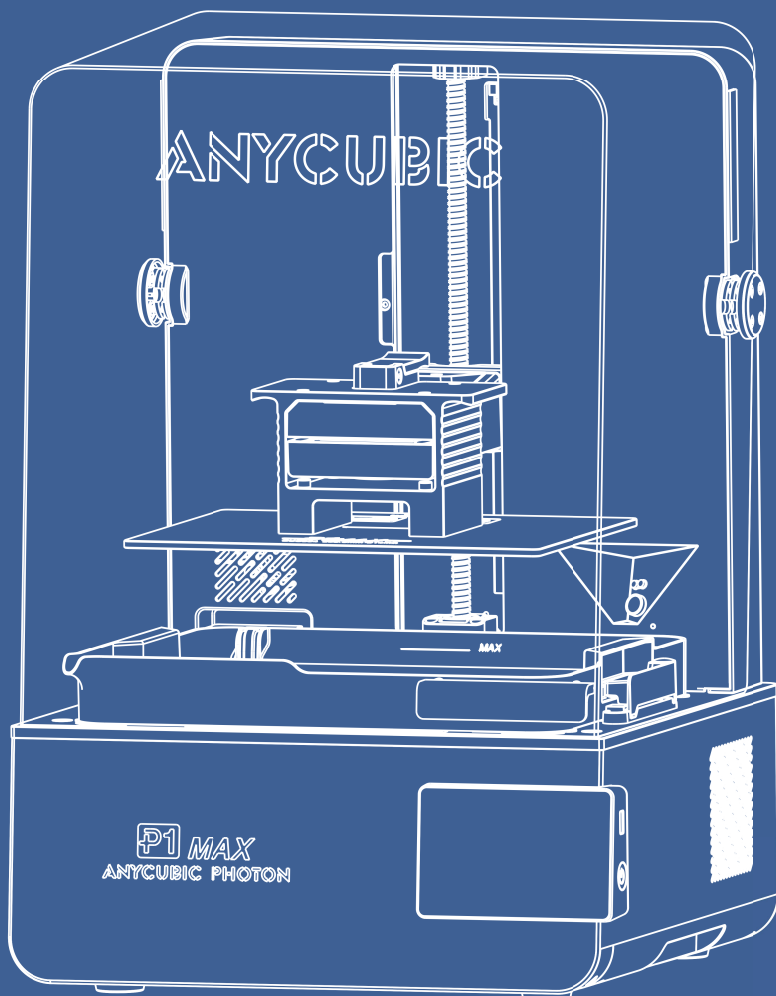




Anycubic Photon P1 Max

 User Manual

Dear customer,

Thank you for choosing Anycubic products.

Maybe you are familiar with 3D printing technology or have purchased Anycubic printers before. However, we still highly recommend you read this manual carefully, as the installation techniques and precautions can help you avoid any unnecessary damage or frustration.

Scan the QR code below for tutorials, models, slicing software, and multilingual manuals.



Support Center

View the unboxing video, user manual, and technical documents.

<https://anycubic.com/supportCenter>



Quick Start

Scan to access the online Quick Start guide.

<https://wiki.anycubic.com/en/resin-3d-printer/anycubic-photon-p1-max/quick-start-guide>



Explore Models

Visit Makeronline, our model-sharing community, to download free models.

<https://makeronline.com/en/>



Anycubic Wiki

Find more resources such as maintenance and replacement guides.

<https://wiki.anycubic.com/en/home>

Please visit <https://support.anycubic.com> to contact us if you have any questions.

Copyrighted by “Shenzhen Anycubic Technology Co., Ltd ”, all rights reserved.

Team Anycubic

Safety Instructions

Always follow the safety instructions during assembly and usage, to avoid unnecessary damage to the 3D printer or individual injury.



Please contact our Customer Service if you have any issues after receiving the products.



In case of emergency, please immediately cut off the power of the 3D printer and contact our technical support.



UV light is harmful to the eyes; please avoid direct contact. When operating, wear protective equipment such as anti-UV goggles and gloves.



Anycubic 3D printer includes components that can cause injury.



When the Temperature control resin vat heats up for a long time, its surface temperature becomes high. Avoid touching the resin vat without protection after heating.



Be cautious when using the scraper, and make sure to orient the sharp parts of machine and tool away from people.



Keep the Anycubic 3D printer and its accessories out of the reach of children.



Vapors or fumes may be irritating at operating temperatures.

Always use the Anycubic 3D printer in an open and well ventilated area.



Do not expose Anycubic 3D printer to any water or rain environment.



Use Anycubic 3D printer in an environment with a temperature of 5°C-40°C and a humidity of 20%-80%. For optimal performance, do not exceed this range. Also, avoid direct sunlight exposure.



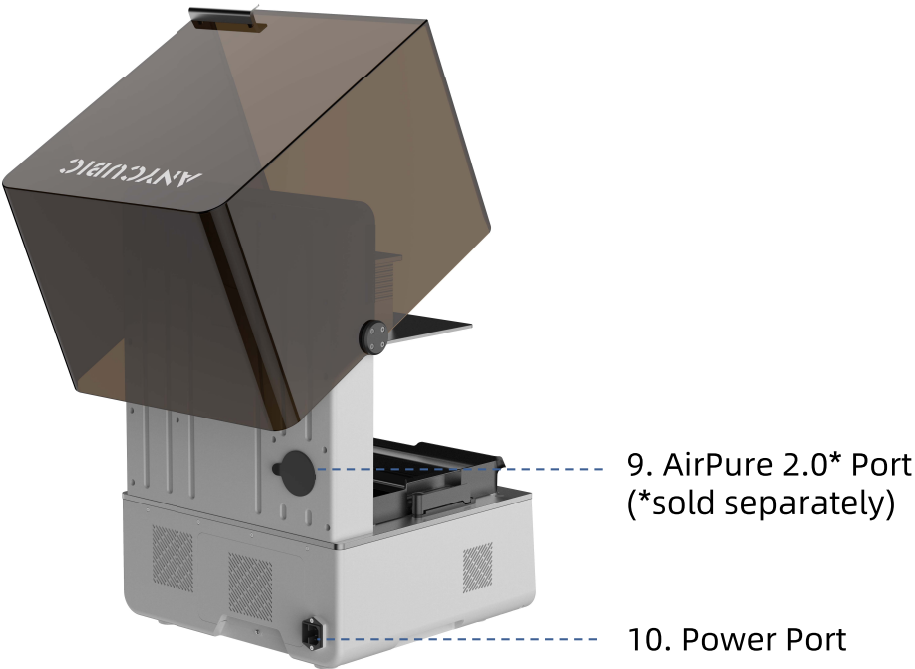
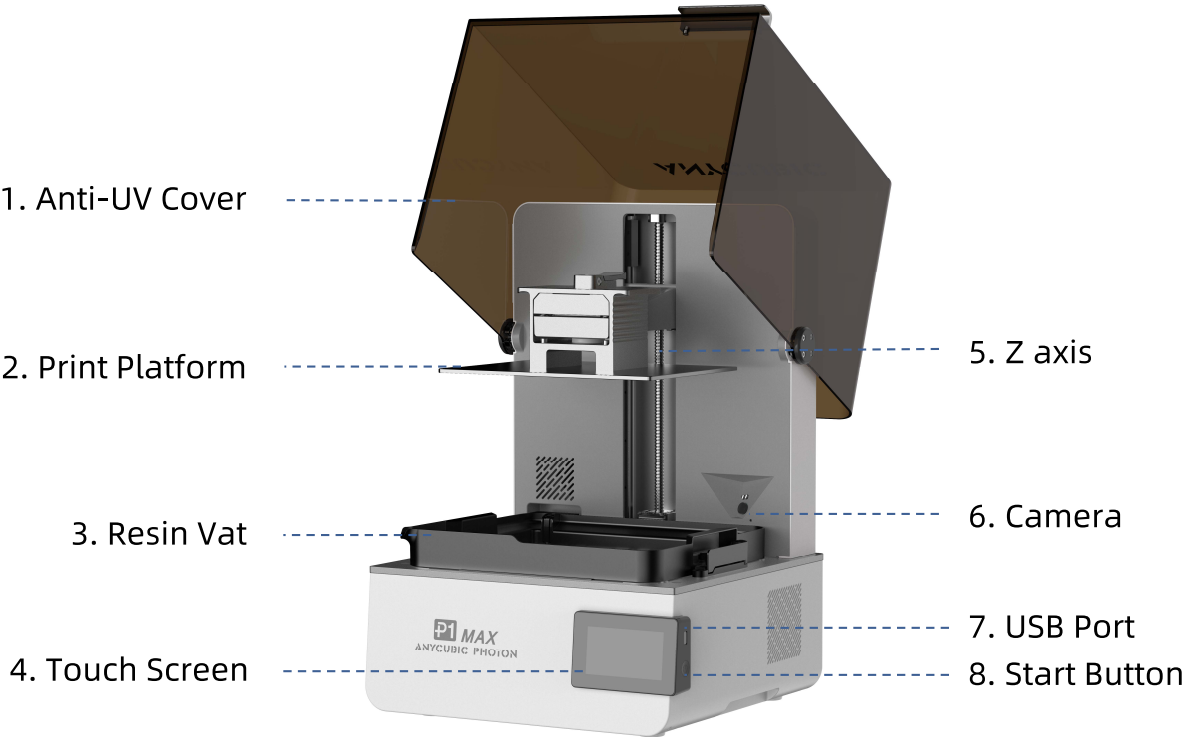
Do not disassemble Anycubic 3D printer, please contact technical support if you have any questions.

