USER MANUAL

APPLICABLE TO UBEE

UNIZ TECHNOLOGY LLC

DISCLAIMER

Please read and understand the contents of this installation and user manual.

Failure to read the manual may lead to personal injury, inferior results or damage to the printers. Always make sure that anyone who uses the 3D printer knows and understands the contents of the manual to make the most out of your printer.

The conditions or methods used for assembling, handling, storage, use or disposal of the device are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, injuries, damage, or expense arising out of or in any way connected with the assembly, handling, storage, use or disposal of the product. The information in this document was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

Intended use

UBEE Series 3D printers are high precision, high-speed 3D printers. Based on Stereo lithography Apparatus (SLA) modeling for various high quality photopolymer resins within a commercial/business environment. The combination of precision and speed makes the UBEE Series 3D printers the perfect machines for concept models, functional prototypes, and also the production of small series.

UNIZ does not warrant that the operation of the Hardware Product will be uninterrupted or error-free. UNIZ is not responsible for damage arising from failure to follow instructions relating to the Hardware Product's use.

UNIZ’s warranty does not apply: a) To damage caused by use with non-UNIZ products including third-party resins; b) To damage caused by accident, abuse, misuse, flood, fire, earthquake, or other external causes; c) To damage caused by operating the Hardware Product outside the permitted or intended uses described by UNIZ; d) To damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of UNIZ; e) To a Hardware Product or part that has been modified to alter functionality or capability without the written permission of UNIZ; f) To consumable parts, unless damage has occurred due to a defect in materials or workmanship; g) To cosmetic damage, including but not limited to scratches, dents; or h) If any UNIZ serial number has been removed or defaced. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR COUNTRY TO COUNTRY. UNIZ's RESPONSIBILITY FOR HARDWARE DEFECTS IS LIMITED TO REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY UNIZ IN ITS SOLE DISCRETION.

User Manual Version: V1.1

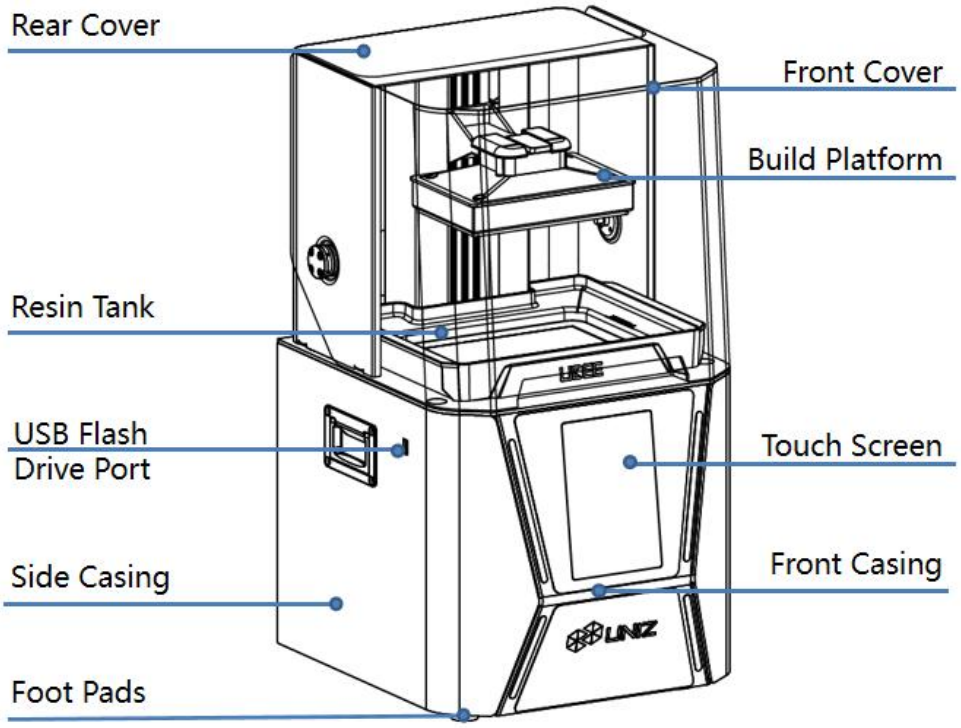
TABLE OF CONTENTS

A UBEE 3D PRINTER

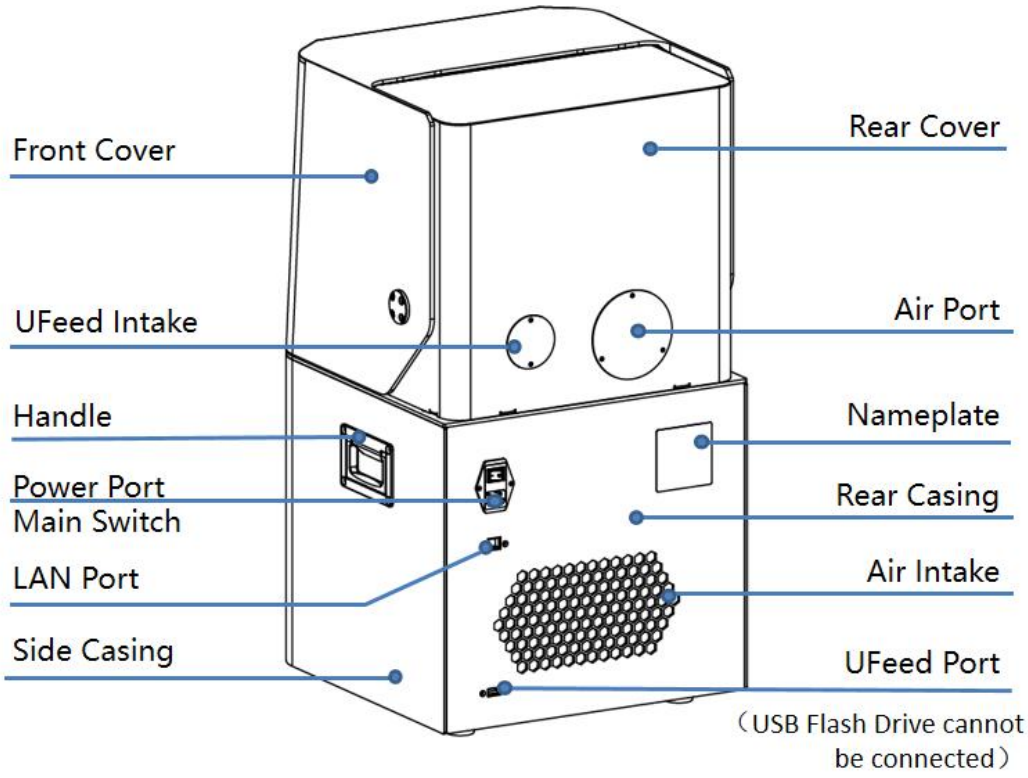
This user manual is designed to help you start your **UBEE** 3D printer experience. Learn everything about using your printer by following the instructions in this user manual and experience how easy it is to produce great quality prints.

You might be familiar with other types of 3D printers. Regardless, it is still essential that you read this manual carefully in order to make the most out of your printer.

MEET THE PRINTER



FRONT


Front Cover
Rear Cover
UFeed Intake
Air Port
Handle
Nameplate
Power Port
Main Switch
Rear Casing
LAN Port
Air Intake
Side Casing
UFeed Port
（USB Flash Drive cannot be connected）

BACK

SPECIFICATIONS

UBEE		
PRINTING	Printing Technology	Masked Stereolithography (MSLA)
	Build Volume	198 × 124 × 180mm 7.8" × 4.9" × 7.1"
	XY Resolution	34 μm
	Maximum Accuracy*	±10μm
	Layer Thickness (Z resolution)	10-200μm (25, 50, 100μm recommended)
	Separation Mechanism	Patented low force stereo peeling technology Micro-stereo composite peeling structures Unit （MPS）
	Support	UNIZ Smart Support Technology
	Printing Speed**	8 dental models in 5 minutes
HARDWARE	Dimension/Weight	383 × 425 × 712 mm [W×H×D] 15.1" × 16.7" × 28",34KG/75LB
	Operating Temperature	18–28° C (64–82° F)
	Operation Humidity	30-70% RH
	Power Requirement	110V 6A/220V 3A 60Hz/50Hz
	Optical System	5th Generation Collimated Light Source
	Mechanical	Injection Molding & CNC, Sheet Metal
	Connectivity	USB Flash Drive, Wi-Fi, Ethernet
	Control Pannel	7" Touch Screen
	Slice Format	zslr

* Maximum accuracy is only achievable at integer multiples of smallest pixel sizes.
**The printing efficiency is based on the test model, it may differ from one to another.

B GET STARTED

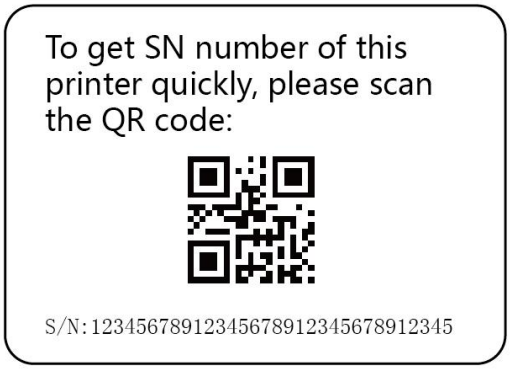
After receiving your printer, you're ready to unpack it and set it up! Carefully unpack your printer and set it up according to the following instructions.

UNBOXING

The printer comes in reusable, durable packaging that has been specially designed to protect your printer in transport. To properly unpack your printer, please follow the steps described below.

START UNBOXING

You can scan the QR code on the packaging box to get the SN number of your printer, the following is an example:



OPEN IT UP

① Open the top of the carton and take out the Resin Tank Cover and User Manual.

② Remove the four handle locks around the bottom of the box.

③ Use the holders to lift the upper box up, and leave it to the side.

