Manuals+ — User Manuals Simplified.

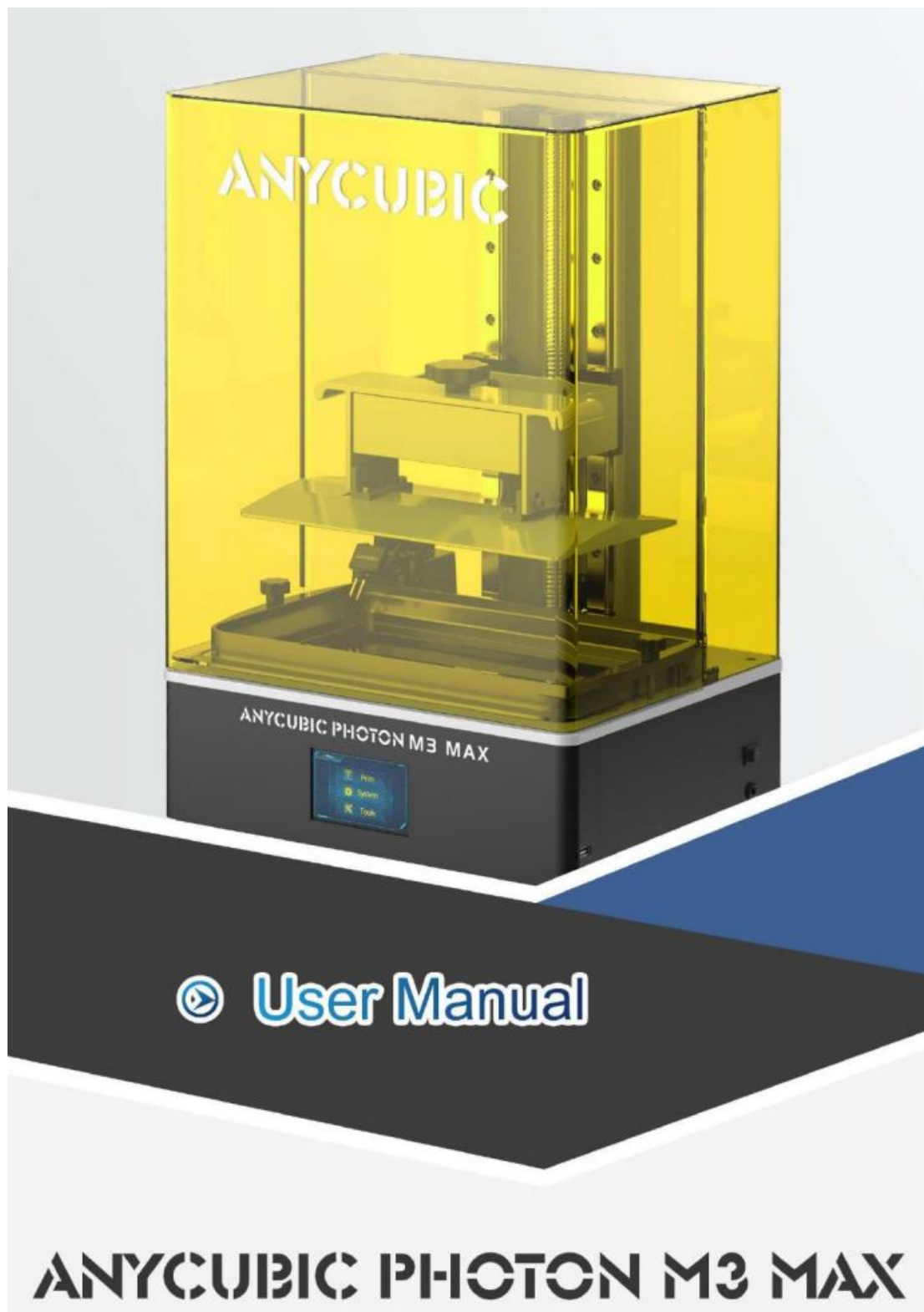# ANYCUBIC Photon M3 Max Exceptionally Large Resin Printer User Manual

ANYCUBIC Photon M3 Max Exceptionally Large
Resin Printer User Manual

ANYCUBIC PHOTON M3 MAX

Dear customer,

Thank you for choosing ANYCUBIC products.

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

Please visit **https://www.anycubic.com/pages/contact-us** to contact us if you have any question. You can also gain more information such as software, videos, models from the website.

ANYCUBIC support center

Safety Instructions
Always follow the safety instructions during assembly and usage/ to avoid unnecessary damage to the 30 printer or individual injury

Please contact our customer service first if you have any issue after receving the products.

Be cautious when using the scraper. Never direct the scraper towards your hands.

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

ANYCUBIC 3Dprinter includes moving parts that can cause injury.

It is recommended to use protection glasses when sanding the printed models to avoid eye contact with small particles.

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

Vapors or fumes may be irritating at operating temperature. Always use the ANYCUBIC 3D printer in an open and well ventilated area.

ANYCUBIC 3D printer must not be exposed to water or rain.

Operate ANYCUBIC 3D printer with a temperature of 8°C-40°C and a humidity of 20%-50%. For optimal performance, do not exceed this range. Also, avoid cirect sunlight exposure.

