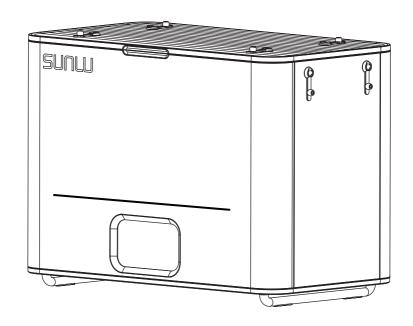
# SUNLU



# E2 干燥箱用户手册

FilaDryer E2 User Manual

3D Printing-Mate

RoHS F© C ∈ 🗵

# **CONTENTS**

# 目录

1. 装箱清单 Package Contents	01
2. 性能参数 Technical Specifications	01
3. 部件说明 Component Description	03
4. 温馨提示 Important Notes	03
5. 安全注意事项 Safety Precautions	04
6. 操作步骤 Operating Instructions	05-12
①连接电源 Power Connection	05
②安装耗材 Filament Installation	05-06
③开机 Power On	06
④显示屏各位置内容说明 Display Screen Elements	07
⑤使用方法 Instructions for Use	09-11
⑥关机 Power Off	11
⑦加干燥剂 Add Desiccant	12
⑧密封操作 Sealing	12
7. 常见故障排除 Common Troubleshooting	13-14
8. 合格证 Certificate of Conformity	14
9. 售后服务 After-Sales Service	15
10 联系我们 Contact us	15

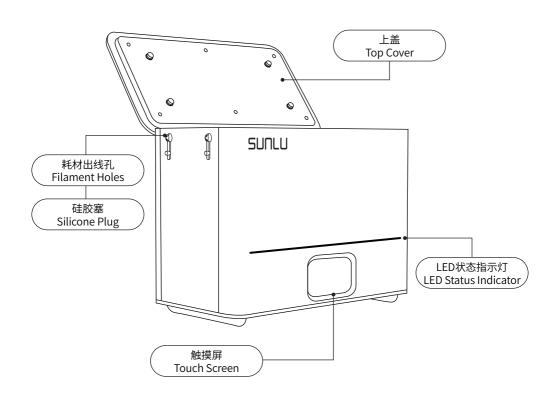
## 1 装箱清单 Package Contents

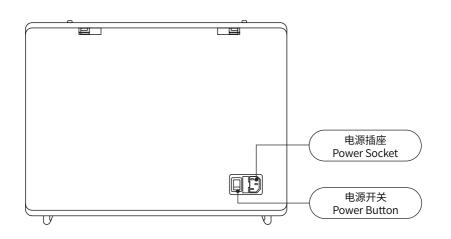
	1 E2 干燥箱×1	FilaDryer E2 × 1	4 特氟龙管 1m×2 PTFE Tube 1m>	< 2
(	<b>2</b> 退火托盘×1	Annealing Tray $ imes$ 1	5 特氟龙管 8cm×2 PTFE Tube 8cm	× 2
	3 电源线×1	Power Cable × 1	<b>⑥</b> 说明书×1 User Manual ×	1

## **2** 性能参数 Technical Specifications

产品名称 Product Name	耗材干燥箱/Filament Dryer
产品型号 Model	E2
产品尺寸 Product Dimensions	400mm × 220mm × 307mm(LWH)
内部尺寸 Internal Dimensions	372mm × 192mm × 255mm(LWH)
最大容纳线盘尺寸 The maximum size of the wire spool that can be accommodated	Φ250mm*153mm (2卷1kg, 1卷3kg或2kg) Φ250mm*153mm (1KG×2 or 2KG×1 or 3KG×1)
产品净重 Net Weight	6.8KG
工作环境温度/湿度 Operating Environment	环境温度 <b>10°C-35°C</b> ,相对湿度≤95% Temperature: 10°C-35°C, Relative Humidity: ≤95%
温度设置范围 Working Temperature Range	35°C-110°C
湿度显示范围 Humidity Display Range	10%-90% (精度±10%) (Accuracy ±10%) 1、如产品设定工作温度≥80°C, 湿度检测模块将处于保护状态(显示湿度<10%)属于正常现象。 2、当干燥箱温度降低到70°C,约20H后,湿度检测模块自动恢复原有精度。  Note 1: When working temperature≥80°C, humidity sensor will start protection mode (displays<10% humidity) Note 2: After temperature drops to 70°C, humidity sensor recovers original accuracy after about 20 hours.
时间设定范围 Timer Range	0-99H
电源输入规格 (请核对您购买的产品电压规格与当地电压一致再使用) Power Input (Please verify local voltage compatibility)	请按照产品侧面丝印电压选择 Please select the voltage based on the silk-screen marking on the side of the product.
最大工作电流 Maximum Operating Current	2.2A @230V 4.2A@120V
待机功率 Standby Power	≤1W
耗材出线孔兼容耗材线径 Compatible Filament Diameters	φ1.75mm/φ2.85mm/φ3.0mm