REMOVE THE FOAM PACKAGING

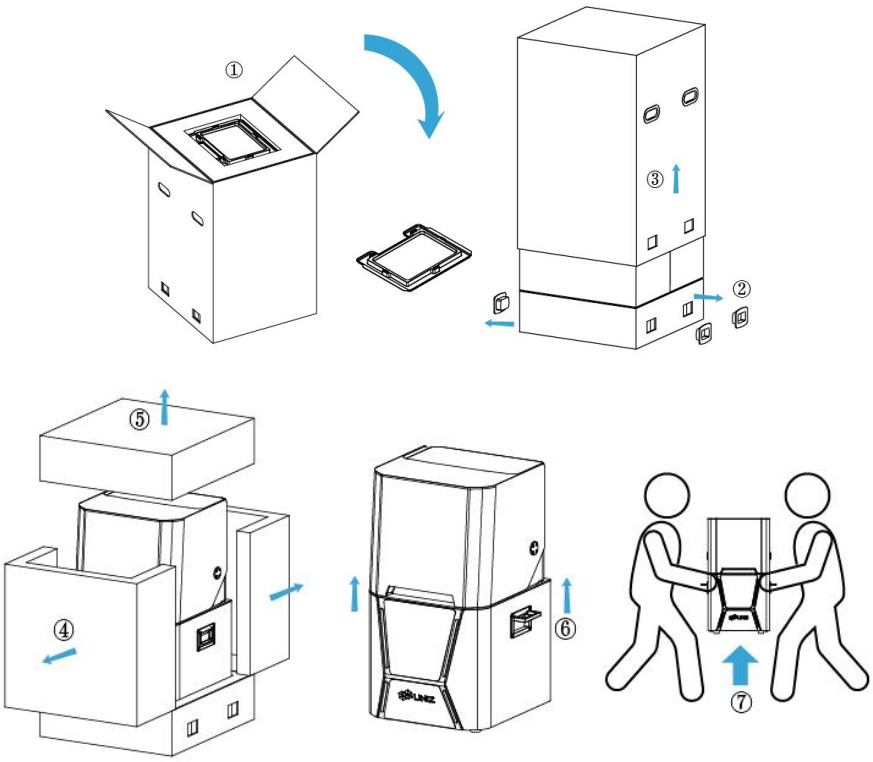
④ Remove the front and back foam.

⑤ Remove the top foam.

TAKE THE PRINTER OUT

⑥ Remove the plastic wrap, then flip out the two handles on the sides of the printer.

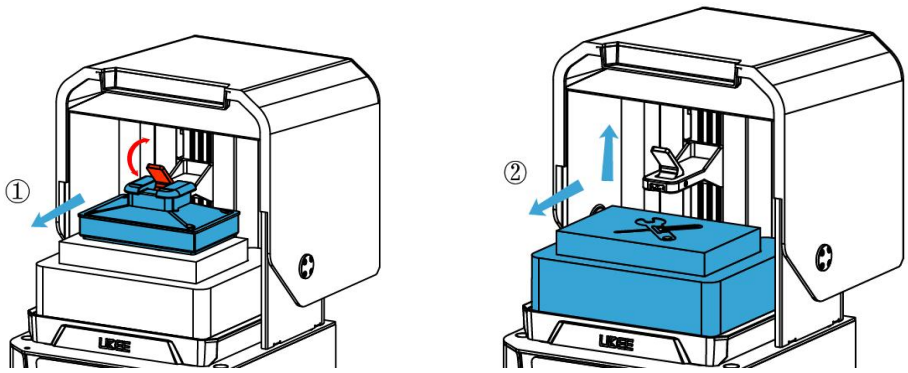
⑦ Hold both handles and lift the printer out of the bottom foam BY TWO PEOPLE. Put the painter on a sable table and flip the handles back.



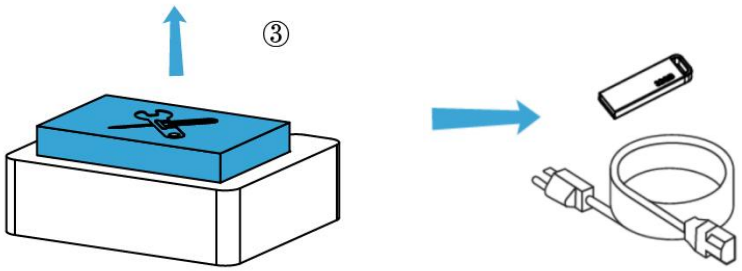
POWER ON

① Open the Front Cover, rotate the Platform Locking Arm upward to unlock it, and then pull out the Build Platform.

② Take the accessories box and foam out.



③ Remove the foam, take power cable and USB Flash Drive out.



SOFTWARE PREPARATION

Open web browser and input *https://www.uniz.com/software*.

Choose the software according to your corresponding system and download the UNIZ DENTAL installation file.

INSTALLATION

Windows

UNIZ DENTAL supports Windows 7 and above. Please follow these steps:

1. Double click the installation program.

2. Check the user agreement, and then follow the prompts to finish the installation.

Mac

UNIZ DENTAL supports Mac OS X 11.4 and above. Please follow these steps:

1. Double click the installation program.

2. Agree to the user agreement.

3. Drag UNIZ to your Applications folder.

Note: Once your computer is connected to the Internet, UNIZ DENTAL will detect new versions automatically and prompt whether you wish to update.

C INTERFACE INFORMATION

You may check the information of your printer, control the printer, and start printing projects using the touch screen on the front of UBEE.

Power on and wait until the animation ends.

MAIN INTERFACE

There are four main functions: Standby, File List, Tools, Settings.

The main interface will display the connection status of the Build Platform and the Resin Tank, indicating yellow when not installed. Additionally, it will show information such as Print Area, Resin Tank Lifespan, Temperature and Humidity.

Notes:

1. Some functions have 1~3 pages to introduce the details. Please read carefully and follow the instructions.

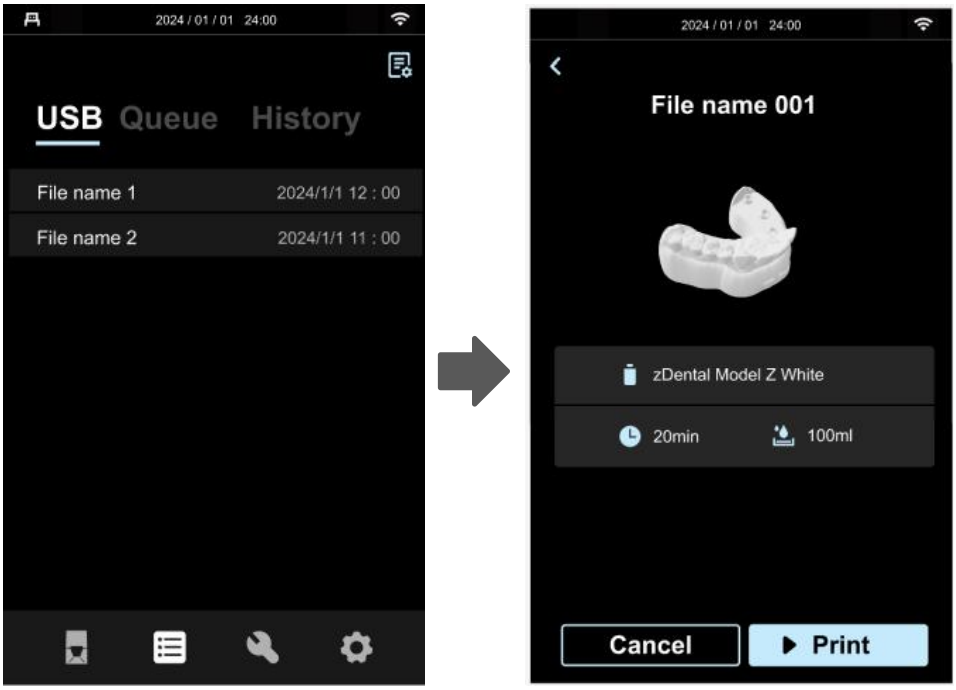
2. Some interfaces need to input all checkboxes  to the next step.

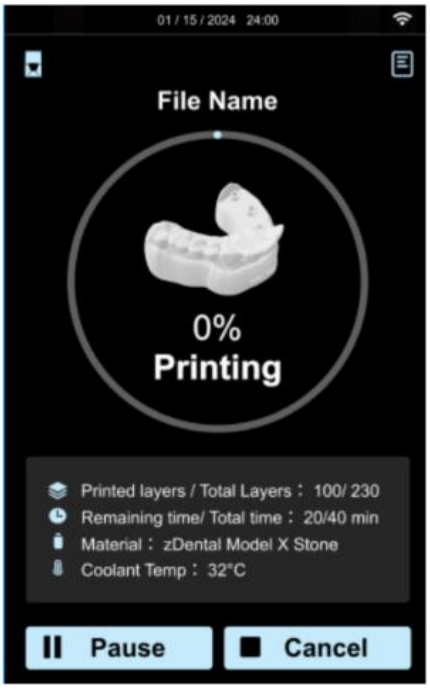
3. The user interface content may vary slightly due to UI & Firmware version upgrades. Please refer to your device's the latest operating interface for the most accurate information.

PRINT

PRINT WITH USB Flash Drive

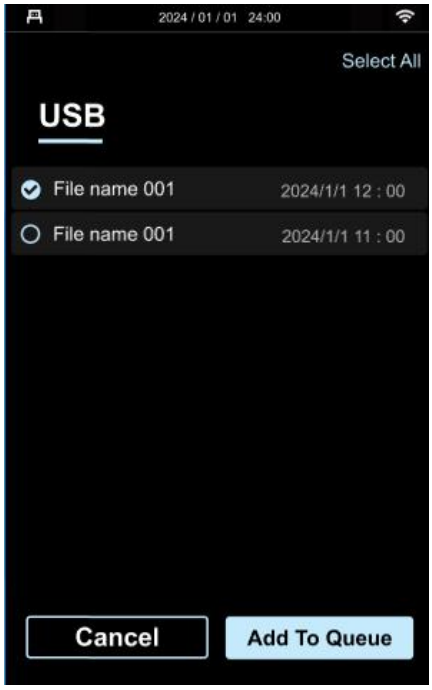
UBEE supports USB Flash Drive printing. You may use UNIZ Dental to slice the model on your PC then save it to your USB Flash Drive. Plug the USB Flash Drive into the USB port on the left of the printer, then choose the files you want to print and click the **Print** button. The printer will enter into the print details interface.

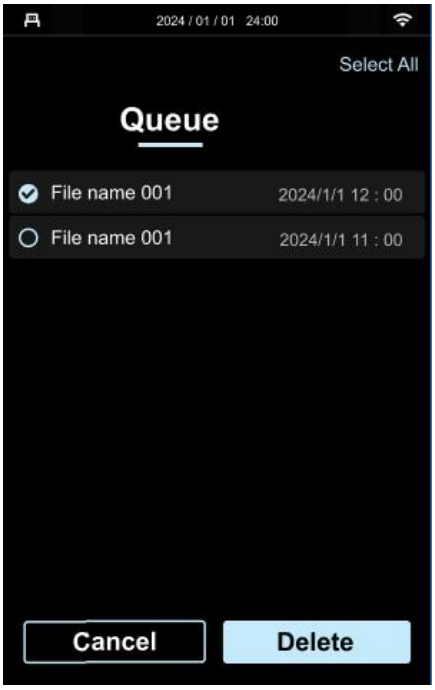




In this interface, you may check the preview and printing parameters of the print. Also you may **pause/print** or **cancel** the printing program by clicking the buttons at the bottom.