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

Contents

Technical Specification

Printing

System	Anycubic Photon M3 Max
Operation	4.3-inch Color TFT Screen
Software	Anycubic Photon Workshop
Connectivity	USB memory stick

Specifications

Technique	LCD Shadow Masking
Light source	UV-LED (wavelength 405nm)
XY Resolution	46 μm 6480*3600 (7K)
Z axis Accuracy	0.01 mm
Suggested Layer Thickness	0.01 ~ 0.1mm
Rated power	120 W

Physical Dimensions

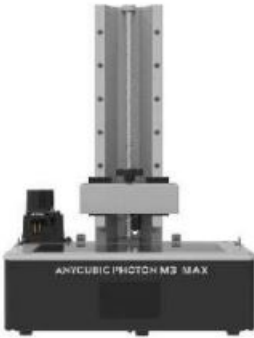|	
Dimension	400 mm (L) *408 mm (W) *596 mm (H)
Build volume	298 mm (L) *164 mm (W) *300 mm (H)
Materials	405 nm UV-resin
Net weight	~21 kg

Recommended Printing Parameters
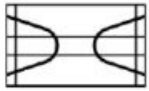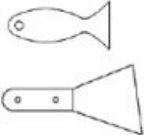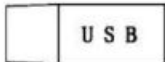
Layer Thickness	0.05 mm
Normal Exposure Time	3 s
Off Time	2 s
Bottom Exposure Time	30 s
Bottom Layers	6
Z Lift Distance	10 mm
Z Lift Speed	4 mm/s
Z Retract Speed	4 mm/s
Anti-alias	1

Note:

The recommended printing parameters above is for reference only, which is more suitable for Anycubic resin.

Packing List

Anycubic Photon M3 Max	Cover unit (screws：M3*6mm 8PCS)
Auto-feed unit (screws：M3*6mm 2PCS)	Print platform 1PC	Resin vat 1PC
Mask 1PC	Gloves 3Pairs	Funnel 5PCS	Scrapers 2PCS
USB memory 1PC	Assembly Instruction 1PC	Screen protector kit	Leveling paper 1PC
Power adaptor 1PC	Tool kit

Product Overview

Platform securing knob

Z lead screw

Platform bracket

Printing Platform

Auto-feed unit

Vat retaining screw

Resin vat

Power switch

Power port

Touch screen

USB port

ANYCUBIC PHOTON M3 MAX

Back cover

Front cover

Resin holding bracket

Air port (I)

Feeding port (II)

needles

Air port (I)

