIFICATIONS

Feature	Detail
Model	SUNLU S4 Filament Dryer
Capacity	Up to 4 x 1KG filament spools
Heating Power	350W PTC Heater
Heating Speed	25°C to 50°C in approx. 30 minutes
Temperature Uniformity	±3°C (due to triple fans)
Humidity Control	Auto start (30-50% RH), Auto stop (<25% RH)

Feature	Detail
Security Features	PTC, Temperature Switch, Software Protection
Material Compatibility	PLA, ABS, PETG, Nylon, etc. (all common 3D printing filaments)
ASIN	B0G3X18BRP

9. WARRANTY AND SUPPORT

SUNLU products are manufactured to high-quality standards. For warranty information and technical support, please refer to the warranty card included with your product or visit the official SUNLU website. Please have your product model (S4) and purchase information ready when contacting support.

Official Website: www.3dsunlu.com

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question