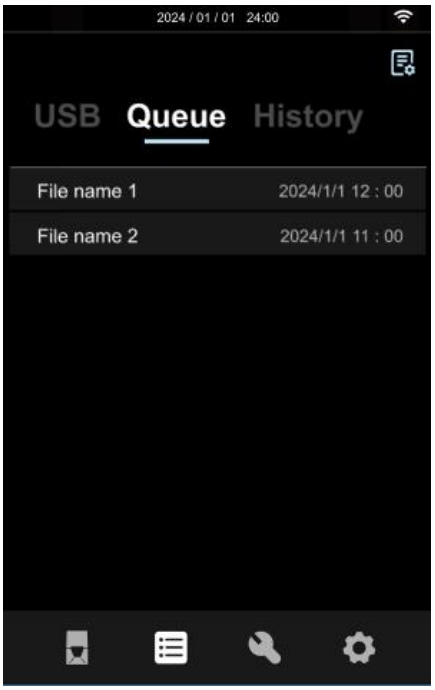
You can also select a slicing file and click the "**Add to Queue**" button to copy the file from the USB Flash Drive to the queue.
You can also choose a slice file and use the **Delete** function button to remove queue files individually or entirely.





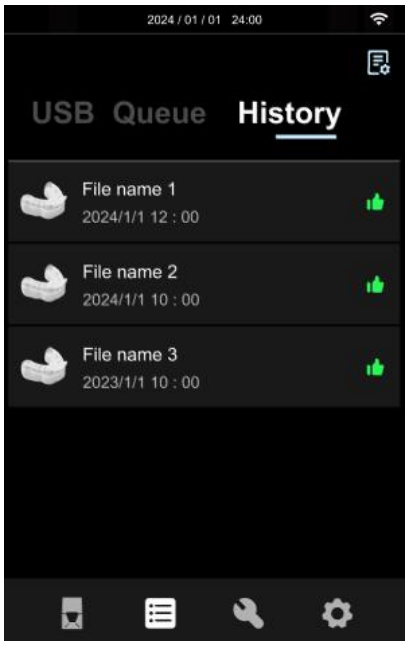
PRINT QUEUE FILES

Click the queue function in the middle, you can see queue files in the printer, select the file you want to print, and then click the **Print** button, the printer will enter the print details page interface.Files in the queue will enter to History after printing.



HISTORY FILES

The printed file will enter history interface. While print success, it will displayed , however, print failure will displayed . All File listed in the history interface can be reprinted.



To ensure optimal printer performance in low-temperature environments, the system will automatically activate the preheating function. Note that preheating takes extra time, and it is recommended to use the printer in temperature controlled environment.

The system will detect the coolant temperature. If the temperature is below the target temperature (default is 25°C), it will start heating until the coolant temperature exceeds the target temperature and maintains it for 100 seconds or until the user clicks "**Cancel**". Then, it will stop heating and begin printing.

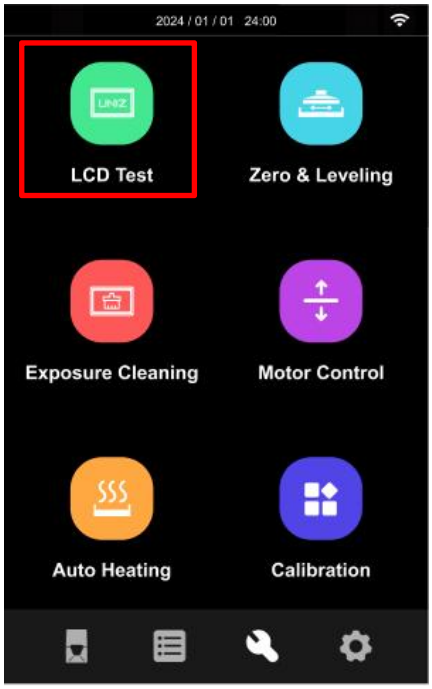
If the coolant temperature is above the target temperature, it will start printing directly.

During printing, the system will automatically monitor the coolant temperature. If the temperature drops below the target temperature, heating will be activated.

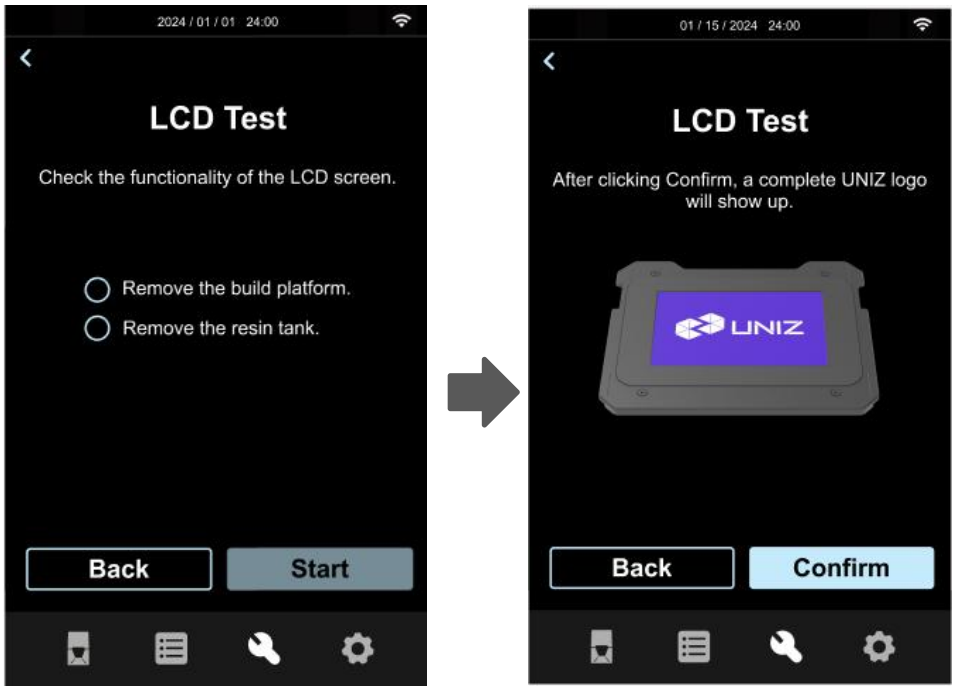
TOOLS

LCD TEST

The LCD TEST function is to ensure the proper functioning of LCD screen.



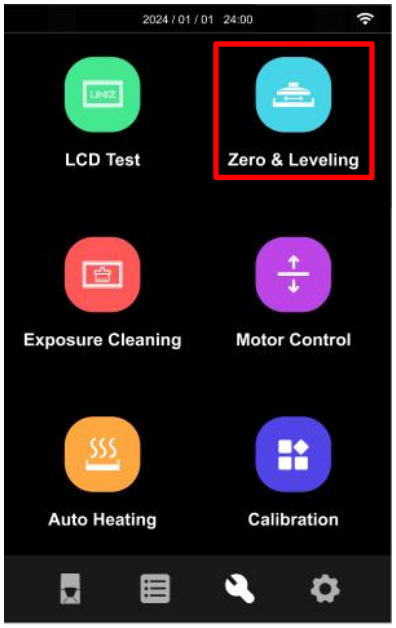
Click **LCD Test** you will see the UNIZ Logo appears on the LCD screen.



RESET Z-AXIS ZERO POSITION AND LEVEL THE BUILD PLATFORM

When installing a new Build Platform or if printing models fail to adhere properly, reset the Z-axis zero position and level the Build Platform. Use the provided cross screwdriver to make precise leveling adjustments.

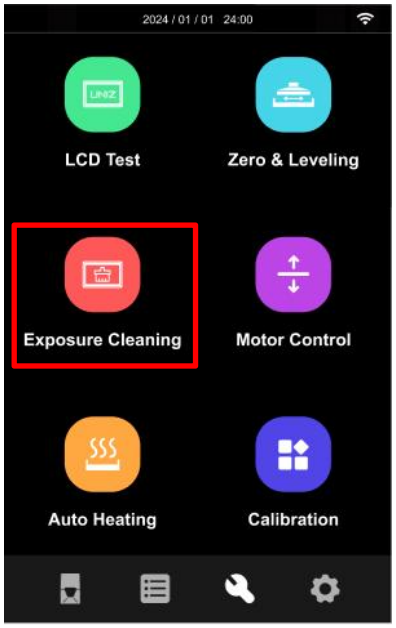
It is recommended to calibrate the sensor before leveling.



Note: Please refer to Chapter **D** for details.

EXPOSURE CLEANING

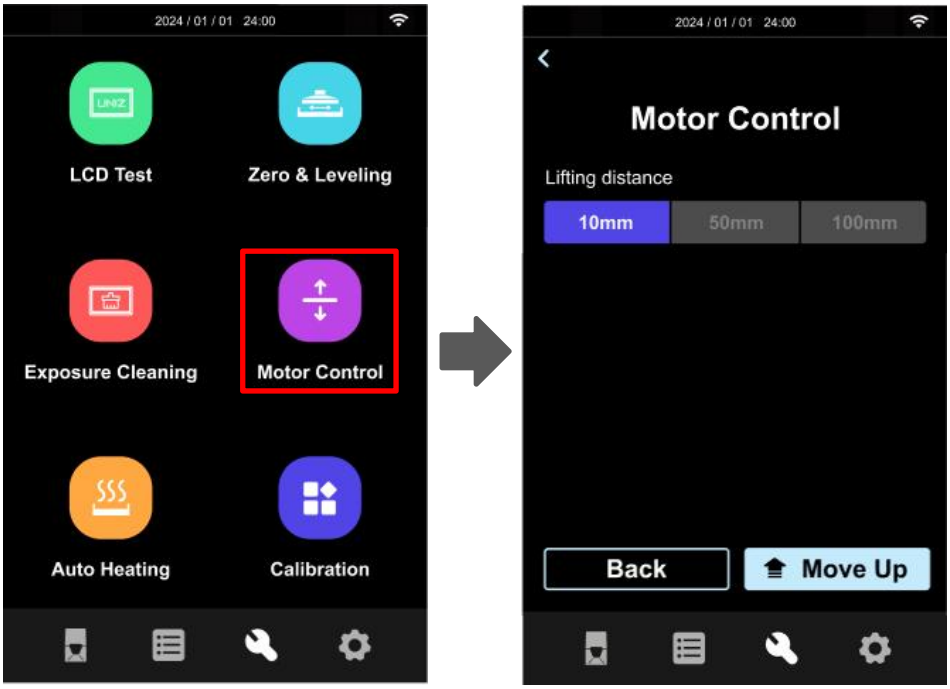
When a failed print occurs, resulting in some residues left in the bottom of the Resin Tank, you will need to expose the Resin Tank to clean the residue. After that, please wear nitrile gloves and take the solidified piece out.



Note: Please refer to Chapter **D** for details.