Feeding port (II)
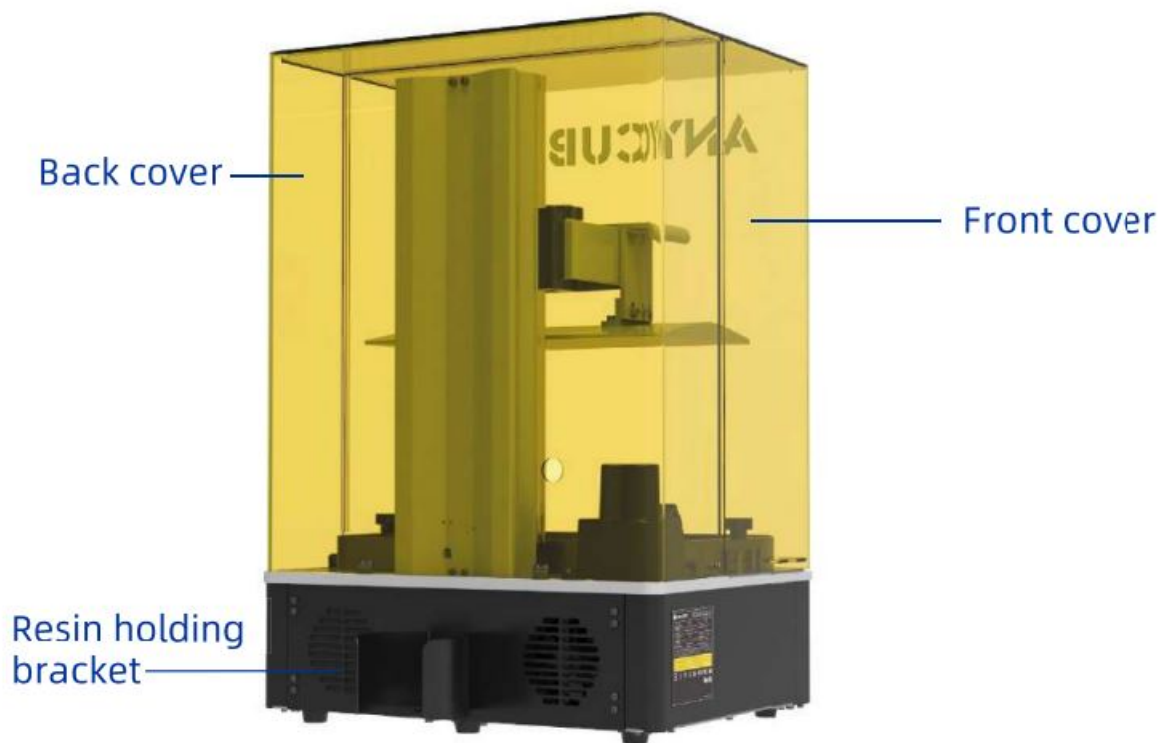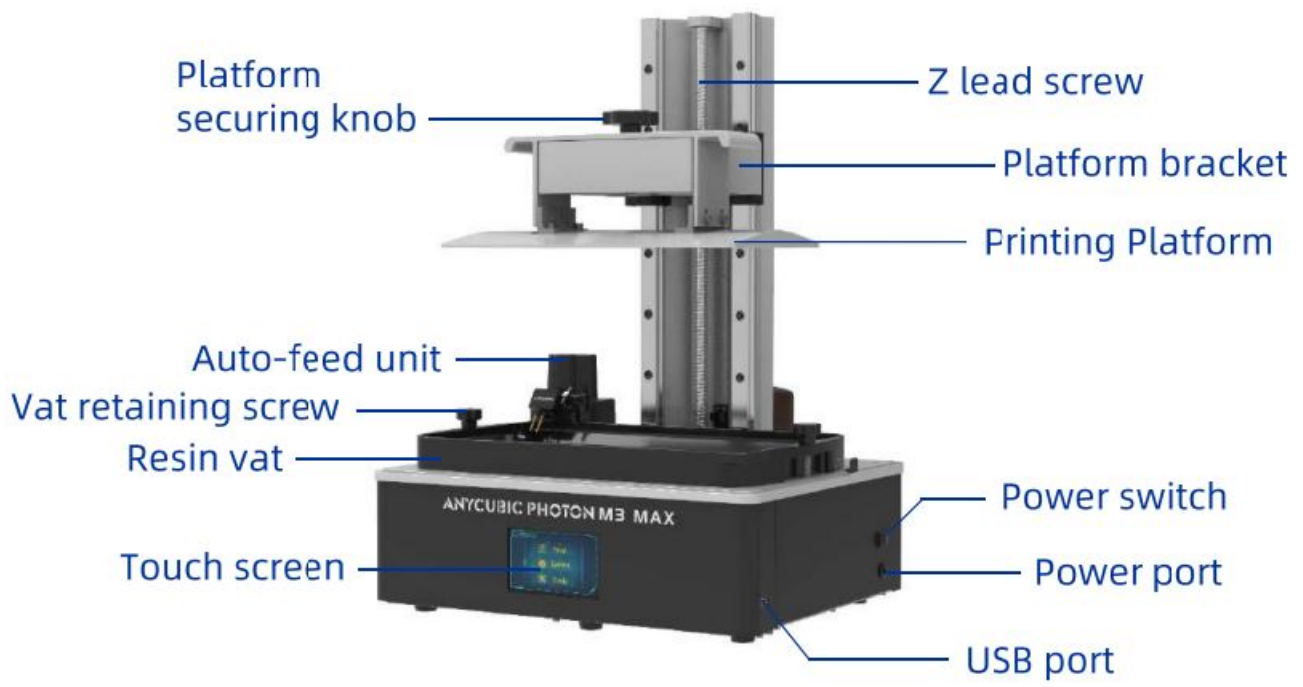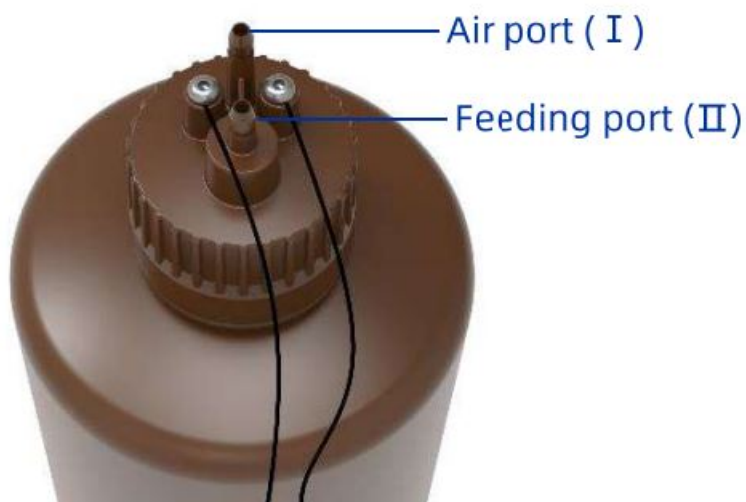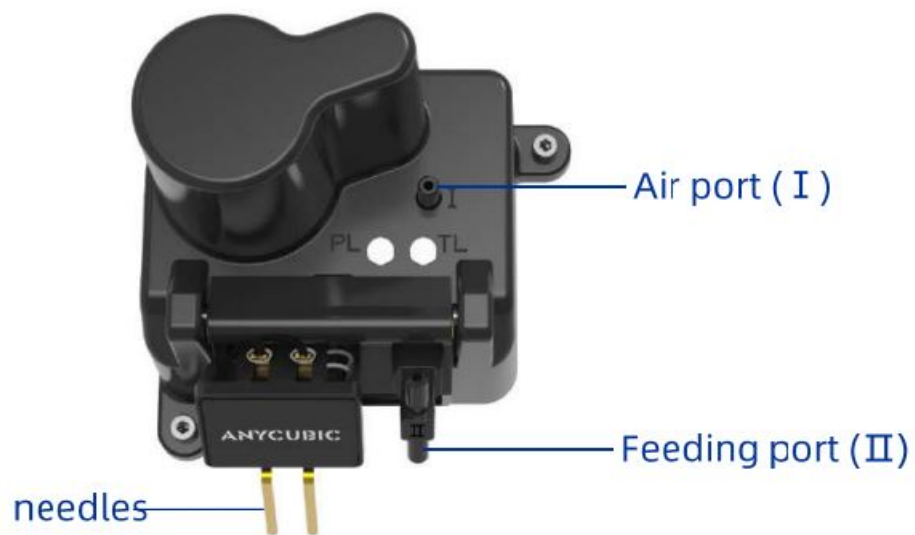
Menu Directory

Home menu
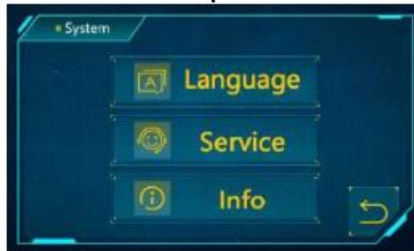
Home menu

Enter the Print Menu

Enter the System Menu

Enter the Tools Menu

Print

File List:

Switch USB file list to local file list

Page up

Page down

Return to the Home Menu

Click Files
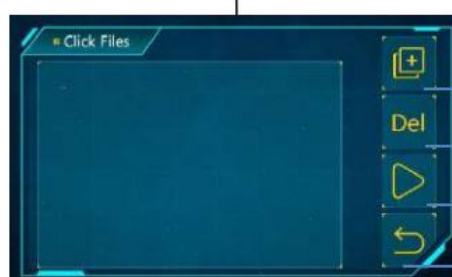
Save to local file list

Delete the current file

Click to start printing

Return to the Print Menu

System
Menu Directory
Language: Change language(English/Chinese)

Service:

www.anycubic.com — Official website

Return to the System Menu

Information:

Product system — System:

System version — Version:

Product ID — ID:

IP:

Return to the System Menu

Tools

Move Z:

Move the Z axis downwards — 0.1mm / 1mm / 10mm — Move Z by 0.1mm/1mm/10mm

Move the Z axis upwards — Return to Zero

Stop moving the Z axis — Z=0 — Return to the Tools Menu

Reset the zero point

Detection:

Please set the exposure time of the test image.

