

# P200 Series

User Manual **V1.0**

**RAYSHAPE<sup>®</sup>**

# Contents

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# General Information

## Instructions

This manual contains technical information, safety guidelines, and detailed operation instructions for P200 series DLP 3D printers.

Please read this manual carefully before using the device. Failure to comply with the safety and operating instructions required by this manual will result in consequences for the user's responsibility.

All information contained in this manual is up to date at printing, but may be subject to change without notice when product is upgraded.

The images used in this manual may differ from your device due to differences in specific models and specifications.

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## Instructions of mark



**Warning:** This could result in serious personal injury or equipment damage if it was failed to comply with this requirement.



**Attention:** This could result in minor personal injury or equipment damage if it was failed to comply with this requirement.



**Important Information:** The normal operation of the device or the quality of printed products would be influenced if it was failed to comply with this requirement.



**Protection requirements :** The precautions should be taken as required.



**Hazard indication:** Description of specified hazard.

# Safety Guidelines

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Before operating with the printer, please read the following safety guidelines to identify the potential risks which you may experience during the usage. Then make sure to comply with the related requirement defined in the manual and take appropriate precautions during operation.

Any operation that fails to fulfill with the safety guidelines may result in personal injury or equipment damage, and the users themselves should finally take the corresponding consequences.



## The device shall be operated by professional staff

Operators must carefully read and understand the safety guide and operation manual, then operate with the device correctly as required.

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## Keep away from children

Please keep the device, resin material and other accessories out of the reach of children.

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## Disassembly or modification is strictly prohibited

It is strictly prohibited to disassemble or modify the device without authorization. In addition, do not use accessories that are not designated by RAYSHAPE officially.

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## Risk of electric shock



The specification of power must meet the operating requirements of the device.



A grounded electrical outlet should be used.



If the power cable is found aging or damaged, replace it before using the device.

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## Risk of UV exposure

Both the printer and post-curing device are designed basing on the principle of UV light curing, and there is UV light available inside the device during operation, the risk of UV light exposure shall be avoided accordingly.



When the printer and post-curing device are working, please keep protective cover / door closed normally.



If any operation or maintenance work should be proceeded while the device is working, the anti-UV goggles shall be worn accordingly.

# Safety Guidelines

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## Risk of mechanical extrusion

The printing platform will move up and down while the printer is working, there is a risk of mechanical extrusion generated by the improper operation.



Please keep the protective cover/door normally closed when the printer is in service.



It is strictly forbidden to put hands or other parts of the body into the printing area during the printing.

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## Risk of sharp edge cutting

After printing, a shovel blade is used to separate the printed parts from the printing platform. There is a risk of getting injured by the sharp edge cutting of the shovel blade.



Anti-cutting gloves should be worn during the operation of separating printed parts from the platform.



The shovel's blade should not be orientated to your body during the usage.

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## Risk of scalding

The printer is equipped with a heater. Please avoid scalding if the heater is on.

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## Risk of flammability of cleaning solvent

The printed parts should be cleaned with a cleaning solvent, such as IPA or 95% alcohol.



Please keep good ventilation and keep away from heat and fire sources when storing or using cleaning solvent.

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## Wear protective gloves



When operating the devices, please wear disposable gloves to avoid direct contact with the resin material.



When removing the printed parts from printing platform with a shovel, please wear cut-resistant gloves.

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## Wear goggles



If any operation or maintenance work is needed to proceed while the printer is working, anti-UV goggles should be worn accordingly.



Goggles should be worn to avoid the injury caused by the splashing fragment when separating printed parts from printing platform.

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## Good ventilation



Areas for printer installation and post-processing should be well ventilated.

# Product Information

# Specification

	P200	P200 HD	P200 UHD
Build volume	144 × 81 × 190 mm	96 × 54 × 190 mm	62 × 35 × 150 mm
Pixel size	75 μm	50 μm	32.5 μm
Technology	Low Force Peeling DLP Technology		
Dynamic layer thickness	0.025 - 0.3 mm		
Printing speed	Up to 80 mm (3 inches) / 1 hour ( Depending on the resin type and slicer settings )		
<b>Materials</b>			
Available materials	ShapeMaterials Basic / Functional / Advanced Series		
Material packaging	1 kg		
<b>Hardware</b>			
Light source	LED light source, Texas Instruments DMD chip		
Wavelength	405nm		
Resolution	1920 × 1080 pixels		
Door control	Printing will be paused automatically if the door is opened (Optional)		
Building environment	Controllable chamber heating & Automatic heating resin tank		
Air filtration	Build-in air filter in building chamber		
Touch screen	10" touchscreen		
Connectivity	USB2.0, Wi-Fi(2.4GHz), Ethernet		
Input	100~120 VAC, 50/60Hz 220~240 VAC, 50/60Hz ( Depending on the country/region )		
Rated power	750 W		
<b>Software</b>			
Operating system	Windows 7/8/10/11		
File format (Input)	.stl, .obj		
File format (Output)	.rs, .shape		
Slicing software	ShapeWare		
Advanced functions	Support editing, automatic repair, model cutting, hollowing, perforating, labeling		
Wireless printing	Deliver printing tasks to specified printer in LAN environment via "One Click" operation		
Cluster management	Manage the printing tasks of multiple devices in LAN environment		
Language	Chinese, English		
<b>Size &amp; Weight</b>			
Device dimension	420 × 420 × 890 mm		
Device dimension (With the door open)	420 × 810 × 890 mm		
Net weight	42 kg		
Package size	550 x 570 x 1150 mm		
Package weight	70 kg		

