Edge E1

User Manual V1.0

RAYSHAPE®

Contents

General Information

Information

Instructions

This manual contains the technical information, safety guidelines, and detailed operation instructions for Edge E1 DLP 3D printers. Please keep it properly.

Please read this manual carefully before using the printer. Failure to comply with the safety and operating instructions required by this manual will result in consequences that are the sole responsibility of the user.

All information contained in this manual is up to date at the time of printing, but may be subject to change without notice as products are upgraded.

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

If you have any improvement or modification opinions on this document and the product, or If there is any error, please inform us in time. Thank you for your valuable comments on our products.

Instructions of mark

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

Attention: 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 models would be influenced if it was failed to comply with this requirement .

Protection requirements: Corresponding precautions should be taken as required.

Hazard indication: Description of specified hazard.

Safety Guidelines

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

Any operation which was failed to fulfill with the requirement defined in the safety guidelines may result in personal injury or equipment damage, and the corresponding consequences should be taken by the users.

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.

Keep away from children

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

Disassembly or modification is strictly prohibited

It is strictly prohibited to disassemble or modify the device without authorization. Do not use accessories which are not designated by RAYSHAPE officially.

Risk of electric shock

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

A grounded electrical outlet should be applied.

Replaced with a new one before usage if it was found that the power cable is aging or damaged.

Risk of UV exposure

Both the printer and post-curing device were designed basing on the principle of UV light curing and there is UV light available inside the device during operation, the risk of UV 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 printer is working, the anti-UV goggles shall be worn accordingly.

Safety Guidelines

Risk of mechanical extrusion

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

Please keep the protective cover/door closed normally 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.

Risk of sharp edge cutting

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

Cut-resistant gloves should be worn during the operation of separating printed parts from the platform.

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

Risk of scalding

The printer was equipped with heater, then be wared to avoid scalding if the heater is turned on.

Risk of flammability of cleaning solvent

The printed parts should be cleaned with 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.

Wear protective gloves

Please wear disposable medical gloves when operating the devices to avoid direct contact with the resin material.

Please wear cut-resistant gloves when separating the printed models from printing platform with a shovel.

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 which was generated by the operation of separating printed parts from the printing platform.

Good ventilation

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

Product Information

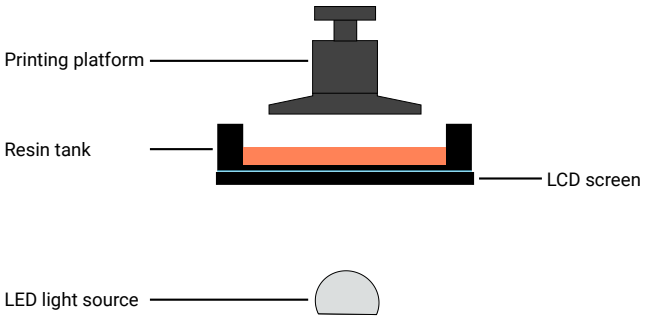
Technical Specification

	Edge E1
Build volume	192 × 120 × 190 mm
Pixel size	50μm
Technology	LCD Technology
Dynamic layer thickness	0.05~0.1mm
Printing speed	Up to 40 mm / 1 hour (Depending on the resin type and slicer settings)
Materials	
Available materials	ShapeMaterials Dental Series
Material packaging	1 kg
Hardware	
LCD screen	8.9" 4K monochrome screen
Light source	405nm LED
Resolution	3840 × 2400 pixels
Door control	Printing will be paused automatically if the cover is opened (Optional)
Heating module	Automatic heating building platform
Air filtration	Built-in air filter in building chamber
Touch screen	7" color touchscreen
Connectivity	USB2.0, Wireless network (2.4GHz/5.8GHz), Ethernet
Input	100~240VAC, 50/60Hz
Rated power	320 W
Software	
Control system	Self-developed Master.OS
Language	Chinese, English
Slicing software	ShapeWare
Operating system	Windows 7/8/10/11
File format(input)	.stl, .obj
File format(Output)	.rs, .shape
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	
Device dimension	390 × 420 × 535 mm
Net weight	26 kg
Package size	550 × 540 × 900 mm
Package weight	42 kg