Contents

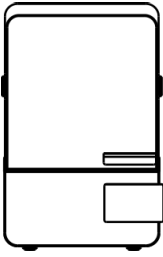
1. Product Overview	5
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Product Overview

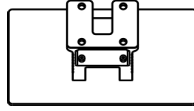
All pictures are for reference only. Please comply with the actual products.



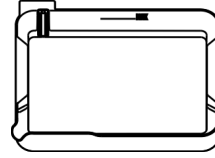
In the Box



Anycubic Photon
P1 Max



Print platform



Resin vat



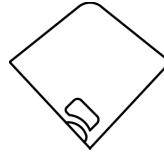
Wet wipe



Hex key set



Protective equipment



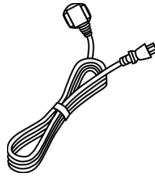
Funnel



Scraper * 2



USB drive



Power cord



User Manual

Operating System

Product Model	Anycubic Photon P1 Max
Software	Anycubic Photon Workshop (also compatible with other software)
Connectivity	USB Drive, WLAN, LAN

Specifications

LCD screen	14 inch 12K
Light source	COB light
XY Resolution	11520* 8640
Z axis Accuracy	0.02 mm
Suggested Layer Thickness	0.02 ~ 0.15 mm
Rated Voltage	100-120 V~ / 200-240V~
Rated Power	296 W

Physical Dimensions

Dimension	430 mm(L) *414 mm(W) *625 mm(H)
Build volume	285.5 mm(L) *214 mm(W) *300 mm(H)
Weight	23.1 kg

WLAN

Frequency Range	2.4 G (2.400~2.4835 GHz)
Work Mode	AP, STA, AP+STA mode

Recommended Print Parameters

The listed resin parameters are for reference only. If you are using other Anycubic resins, please choose the matching type in Anycubic Workshop or check the detailed parameter table on our official website.

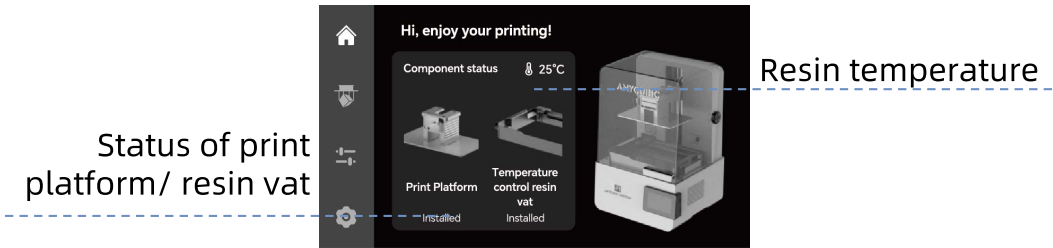
Resin Type			Standard Resin		DLP Craftsman Resin		BJD Wear-Resistant Resin
Temperature (°C)			15~40				
Layer Thickness (mm)			0.05	0.03	0.05	0.03	0.05
Normal Layers	Normal Exposure Time (s)		2.8	2.5	3	2.8	2.8
	Off Time (s)		2	2	4	4	2
	Wait Before Lift (s)		0	0	0	0	0
	Wait After Lift (s)		0	0	0	0	0
Bottom Layers	Bottom Layers		1	1	2	2	1
	Bottom Exposure Time (s)		25	25	40	40	25
	Bottom Off Time (s)		100	100	100	100	100
	Bottom Wait Before Lift (s)		0	0	0	0	0
	Bottom Wait After Lift (s)		0	0	0	0	0
Normal Layers Print Control	Step 1	Z Lift Distance (mm)	4	4	4	4	4
		Z Lift Speed (mm/s)	3	3	3	3	3
		Z Retract Speed (mm/s)	3	3	3	3	3
	Step 2	Z Lift Distance (mm)	8	8	8	8	8
		Z Lift Speed (mm/s)	8	8	8	8	8
		Z Retract Speed (mm/s)	8	8	8	8	8
Transition Layer			15	15	15	15	15
Bottom Layers Print Control	Step 1	Z Lift Distance (mm)	4	4	4	4	4
		Z Lift Speed (mm/s)	0.1	0.1	0.1	0.1	0.1
		Z Retract Speed (mm/s)	0.1	0.1	0.1	0.1	0.1
	Step 2	Z Lift Distance (mm)	8	8	8	8	8
		Z Lift Speed (mm/s)	3	3	3	3	3
		Z Retract Speed (mm/s)	3	3	3	3	3
Advanced	Anti-alias		16	16	16	16	16
	Gray Level		0	0	0	0	0
	Image Blur		0	0	0	0	0

--The data above roots in Anycubic lab.

Menu Directory

Note: The current interface is for reference only. Please refer to the latest firmware for accurate information.

Home menu

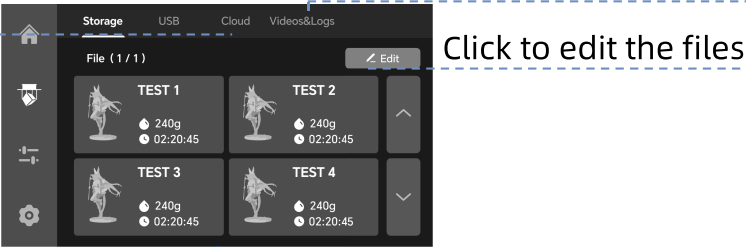


Print

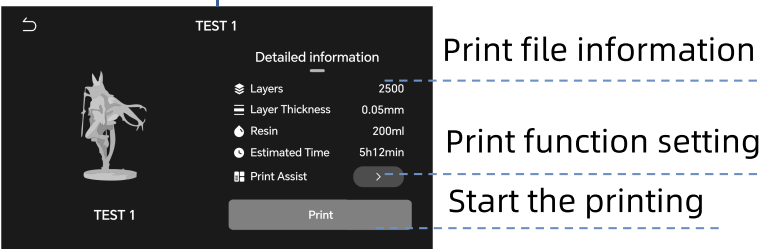
Print:

Switch to local file/ USB drive file/cloud file

Check the time-lapse videos/ print logs

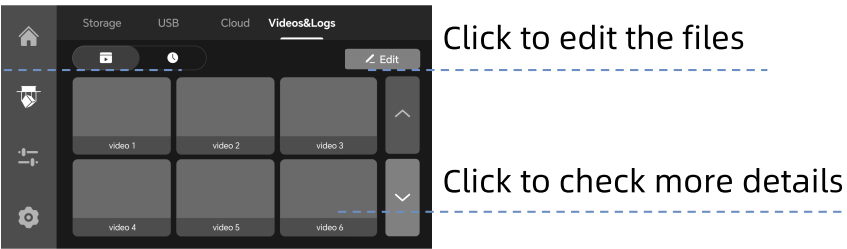


File Details:



Videos & Logs:

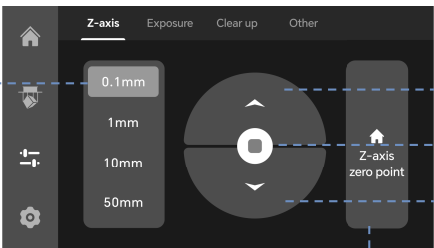
Switch to videos/ print logs



Tools

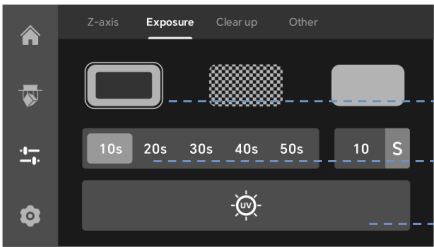
Z-axis:

Move Z by 0.1mm
/1mm/10mm/50mm



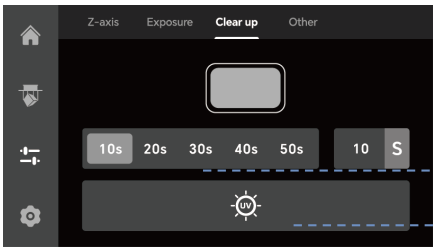
- Move the Z axis upwards
- Stop moving the Z axis
- Move the Z axis downwards
- Return to Zero

Exposure:



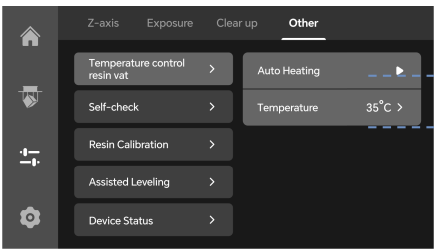
- Choose an image to expose
- Set the exposure time
- Start exposure

Clear up:



- Set the exposure time
- Start exposure

Other- Temperature control resin vat :



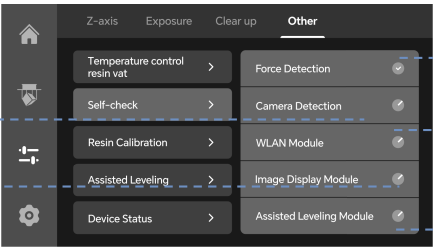
- Start heating
- Set heating temperature

Tools

Other- Self-check:

Check the camera connection

Check the display module

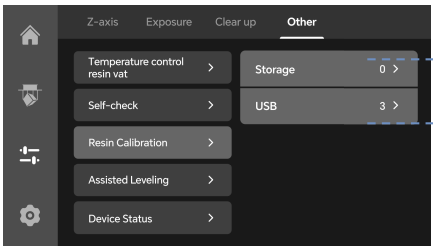


Start force detection

Check the WLAN module

Check the assisted leveling module

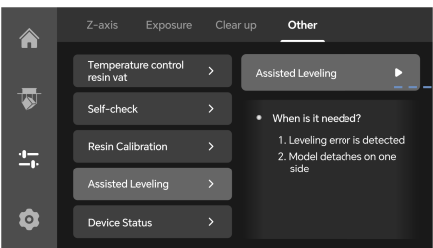
Other- Resin Calibration:



Local file list

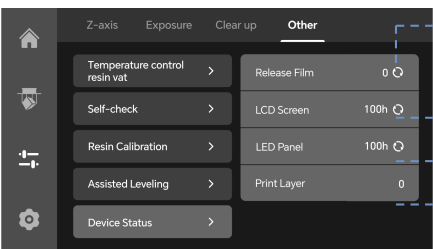
USB drive list

Other- Assisted Leveling:



Start the leveling process

Other- Device Status:



Print layers (resettable)

LCD screen work time (resettable)

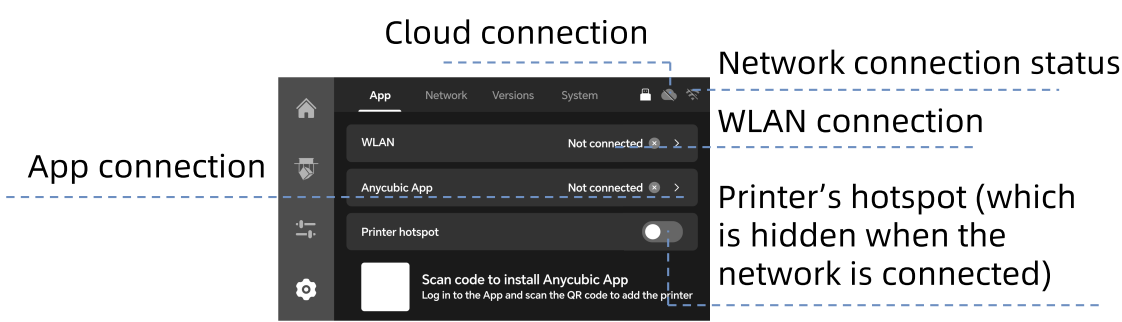
LED work time (resettable)

Statistics of print layers

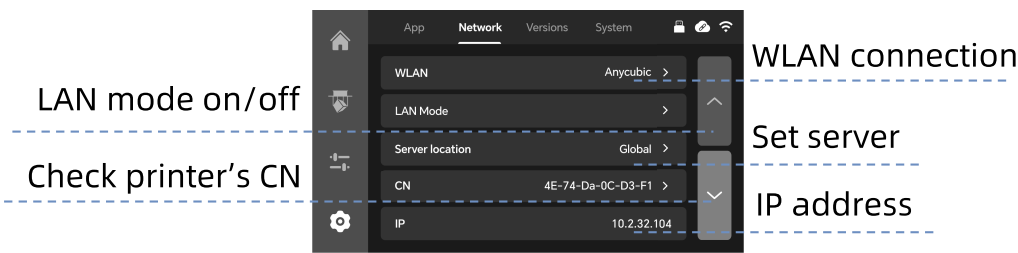
Menu Directory

Settings

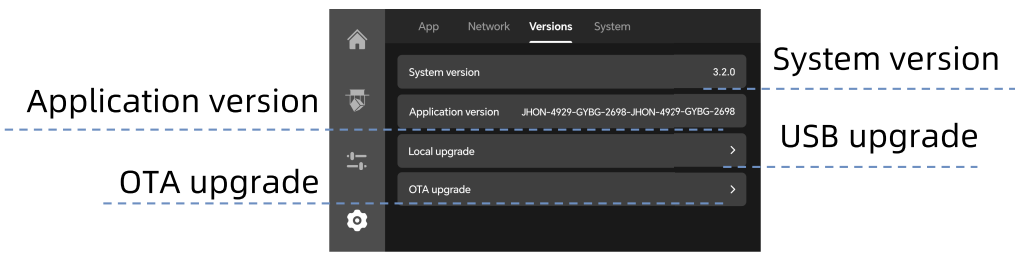
App:



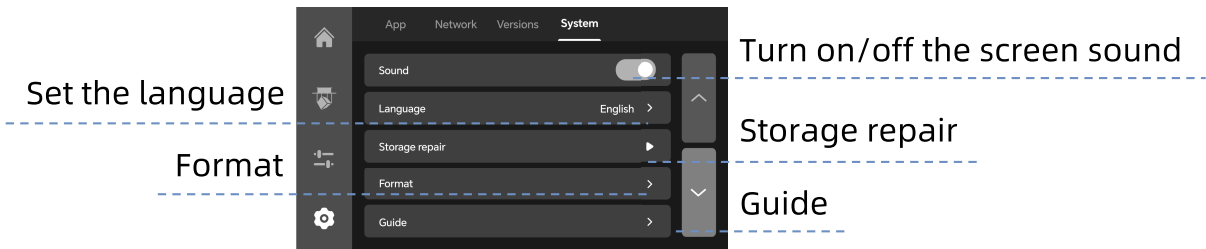
Network:



Version:



System:

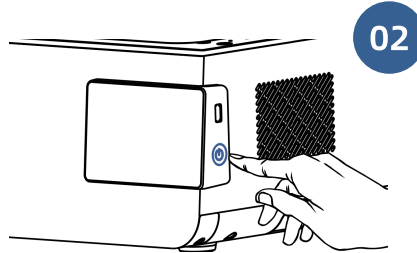
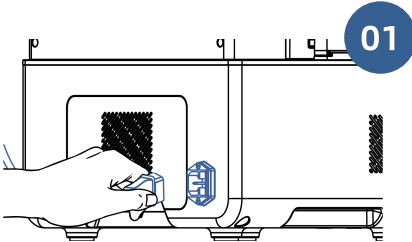


Preparations

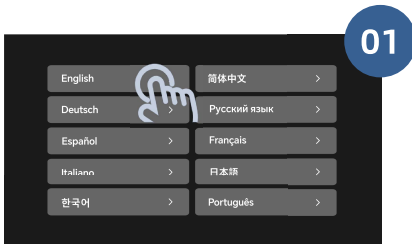
Please place the 3D printer on a stable, level workbench and operate it in an open, well ventilated area away from sunlight. For the first use, please follow the instruction to finish the preparations.