MOTOR CONTROL

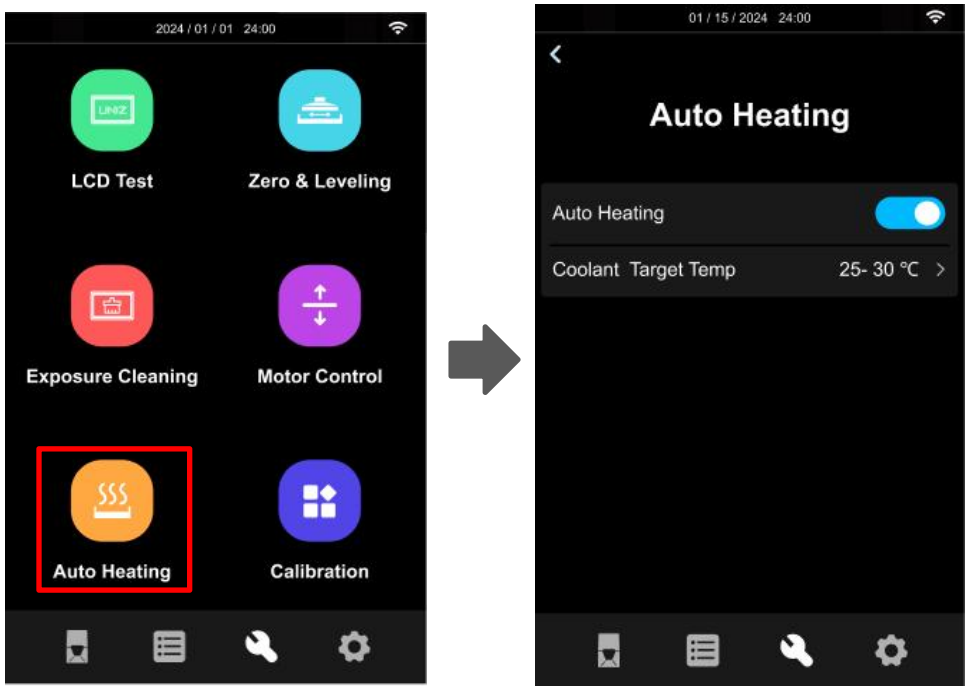
To move the Build Platform upwards, choose a distance (10/50/100mm) first, and then click **Move Up**.



AUTOMATIC PREHEATING

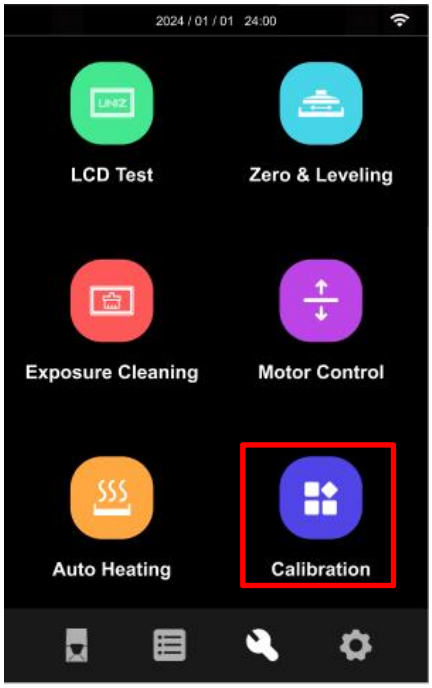
To ensure optimal printing results, the preheating function will be activated before printing. This will heat the resin at the bottom of the Resin Tank to the optimal printing temperature of approximately 25°C.

1. Auto preheating is disabled by open, and remain the same status to the last use.
2. When the coolant temperature is below 25°C, it will be heated to 25°C~30°C with the LCD liquid circulation system.



CALIBRATION

To ensure accurate pressure sensor detection results, it is necessary to calibrate the device using the calibration tool after a certain period of use or whenever the sensor shows abnormalities.



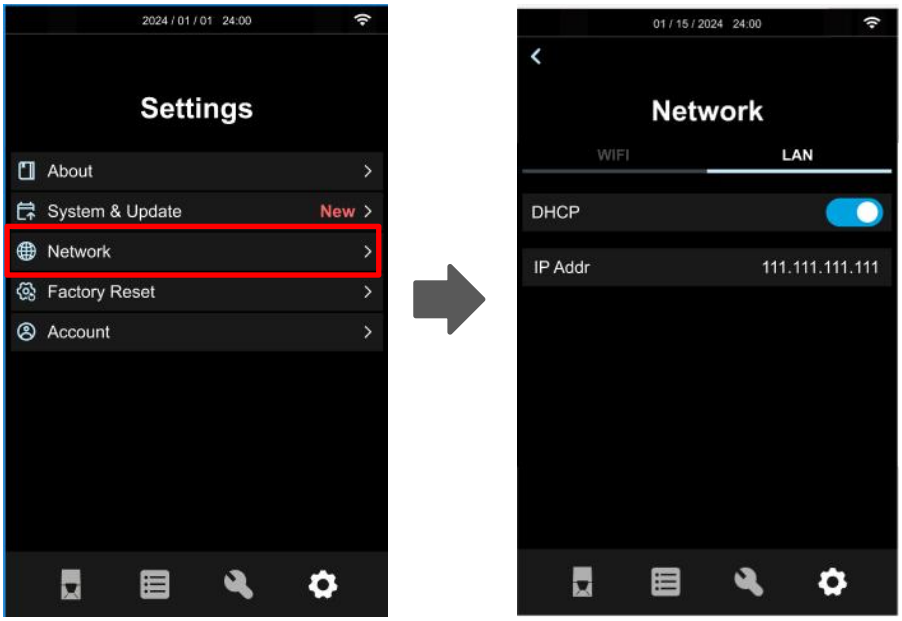
Note: Please refer to Chapter **D** for details.

SETTINGS

SETUP LAN

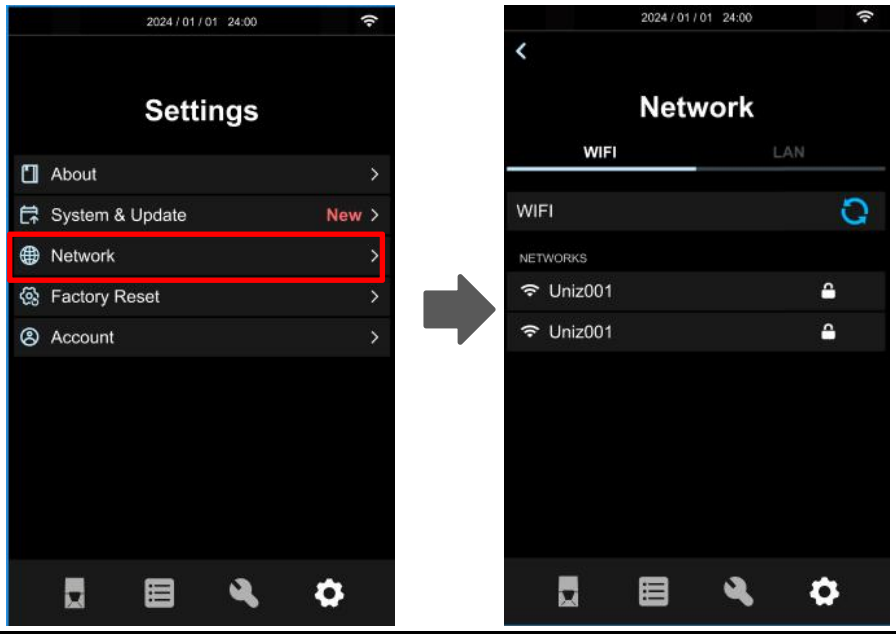
Connect the printer with your router via an Ethernet cable. Go to the SETTINGS menu. Click **LAN** button. Set to AUTO mode. Then the printer will get the IP address automatically.

If you set AUTO mode off, you will need to type IP address, Netmask, Gateway and DNS manually. Then click **Connect**. When you could see the Ethernet icon at the top right corner of the screen, it means the printer in connected with network.



SETUP WIFI

You could connect the printer with your router via Wi-Fi. Go the SETTINGS menu. Click **WIFI**, there will be a list of available Wi-Fi. Choose the Wi-Fi network and enter the password. Click **CONFIRM**. When you see the IP address shown, it means the printer is connected well to the Wi-Fi network. There should be a Wi-Fi icon appearing at the top right corner of the screen.

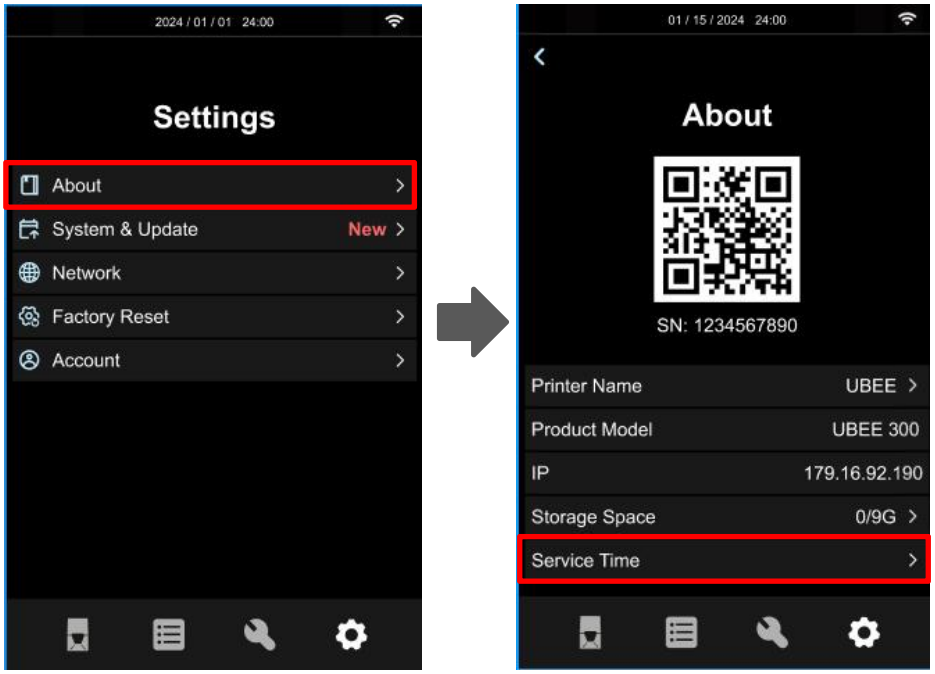


SYSTEM

Enter **Settings** menu and click **About**.