Principle of LCD photocuring 3D printing technology

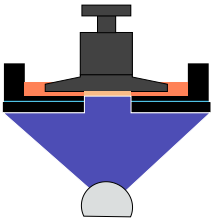
The core mechanism of light curing 3D printing technology is the light-curing chemical reaction that photosensitive resin will undergo light-curing reaction and instantly change from liquid to solid when it encounters 405 nm blue light.

RAYSHAPE Edge E1 3D printer uses the mature monochrome LCD technology to make the reaction process controllable.

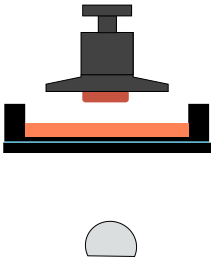


Step 1: ShapeWare 3D printing software will process the STL file you need to print into a slicing file.

Step 2: Additive manufacturing: the above figure is the structural schematic diagram of E1 3D printer. The resin tank contains photosensitive resin. In the first stage of printing, the printing platform that can move up and down on the Z axis is close to the bottom of the resin tank. The LCD screen projects a slice image of the model to be printed. The image is imaged at the bottom of the resin tank and bonded to the printing platform. After one layer is cured, the printing platform in the second stage is lifted up to a certain height, Separate the printed first layer from the bottom. In this cycle, press it down to a certain distance from the bottom, and then the LCD screen projection solidifies the next layer until all the slices are printed.



Stage 1: Printing platform descend and LED on



Stage 2: Printing platform rise and separate from the bottomon

Installation and Debugging

Installation requirement

In order 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:** 100~240VAC,50/60Hz

(Before using, please confirm the power requirements on the nameplate and use the power that meets the requirements.)

• **Rated power:** 320W

• 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 Edge E1 is 25-30℃ , 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

Edge E1 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 Edge E1, away from fire, heat and vibration sources.

Keep the cover closed during printing

During the printing process, please try not to open the cover for a long time, so as to avoid the drastic change of the resin temperature due to the fluctuation of the temperature inside the printer case, which affects the stability of the light curing chemical reaction, causing printing failure or poor printing quality.

Use official materials

All official RAYSHAPE materials have been extensively tested and optimized for superior performance, and we can not guarantee that you can get the same or similar printing performance when using non-designated materials.

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

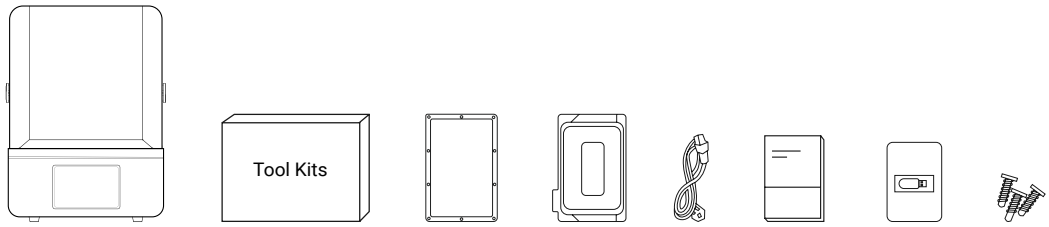
Ensure the speed and stability of wireless network

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 wall

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

Packing List

The weight of the whole package is about 40 kg, and it needs two people to operate at the same time when handling.



No.	List	Quantity
1	Edge1 E1	1
2	Tool kits	2
3	Release film	1
4	Resin tank lid	2
5	Power cord	1
6	User manual	1
7	USB drive	1
8	Spare screws	6

The packing box includes: 1 top foam, 1 bottom foam, 4 side protection foam, 1 Platform protection foam and 1 set of carton.Please keep it properly for transportation.