1. Unbox and check all accessories before use.

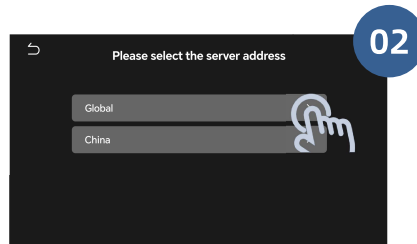
2. Connect the power supply. Press the start button for 1s to turn on. (Hold for 2s to power off.)



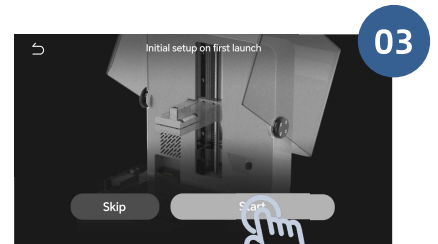
3. Follow the on-screen guide to complete initial setup.



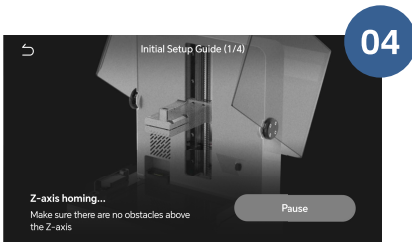
Set the language



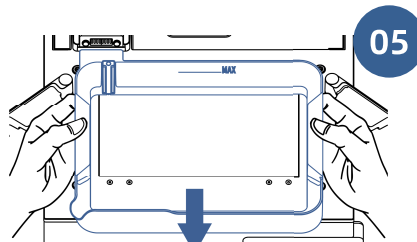
Users in mainland China select "China" ; others select "Global" .



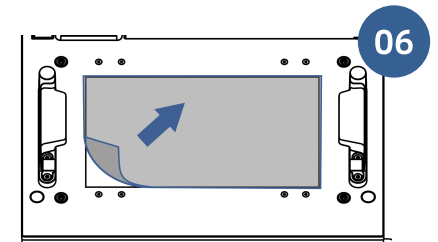
Start initial setup



Wait for the Z-axis lifting

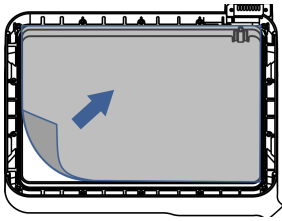


Remove the protective films before installation

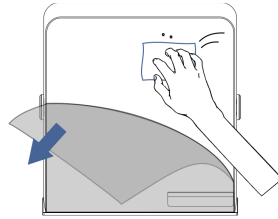


Preparations

3. Follow the on-screen guide to complete initial setup.

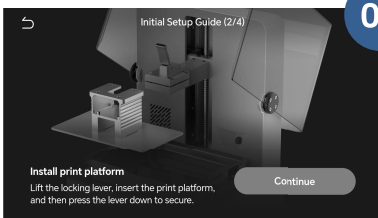


07



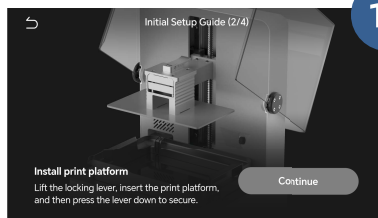
08

Wipe the outside of the flip cover after removing the film

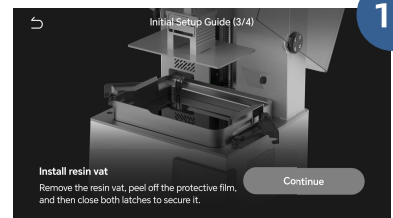


09

Install the print platform

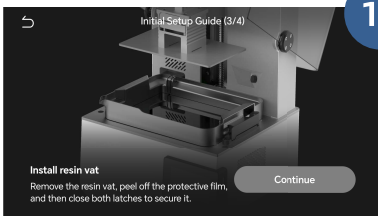


10



11

Install the resin vat

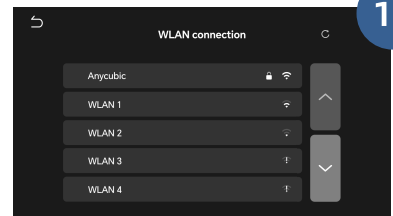


12



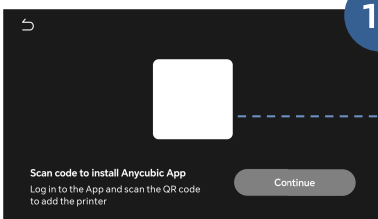
13

Pour in resin. Do not exceed the Max level mark



14

Connect to the network



15

Link Printer

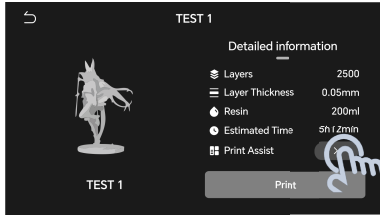


Download the app



- Check the release film for dents or damage before installing the resin vat. Replace it if necessary to avoid printer damage.
- Wear gloves and a mask when operating, as resin contact or odor may cause discomfort.

Before printing, you can configure the print functions. By default, intelligent release, intelligent light-off, failure detection, and print heating are enabled. It is recommended to keep them on for a better printing experience.



1. Intelligent release

Automatically adjust release height and speed to address issues such as model cracking or printing failures caused by excessive pressure and release force, improving the success rate and printing quality.

2. Intelligent light-off

When the exposure area is large, surface tension and resin viscosity may delay Z-axis movement or resin flow, causing print failure. Enabling Intelligent Light-Off automatically adjusts the light-off delay to improve success rate.

3. Failure detection

During printing, the printer automatically monitors the conditions which may cause print failure to avoid wasting resin or damaging to the printer. When the printer detects an abnormal condition, it will pause the print job automatically and pop up the error report. Please check the sliced file and the model according to the report. The failure detection is enabled by default.

Bottom non-stick detection

It checks whether the model sticks to the print platform. When the printer detects that the model does not stick the platform, please check the bottom exposure time of the sliced file.

Model defect detection

Detects incomplete models caused by various printing issues. If a defect is detected, check the LCD screen and light path for dust or obstructions.

4. Print heating

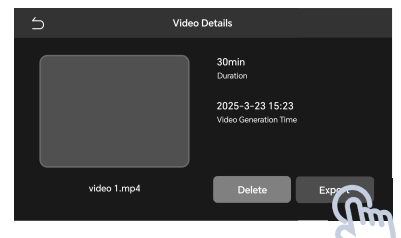
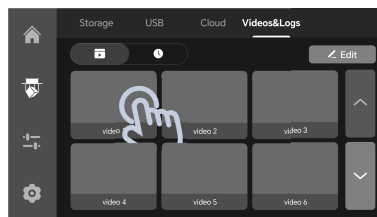
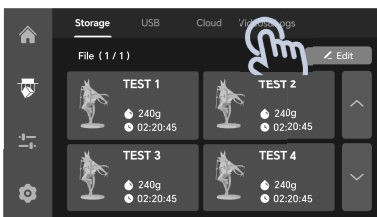
It heats to the set temperature before printing and keeps heating during the process. Recommended when ambient temperature is below 15 °C to prevent detachment or missing parts.



The resin vat may become hot during extended heating. Do not touch it directly and take proper precautions.

5. Time-lapse

The videos can be exported in the "Videos&Logs".



Remove the camera cover before use.

6. AI detection

Uses AI to analyze the camera view and monitor the model status more precisely. Remove the camera cover before use.