# Technical Principle

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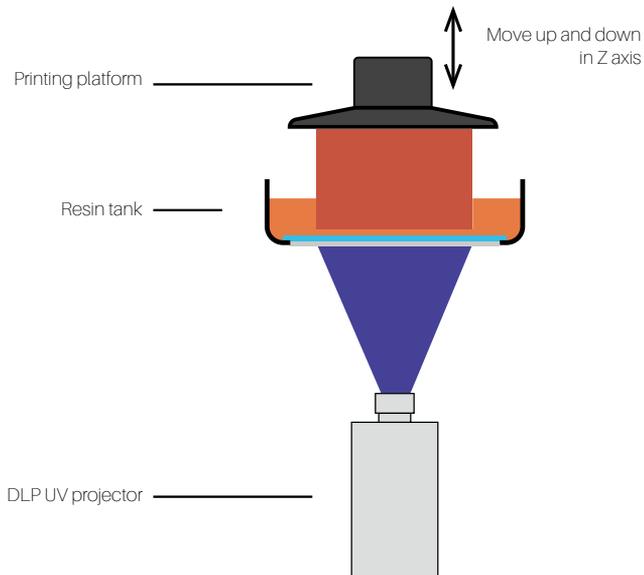
## Principle of DLP photocuring 3D printing technology

RAYSHAPE P200 series of 3D printers adopt DLP surface exposure UV curing 3D printing technology.

The core mechanism of light-curing 3D printing technology is the light-curing chemical reaction. The photosensitive resin will undergo a light-curing reaction and instantly change from liquid to solid when it encounters 405 nm blue light.

ShapeWare 3D printing software will process the STL file you need to print into a slicing file, and the DLP UV projector will project the file layer by layer.

The picture on the left is a schematic diagram of the P200 series of 3D printer, and the resin tank contains photosensitive resin.



At the beginning of printing, the printing platform that can move up and down on the Z axis is close to the bottom of the resin tank. Next, the DLP UV projector uses 405 nm blue light to project the slicing image of the file to be printed, which is formed at the bottom of the resin tank and bonded to the printing platform. After the curing of one layer, the printing platform is lifted up to a fixed height, and then the next layer is projected and cured by the DLP UV projector; The cycle repeats to print the part out completely.

# Installation and Debugging

# Installation Requirement

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To obtain the best printing quality, stability and safety, before the installation and use of the RAYSHAPE 3D printer, please be sure to understand the best service environment of the device, and the requirements are described as follows:

## Electrical requirements

- Rated voltage:
  - 100~120 VAC
  - 220~240 VAC
  - (depending on the country/region of sale)
- Rated frequency: 50/60Hz
- Rated power: 750W
- The power plug is a two-pole grounded plug, and the device shall be reliably grounded.

## Operating ambient temperature, humidity, ventilation, and light

The best operating ambient temperature of RAYSHAPE P200 series is 25-30°C, the humidity is below 60%, the environment shall be well ventilated (non-confined space), and the device installation location shall avoid direct sunlight.

## No dust pollution

The RAYSHAPE P200 series contains precision optical components inside the machine body, so the user should ensure that there is no dust pollution in the service environment, otherwise it will affect the normal operation of the optical devices.

## Level and stable platform, away from fire, heat and vibration sources

A level and stable platform is required for P200 series, away from fire, heat and vibration sources.

## Keep the door closed during printing

During the printing process, please try not to open the printer's door for a long time to avoid changes in the temperature of the chamber, which may affect the stability of the light-curing chemical reaction and cause printing failure or poor printing quality.

## Use official materials

All official RAYSHAPE materials has been extensively tested and optimized for superior performance, and we cannot guarantee that you will get the same or similar performance when using a non-official material.

Please note that you are responsible for the loss of printing performance or printer damage caused by the use of non-designated materials.

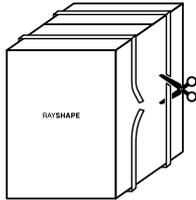
## Ensure the speed and stability of wireless network

If your device is connected to the router via a wireless network, we recommend that you place the wireless router and your RAYSHAPE 3D printer as close as possible to ensure high signal strength and data transmission speed. The router should not be blocked by walls.

**Note:** Connect your printer to the local network with an Ethernet cable to ensure the best data transmission speed and network connection stability.

# Unpacking

## Unpacking

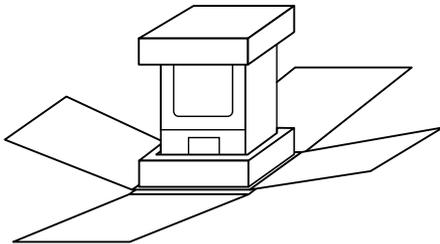
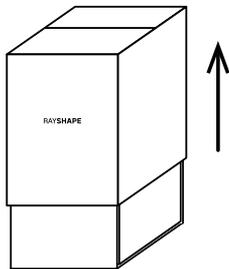


Cut the packaging tape with scissors, lift the upper carton vertically upwards, and the four sides of the lower carton will unfold to expose the device.

After removing the foam and accessories from the top of the device, carry the device to a stable platform.



The weight of the whole package is about 70 kg, and it is recommended that two people operate at the same time when handling.



## Packing list

No	Name	Quantity
1	P200 printer	1
2	Printing platform	1
3	Resin tank	1
4	Power cord	1
5	Plastic box	2
6	Scrapers	1
7	Shovel blade	1
8	Plastic nippers	1
9	Disposable filter (80 mesh)	10
10	Tweezers	1
11	Spray bottle	1
12	Brush	1
13	Disposable gloves	2
14	Dust-free wipes	8
15	Allen wrench	5
16	Spare screws	6
17	Ethernet cable	1
18	USB drive	1
19	Resin tank lid	2
20	Release Film-B	20



After unpacking, please check the type and quantity of the attached accessories according to packing list above, and in case of any missing parts, please contact the dealer in time.