Tool kits

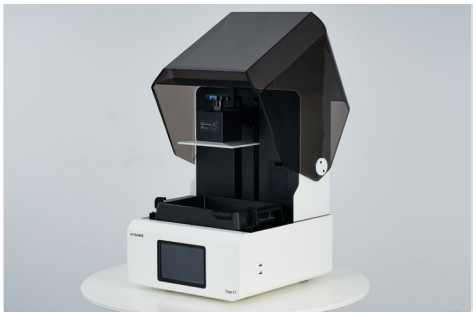
No.	List	Quantity
1	Plastic box	2
2	Plastic nippers	1
3	Scraper	1
4	Shovel blade	1
5	Disposable filter (80 mesh)	10
6	Tweezers	1
7	Spray bottie	1
8	Brush	1
9	Disposable gloves	2
10	Dust-free wipes	8
11	Allen wrench	4
12	Ethernet cable	1
13	Hammer	1
14	Tray	1

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.

Structure of equipment

No.	Item	No.	Item
01	Cover	07	USB port
02	Printing platform	08	Ethernet interface
03	Resin tank	09	Power switch
04	Touch screen	10	Power interface
05	Air filter	11	Fan port
06	Quick clip	12	Nameplate

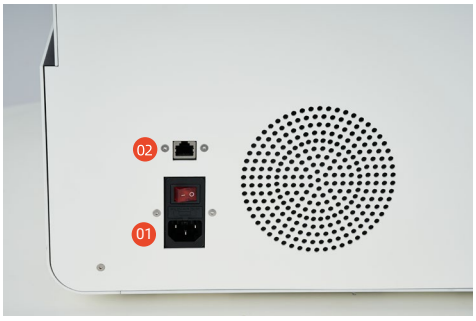
Installation and Connection



Platform

The platform which is used to place the device shall be more than 50cm in width, more than 65cm in depth, and there shall be more than 80cm space above. The load-bearing capacity shall be more than 40kg. The back of the device should be kept at a distance of more than 20cm from the wall to make sure that the cover could be fully opened. The table should be flat and stable, and avoid direct sunlight to the printer.

> The installation environment shall meet the requirements of the manual, otherwise it may lead to low printing success rate and print quality problems.



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 was applied.

(2) Connection of Ethernet cable

You can choose to use an Ethernet cable or Wi-Fi to connect your 3D printer with the Ethernet. Please connect one end of the network cable to the Ethernet port located on the rear surface of the device and the other end to the Ethernet port on site.

> The computer which was 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. Whether the LAN is connected to the external network does not affect network transmission.

Initialize platform

Click on " TOOLS"-"Z-AXIS OFFSET "-"MOVE TO TOP". The printing platform will move up to the initial position of the z-axis. Remove protection foam from the resin tank.

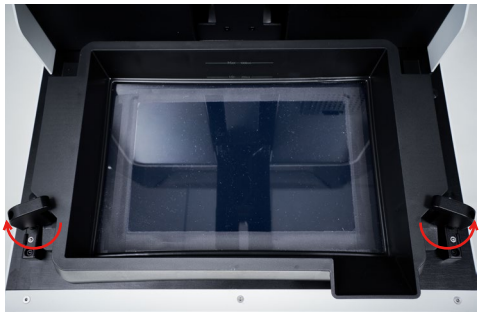
Remove /Install printing platform

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 make the platform separate from the bayonet, then take away the platform outward.

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

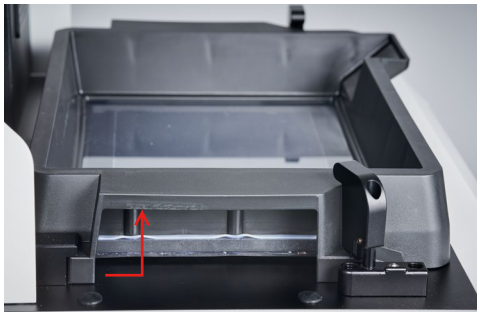
Hold the printing platform with one hand and rotate the hand wheel clockwise with the other hand until the blue sign was face to operator.