7. Z-axis bottom compensation

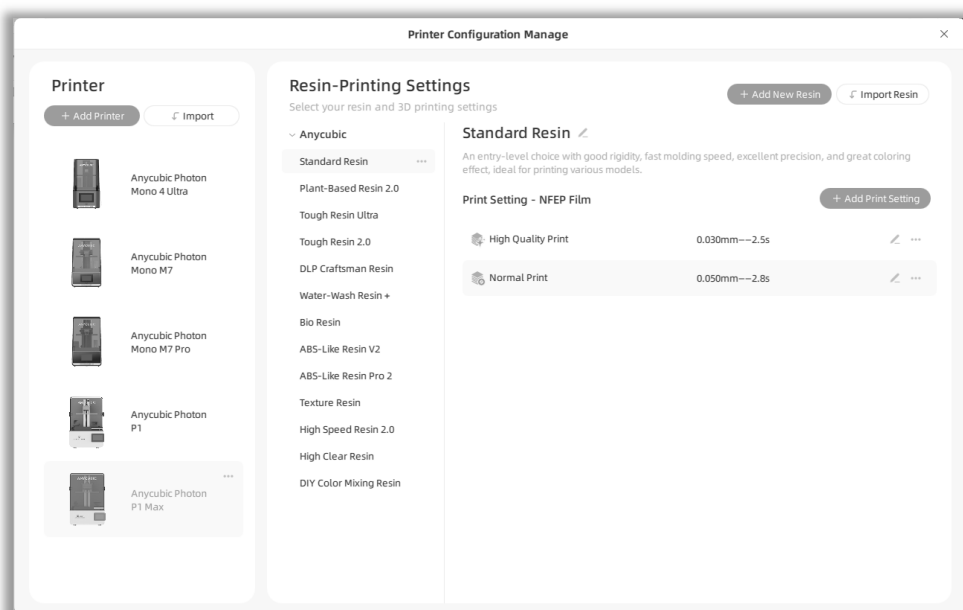
It is recommended to enable Z-axis Bottom Compensation when printing directly on the print platform to reduce vertical dimensional deviation.

Start Printing

You can initiate the print task on the 3D printer, Anycubic App or Anycubic Workshop(slicing software). It is recommended to start printing on the printer for the beginners.

Start printing on 3D printer

1. Use Anycubic Photon Workshop software to process the 3D model file. You can get the Anycubic Photon Workshop slicing software installer and its instructions from the “Slicer_Global” in USB drive we provide.
2. When setting parameters in the slicing software, choose a parameter group that matches your resin type.



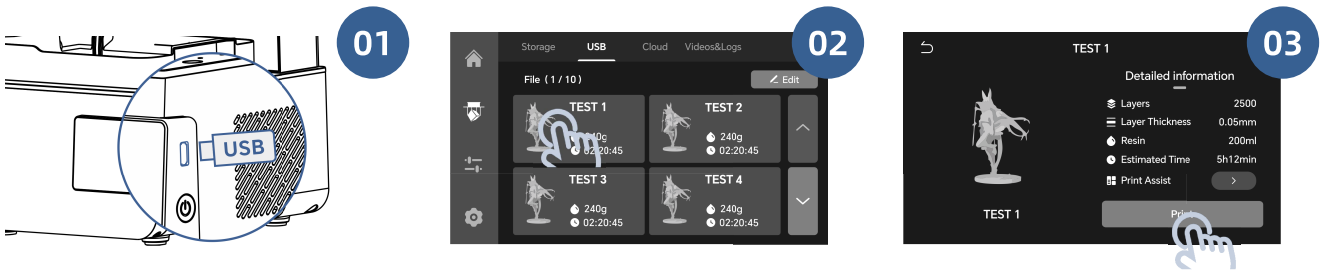
Choose the parameter group according to the resin

If you are using third-party resin, go to Help – Resin Exposure Time to determine the optimal exposure parameters. For detailed steps, see Chapter 9: *Resin Test* in this manual.

3. Save the sliced file to USB drive.

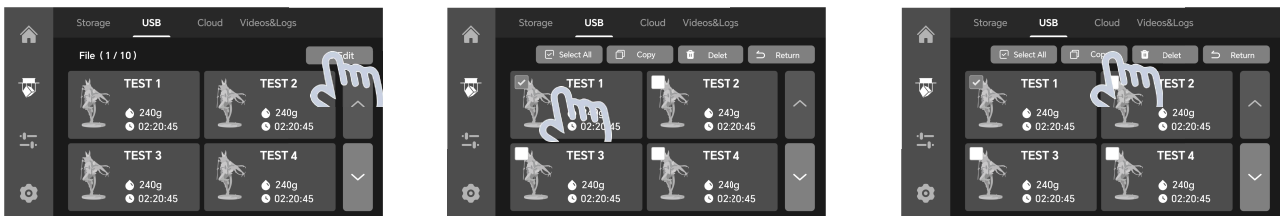
Start Printing

4. Insert the USB drive to the printer. Then, choose a file to print.

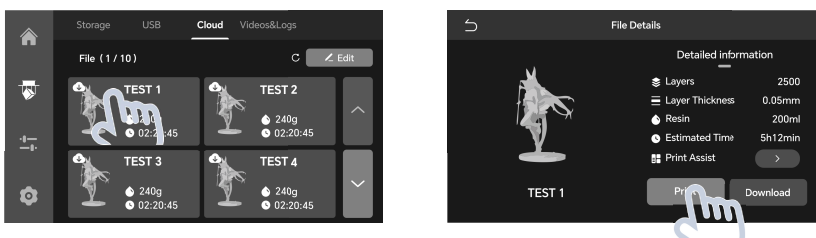


- It is recommended that use the USB drive we provide. If you are using your own USB drive, please ensure that it is formatted to FAT/FAT 32 and has a memory size of less than 64G.
- **Only .pp1m files are supported.** Store them in the root directory of the USB drive to avoid read errors.

- Once USB files are copied to internal storage, you can start printing directly from the printer.



- After connecting to the network and signing in to your Anycubic Cloud account, you can download the files from the cloud and start printing directly from the printer.

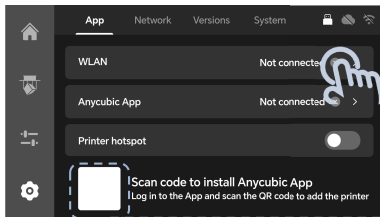


Start Printing

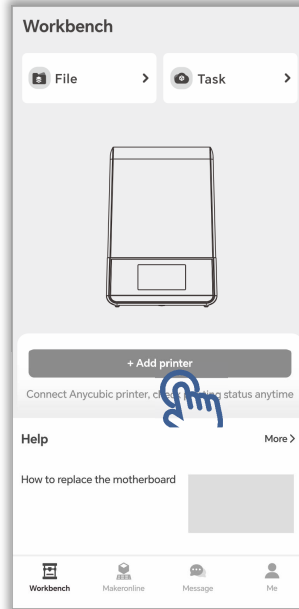
Start printing on Anycubic App

Please connect the printer to Anycubic App first for remote uploading and monitoring.

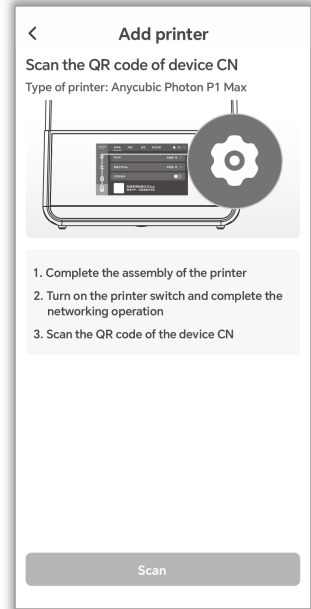
1. Connect to the network and add printer in Anycubic App (Skip if it is finished in initial setup). Please search “Anycubic” in App Store or Goolge Play, or scan the QR code on the printer, to download Anycubic App.