### 部件说明 Component Description







● 1、本产品最高加热温度达110°C,请认真观察当前设定参数(如耗材类型、加热温度)是否与实际需要干燥的耗材一致,避免温度过高导致耗材变形(耗材的烘干温度,建议参考本说明书中附表1)

1. This product can reach temperatures up to 110°C. Please carefully verify current parameter settings (filament type, heating temperature) match your drying needs to prevent filament deformation (Refer to Appendix 1 for recommended drying settings).

- 2、设置工作温度≥70°C时,耗材的线盘耐温应≥70°C,避免线盘变形
  - 2.When working temperature ≥70°C, the filament spool should have a temperature tolerance of at least 70°C to prevent deformation.
- 3、设置工作温度≥90℃时,耗材的线盘耐温应≥90℃,避免线盘变形

3.When working temperatures ≥90°C, the filament spool should have a temperature tolerance of at least 90°C to prevent deformation.

- 4、在使用退火功能(MO2模式)时,本说明书中虽然提供了部分耗材的退火温度与时间参考,但因为不同厂家耗材特性不同,建议使用耗材厂家推荐的温度与时间进行退火
  - 4. When using the annealing function (MO2 mode), although this manual provides reference annealing temperatures and times for some filaments, the characteristics of filaments may vary by manufacturer. It is recommended to follow the temperature and time guidelines provided by the filament manufacturer for annealing.
- 5、如产品设定工作温度≥80°C,湿度检测模块将处于保护状态(显示湿度<10%)属于正常现象,当干燥箱温度降低到70°C,约20H后,湿度检测模块自动恢复原有精度
  - 5. When working temperature ≥80°C, the humidity sensor will start protection mode (displays <10% humidity). After temperature drops to 70°C, humidity sensor recovers original accuracy after about 20 hours.
- 6、当设定工作温度≥80°C时,产品外表面温度≥55°C,为避免烫伤,请勿在干燥箱工作过程中触摸外壳/搬运干燥箱(或采取适当的隔热防护措施,如佩戴手套)
  - 6. When working temperature ≥80°C, external surface temperature may exceed 55°C. Do not touch or move the dryer during operation for safety. (or use appropriate thermal protections)
- 7、建议产品工作环境温度为10°C-35°C,如室内温度低于10°C,出现升温较慢或无法达到设定温度,属于正常现象(建议适当调高目标温度的方式解决)。
  - 7. The recommended operating ambient temperature for the product is  $10^{\circ}\text{C}$   $35^{\circ}\text{C}$ . If the indoor temperature is below  $10^{\circ}\text{C}$ , a slow temperature rise or failure to reach the set temperature is normal. It is suggested to resolve this by appropriately increasing the target temperature.

#### 4 温馨提示 Important Notes



- 8、为保证干燥效果,操作过程中请不要随意打开干燥箱上盖
  - 8. To ensure effective drying, avoid opening the top cover during working.
- 9. 耗材干燥过程中建议打开耗材出线孔的硅胶塞(让内部水分充分排出);干燥结束后建议塞紧硅胶塞 (避免外部水分进入)
  - 9. We recommend keeping the silicone plug of the filament hole open for moisture release during drying. After drying is complete, seal the plug to prevent moisture from entering.