Click to set the test time — S

Test LED and LCD for the preset time — Next — Reduce the test time

Return to the Tools Menu

Increase the test time

Exposure:

Click to set the exposure time

Expose for the preset time

Select one of the images to expose

Return to the Tools Menu

Gear icon: Enter to set feeding speed
Tap icon: Enable/disable the auto-feed function
Horn icon: Turn on/off the screen sound

Assembly and Leveling Instructions

1. Unpack and remove the protective metal frame, foam and zip ties. Take out the machine and its accessories.

Cut off two zip ties
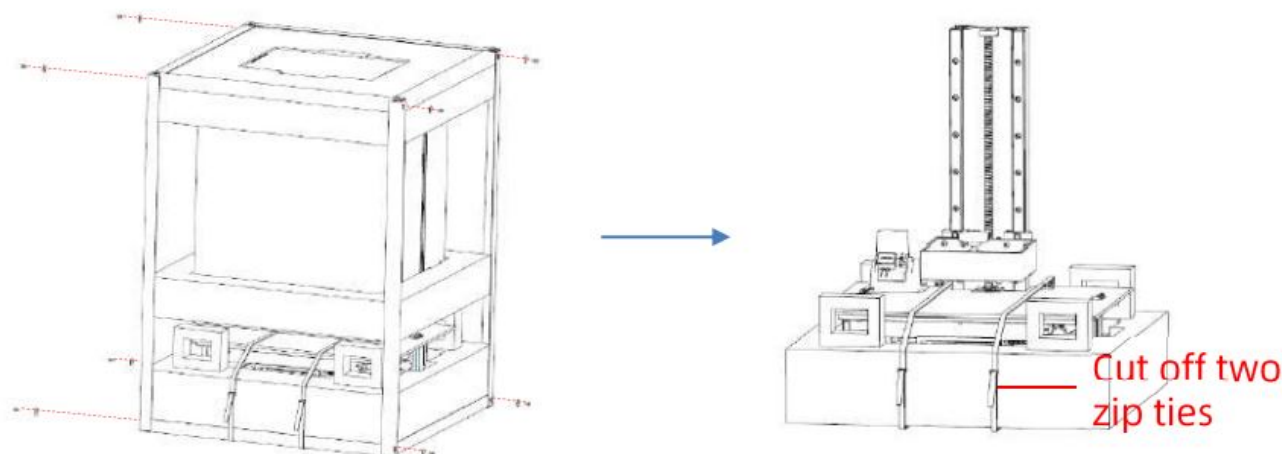
*Be cautious of metal frame's sharp edges to avoid injury.

2. Plug in power and turn on the machine. Raise Z axis to a certain height that the curing screen will not be scratched when the printing platform is installed.

3. Tear off the protective film before leveling and printing.
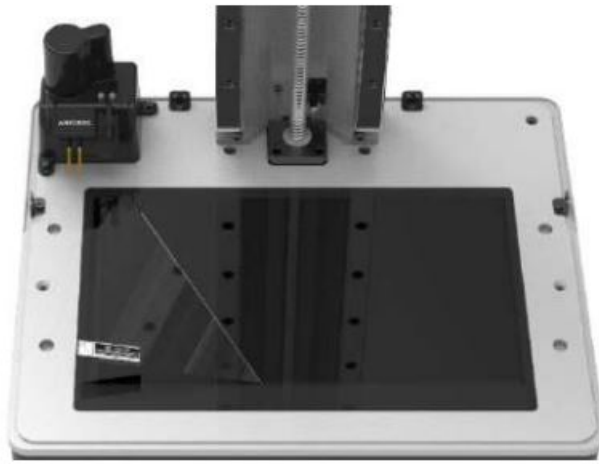
4. Loosen the four screws on the printing platform.
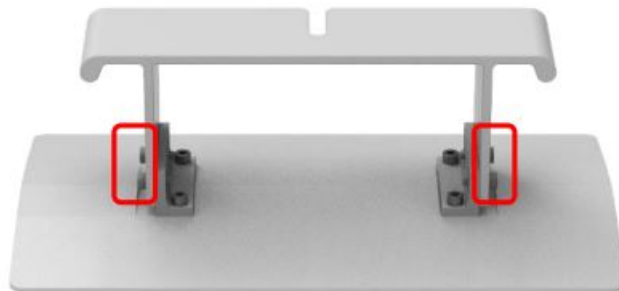
5. Install the printing platform.
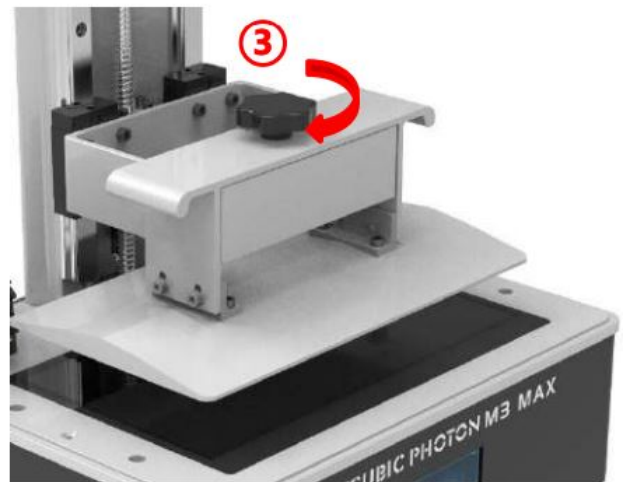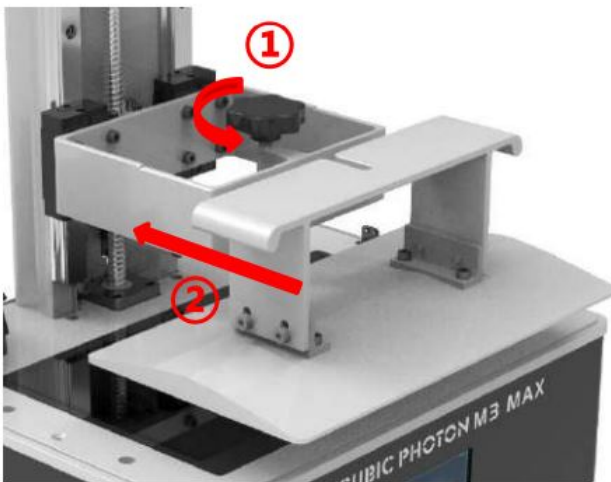
6. Place a leveling paper on the curing screen. Then click" touch screen. Wait for the Z axis to descend and stop automatically.