> ⚠ It was 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.



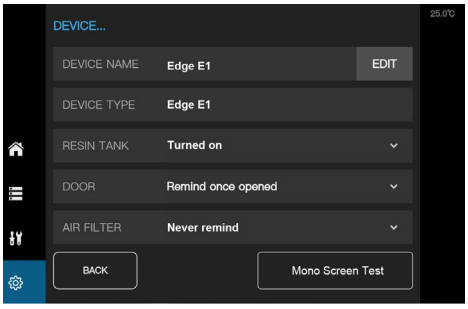
Remove the resin tank by lifting it with both of your hands for a certain distance and take it away from the printing chamber.

> ✋ 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.

Preparation and Setup

Screen preparation

The screen shall be kept clean without damage, scratches and other abnormalities. The screen is pasted with protective film. Please check and clean it regularly. If needed, please replace with a new protective film.



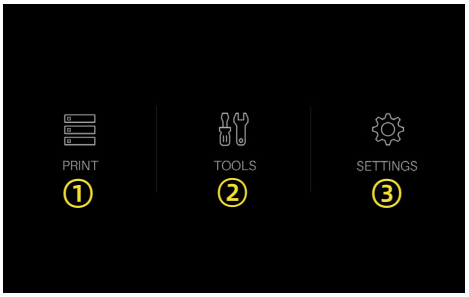
Screen test

Place a piece of A4 paper on the screen, close the cover, click "Mono Screen Test", the screen will project a square array, . Check if the projected image is clear and stable.

If the projected image is flickering, blurred or with other abnormal conditions, please contact with the after-sales service.

Interface Introduction

Interface introduction

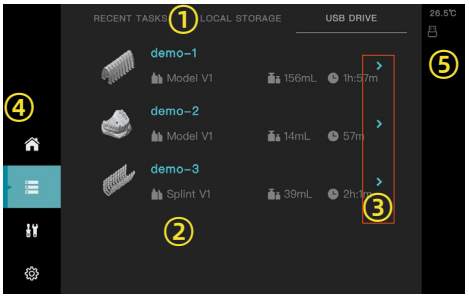


Screen preparation

① Printing

② Tools

③ Settings



Interface for printing task

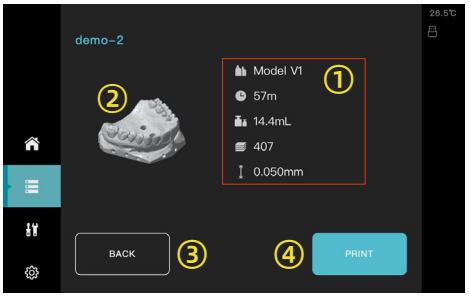
① Taskbar: -History task
-Network task
-USB drive task