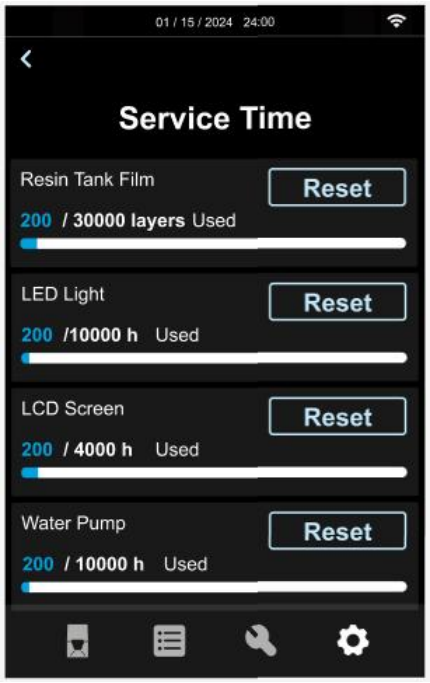
1. On this screen, you can view the local storage usage and SN of the machine, or scan the QR code to obtain the SN.

2. You can also set the nickname of the printer in this interface.

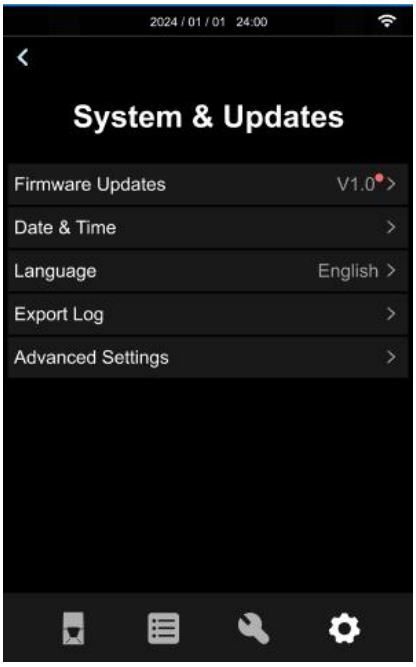


3. Click **Service Time** to access the parts usage statistics interface. This displays the total working hours for four key printer components: Resin Tank Film, LCD Screen, LED Light, and Water Pump.

After replacing any of these parts, click the **Reset** button to reset the corresponding time counter.

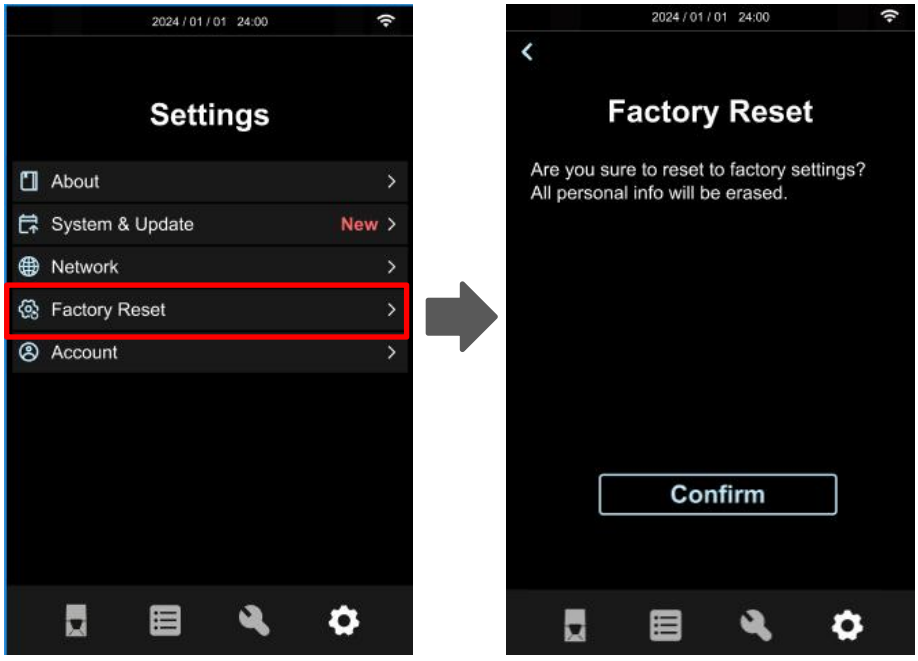


4. If you need to check the current firmware version, upgrade firmware, set time or select a language version, please click **System&Updates**.



Note: Insert the provided USB flash drive into the USB interface on the left side of the machine, then click "**Export Log**" The system will save the relevant information of the recently completed printing task in" txt" format to the root directory of the USB Flash Drive.

5. Clicking **Factory Reset** will restore the machine to its original factory settings and delete all personal information.



Note: The factory reset function will clear network settings, remove printer nicknames, delete local files, reset working time counters for the resin tank, LCD, LED, and water pump, however, it will not affect: printer light intensity calibration parameters and firmware version. Please use this function with caution, as the deleted information cannot be recovered.

D USAGE AND MAINTENANCE

In order to get a great work with UBEE 3D printer, it is important to maintain it correctly. In this chapter the most important maintenance tips are described. It is recommended to read them carefully in order to achieve the best results with your printer.

PRINTER PLACEMENT AND LEVELING

Pull out the clasp on the side of the printer and position the machine on a smooth table surface to ensure stable placement.

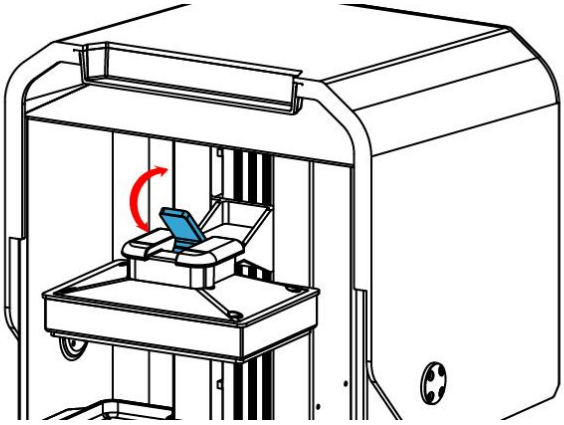
Note: Store the machine in an indoor environment, away from direct sunlight exposure.

BUILD PLATFORM

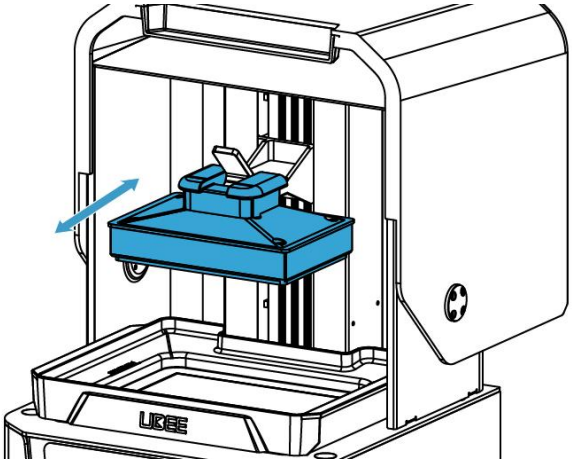
The Build Platform is the platform where the first layer of the model burns in-to, its levelness and roughness are crucial to successful prints.

INSTALLATION AND REMOVAL OF BUILD PLATFORM

1. To unlock the Build Platform, lift the Platform Locking Arm upward. To secure the Build Platform, press the Platform Locking Arm downward until it locks into place.



2. Install or remove the Build Platform.

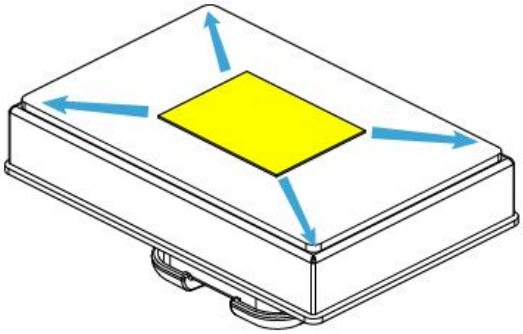


SANDING BUILD PLATFORM

The surface of the Build Platform will be smooth after a long time of use, resulting in poor model adhesion and printing failures. To fix this problem, users need to sand the Build Platform.