#### 5 安全注意事项 Safety Precautions

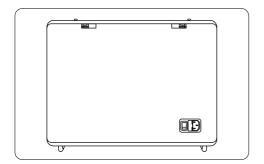


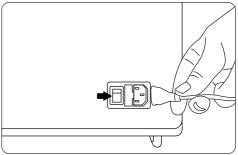
- 1、请勿将本品放置在儿童够得到的地方
  - 1. Keep out of reach of children.
- 2、操作过程中应注意电气安全,请勿在靠近水的地方使用本品,如浴室、浴缸洗脸盆等容易取水的地方
  - 2. Ensure electrical safety during operation. Do not use near water sources such as bathrooms, bathtubs, or sinks.
- 3、请使用原装电源线或者符合安全认证要求的电源线
  - 3. Use original power cable or safety-certified alternatives.
- 4、不使用本品时,请关闭电源,以免发生突发性火灾
  - 4. Turn off power when not in use.
- 5、本产品工作过程中,请勿将产品放在对温度敏感的物体上
  - 5. Do not place the product on temperature-sensitive items during operation.
- 6、本产品工作过程中,请勿触摸箱内的加热器或风扇,以免烫伤。干燥耗材时应盖好干燥箱的上盖,以免 热量散失
  - 6. Avoid touching the heater or fan during operation to prevent burns. Keep the drying box lid closed when drying filament to retain heat.
- 7、请勿堵塞内部进风口和出风口,避免热量积聚发生异常
  - 7. Do not block internal air inlets or outlets to prevent heat accumulation.
- 8、如果产品出现故障,请关闭电源并断开电源线与电源插座的连接,然后联系售后支持团队
  - 8. If malfunction occurs, turn off power, unplug device, and contact support team.

#### **01**/连接电源 Power Connection

#### 将电源线插入干燥箱电源插座,然后拨动电源开关:

Plug the power cable into dryer's power socket, flip power switch upward.

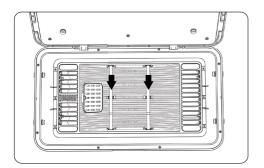


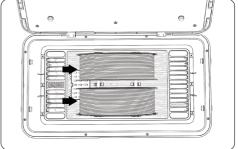


### 02/ 安装耗材 Filament Installation

#### 11 打开干燥箱上盖,并将耗材放到滚轴上。

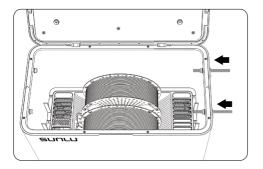
Open top cover and place filament on roller.

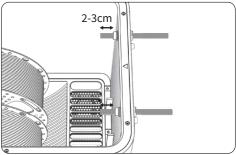




② 将特氟龙管插入耗材过线孔。(按图示,建议特氟龙管插入干燥箱内部的长度2-3cm)

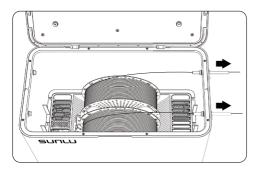
Insert PTFE tube into filament exit hole. (recommended internal length: 2-3cm)





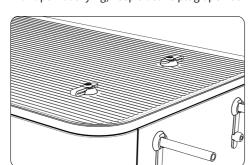
3 把耗材从特氟龙管内穿过(注意耗材方向按图示),关闭上盖。

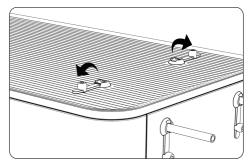
Thread filament through PTFE tube (note direction as shown), Close top cover





4 为达到耗材最佳烘干效果,建议在烘干过程中打开耗材过线孔的硅胶塞。(让内部湿气有效排出) For optimal drying, keep silicone plug open during drying.

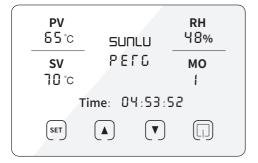


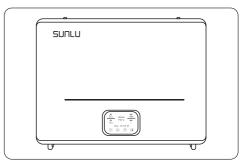


### 03/ 开机 Power On

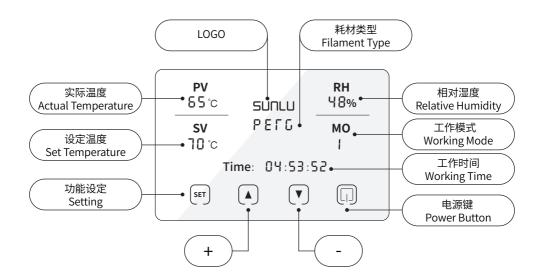
单击触摸屏上电源按键 ,显示屏亮起,此时干燥箱启动加热,LED灯亮起。

Tap power button 🗍 , display lights up, heater activates, LED indicators lights up.





### 04/显示屏各位置内容说明 Display Screen Elements



#### 附表1:耗材干燥温度/时间推荐表

Filament Drying Temperature/Time Recommendations

(1)请务必确认当前放入的耗材与设定耗材类型、温度匹配,避免因此导致的耗材热变形或者干燥效果不佳等问题。

Ensure the inserted filament corresponds to the set type and temperature to preclude thermal deformation or inferior drying.