② Task list

③ Load the file

④ Menu

⑤ Status bar: -Display of temperature
-Internet connection
-USB drive



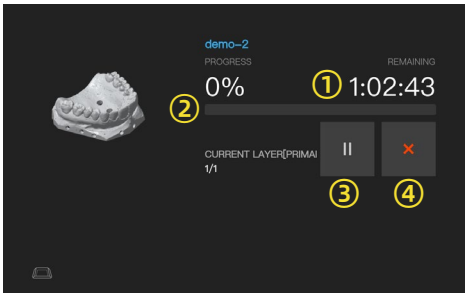
Start-up of printing

① Printing task information

② Preview of printing part

③ Return to former interface

④ Start printing



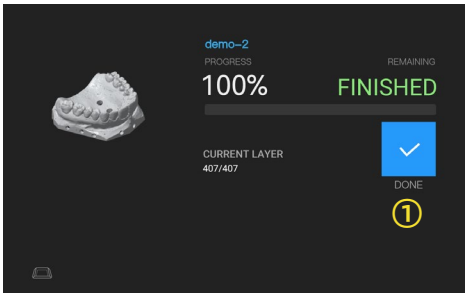
Printing in progress

① Time remaining

② Progress bar

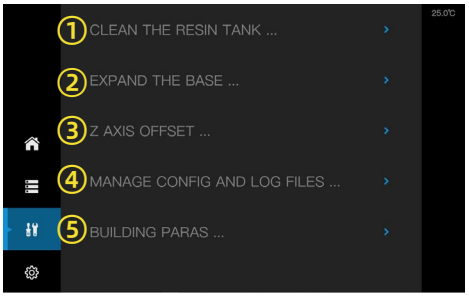
③ Pause/Continue

④ Terminate



Completion of printing

① Click to return to the main interface



Tools

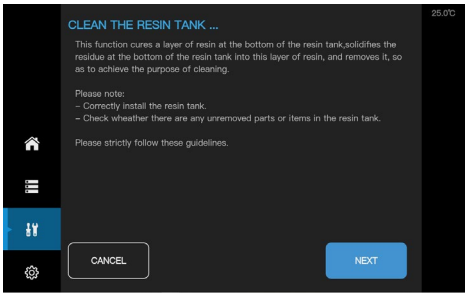
① Clean resin tank

② Expand base

③ Offset Z-axis

④ CONFIG and LOG files

⑤ Printing parameters

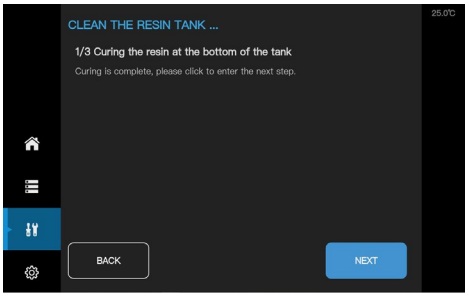


Clean the resin tank

Step 1:

Please read the instruction carefully before starting with the related operation.

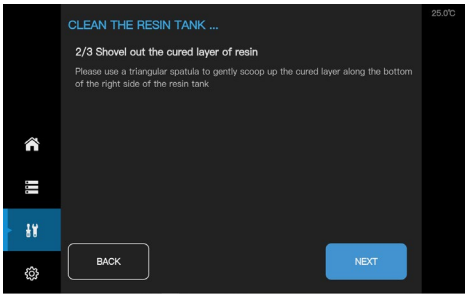
> ⚠ Click "NEXT", and make sure that the cover was closed to avoid UV light exposure.



Step 2 :

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

Interface introduction

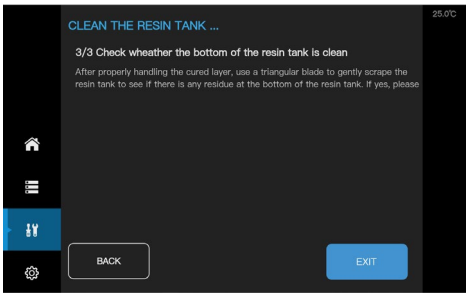


Step 3:

Clean up the cured resin within the tank.

Shovel the cured layer of resin along the edge of the resin tank with the triangular scraper until it was separated at the corner.

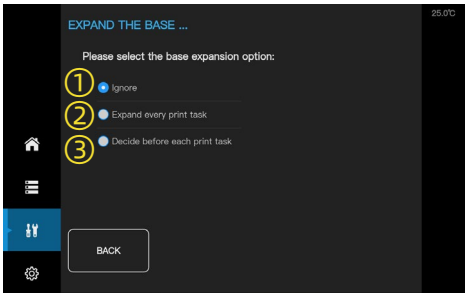
Please take the layer of solid resin with your hands by wearing rubber gloves and discard it properly afterward. It is not recommended to deal with that by using the tools such as tweezers since the solid resin with such thickness was quite brittle.



Step 4:

Double check that whether there is residual fragment within the resin tank, repeat the procedure above if there is any.