1. Clean the Build Platform surface with alcohol.

2. Sand the surface into a grid shape with the sandpaper delivered with the machine.

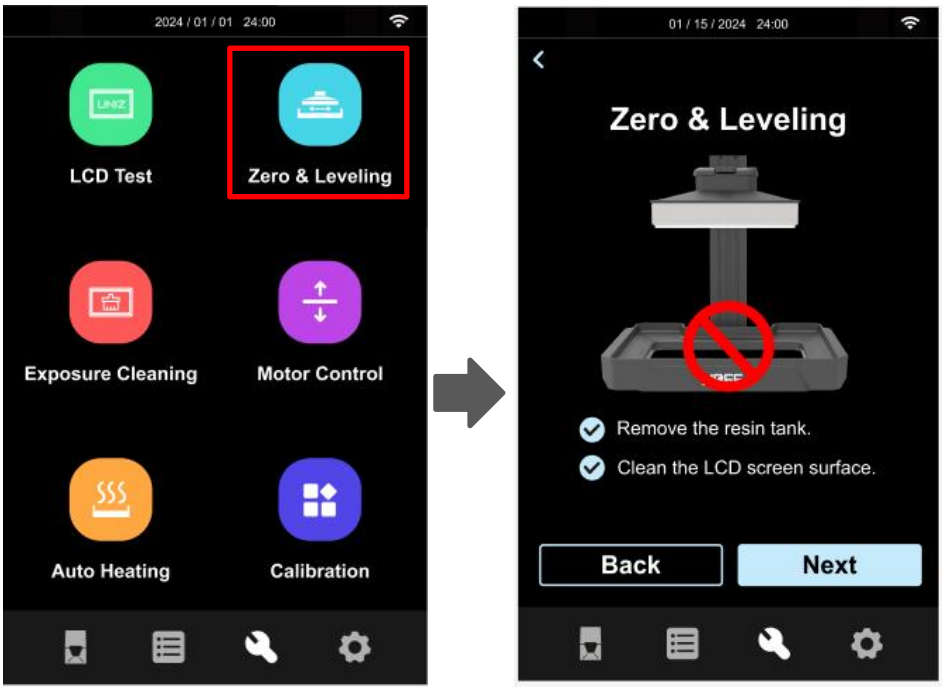


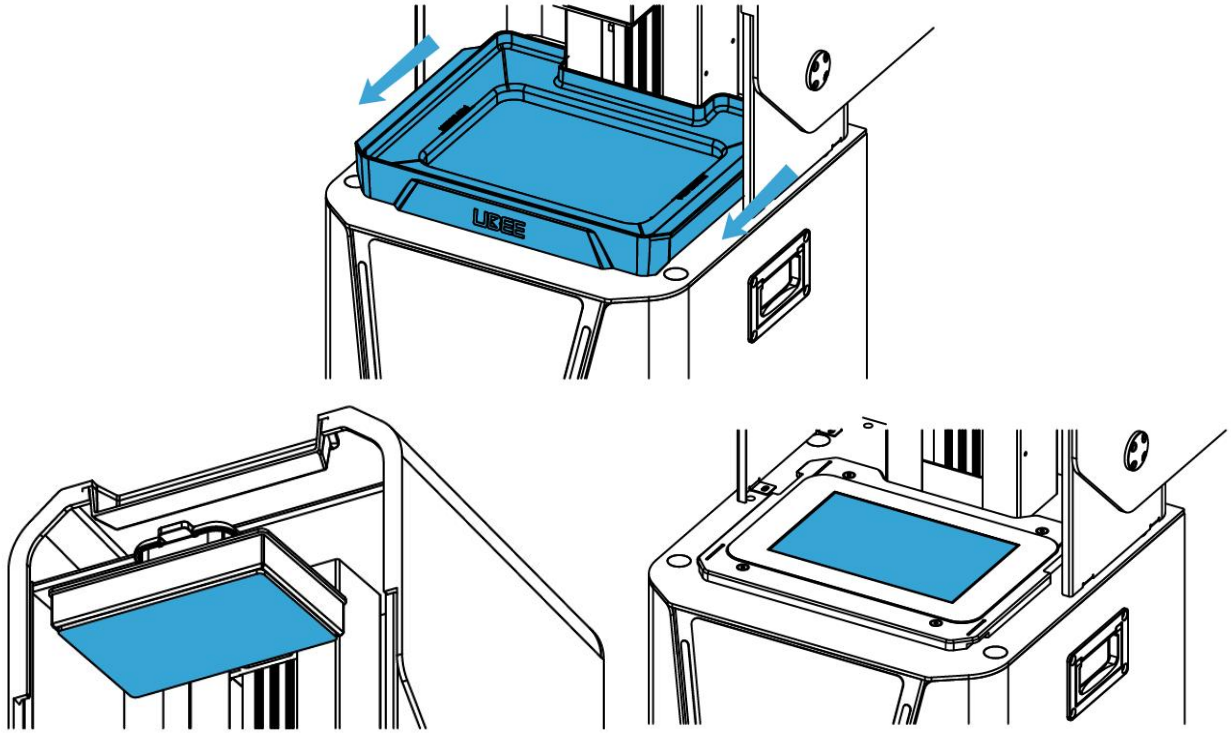
3. Clean the Build Platform with alcohol and a soft cloth again to make sure there is no residue left.

RESET Z-axis ZERO POSITION AND LEVEL THE BUILD PLATFORM

1. Prepare the cross screwdriver in the accessory box coming with the printer.

2. Click **Tools** > **Zero & Leveling**, remove the Resin Tank, and ensure that the bottom of the Build Platform and the screen surface are clean.



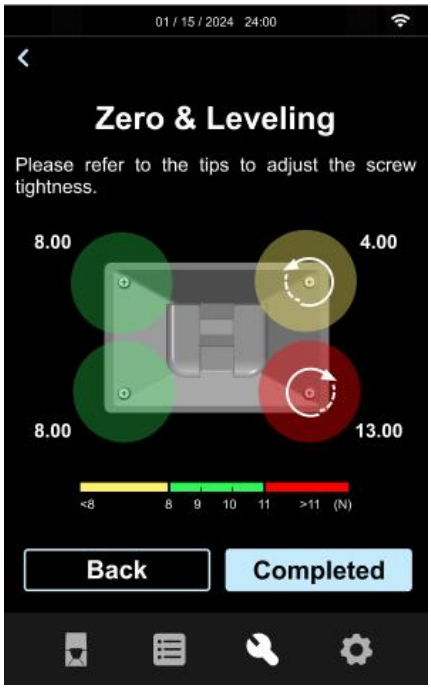


2. Wait for the platform to descend to its lowest position. Follow the on-screen prompts to adjust the corresponding screws:

Turn clockwise to decrease pressure.

Turn counterclockwise to increase pressure.

Continue adjusting until all indicators turn green. Then, click the **Complete** button to finalize the leveling process.

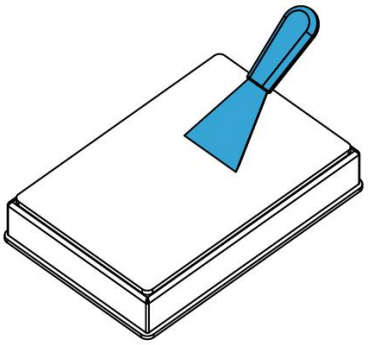


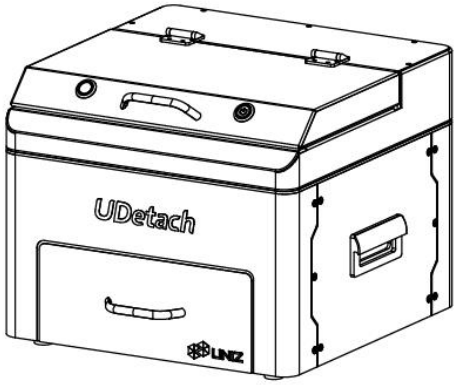
CLEAN THE BUILD PLATFORM

If a printing fails, there may be residues on the Platform which needs to be cleaned in time to avoid damage to the LCD screen.

Please remove the failed model on the Build Platform, and clean the solidified items on the button of the Resin Tank, dispose it properly.

Upon completion of printing, we recommend using UDetach to safely and efficiently remove the printed models from the Build Platform.





Notes: 1. After the failed model is removed, please clean the Build Platform with IPA (with concentration of 91% or higher) completely. Any solidified item on the Build Platform would damage the Resin Tank or LCD screen.

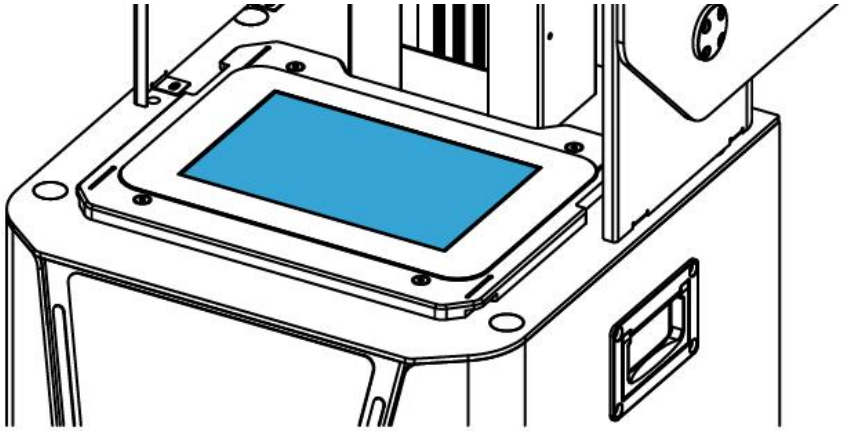
2. Please wear nitrile gloves to clean the Build Platform, and be aware of the sharp Scraper to avoid harm.

RESIN TANK

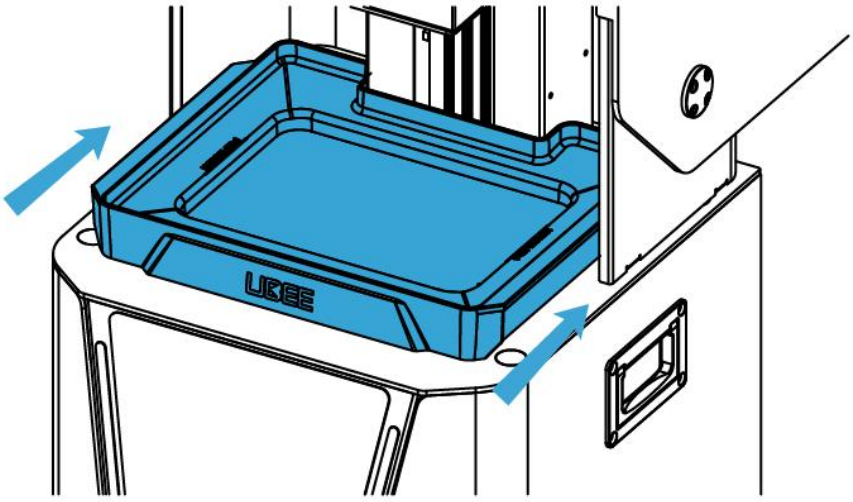
The Resin Tank is a crucial part for a successful print job, and requires constant maintenance and replacement if needed.

INSTALLATION

1. Make sure the LCD screen is clean and dry.



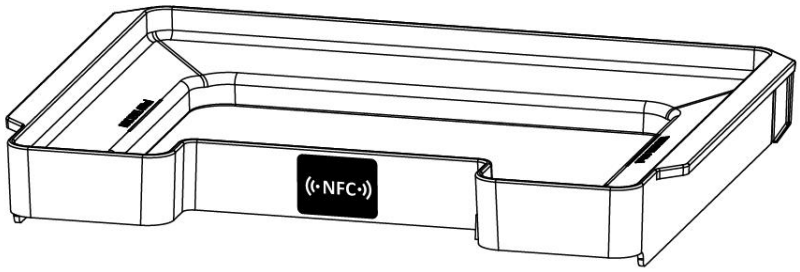
2. Align the resin tank with the back edge of the LCD screen, then slide it forward into its designated position until it locks securely in place.



3. Make sure the Resin Tank is stably locked to get best performance.

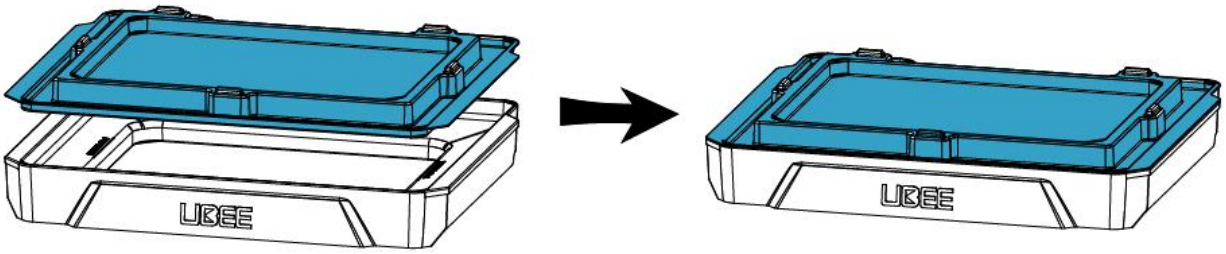
Note: An NFC label is attached to the back of the resin tank for installation and detection purposes. Do not remove this label and ensure the surface is clean and free of foreign objects.

Do not fill the resin tank beyond the maximum scale line.