Connect to
the network

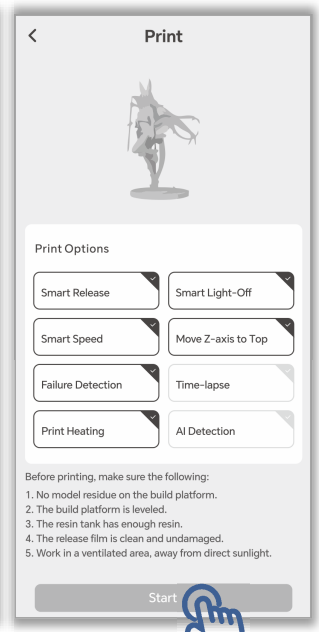
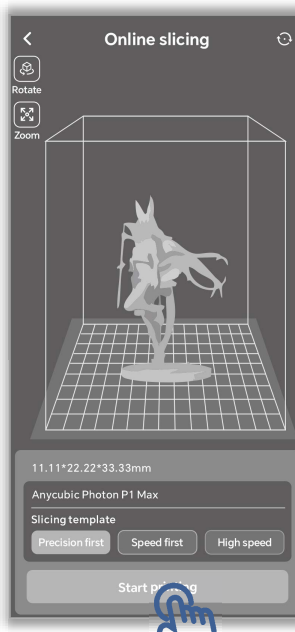
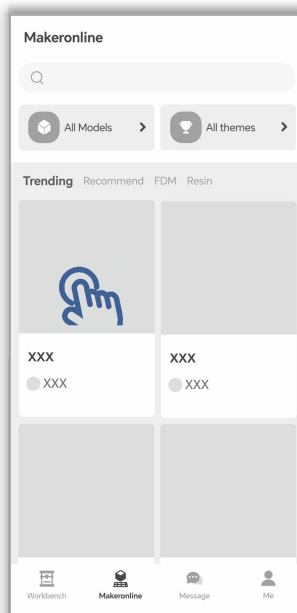
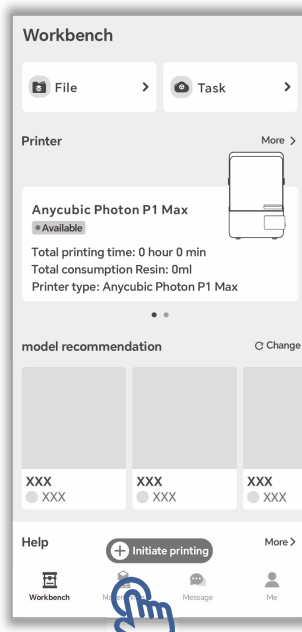


Sign up and sign in,
then add printer



Scan the QR code to
add printer

2. Start print on the Anycubic App.



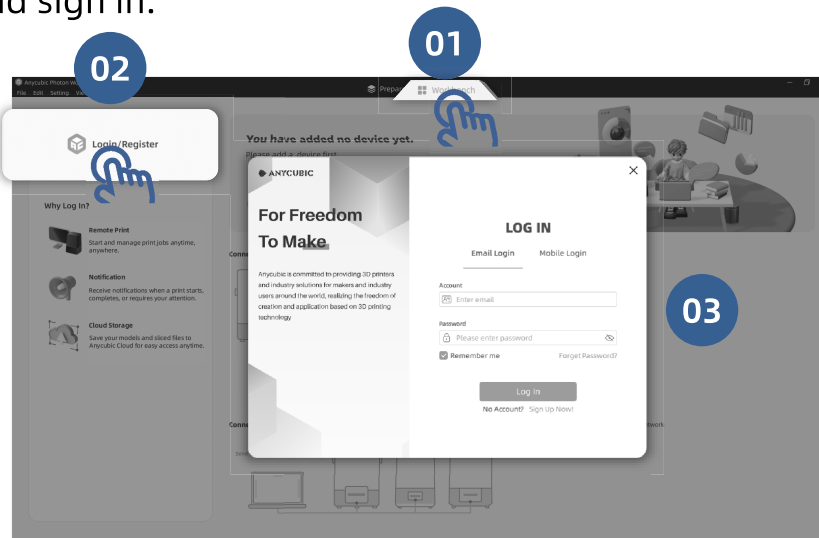
Choose a model to print

Start Printing

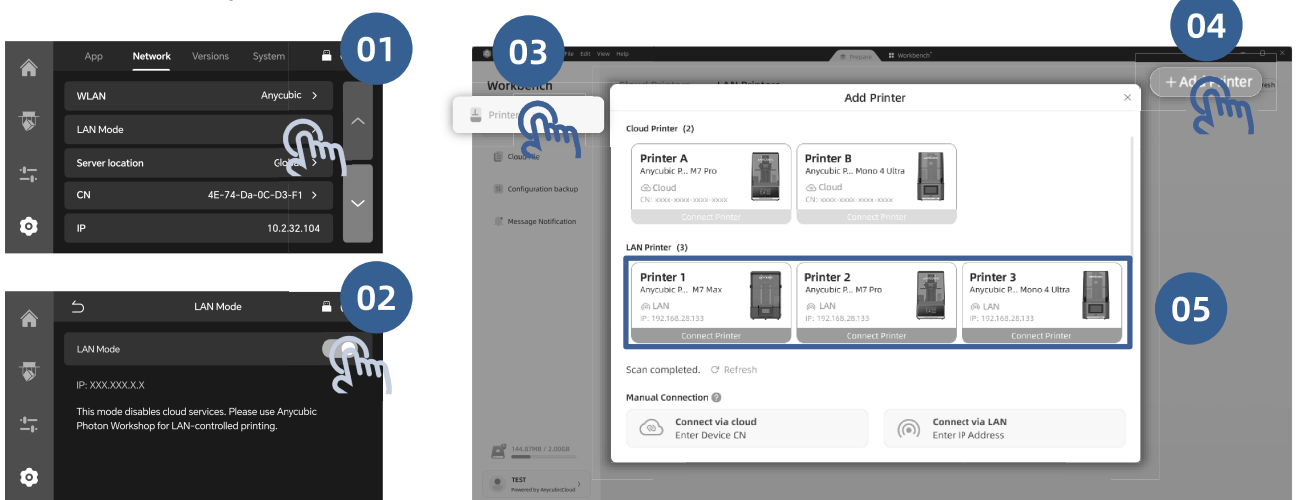
Start printing on Anycubic Photon Workshop

You can get the Anycubic Photon Workshop slicing software installer and its instructions from the “Slicer_Global” in USB drive we provide. The printer should be connected to the network first. Then, follow the steps below to start printing from the slicing software.

1. Sign up and sign in.



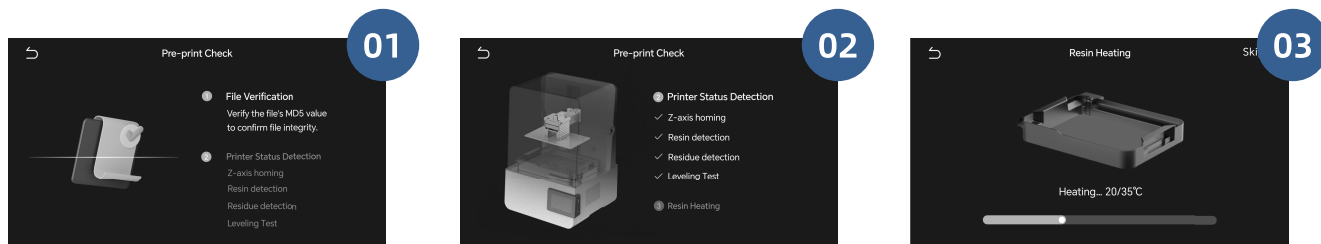
2. If the printer is linked to your account in Anycubic App, sign up the account in PhotonWorkshop and the cloud information will be updated. Besides, the printer can also be linked via LAN as shown below.



! LAN mode and Cloud mode cannot be used at the same time. When a printer links via LAN, it will be disconnected in Anycubic App.

Before printing

Before printing, the printer verifies the file and system status, and heats the resin to ensure proper operation. When there is an error, the printer will pop up the error QR code. Please scan the code and follow the guide.



1. File Verification

Check the integrity of the file. If it errors, check the sliced file.

2. Printer Status Detection

Z-axis homing

Z-axis homing to the zero position on the top, check whether the limit switch works.

Resin Detection

Before printing, check whether the resin in the vat is sufficient to finish the print job. Usually, the required volume is a little more than the volume estimated by the slice software.

Residue Detection

Before printing, check if there are the solid residues* in the resin vat. If residues are detected, please clean the vat and check again.

