

## SUNLU SP2

# SUNLU Filament Dryer SP2 User Manual

Model: SP2

## 1. INTRODUCTION

The SUNLU Filament Dryer SP2 is designed to dry 3D printer filaments and provide sealed storage, improving print quality by removing moisture. This device features a heating element, an HD LCD touch screen for control, and compatibility with various filament types and spool sizes.



Image 1.1: SUNLU Filament Dryer SP2, highlighting its purpose.

## 2. SAFETY INFORMATION

- Ensure the power supply matches the device's requirements.
- Do not touch the heating element or interior surfaces during operation, as they can become hot.
- Keep the device away from water or other liquids.
- Do not block ventilation openings.
- Unplug the device before cleaning or maintenance.

- Keep out of reach of children.

### 3. PACKAGE CONTENTS

Verify that all items are present in the package:



Image 3.1: Detailed packing list for the SP2 FilaDryer Set.

- Drying Chamber x1
- Heating Base x1
- Air Lock x2
- Power Cable x1
- Spool Roller x1
- Rollers & Bearings x1
- User Manual x1
- Desiccant Box x1
- Desiccant x1
- Hygrometer x1
- PTFE Tube 1m x2
- PTFE Tube 8cm x2

### 4. PRODUCT OVERVIEW

The SUNLU Filament Dryer SP2 consists of a detachable drying chamber and a heating base, allowing for both drying and sealed storage. Key components include:

- **Top Cover:** Seals the drying chamber.
- **Drying Chamber:** Transparent enclosure for filament spools.
- **Hygrometer:** Displays real-time interior humidity.
- **Heating Base:** Contains the PTC heating element and control panel.
- **Spool Rollers:** Support filament spools for smooth rotation.

- **PTFE Tubes:** Guide filament to the 3D printer.