7. Use your fingers to press the platform gently, to let it fit evenly on the curing screen. Then, tighten the four screws on the platform.
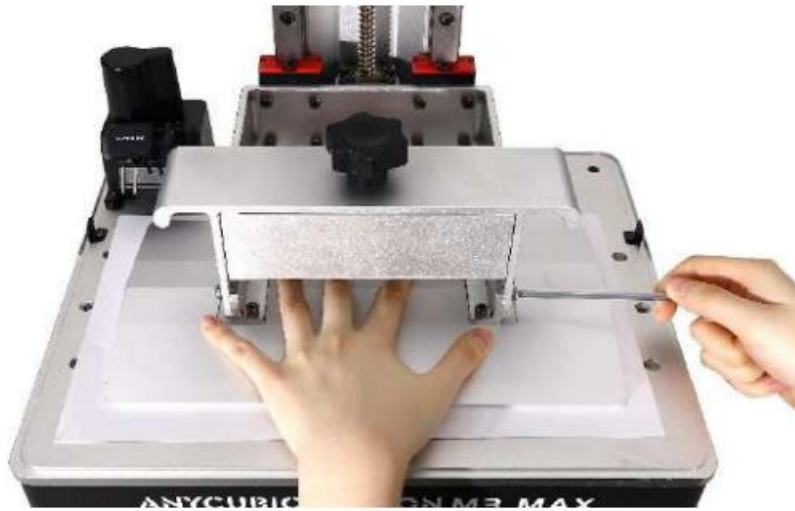
8. Click "Z=O" to save the zero position, and then click "Enter" on the popup window. Till now, the leveling process is finished. Click "Enter" again and take out the leveling paper.

9. Detection: Raise printing platform until the curing screen can be observed completely. Return to Tools menu and click "Detection", set the test time and then click "Next". The curing screen should display a complete image as shown below.
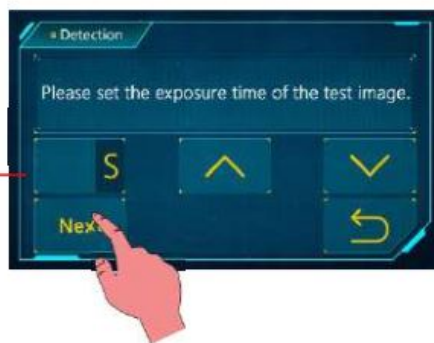
10. Install resin vat with both needles being set in it.
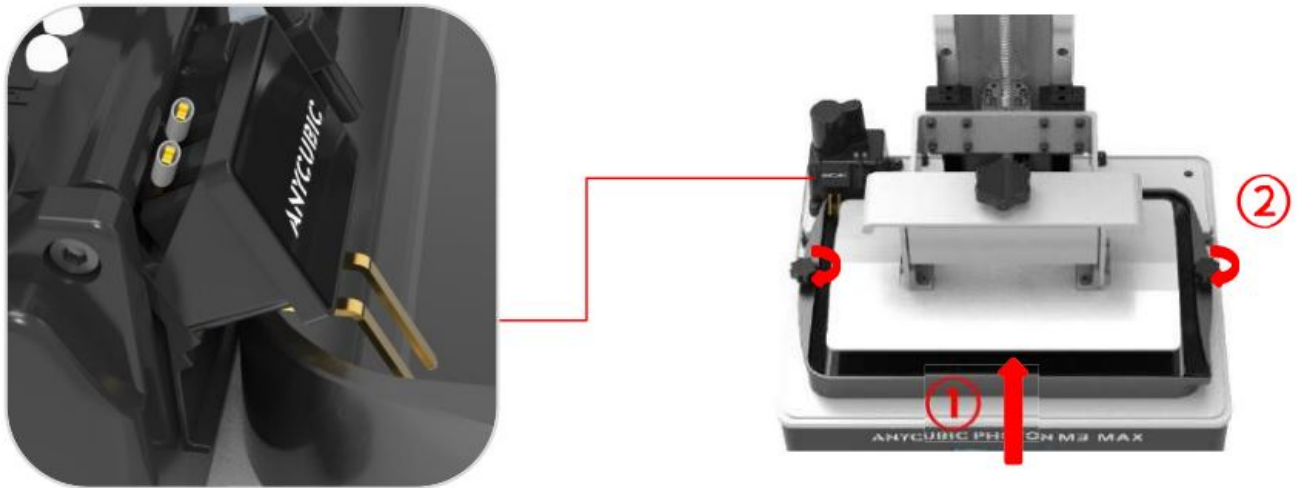
11. Install the back cover, Then, if the auto-feed unit is not needed at the moment, the installation is finished.