RESIN TANK COVER

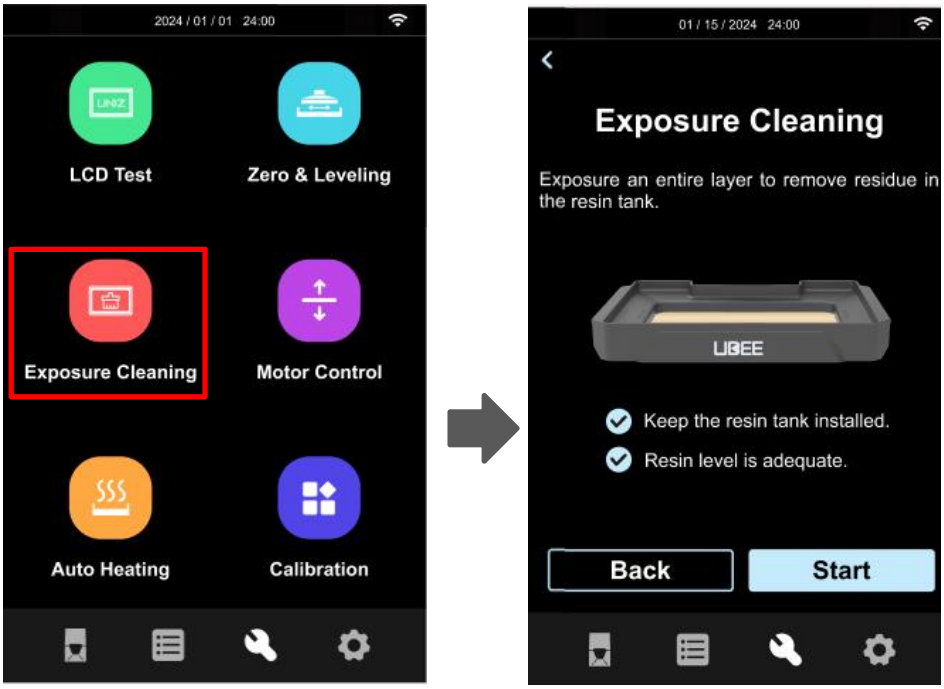
For short-term resin storage in the Resin Tank, use the provided Resin Tank Cover to shield it from light exposure and prevent premature curing.



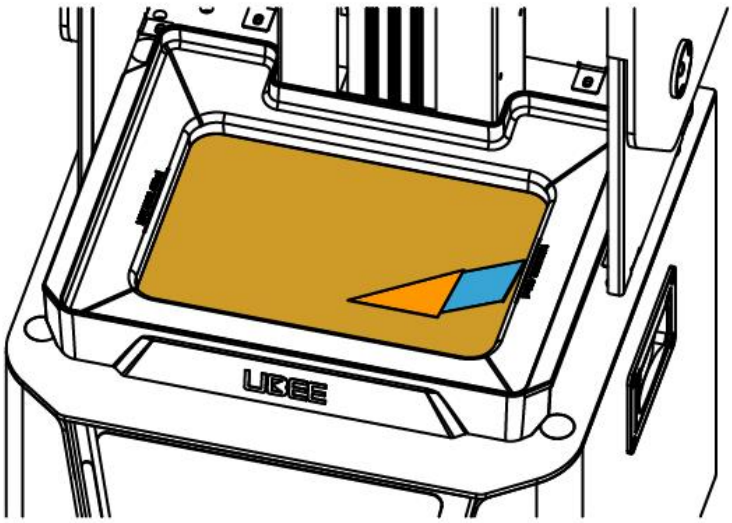
CLEANING THE RESIN TANK

If a printing fails, there may be residues in the Resin Tank which needs to be cleaned in time to avoid damage to the LCD screen. It is recommended to use the Full Screen Clean function as following.

1. Click **Tools/Exposure Cleaning**, choose the time and click **Start** to start exposure cleaning.



2. Once the EXPOSURE CLEANING is done, use a scraping card to take the solidified item out. DO NOT use metal scraper which will damage the release film and cause resin leakage. Repeat it if necessary.

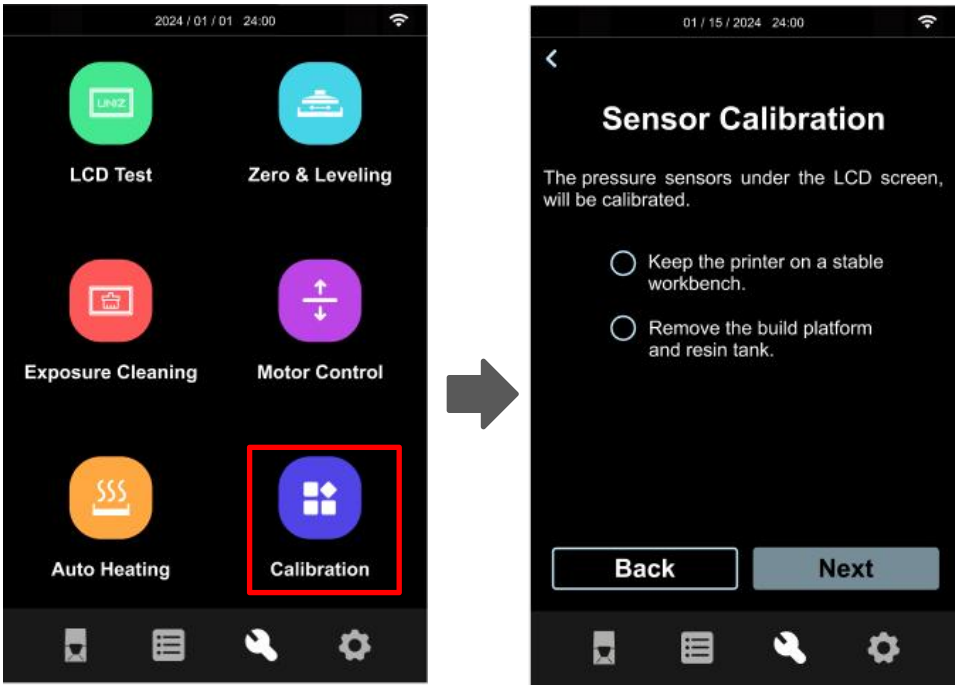


CALIBRATION

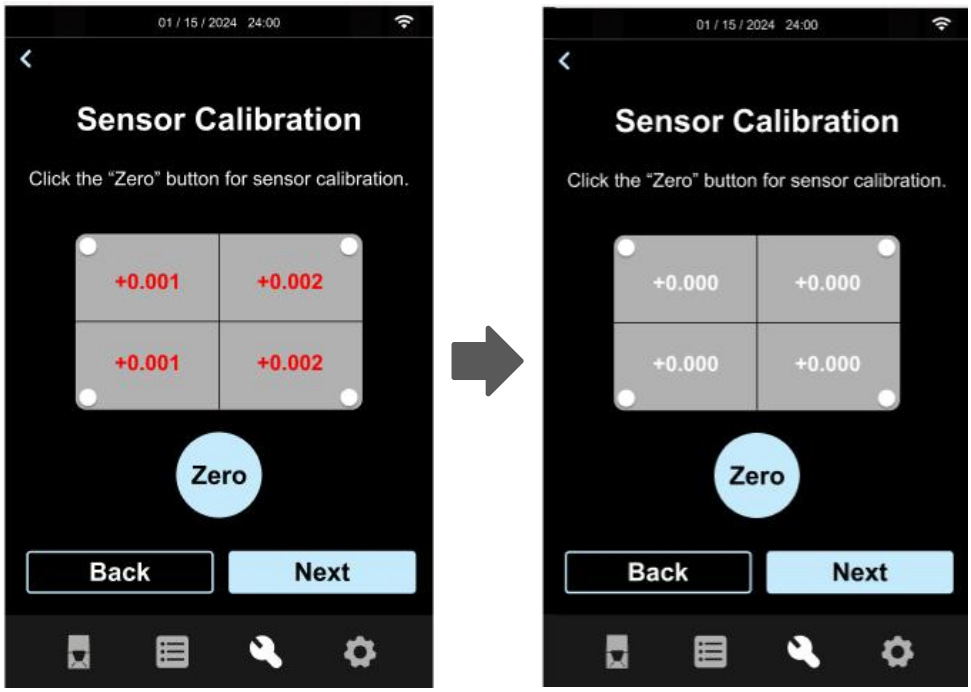
To ensure accurate pressure sensor detection results, it is necessary to calibrate the device using the calibration tool after a certain period of use or whenever the sensor shows abnormalities.

1. Click **Tools** >**Calibration**.

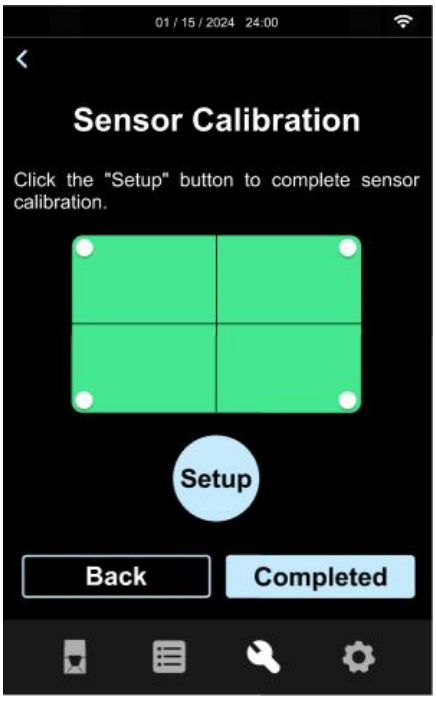
2. Remove the Resin Tank and Build Platform, ensuring the screen is free of any foreign objects.



3. Click **Zero**， set all the numbers on the screen to 0, then click **Next**.



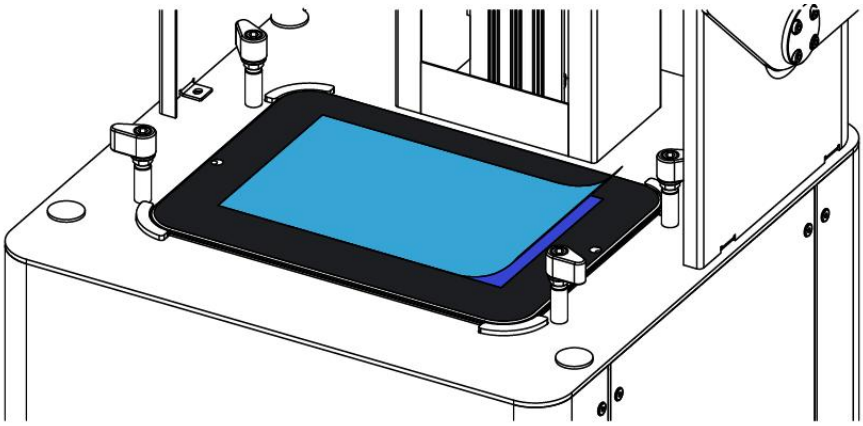
4. Reinstall the Resin Tank, then place the Build Platform in the Resin Tank, proceed to the next step, and then click the **Setup** button, The process is complete when the red area turns green.