# Unpacking

## Accessories included in the tool kit



Plastic box



Resin tank lid



Spray bottle



Disposable gloves



Disposable filter



Plastic nippers



Shovel blade



Brush



Tweezers



Allen wrench



Scraper



Spare screws



Ethernet cable



Power cable



USB drive

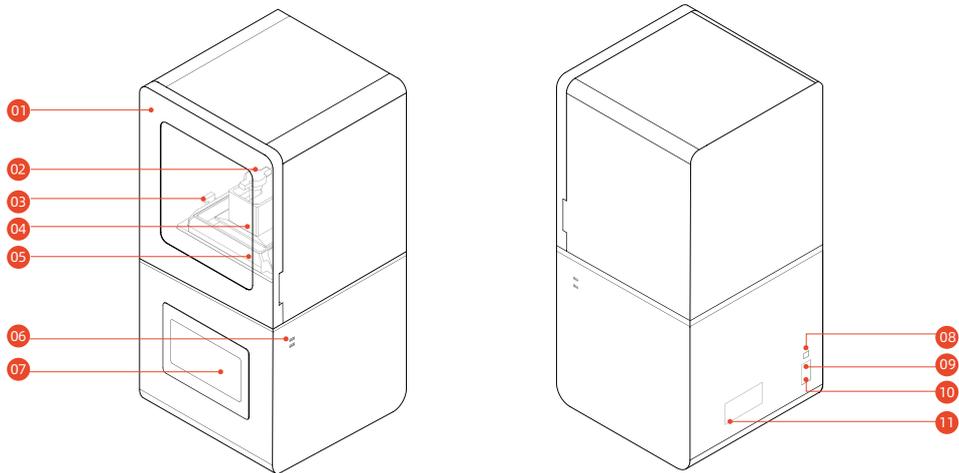


Release film-B



Dust-free cloth

# Structure



No.	Item	No.	Item
01	Door	07	Touchscreen
02	Rotary switch	08	Ethernet interface
03	Quick knob	09	Power switch
04	Printing platform	10	Power interface
05	Resin tank	11	Nameplate
06	USB ports		

# Installation



## Platform

The platform where to place the device shall be more than 50cm in width, more than 50cm in length, and more than 50kg in bearing capacity. The back of the device should be kept at a distance of more than 10cm from the wall for wiring and heat dissipation.



## Connection of cables

### (1) Connection of the power cord

The power interface is located on the rear surface of the printer. Please connect the printer with the power outlet by using the power cord which was included in the accessory kit.

 **Make sure that a grounded power outlet is applied.**



### (2) Connection of the Ethernet cable

You can use an Ethernet cable or Wi-Fi to connect your 3D printer. Please connect the cable to the Ethernet port located on the rear surface of the device.

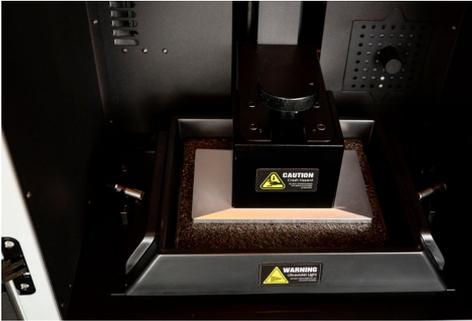
 The computer used to prepare the printing task with ShapeWare and the corresponding printer must be placed within the same LAN in order to achieve the wireless delivery of the printing task.



## Power on/off

The printer's power switch of the printer is located on the rear surface of the device. Switch the button to the position of "I" to turn on the device; Switch the button to the position of "O" to shut down the device.

# Installation



## Remove the protection foam

To protect the device from vibration during transit, a form was placed between the printing platform and the resin tank. It should be removed before starting using the printer.



Click on "Settings" - "Z-axis offset" - "Move to top". The printing platform will move up to the initial position of the z-axis.



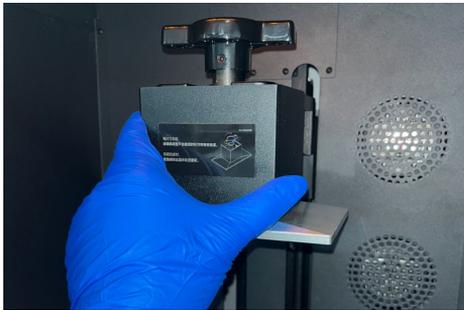
Remove the protection foam from the resin tank.



## Remove the printing platform

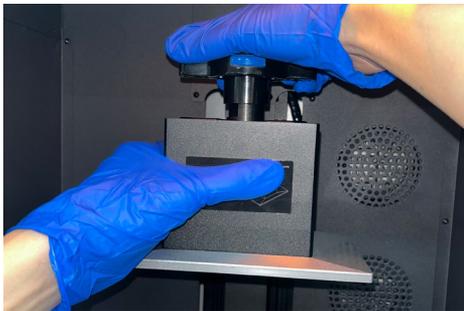
Please hold the printing platform with one hand and rotate the hand wheel counterclockwise with the other hand until the blue sign is back to the operator to separate the platform from the bayonet, then remove the platform outward.

# Installation



## Install the printing platform

Please align the printing platform with the cantilever bayonet as shown on the left and slide inward horizontally to the end when the platform is installed.



Hold the printing platform with one hand, and rotate the handwheel clockwise with the other hand until the blue sign was face to operator.



It is recommended to tighten the rotation wheel until the printing platform is not wobbled any more.



## Remove resin tank

Release knobs on both sides of the resin tank outwards.



Remove the resin tank by lifting it with your hands for a certain distance and take it away from the printing chamber.