M3*6mm
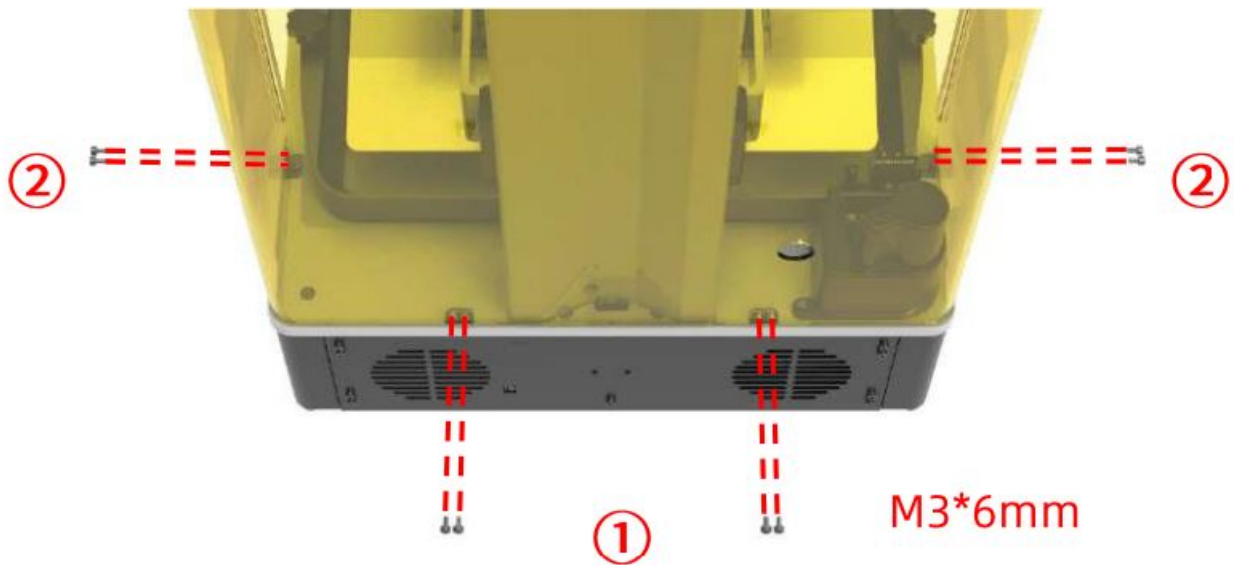
12. Turn the machine back and install resin-holding bracket first.

M3*6mm
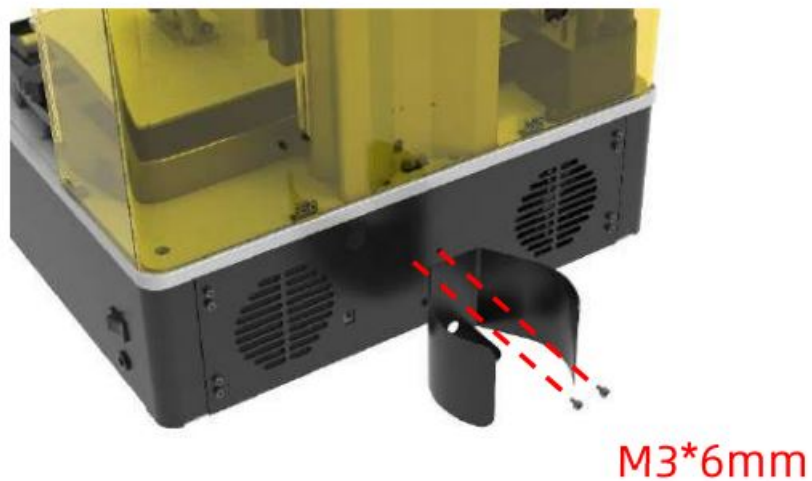
13. Put the cap part on Any cubic 1 kg resin bottle and tighten it. Place resin bottle on the bracket and connect the cap part wire to machine.
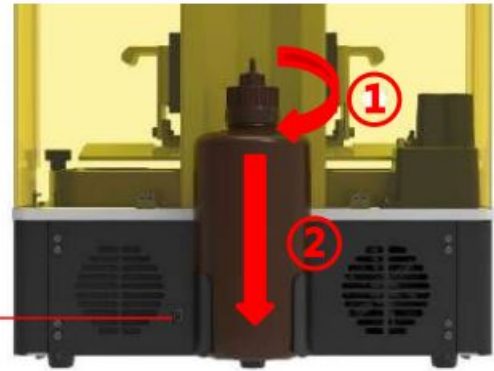
TIPS : When you change resin, it is recommended to tighten the cap through rotating bottle to avoid blockage caused by twisting pipes.