*solid residue: height $\geq$ 1mm, cross section $\geq$ 3*3mm²

Leveling Test

Check whether the print platform is leveled. If it reports error, please calibrate the platform in Tools-Other- Assisted Leveling.

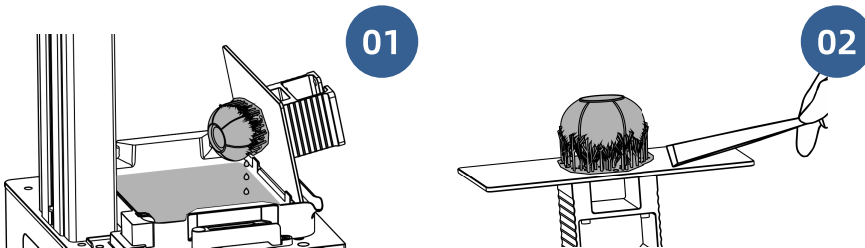
3. Resin Heating

You can choose to skip heating if necessary. If skipped at this time, it will not occur during printing. Please be cautious, as low ambient temperature and insufficient heating time may lead to print failure.

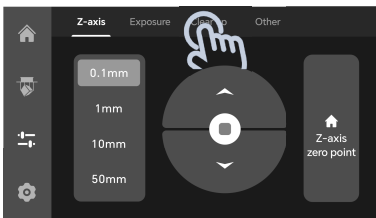
After Printing

After printing, handle and recycle the remaining resin promptly.

1. After printing, remove the platform when resin stops dropping. Remove the model by metal scraper and then wash it with 95% alcohol or other detergent. Then, dry and post-cure the model.

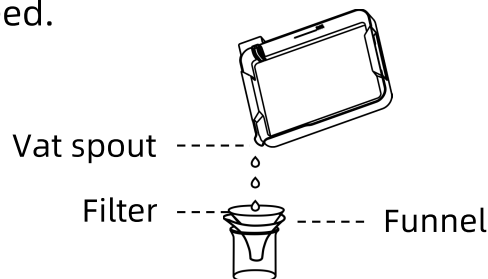


2. Enable the vat cleaning function when the resin is partially cured to avoid the damage to the LCD screen and the printer.



Remove resin sheet
by plastic scraper

3. Pour out the remaining resin through a front vat spout and recycle it with a filter and a funnel. The model file of funnel is saved in the included USB drive, print it if you need.



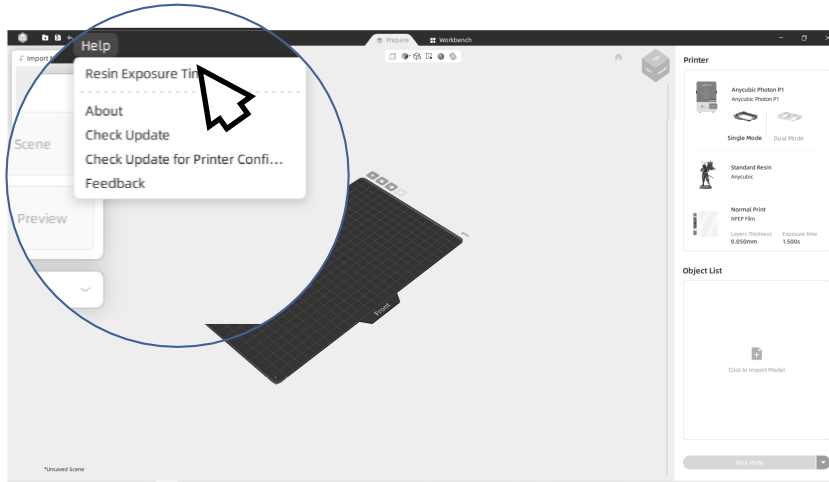
DO NOT pour resin from the back of the vat to avoid damage.

4. If you do not use the 3D printer for a long time, please clean the resin vat timely and store the resin in an airtight container away from light.

Resin Test

Resin calibration function allows testing the optimal exposure time for different resins and ambient temperature on this printer.

1. In Photon Workshop, import a custom test file, or enter resin exposure time and use preset file.



2. Finish the calibration test settings and then slice.

Print platform partitions: Divide the print platform equally into a certain number of areas.

Exposure time step: The exposure time of Area 1 is equal to the Normal Exposure Time, while the exposure times of other areas increase by the step value.

Normal Layers	
Layers Thickness	0.050 mm
Normal Exposure Time	1.500 s
Off Time	2.000 s
Wait Before Lift	0.000 s
Wait After Lift	0.000 s

Resin Exposure Time Calibration		
1	3	5
1.5	2.5	3.5
2	4	6
2	3	4

Print Platform Partitions: 6
Divide the print platform equally into several areas of the corresponding number.

Exposure Time Step: 0.5
The exposure time for the first area is set in your resin print setting. Each subsequent area's exposure time will increase by step value.

Select Model for Calibration
The model you select will be auto-copied to each area's center. If the selected model exceeds the area size, it will be scaled down to fit.

☒ Use preset model ☐ Select from object list

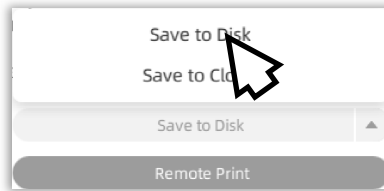
Selected Model: RERF.stl

Slice for Calibration

Resin Test

3. Check the exposure time step and print parameters in the slice file view. Then, export the resin test file.

Save the file to USB drive to start on the printer, or start remote printing.

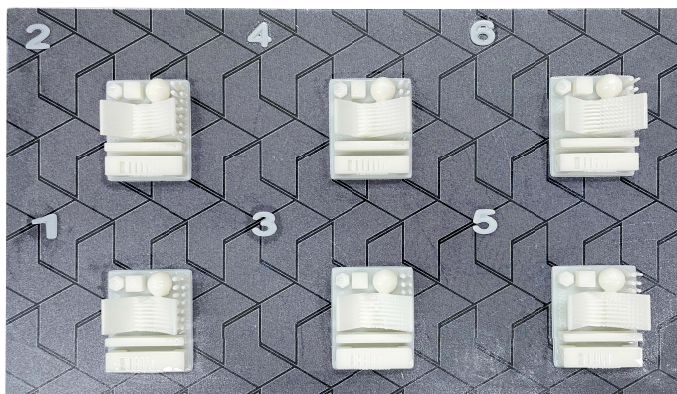


4. The exposure time can be modified in resin calibration interface on the printer. Then, print the file.



Attention: The exposure time of each area should be in strictly ascending order.

5. After printing, remove and clean the models.

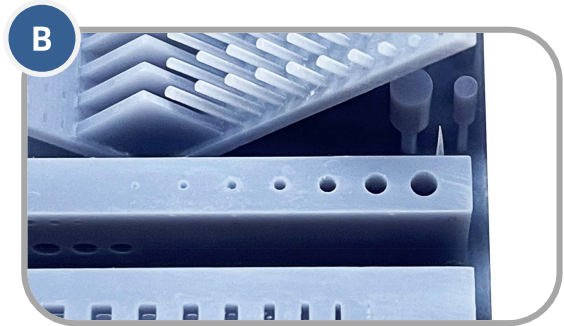


The numbers on the models indicate the order

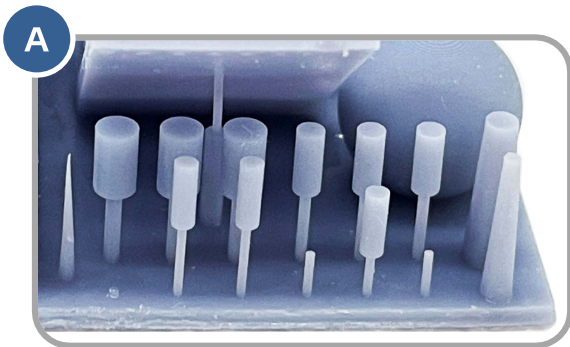
6. Compare the print effect of models and choose the model's exposure time that meets your needs as the print parameter. Take a comparison of model A&B as an example.



More holes



Less holes



Less cylinder



More cylinder

- Model A has more holes and fewer cylinder. If you print by the parameter of model A, more details of model can be printed with high risk of failure.
- Model B has fewer holes and more cylinder. If you print by the parameter of model B, model may be printed successfully yet with some details lost.