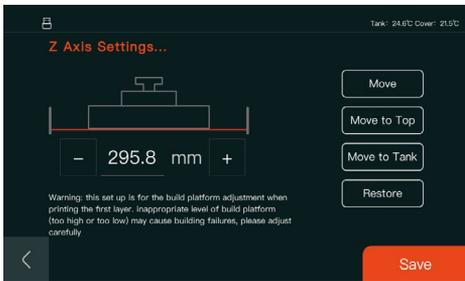
Please place the resin tank on the clean top surface of a resin tank lid or a clean A4 paper to avoid the risk of being contaminated and damaged for the release film.

# Installation



## Leveling check

Please install the printing platform, remove the resin tank, and place a clean piece of A4 paper on the resin tank glass just before the leveling check.



Click on "Settings" - "Z-Axis Offset" - "Move to Bottom". The printing platform will move down until it contacts with the surface of the resin tank glass (maximum Z-axis travel).



When the printing platform moves down to the bottom, do not place your hands or any other parts of the body under the platform to avoid injury.



Drag the A4 paper at the four corners by hand to check the clamping force between the printing platform and the resin tank glass, and the paper should be immovable in any case.

If the paper is movable during the checking process, leveling adjustment should be made as follows.

### Leveling adjustment:

☑ The maximum travel of z-axis would be added by 0.1mm with each clicking of "+", the printing platform will move down to the defined position by clicking on the "Move" button.

☑ Drag the paper at four corners to check the leveling status, the adjustment could be completed in case the paper is immovable.

In case it was not, repeat the procedure☑☑ until the paper is immovable in any case. Then click the "save" button to set the maximum travel of z-axis.

Finally, click "MOVE TO TOP " and "MOVE TO BOTTOM" in sequence to double check the leveling status.



The maximum allowable adding of the z-axis in leveling adjustment is 0.5mm. Please get in touch with the after-sales for further support in case that the leveling check is still failed with maximum adding more than 0.5mm.

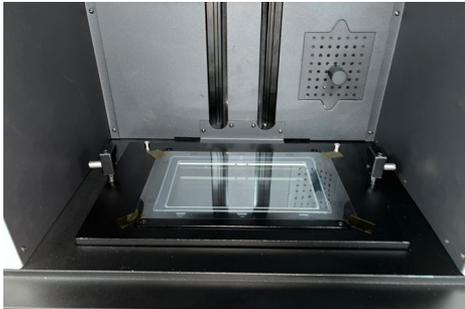
Click on "MOVE TO TOP " as soon as the leveling check is done.

# Installation



## Install resin tank

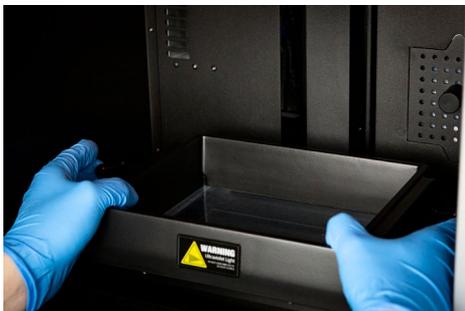
① Please check whether there is any dust on the surface of the resin tank glass and the film just before installing the resin tank, clean them with a dust-free wipe if necessary.



② Place the Release film-B on the surface of the resin tank glass, make sure it is flat and located in the middle, then fix it with sticky tape.



The Release film-B should be plain and dust-free. Clean it with clear IPA/alcohol before taping it on the resin tank glass if necessary.



③ Align the resin tank with the bayonet and push it inward to the end, then rotate the quick knobs on both sides to fix the resin tank.

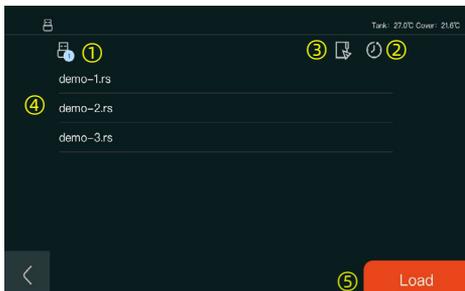
# Interface Introduction

# Interface Introduction



## Main Interface

- 1 Printing
- 2 Settings
- 3 Self-check status
- 4 Status bar:
  - Temperature display
  - Network connection
  - USB drive prompt
  - Failure alert



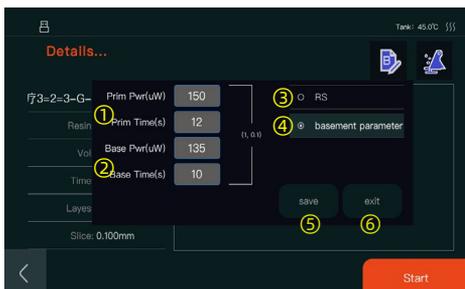
## Interface for printing task

- 1 USB drive task
- 2 History task
- 3 Network task
- 4 Task list
- 5 Load the file



## Start-up of printing

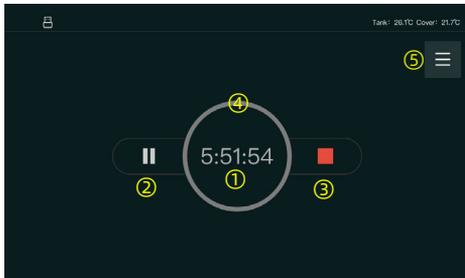
- 1 Printing task information
- 2 Preview of printing part
- 3 Clean the resin tank
- 4 First layer and base parameter setting
- 5 Start printing