14. Pass two pipes through the limit hole on the back cover. Connect ports II with feeding pipe (black) and connect ports I with air pipe (transparent). Please completely follow this way of connection to avoid the damage of auto-feed unit.
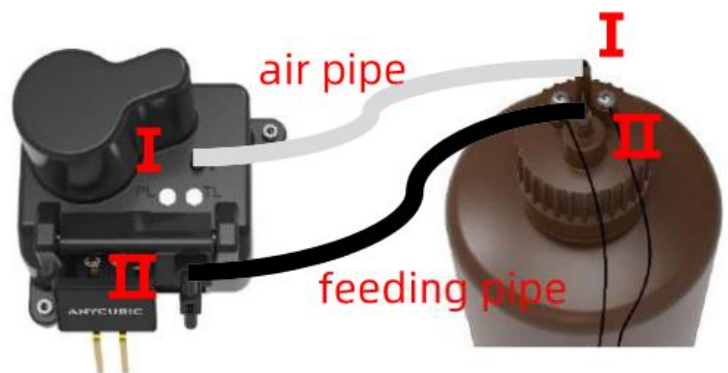
Auto-feed

1. Instructions

Ensure the auto-feed unit has been installed and the resin in bottle is enough to print. Click "Tools"~" II "to enable the function. It will feed in automatically if resin in the vat is sufficient during printing.

Click to enable
auto-feed function

- Auto-feed only works when machine is printing.
- The unit feeds every five minutes normally.
- Red light indicates that resin is not detected by needles. When needles detects resin, the light goes off.
- Green light indicates that the unit has been powered.

Detection light
Power light
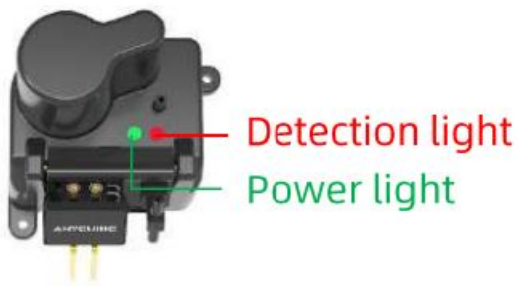
If the insufficiency of the resin in holder is detected when it is printing, the machine will beep to warn and disable auto-feed function. Please add or change resin first and enable the function in Set up if necessary.

Click to enable auto-feed function

Auto-feed

Notice:

1. If you use non-Any cubic resin, it is suggested to check whether red light goes out normally when resin reaches both needles before printing. If not, the resin cannot be automatically fed.
2. To save resin, pour the remaining resin that is out of the reach of pipes to resin vat.
3. DO NOT vigorously shake or turn over the resin bottle when cap part is installed. If the inside of cap is stained by resin, please immediately clean it to avoid malfunction or damage of auto feed unit.

2. Troubleshooting

Issues	Troubleshooting		Solution
Do not feed in during printing	Red light is off	The resin in vat reaches both needles	Wait until the resin is insufficient.
		The resin in vat does not reach both needles	The power light(green) is off, reconnect the wire under detection unit.
			Two needles touch each other. Please contact the tech support.
			Resin abnormally gets into the air pipe to cause malfunction of the unit. A replacement is needed.
Do not feed in during printing	Red light is on	Waiting status	It feeds every five minutes normally. Wait for the next feeding.
		Feeding status	The wrong connection of air pipe and feeding pipe cause malfunction of auto-feed unit. A replacement is needed.

The machine shows resin in bottle is insufficient and disable auto-feed function	Resin in bottle is insufficient		Add resin to bottle
	Resin in bottle is sufficient but machine shows feed status as "No resin in bottle!"	The two screws on the cap is loosened	Tighten the screws
		The wire connecting cap and machine is disconnected	Connect the wire to machine
		Nothing wrong with screws and wire	The resin cannot be used for auto-feed
Consistent feeding cause overflow of resin	Red light does not go off when resin reaches both needles		The resin cannot be used for auto-feed unit
	The lowest points of needles rise		Check whether you completely follow the assembly instructions
			Two needles are distorted. Please contact the tech support.

* Please contact the tech support if the troubleshooting above cannot solve your problem.

First Print Instructions

1. Print
*Please check FEP film carefully before and after every printing. If the FEP film is broken, replace it immediately to avoid further damage to machine.
Wear masks and gloves (to avoid direct skin contact with resin), and slowly pour the resin into the vat. The resin cannot exceed the vat's maximum scale.
Then, put on front cover. Insert the USB memory into the USB port, print the test file in it. (The printing time on the screen is for reference only, we make no guarantee that it is the actual printing time.)

Do not exceed the maximum scale

If it is necessary, click "Pause" to pause the printing and wait for platform rising automatically. Then click "Start" to resume printing.

click to pause

click to start

2. File list

Print file list is consist of USB driver file list and local file list. Select one USB driver file and click " a " icon in its interface to save it to local file list. The local file can be printed without USB driver.

Click to save the file to local

3. Exposure off compensation

Exposure off time is the interval between printing platform retracts to the lowest point and UV light turns on. When the exposure area is large during printing process, due to the surface tension and resin characteristic, there may be problems such as delay of z-axis or delay of resin reflowing, causing print failure. It is suggested to enable exposure off compensation to improve success rate.
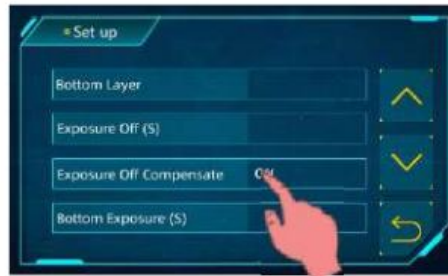
The compensation only works on bottom layers and layers with large area. In normal layers, off time is automatically added according to the area of layers; the larger the area, the longer the off time.

For large print objects, the compensation can reduce the risk of layers separation or base falling off to avoid print failure. For the smalls, it can prevent their bases from thickening.

Exposure off compensation, which is enabled by default, adds print time. If the print object or its area of layers is small, you can disable the function in Set up.