In addition, you can compare the bridges, needles or other parts to choose a proper model and find the parameter. If none of them can be chose, adjusting the "normal exposure time (s) " is suggested.

Tip: A preset file "R_E_R_F" is provided in the USB drive, which can be used for resin exposure testing.

Leveling

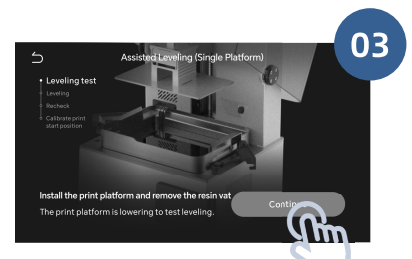
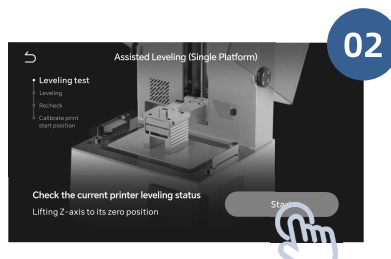
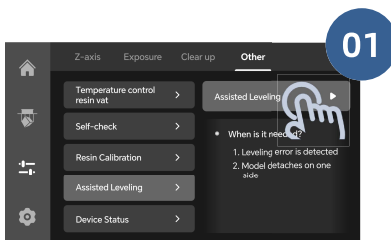
The printer has been designed requiring no leveling for the first use. However, please re-level the printer in the following scenarios:

- The printer has dropped to the ground.
- Changing new print platform or LCD screen.
- The printed object sticks to the resin vat instead of the print platform.

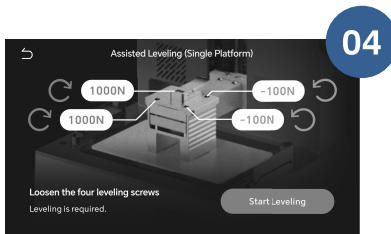


Scan the QR code for the leveling tutorial

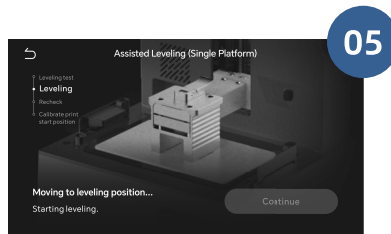
Please follow the steps below to install and re-level.



Ensure the resin vat is removed



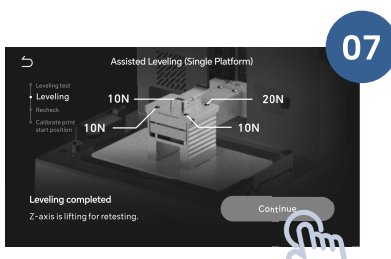
If leveling is required, tap Start Leveling



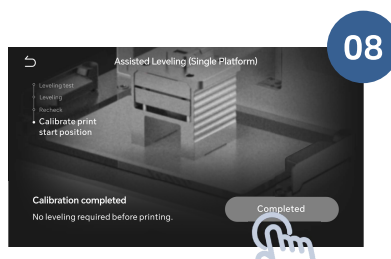
Wait until the Z-axis finishes moving



Adjust the leveling screws as instructed



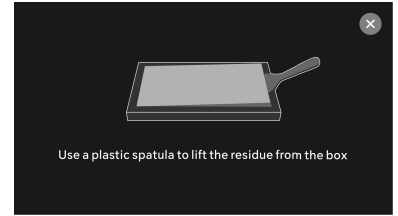
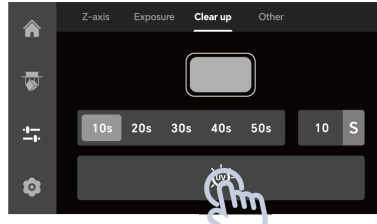
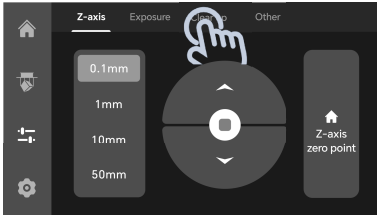
Wait for the retest to complete



Set the print start position. Leveling is complete.

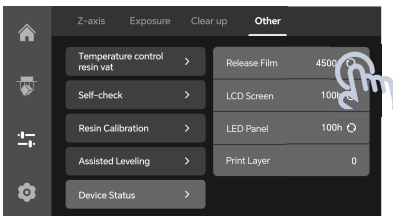
Resin Vat Maintenance

- **Remove the cured resin from release film:** Set Cleaning and then remove the cured resin sheet to protect the film. Do not use sharp objects to scrape off the residues from the film.

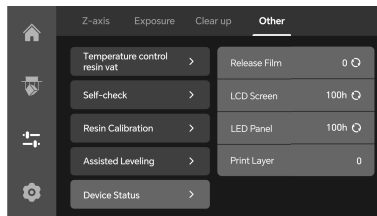


Remove resin sheet
by plastic scraper

- **Release film replacement:** The statistics of print layers are shown in Other- Device Status. Please check them and replace release film timely to avoid print failure or even the damage to printer.



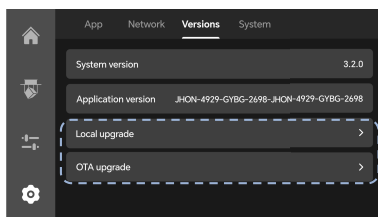
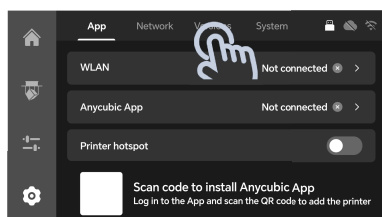
Click reset button
after replacement



- If you do not use the resin for over 48H, store it in an airtight container away from light.
- If resin is stained on the resin vat, wipe it off timely. Never immerse the Temperature control resin vat in water, alcohol or other cleaning solvent to avoid the damage.

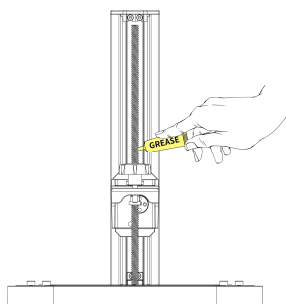
Firmware Upgrade

- **USB upgrade:** Visit the official website to download the firmware and save it onto a USB drive that doesn't have any other version of firmware. Then, insert the USB drive to printer to upgrade.
- **OTA upgrade:** If the network is connected, directly upgrade by OTA.



Z-axis Maintenance

If Z axis makes a noisy sound, please apply lubricant to Z lead screw.



Cleaning

- **Clean the print platform:** Clean platform with alcohol and paper towel.
- **Protect LCD screen:** If there is resin being cured on the screen protector, please replace the protector immediately.
- **Clean the body of printer:** Clean the body of the printer with alcohol.

Complete the initial trouble shooting steps by referring to the following proposed solutions, or contact our technical support for additional assistance.

Print

1. Model do not stick to platform

- Bottom exposure time is insufficient. Please increase the exposure time.
- Contact area between the model and platform is small. Please add a raft.

2. Layer separation or splitting

- The machine is not stable during printing.
- The release film is not tight enough or needs a replacement.
- The printing platform or resin vat is not tightened.
- The lift speed is too fast.
- The model is hollowed without punching.

3. Layer shift

- Add supports.
- Reduce the lift speed.

4. Floccules left in resin vat or attached to models

- The exposure time is too long. Reduce the normal exposure time and bottom exposure time.

Complete the initial trouble shooting steps by referring to the following proposed solutions, or contact our technical support for additional assistance.

Cloud connection

1. WLAN connection is failed

- WLAN name or password is wrong. Please reset the network and reconnect.
- The WLAN network is unavailable. Join an available network. Then, reset the network and reconnect.

2. Fail to add printer in App

- Check "Server Location" . Users in mainland Chinese please select "China", users in other countries and regions please select "Global".

Thank you for purchasing Anycubic products! Under normal usage and service, the products have a warranty period of up to one year. Please visit Anycubic support center(support.anycubic.com/en) to report any issues with Anycubic products. Our professional after-sale service team would respond within 24 hours and solve the issues.