## First layer and base parameter setting

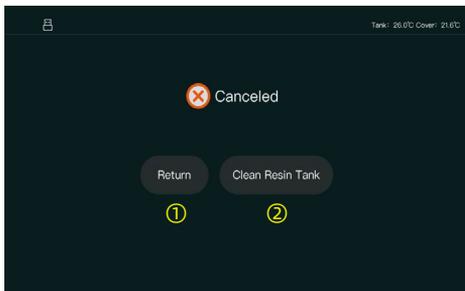
- 1 First layer parameter setting
- 2 Base parameter setting
- 3 dat parameter (default selection)
- 4 basement parameter (called after save)
- 5 Save
- 6 Exit

# Interface Introduction



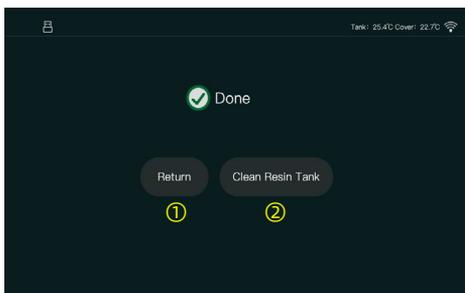
## Printing in progress

- ① Time remaining
- ② Pause
- ③ Terminate
- ④ Progress bar
- ⑤ Information of printing task



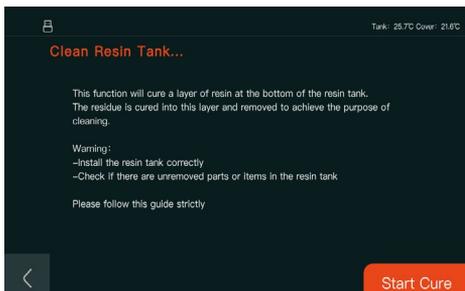
## Pause of task

- ① Continue with the task
- ② Cancel the task



## Completion of printing

- ① Return to main interface
- ② Clean resin tank



## Clean resin tank

### Step 1

Please read the instruction carefully before initial use.

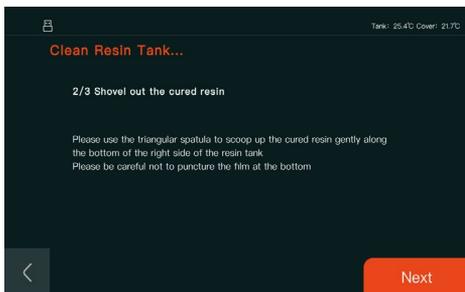
 Make sure to close the door before click on "Start" to avoid UV exposure.

# Interface Introduction



## Step 2

The resin would be cured as soon as the projection finished.



## Step 3

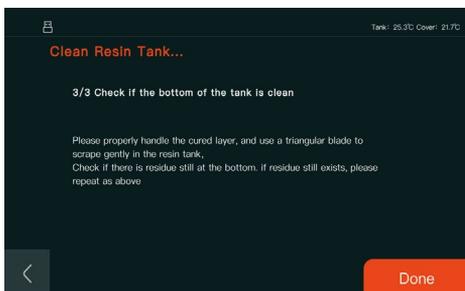
Clean up the cured resin within the tank.



Shovel the cured layer of resin along the edge of the resin tank with the plastic scraper until it separates at the corner.



Please take the layer of solid resin with your hands by wearing rubber gloves and discard it properly afterward.

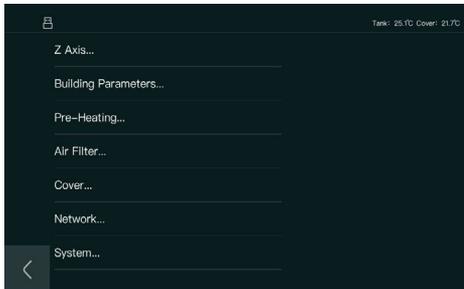


## Step 4

Double check if there is any residual fragment in the resin tank. Repeat the procedure if necessary.

 Make sure to close the door before click on "Start" to avoid UV exposure.

# Interface Introduction



## Settings



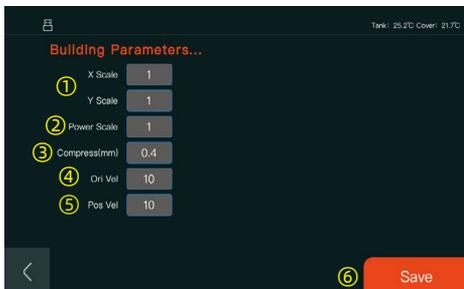
## Offset Z-axis

- ① Move to the designated position in ⑧ .
- ② Move to the initial position.



Reset the printing platform by clicking on "MOVE TO TOP" in any case that the printing platform was not in the initial position causing by accident (equipment failure, power off...)

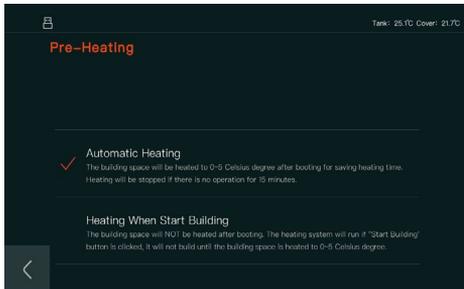
- ③ Move to the maximum travel of Z-axis.
- ④ Restore to initial value in ⑧ .
- ⑤ Save the value in ⑧ as the new maximum travel of Z-axis.
- ⑥ The value in ⑧ would be added by 0.1mm
- ⑦ The value in ⑧ would be subtracted by 0.1mm
- ⑧ The value of maximum Z-axis travel



## Print parameters

- ① Parameters for printing accuracy correction, for adjusting zoom ratio of the image in x/y direction;
- ② Power correction factor of projector, for adjusting the output power of the projector;
- ③ Compression compensation, for compensating the height tolerance of printed part along Z-axis;
- ④ The speed that the printing platform moves back to initial position in non-printing status;
- ⑤ The speed that the printing platform moves to the specified position in non-printing status;
- ⑥ Save the updating.