4. Handling models and residues

After printing, unscrew and remove the platform when resin stop dropping from the platform. The model can be removed by scraper. The removed model should be washed with ethanol 95vol% concentration. The printed model may need post curing to achieve better hardness by direct sunlight or UV-curing box.
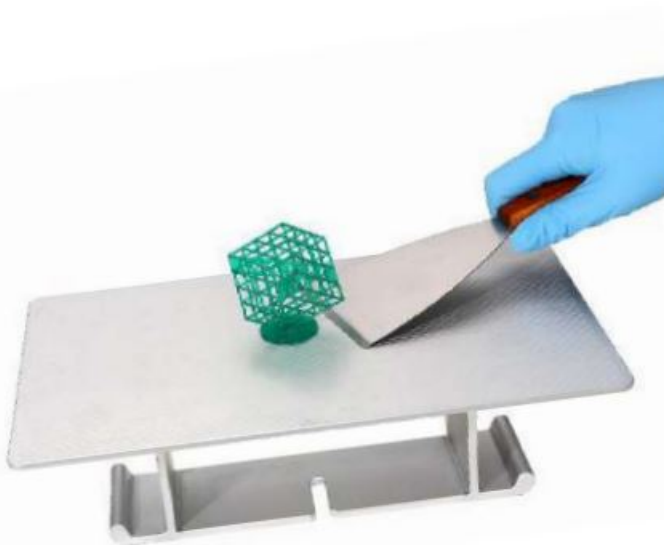
Funnel

[IMPORTANT] Inevitably, in case of incomplete curing or failed prints, there might be some cured resin left in the vat. It is suggested to filter the resin by a funnel and then store the liquid in a sealed container. The residues left on the platform or in the vat can be wiped off with paper towel.

Before each prints, please ensure there is no solid residues in the vat or on the platform, otherwise the FEP film may be crushed and broken during printing.

Slicing Software Overview

3D printer reads sliced file and prints models. It is necessary to convert 3D files (stl./obj.) into sliced files for machine to recognize. Software that realize the process is called slicing software, for example, Anycubic Photon Workshop.

Anycubic Photon Workshop can be used to export sliced file. You
should select Anycubic Photon M3 Max as machine type first, then manipulate the model and set the parameters.
Lastly, export the sliced file (.pm3m).

The instruction of Anycubic Photon Workshop has been saved in the use memory, it is recommended that read it
carefully if it is the first time for you to use Anycubic Photon Workshop.

FAQ and Machine Maintenance

1. FAQ

(1) Model do not stick to platform

► Bottom exposure time is insufficient, increase the exposure time.
► Contact area between the model and platform is small, please
add raft.
► Bad leveling.

(2) Layer separation or splitting

► The machine is not stable during printing.
► FEP film in the vat is not tight enough or it need a change for new
one.
► The printing platform or resin vat is not tightened.
► The lift speed is too fast.
► The printing object is hollowed without punching.

(3) Layer shift

► Add supports.
► Reduce the lift speed.

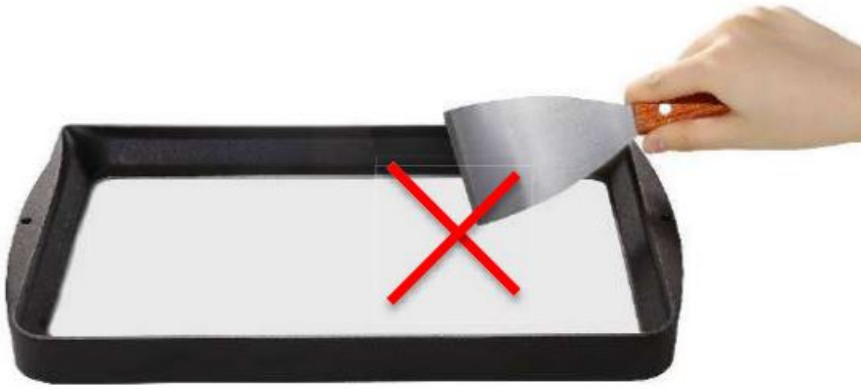#### (4) Floccules left in resin vat or attached to models

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

2. Machine maintenance

(1) If Z axis make noisy sound, please apply lubricant to z lead screw.

(2) Clean off the residues cured on FEP film when the printing fail: Set full-screen exposure for 20s and then remove the cured resin sheet to protect the film. Do not use sharp objects to scrape off the residues on FEP film.

(3) Be careful when remove the platform, do not let it fall to damage the machine.
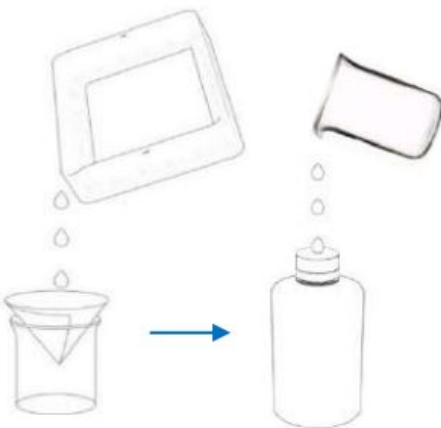
(4) Do not left resin in resin vat for over two days when it is unused. Please filter and store the resin properly.

(5) After printing, please clean up the platform (wipe with paper towels or wash with alcohol), and ensure no residue left (filter the residue with funnel).
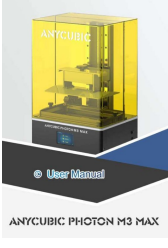(6) If the body of printer is stained with resin, use alcohol to clean.
(7) Please clean the resin vat first before you change resin.

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

issues.

Documents / Resources

ANYCUBIC Photon M3 Max Exceptionally Large Resin Printer [pdf] User Manual
Photon M3 Max Exceptionally Large Resin Printer, Photon M3 Max, Exceptionally Large Resin
Printer, Resin Printer, Printer

References

- 🐬 **After-sales service**
- ◆ **Contact Us | ANYCUBIC 3D Printing**