# DRYING & STORAGE

Effortless drying, seamless storage

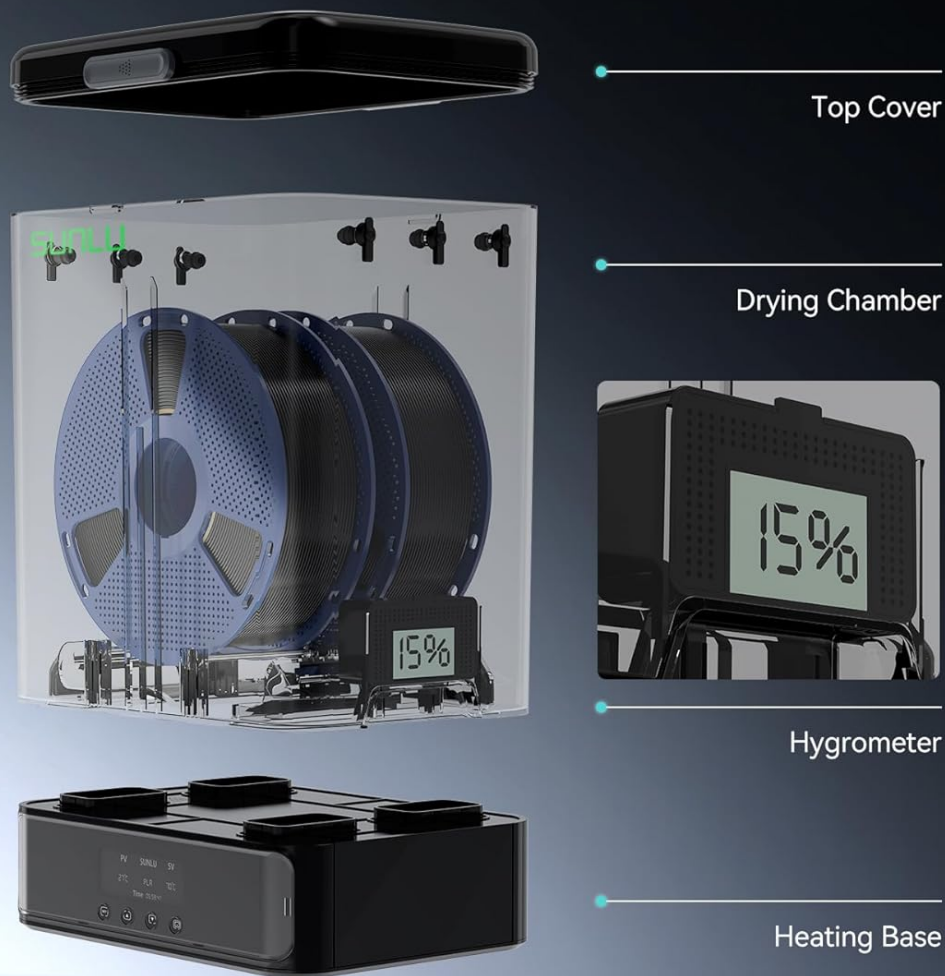


Image 4.1: Exploded view of the SP2 components.

## 5. SETUP INSTRUCTIONS

1. **Unpack:** Carefully remove all components from the packaging.
2. **Assemble Rollers:** Place the spool rollers and bearings into the designated slots within the drying chamber.
3. **Insert Desiccant:** Place the desiccant into the desiccant box and insert it into its compartment in the drying chamber.
4. **Connect Power:** Plug the power cable into the heating base and then into a suitable power outlet.
5. **Load Filament:** Open the top cover and place your filament spool(s) onto the rollers inside the drying chamber. The unit can accommodate up to two 1kg spools or one 3kg spool.
6. **Route Filament (for printing):** If you intend to print while drying, route the filament through one of the PTFE tubes

and out through an air lock to your 3D printer.

7. **Close Cover:** Securely close the top cover using the two sliding latches to ensure a tight seal.



Image 5.1: Fully assembled SUNLU Filament Dryer SP2 with filament spools.

## 6. OPERATING INSTRUCTIONS

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### 6.1 Power On/Off

Press the power button on the HD LCD touch screen to turn the device on or off.

### 6.2 Using the HD LCD Touch Screen

The touch screen allows you to monitor and adjust drying parameters. It displays current temperature (PV), target temperature (SV), selected filament type, and remaining drying time.



Image 6.1: HD LCD Touch Screen interface.

### 6.3 Setting Temperature and Time

1. **Select Filament Type:** Tap the filament type icon to cycle through presets (PLA, PETG, TPU, ABS, PA, PC, WOOD, PVA, PVB, ASA). Each preset has recommended temperature and time settings.
2. **Adjust Temperature:** Tap the temperature display (SV) and use the up/down arrows to set the desired drying temperature (range: 35-70°C).
3. **Adjust Time:** Tap the time display and use the up/down arrows to set the desired drying duration (range: 0-99 hours).
4. The device will begin heating to the set temperature and maintain it for the specified duration.



Image 6.2: Recommended Filament Drying Temperatures and Times.

6.4 Monitoring Humidity

The integrated hygrometer displays the current humidity level inside the drying chamber, allowing you to monitor the drying process. For optimal results, aim for a low humidity percentage.

6.5 Drying and Storage Functionality

The SP2 can be used for active drying or passive sealed storage. The detachable design allows the drying chamber to be lifted from the heating base for convenient storage after drying. The superior sealing mechanism, including silicone holes and sliding latches, helps maintain low humidity for stored filaments.



Image 6.3: Drying and Storage capabilities with various spool sizes.

7. MAINTENANCE

- **Cleaning:** Wipe the exterior with a soft, dry cloth. Do not use abrasive cleaners or immerse the device in water. Ensure the device is unplugged and cool before cleaning.
- **Desiccant:** Periodically check the desiccant. If it changes color (indicating saturation), it needs to be recharged or replaced. Follow the desiccant manufacturer's instructions for recharging.
- **PTFE Tubes:** Inspect PTFE tubes for wear or blockages. Replace if necessary to ensure smooth filament feeding.