(2)线盘耐温应大于等于设定的烘干温度,否则会有线盘变形风险。

The wire coil's temperature resistance shall be no less than the set drying temperature; otherwise, deformation risk exists.

材质 Material	PA12	PA/PC	PA/PC	ABS	ASA	PVB	PVA	TPU	PETG	WOOD	PLA/PLA+
干燥温度 Drying temperature	90°C	80°C	70°C	65-70°C		50-55°C					
烘干时间 Drying time	2-4h	4-6h	10-12h		4-	6h				4-6h	

#### 附表2模型退火温度/时间推荐表(注意耗材禁止退火)

Appendix 2: Model Annealing Temperature/Time Reference (Attention: Filament annealing is strictly prohibited)

(1)如下退火温度与时间供参考,请按耗材厂家推荐的退火参数进行设置。

The annealing temperature and time below are for reference. Set in accordance with the annealing parameters recommended by the filament manufacturer.

(2) 退火步骤: 先让干燥箱按设定温度值升温30mins, 再将需退火的模型放入干燥箱内(设置退火时间), 倒计时结束时不要立即取出模型(依靠干燥箱的保温功能, 让内部温度缓慢下降), 待干燥箱降温后(约30mins) 取出模型, 完成退火。

Annealing Steps: Heat the drying oven to the set temperature for 30 mins. Place the model for annealing into the oven and set the annealing time. Upon countdown completion, refrain from immediate removal of the model; instead, utilize the oven's heat retention to enable a slow internal temperature drop. Retrieve the model after the oven has cooled, approximately 30 mins, thereby finalizing the annealing.

材质 Material	PC	PA	PA
退火温度 Annealing temperature	90°C	80°C	90°C
退火时间 Annealing Time	2-3h	5-6h	2-3h

# /使用方法 Method of using

① 设定加热(烘烤) 温度 (建议根据耗材类型,设定加热: To Set Heating Temperature (It is recommended to sfilament type, with reference to Appendix 1.)  单击 ⑤ 按键, 70℃ 闪烁时,此时单击 ▲ ▼ 按键, Tap ⑤ Until 70℃ flash. Then tap ▲ ▼ to adjust	set the heating temperature according to the 可设定加热温度。
② 设定温度单位 / Set Temperature Unit  PV  连续单击 「SET 按键, 65℃ 闪烁时,此时单击 【▼ 技好 Tap 「SET until 65℃ flash. Then tap 【▼ to switch I	•
③ 设定LED灯显示模式 / Setting LED Display Mode 连续单击 「SET 按键,SUNLU 闪烁时,此时单击 ▲ ▼ Tap 「SET until SUNLU flash. Then tap ▲ ▼ to selo (1) 流水灯/Flowing light::→→→→ (2) 扩散灯/Diffusion light:←←→→	
④ 设定耗材类型 / Setting Filament Type 连续单击 「set」按键,PE「C 闪烁时,此时单击 ▲ ▼ 技质时,将自动调用系统推荐的加热温度、烘干时间参数。 Tap 「set」 until PE「C flash. Then tap ▲ ▼ to selected and time has been preset according to the selected	ct materials. The recommended temperature

#### **5** 设定工作时间 / Setting Working Time

连续单击<sup>[st]</sup> 按键,Time: ① 4:53:52 闪烁时,此时单击 ▲ ▼ 按键可增加或减少烘干时间,对应耗材类型的烘干时间,请参考附表1。

Tap str until Time: 04:53:52 flash. Press the button at this time to increase or decrease the drying time, and refer to Table 1 for the corresponding drying time for each type of filament.

#### ⑥ 设定工作模式 / Setting Working Mode

连续单击 ser 按键,MO 闪烁时,此时单击 ▲ ▼ 按键,可切换工作模式。

Tap <sup>SET</sup> until <sup>MO</sup> Flash. Then tap ♠ ▼ to switch working mode.

#### • MO1 耗材烘干模式 / MO1 (Filament Drying Mode):

当设定的烘干时间倒计时为00:00:00时,显示屏关闭,加热停止,风扇3mins后停止。(目的:防止内部加热器件和主板温度积聚)

When the drying time countdown reaches 00:00:00, the display turns off, heating stops, and the fan stops after 3 minutes(to prevent the accumulation of temperature in the internal heating components and motherboard).