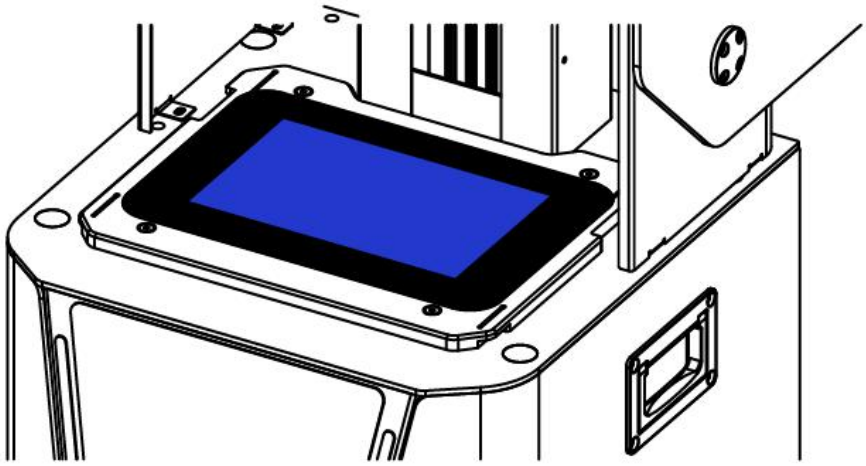
CHANGE LCD PROTECTIVE FILM

There is a protective film on the LCD. Change to a new protective film when it is scratched or dirty. Please keep one protective film on the LCD or the resin cured will left permanent damage to the LCD.

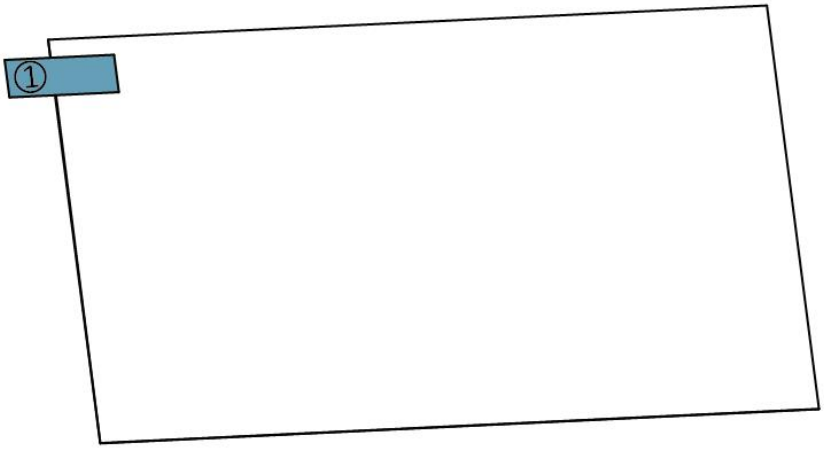
1. Peel off the old LCD Protective Film.



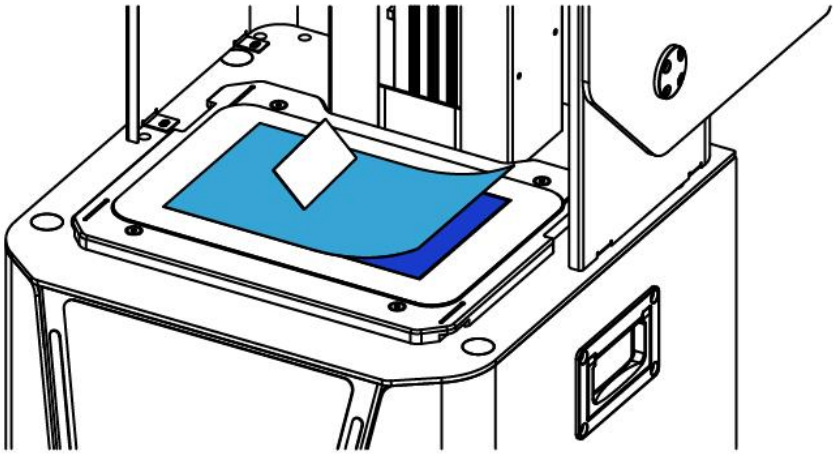
2. Clean the surface of the LCD and make sure there is no dust and residue left.



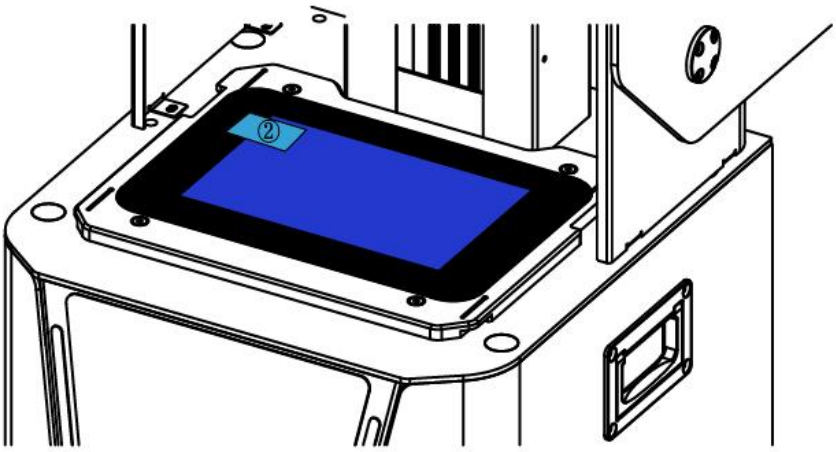
3. Take out a new LCD Protective Film and peel off the cover film marked '①'.



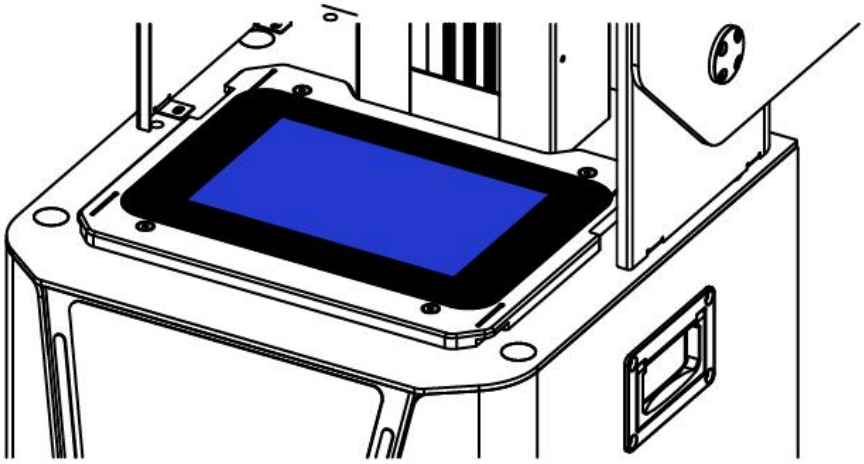
4. Using a card and cloth to paste the film onto the surface of LCD.



5. Peel off the cover film marked '②'.



6. Any air bubbles between film and the LCD will disappear automatically in a period of time.



SUGGESTIONS

1. When removing the Resin Tank, please place it on a clean table to avoid scratch.

2. When slicing a file by UNIZ Dental software, it is recommended to save the sliced file to a solid state drive (SSD) for faster storage speed.

3. Please check whether there are residues left on the Build Platform or at bottom of the Resin Tank before each printing. If there are residues left on the Build Platform, clean it with a scraper. If there are residues left in the Resin Tank, use Exposure Cleaning function to cure and clean.

4. Please well mix the resin in the Resin Tank by stirring with a hard cardboard like business card before each printing.

5. Please keep the printer stable to avoid disturbing while printing.

6. Please keep the Cover in position while printing.

7. Please check and clean the Build Platform and the Resin Tank before each print.

8. Please clean resin dropped incidentally on the LCD screen, cover immediately.

9. Please drill a hole at the side of the bottom of a model if it is a closed hollowed model.

10. Please keep the printer and resin tank in a ventilated place, avoiding straight sunlight.

11. Use 80~200 mesh filter to filter the resin when put it back to bottle for storage.

12. Children are not allowed to get close or operate the printer to avoid harm to children or damage to the printer.

13. Do NOT move printer when there is resin left in Resin Tank to avoid spilling.

14. Do NOT gaze at the LCD screen when doing a test print without Resin Tank and Build Platform.

15. Do NOT leave resin in resin tank for more than 24 hours without printing.

16. Do NOT connect the printer with your computer via USB. The USB ports only support USB Flash Drive.

17. Operate the printer in an environment shielded from direct sunlight exposure.

E DEFINITIONS

Accessories Box
Air Port
Arm
Build Platform
Casters
Cleaning Cloth
Cover Plate
Detail Packing List
Disposable Glove
Ethylene Glycol(Coolant)
Film Frame-down
Film Frame-up
Front Casing
Front Cover
Handle
Hexagon Wrench M4
Hexagon Wrench M5
LCD Cooling Board
LCD Module
LCD Protective Film
LCD Shading Tape
LED Board
LED Light Bar
Limit Switch
Lock Screw
Main Switch
NFC
Mainboard
Nameplate
Observation Light
Packaging Box
Power Cable
Power Port
Printing Task
Rear Casing
Rear Cover
Resin
Resin Tank
Resin Tank Blocks
Resin Tank Film
Sand Paper
Scraper
Side Casing
SN Label
Touch Screen
Touch Screen Holder
USB Flash Drive
Platform Locking Arm
User Manual
Warranty Card
HDMI Driver PCB
LED Driver PCB
Ports PCB
Pressure Sensor

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FOR MORE INFORMATION

uniz.com/support

You could find extensive documentation and troubleshooting information to solve issues quickly on your own.

If you ever need help resolving an issue, please contact our Support Team.

support@uniz.com

STORE

In case you have extra queries regarding any UNIZ product, please email our Sales Team.

sales@uniz.com

KNOWLEDGE BASE RESOURCES

To obtain detailed materials and solutions for problems like printing issues and troubleshooting, please access our knowledge base.

https://support.uniz.com/portal/en/kb

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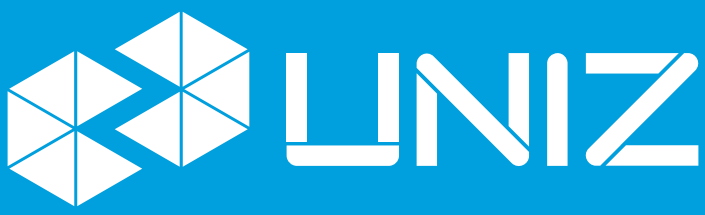
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