## 8. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Filament still exhibits moisture-related print issues (stringing, poor adhesion).	Insufficient drying time or temperature; saturated desiccant; poor seal.	Increase drying time or temperature; replace/recharge desiccant; ensure top cover is securely latched.
Device not heating.	Power cable not connected; device not powered on; internal fault.	Check power connections; press power button; contact support if problem persists.
LCD touch screen unresponsive.	Temporary software glitch; power issue.	Power cycle the device (turn off, unplug, wait 30 seconds, plug in, turn on).
Filament spool not rotating smoothly.	Rollers obstructed or dirty; filament tangled.	Clean rollers; untangle filament; ensure PTFE tubes are clear.

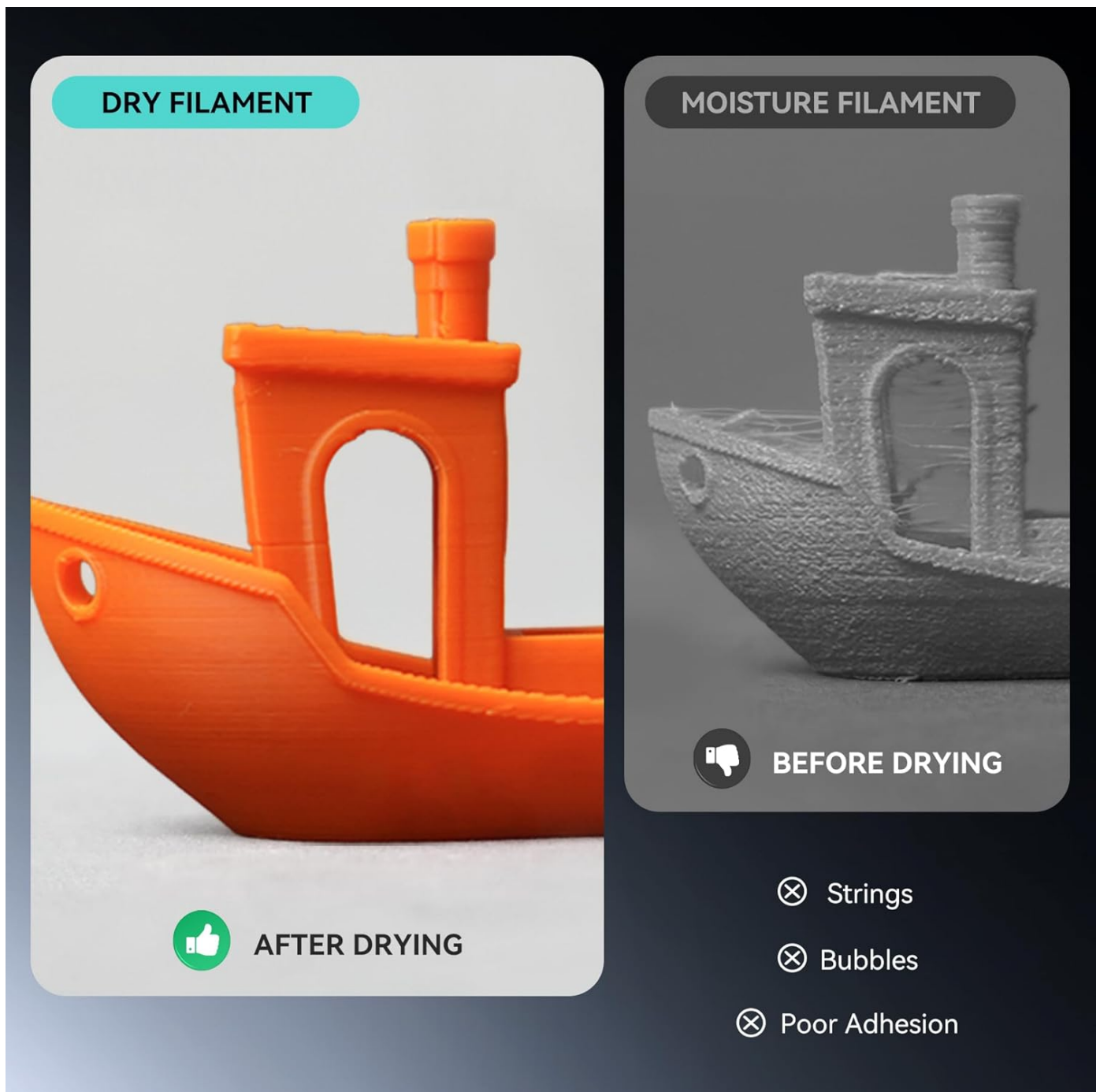


Image 8.1: Visual comparison of print quality with moist vs. dry filament.