#### ●MO2 退火模式 / MO2 (Annealing Mode):

此模式适用于PA/PC等功能性耗材打印后的模型进行退火操作。

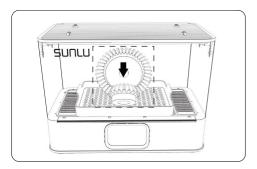
This mode is designed for post-printing annealing of functional filaments such as PA/PC.

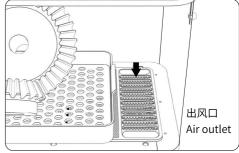
- (1) 此模式下, 耗材类型仅PA/PC可选。
- a.In this mode, only PA/PC filament types are selectable.
- (2) 推荐退火温度90℃, 退火时间2小时。(用户需要根据实际购买的耗材厂家推荐参数进行修改)
- b.Recommended annealing temperature: 90°C, annealing time: 2 hours. (Users should adjust according to the manufacturer's recommended parameters).
- (3) 退火结束(倒计时为00:00:00),显示屏关闭,加热停止,风扇3mins后停止。
- c. When annealing is completed/Annealing ends (countdown reaches 00:00:00), the display turns off, heating stops, and the fan stops after 3 minutes(to prevent the accumulation of temperature in the internal heating components and motherboard).

- MO3 湿度控制模式/MO3 (Humidity Control Mode)
- (1)此模式下倒计时结束后设备不关机,时间显示CLOSED。
- a.In this mode, the device won't shut down after countdown, with the time display showing "CLOSED".
- (2) 湿度自启动范围在30%-50%范围内可调,按 ☞ 按键,直至RH 闪烁,此时点击 ▲ ▼ 按键调节 湿度范围。
- b.The self-starting humidity range is adjustable within 30% 50%. Press the str button until RH flashes. At this time, click the button to adjust the humidity range.
- (3) 当内部湿度上升到设定的湿度值时,设备将重新启动,直至湿度下降至10%并维持30mins的工作。 c.When the internal humidity reaches the preset value, the equipment will restart and operate until the humidity drops to 10% and stays there for 30 mins.

注意:退火时,请将工程样件置于退火托盘中间位置;同时为保证良好的退火效果,退火托盘切勿阻挡进 出风口。

Attention: During the annealing process, please place the engineering samples in the middle of the annealing tray. Meanwhile, to ensure a good annealing effect, the annealing tray must not block the air inlets and outlets.





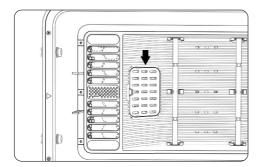
### 06/关机 Power Off

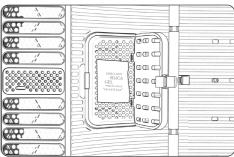
双击 [set] 按键,显示屏关闭,加热停止,风扇3mins后停止。(目的:防止内部加热器件和主板温度积聚) Double-click [set], the display turns off, heating stops, and the fan stops after 3 minutes(to prevent the accumulation of temperature in the internal heating components and motherboard).

#### 07/加干燥剂 Add Desiccant

#### 产品设置了干燥剂放置槽,用户可将耗材自带的干燥剂放入槽内,保持腔内持续干燥。

The product is equipped with a desiccant compartment, where users can place the desiccant that comes with the filament to keep the Filadryer continuously dry/ to maintain a constant dry environment inside the Filadryer.

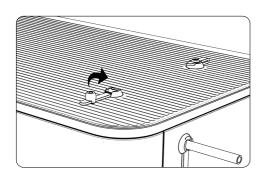


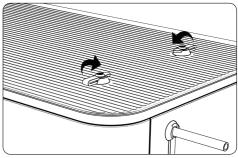


#### 08/密封操作 Sealing

# 为保持耗材持续干燥(避免二次受潮),建议烘干完成后,塞紧耗材出线孔的硅胶塞。(需要打印出线使用的孔除外)

To keep the filament dry (and prevent filament filament damp again), it is recommended to plug the silicone plugs in the holes of the filament after drying. (Except for the holes that need to be used for printing)





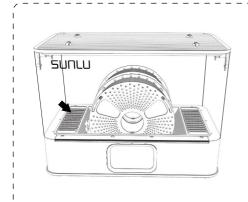
### 7 常见故障排除 Common Troubleshooting

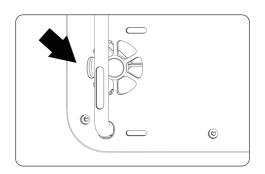
如产品在使用过程中遇到如下问题,请尝试按下表的方法排除故障,如故障依旧,请联系我们。

If you encounter the following issues during use, please try the solutions below. If the issue persists, please contact us.