> Please get the resin material filtered before starting with the printing task if there is lots of cured fragment after a failed printing.



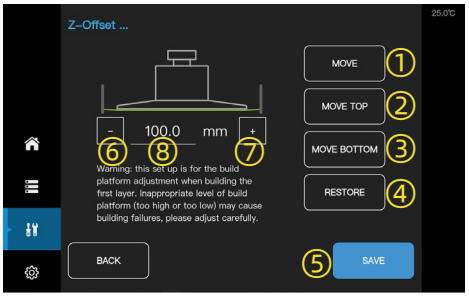
Expand base

The function of base expanding is used to enlargethe adhered area of the printing model in order to reduce the possibility of printing failure. It was not recommended to apply to the model without support structure. There are three modes as follow:

① Ignored: Do not expand automatically

② Default: Expand every time

③ Optional: Remind to make a choice before printing



Offset Z-axis

① Move to the position defined in ⑧Maximum Z-axis travel

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 maximum travel of Z axis

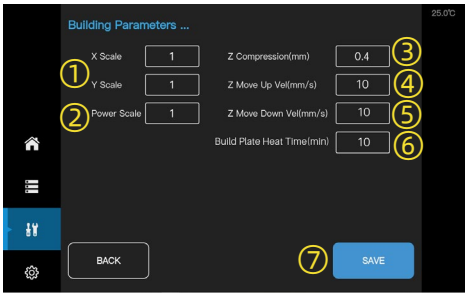
④ Recover to initial value in ⑧

⑤ Save the value in ⑧ as 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

⑧The value of Maximum Z-axis travel



Printing 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;

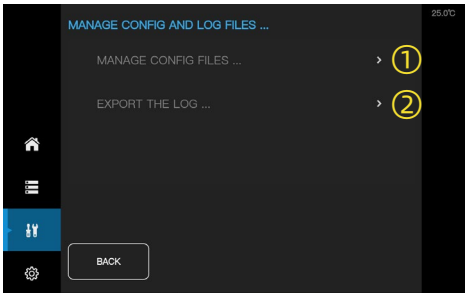
③ Compression compensation, for compensating the height tolerance of the device along Z-axis;

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 The heating time of the printing platform before printing;

⑦Save the updating.

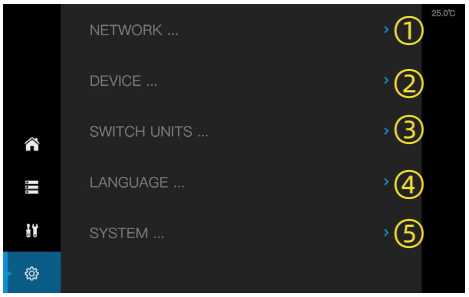


CONFIG and LOG files

① CONFIG files

② Export LOG

Interface introduction



Setting of system

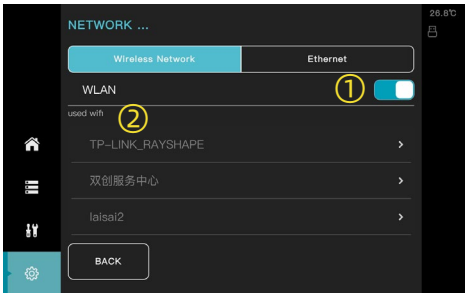
① Setting of network

② Equipment related

③ Unit-conversation

④ Language

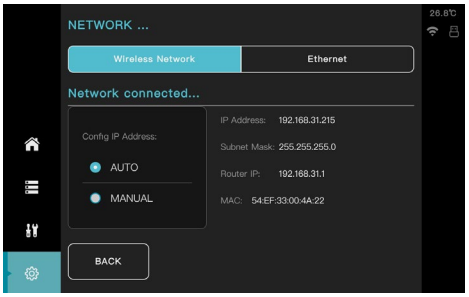
⑤ System



Setting of wireless network

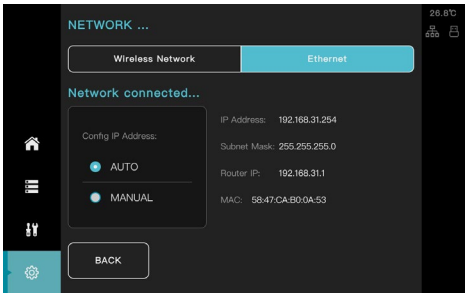
① Enable the function of wireless network.