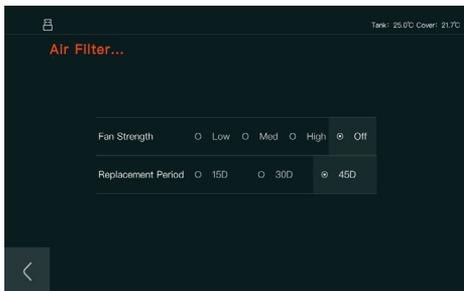
# Interface Introduction



## Resin tank heating

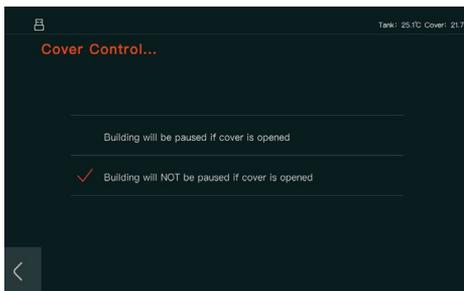
The printer is equipped with a heating system. Users can choose to preheat resin as soon as turning on the printer or before each printing.

 Do not touch metal components around the air outlet when the heater is working to avoid burns.



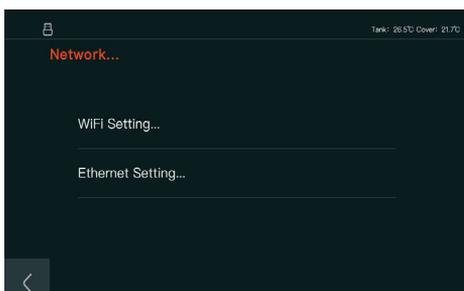
## Air filter

The printer is equipped with an air filter module. Users can set filtering strength and cartridge replacement cycle.



## Door control

Users can enable the interlocking function of the door opening/closing and printing as needed.



## Network Settings

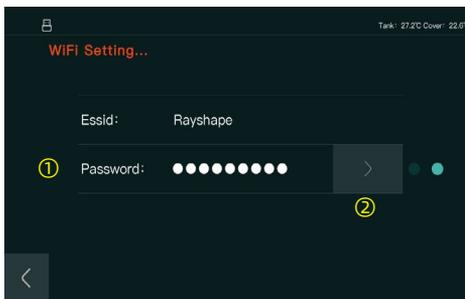
Users can choose wireless or wired network connections.

# Interface Introduction



## Setting of Wi-Fi

- ① Enable the function of Wi-Fi.
- ② Select the specified network which you would like to connect within the list of Wi-Fi



- ① Enter the password
- ② Connect to network



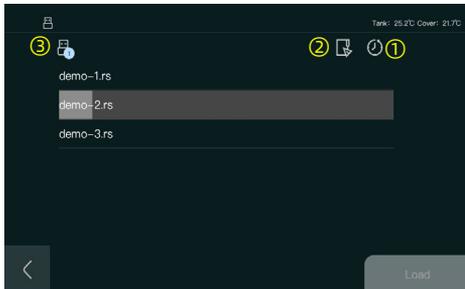
After the connection, the printer will be identified by the host computer through the IP address.



## About

- ① Language: Chinese or English.
- ② Software version.
- ③ Serial number.
- ④ Printer model.
- ⑤ Printer name (could be customized).

Printing



## Load printing file

Data import method.

- ① Select a printing task in the historical list
- ② Printing tasks were delivered from ShapeWare
- ③ Read the printing file in the USB drive.



Confirm the information of the printing task

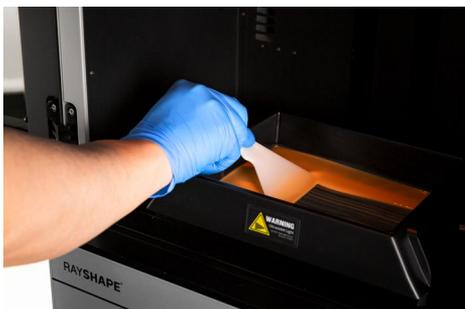


## Check the printing platform

- ① The surface of the printing platform should be clean and free of foreign matter
- ② Printing platform should be installed correctly and reliably.



After a long-term usage, there may be pits or scratches on the surface of the platform, which will not influence the quality of the printing. Convex on the surface of the platform is not allowed to avoid the risk of damage to the release film.



## Check the resin tank

If the resin tank is empty, visually check whether the release film is broken and whether there is foreign matter in the tank.

If there is any remaining resin in the tank, use a plastic scraper to lightly scrape the bottom of the resin tank. Check if the release film is broken, and mix the resin evenly in the meanwhile

# Printing



## Add resin

Determine whether it is necessary to add resin according to the remaining amount in the resin tank and the consumption of next printing task.

The resin should be shaken well before use. Hold the bottle vertically and shake it up and down adequately.



Pour the resin slowly.



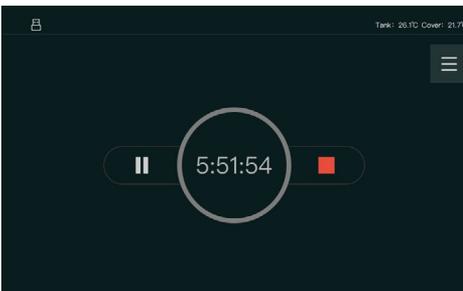
The liquid level of the resin should be kept between lines "min" and "max".



Contacting with resin directly may lead to skin irritation, and please wear disposable gloves in any operation which was related to resin material.



If you eat the resin by mistake, please seek for medical care immediately.



## Print

Click the "Start Printing" button and wait for the printing to complete.