现象 Issue	问题原因 Possible Causes	故障排除方法 Troubleshooting Methods
ER1	<ol> <li>1.温湿度探头接触不良 Poor connection of the temperature and humidity probe.</li> <li>2. 发热块不加热 Heating elements not heating.</li> <li>3. 干燥箱超温Overheating.</li> </ol>	方法1:重新连接温湿度探头,或者更换连接线,同时排除温湿度传感器是否被破坏。 Method 1:Reconnect the temperature and humidity probe or replace the connection cable. Also, check if the temperature and humidity sensor is damaged. 方法2:检查主板与AC板信号线是否正常连接;发热块线材是否正常连接。 Method 2:Check if the signal cable between the mainboard and AC board is properly connected. Also, verify if the heating block wires are properly connected. 方法3:检查温湿度探头位置是否安装正常,AC板是否正常。 Method 3:Check if the temperature and humidity probe is installed correctly and if the AC board is functioning properly. 方法4:观察屏幕,实际温度与设定温度相差是否超过10°C,如超过,可关闭机身背面电源,打开上盖散热5-10分钟后,重新启动。 Method 4: Examine the screen. If the difference between the actual and set temperatures exceeds 10°C, turn off the power at the rear of the device, open the upper cover for 5 - 10 minutes of heat dissipation, and then restart.
ER2	1. 导匀风扇未安装 Distribution fan not installed. 2. 导匀风扇堵转 Distribution fan is jammed.	方法1:检查导匀风扇的端子是否连接 Method 1: Check if the cooling fan terminals are properly connected. 方法2:检查是否有异物卡着风扇 Method 2: Check for any obstructions blocking the cooling fan.
ER3	<ol> <li>散热风扇未安装         Distribution fan not installed.</li> <li>散热风扇堵转         Distribution fan is jammed.</li> </ol>	方法1:检查散热风扇的端子是否连接 Method 1: Check if the cooling fan terminals are properly connected. 方法2:检查是否有异物卡着风扇 Method 2: Check for any obstructions blocking the cooling fan.
屏幕显示888888 The full screen displays 888888	当受到8000V静电打击时,局部液晶屏的 走线和屏显内容会显现出来 When subjected to an 8000V electrostat- ic shock, the circuit traces and display content on the local LCD screen may temporarily become visible.	当屏幕出现类似情况后,无需处理,约10秒内会恢复正常;这属于正常现象。 If the screen exhibits similar phenomena, no action is required—it will return to normal within approximately 10 seconds. This is a normal occurrence.

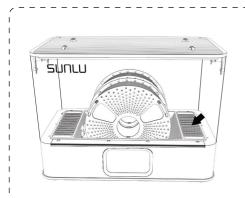
### 7 常见故障排除 Common Troubleshooting

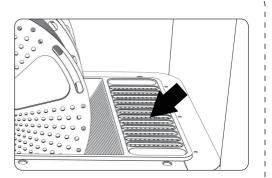




ER2:检查此处风扇是否转动

ER2: Check whether the fan here rotates or not.





ER3:检查此处风扇是否转动

ER3:Check whether the fan here rotates or not.

## 8 合格证 Certificate of Conformity



#### 售后服务 After-Sales Service

- 1.如在本手册所示产品在正常操作下发生故障,保修一年。
- 1. The product comes with a one-year warranty under normal operating conditions as shown in this manual.
- 2.在保修期内,因使用不同规格的电源线或未按说明书正确操作导致机器损坏的,恕不提供保修服务。
- 2. The warranty does not cover damages caused by using power cables of different specifications or incorrect operation as per the instructions in the manual during the warranty period.

#### 联系我们 Contact us

#### 广东三绿科技有限公司

官方网站: www.3dsunlu.com 品牌合作: branding@sunlu.com 商务合作: sales@sunlu.com 售后服务: support@sunlu.com 公司地址:中山市坦洲镇潭降北路162号



#### Sunlu (Guangdong) Technology Co., Ltd.

Official website: www.3dsunlu.com Brand cooperation: branding@sunlu.com Business cooperation: sales@sunlu.com After-sales service: support@sunlu.com

Manufacturing Address: No. 162 Tanlong North Road, Tanzhou Town, Zhongshan City, China.

#### **Enjoy 3D Printing with SUNLU**









YouTube Facebook Instagram

TikTok