## 9. SPECIFICATIONS

- **Model:** SUNLU Filament Dryer SP2
- **Heating Element:** 250W PTC
- **Maximum Temperature:** 70°C
- **Filament Compatibility:** 1.75mm, 2.85mm (PLA, PETG, TPU, ABS, PA, PC, WOOD, PVA, PVB, ASA)
- **Spool Capacity:** Up to 2 x 1kg spools or 1 x 3kg spool. Supports 250g, 500g spools.
- **Product Dimensions (L x W x H):** 278mm x 208mm x 396mm (approx. 10.9 x 8.2 x 15.6 inches)
- **Item Weight:** 3.6 kg (7.92 pounds)
- **Control:** HD LCD Touch Screen
- **Humidity Monitoring:** Integrated Hygrometer





Image 9.1: Product dimensions of the SUNLU Filament Dryer SP2.

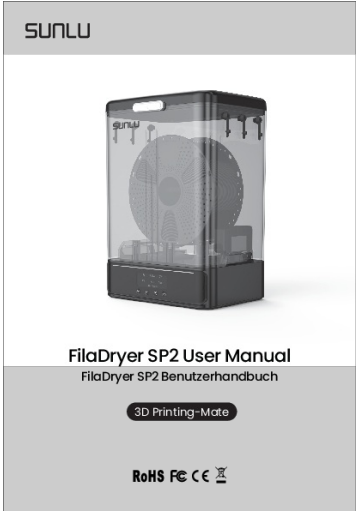
## 10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit the official SUNLU website. You may also contact SUNLU customer service directly for assistance with product operation, troubleshooting, or parts replacement.



Related Documents - SP2

	<p><a href="#">SUNLU FilaDryer S4 User Guide: Optimize Your 3D Printing Filament</a></p> <p>Comprehensive user guide for the SUNLU FilaDryer S4. Learn how to safely and effectively dry your 3D printing filaments for optimal results, including setup, operation, and troubleshooting.</p>
	<p><a href="#">SUNLU FilaDryer S4 User Guide for 3D Printing Filament</a></p> <p>Official user guide for the SUNLU FilaDryer S4, a device designed to dry and store 3D printing filaments, ensuring optimal printing quality. Learn about setup, operation, and maintenance.</p>
	<p><a href="#">SUNLU FilaDryer S2: User Manual and Guide for Filament Drying</a></p> <p>Comprehensive user manual for the SUNLU FilaDryer S2, detailing setup, operation, personalized settings, troubleshooting, and tips for optimal 3D printing filament drying. Learn how to dry PLA, PETG, ABS, and more.</p>
	<p><a href="#">SUNLU FilaDryer S4 User Guide: Optimize Your 3D Printing Filaments</a></p> <p>Comprehensive user guide for the SUNLU FilaDryer S4, detailing setup, operation, recommended drying temperatures for various filaments, troubleshooting, and maintenance for optimal 3D printing results.</p>
	<p><a href="#">SUNLU FilaDryer S2 3D Printing-Mate User Manual</a></p> <p>User manual for the SUNLU FilaDryer S2, a 3D printing filament dryer. Includes operating instructions, specifications, troubleshooting, and safety precautions in multiple languages.</p>
	<p><a href="#">SUNLU FilaDryer S2 3D Printing Filament Dryer User Manual</a></p> <p>Comprehensive user manual for the SUNLU FilaDryer S2, a 3D printing filament dryer. Learn about setup, operation, personalized settings, troubleshooting, and specifications for optimal filament drying.</p>



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FilaDryer **SP2** User Manual FilaDryer **SP2** Benutzerhandbuch 3D Printing-Mate

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