# Post-Processing

# Post-Processing

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## Preparation

Post-processing work will lead to resin dripping, and waste liquid or waste residues will be generated accordingly.

Item should be prepared: Disposable glove, spray bottle, brush, shovel blade, plastic box (It is recommended to equip with ShapeWash washing unit).



## Remove the printing platform

Rotate counterclockwise to release the handle, and pull outward to remove printing platform.



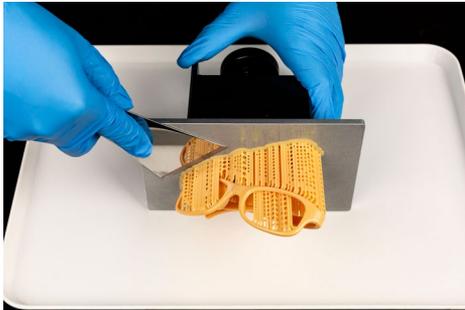
## Clean resin tank

Click on "Clean resin tank". After curing, please shovel the cured layer of resin along the edge of the resin tank with the plastic scraper until it separates at the corner.



Take the whole layer of cured resin with your hands by wearing disposal gloves and discard it afterward.

# Post-Processing



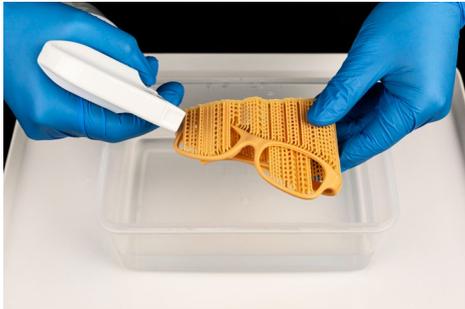
## Shovel printed parts

Please use the shovel blade to shovel the printed parts off the printing platform.

Place the blade as parallel as possible to the platform to avoid scratching.



Be sure to wear anti-cutting gloves, and the blade of the shovel should be not orientated to the body during the operation.



## Clean printed parts

Preparation: Please fill the spray bottle with 95% alcohol or IPA.

Please hold printed part above the cleaning tank and spray solvent on the part for preliminary cleaning.



To obtain a better cleaning, it is recommended to conduct the ultrasonic washing with cleaning solvent twice, and 1-2 minutes is needed every time. Clean solvent should be used for the second washing.



If there are many depressions or wrinkles in the part, please use a brush to do the preliminary cleaning and spray cleaning solvent in the corresponding area for further treatment.

# Post-Processing

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## Clean the printing platform

After the printed parts are removed, clean the surface of printing platform, make sure not to damage the platform during the operation.

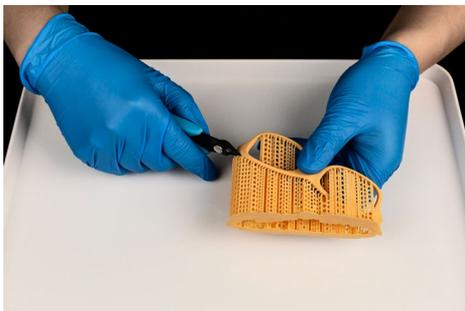


If the resin material changes for the next printing, the printing platform shall be cleaned carefully with a solvent to remove the residual resin.



## Remove the support

If there is a support structure within the printed part, you can remove the support by hand or plastic nippers. Please be aware that do not get the part deformed or damaged during the operation.



# Maintenance

## Clean optical system

DLP 3D printer is a precision optical device, and the optical system should be kept clean to avoid a reduction in printing accuracy and quality. Therefore, the optical system, composed of dust prevention glass, resin tank glass and the release film kit, shall be cleaned regularly.

Do the cleaning work with a dust-free wipe, or clean with anhydrous ethanol if necessary.

## Clean resin tank

If you only have one resin tank, and need to change the resin material:

- (1) The currently used resin should be emptied and filtered first and then poured into another lightproof container for temporary storage.
- (2) After cleaning the resin tank thoroughly with alcohol or IPA, pour in new resin for use.
- (3) Also, clean the printing platform with a cleaning solvent thoroughly.

If you need to change resin material frequently, it is recommended to equip with multiple resin tanks:

- (1) When replacing resins, remove the resin tank currently in use and place it on a clean and flat surface (such as on top of a resin tank lid or a piece of clean A4 paper), and cover it with a resin tank lid for temporary storage.



If it will not be used for more than a week, the resin should be cleaned out of the resin tank, filtered, and stored in another light-proof container, do not mix directly with the original resin.

2. Also clean the printing platform with cleaning solvent thoroughly.

## Maintenance work after a printing failure

In case of such problems as printed parts falling off (the printed part falls off from the printing platform) or delamination (the layers of the part fall off or separate from each other) during the printing process, please make sure to drain all the remaining resin out of the resin tank and clean away the residue in the tank, get the resin filtered just before pour it back.

## Replacement of air filter

For replacement, please open the cover of the air filter and remove the original one, then replace it with the new one.

# Troubleshooting

# Troubleshooting

No.	Description	Reason	Solution
1	The device cannot start up Normally.	The socket is not powered properly.	Check whether the socket is working normally.
		The cable is not plugged in or becomes loose.	Re-plug the cable to make sure it is reliably connected.
		Power switch is not turned on.	Turn on the power switch and confirm the light is on.
		Internal electrical fault	Contact after-sales.
2	Printed parts fell off from printing platform.	The bottom of the part is not flat.	Check whether the profile of the first layer is completed and the case that the area of first layer is too small should be avoided.
		Insufficient support	Check the structure of the support and add enough support accordingly.
		Leveling of the printing platform is abnormal.	Do the leveling check, increase the value of initial position by 0.1mm if necessary.
		Unreasonable design of parts	The structure such as cupping and large cross-section should be avoided.
		The ambient temperature is too low.	Place the printer in an air-conditioned room to ensure that the ambient temperature is between 25-30 °C .
		There is foreign matter in the tank.	Pour out the resin in resin tank, clean the tank with clean alcohol or IPA, and confirm the removal of the foreign matter.
		The optical system is not clean.	Check and clean the optical system.
		Wrong printing setup	Verify that resin chosen for slicing is the same as the resin in the resin tank.
3	Delamination at the bottom of printed parts	Insufficient support	Check the structure of the support and add enough support accordingly.
		Unreasonable design of parts	The structure such as cupping and large cross-section should be avoided.
4	The surface of printed part is coarse.	Unreasonable design of parts	The structure such as cupping and large cross-section should be avoided.
		Wrong printing setup	Verify that resin chosen for slicing is the same as the resin in the resin tank.
5	Printed part is difficult to be shoveled from printing platform or is easily broken when being shoveled off.	Unreasonable design of part	Shell models with large cross-section before printing, with a thickness of not less than 2.5mm.
		The shovel blade becomes blunt.	Replace the shovel with a new one.
6	Abnormal interruption during printing	Power outage	Check if the socket is powered normally.
		Other abnormal causes	Export the log of the printer and send it to the after-sales.
7	Some of the support cracked during printing.	Insufficient support	Check the structure of the support and add enough support accordingly.
		The support is too thin.	Increase the diameter of the support bar.
		Release film of resin tank below the area is damaged.	Replace the release film or resin tank with a new one.
		The ambient temperature is too low.	Place the printer in an air-conditioned room to ensure that the ambient temperature is between 25-30 °C .
8	Part of the printed part is missing.	Insufficient resin in the resin tank	Add enough resin before printing. (not exceed the maximum line)
		The tank is damaged.	Drain the resin out of the tank, check the resin tank and replace with a new one if it is damaged.
		The part is designed or supported unreasonably.	Re-design the part and add support properly.
		Foreign matters in the tank	Pour out the resin in the tank, clean the resin tank with alcohol or IPA, and confirm the removal of foreign matters.

# Warranty

## 1. Warranty period

RAYSHAPE 3D printers are provided with 12 months of warranty and lifetime maintenance services.

## 2. Preconditions

- The equipment failure is not caused by human reasons or force majeure.
- A valid proof of purchase.

## 3. Scope

- Appearance parts such as door panels and equipment case shall be deemed to be free of quality problems upon sign-off and are not included in the list of warranty components.
- Consumables (including resin tanks, release films, etc.), please unpack and inspect the goods at the signing site; upon sign-off, it shall be deemed to be free of quality problems, and the warranty request is not accepted.

## 4. Service

For warranty service requests which are complied with the warranty conditions, the supplier should bear the cost for spare parts, repairing and transportation.

## 5. Non-warranty circumstances:

- Equipment failure caused by human reasons or force majeure;
- Failure to provide valid proof of purchase;
- The performance and reliability of the equipment is depended on many factors. The supplier promises the best printing performance and reliability would be obtained if the supplier's official consumables and supporting software were used and the instructions of the equipment's user manual were complied with strictly during usage; Such warranty requests, which were caused by the application of 3rd party software and consumables, would not be accepted by the supplier.

## 6. Warranty services

The supplier would offer maintenance service to the request which does not comply with the warranty condition or is out of the warranty period. Still, the requester should undertake the cost related to spare parts and transportation accordingly.

## 7. Service response.

The supplier will provide online technical support to the requester within 4 hours in the time period of 09:00-17:00 on working days.

## Technical Support

If you need help during the use of RAYSHAPE products, please get in touch with the direct seller of the products directly.

Before you initiate a technical support request via email or telephone, we recommend that you make the following preparations in advance:

### Device SN

The product SN can help us know more details about your device and order quickly. The device SN is located on the nameplate of the body.

### LOG files

Enter the menu: Settings - Printing settings - Printing settings, export LOG files of the printer, which will be saved in the root directory of the USB disk.

### Photos and videos

Some technical issues are not easy to describe. In those cases, providing photos or videos is the most effective way to explain the problem.

Please provide us photos or videos under the following circumstances:

- 1.Parts are damaged or fall off;
- 2.You know the cause of the failure but do not know the name of the relevant accessories involved in the failure;
- 3.The abnormal operating state of the device is complicated to describe;
- 4.Problems with printing quality.

**For more information:**

**Sales Inquiries**

✉ [sales.os@rayshape3d.com](mailto:sales.os@rayshape3d.com)

☎ +86 400 0983 356

**Comments and suggestions:**

✉ [feedback@rayshape3d.com](mailto:feedback@rayshape3d.com)

Your feedback is greatly appreciated, and your comments and suggestions will be sent to our sales, R&D, and technical support departments to help us provide better products and services.

# Warranty Card



1Year Warranty Card

This warranty card, along with the valid invoice, will be guaranteed for one year after the purchase.

For the warranty details, please refer to the product user manual.

Reseller Name : \_\_\_\_\_ Invoice NO. : \_\_\_\_\_ Purchase Date : \_\_\_\_\_  
Product Model : \_\_\_\_\_ Serial Number : \_\_\_\_\_ Dealer's Seal : \_\_\_\_\_

\* This is the basic proof of the warranty. Please fill in it carefully and hand it over to the customer for safekeeping

Customer Name : \_\_\_\_\_ Contact: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address : \_\_\_\_\_ Service Evaluation:  Excellent  Good  Normal  Bad

Customer Signature : \_\_\_\_\_

## FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.

**RAYSHAPE<sup>®</sup>**