② Select the specified network which you would like to connect within the list of wireless network.



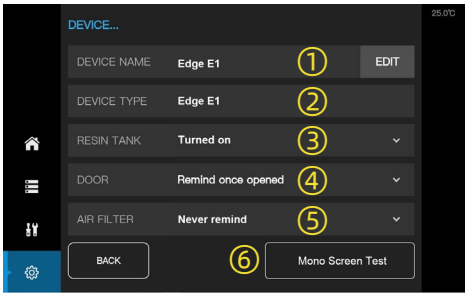
After the connection, the printer will be identified by the host computer through the IP address, then it is allowed to deliver the printing task online.

ShapeWare connect the device through IP addresses.



Setting of wired network

The network information would be refreshed automatically as soon as it is connected successfully, then the printer would be identified by the host computer through IP address to achieve remote delivery of printing task.



About

① Printer name（Could be customized）

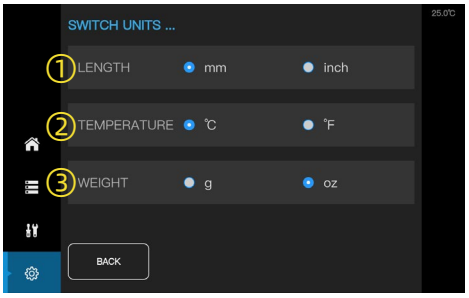
② Printer model（Choose the right model while preparing the slicing file ）

③ Heating of printing plateform（Turn on or off）

④ Setting of cover（Remind only or pause the printing if the cover is open）

⑤ Reminder of replacement for air filter（Remind every month or never remind）

⑥Mono Screen Test（Test whether the LCD is working normally. Please close the cover and do not look directly at the screen during the test.）

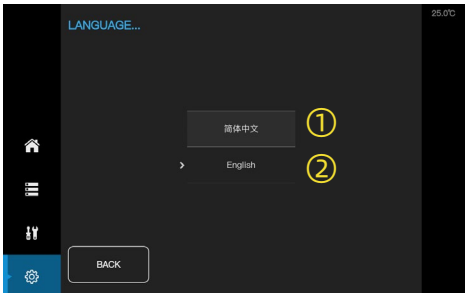


Unit-conversion

① Dimension：mm or inch

② Temperature：Centigrade or Fahrenheit

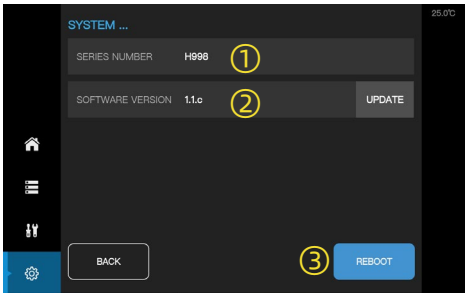
③ Weight：g or oz



Language

① Chinese

② English



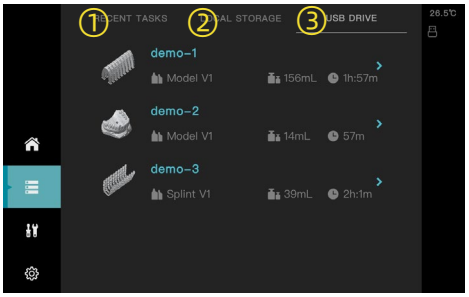
System information

① Series No. of the device

② Software version （Please contact with after-sales engineers if updating is needed. ）

③ Reboot the equipment

Printing

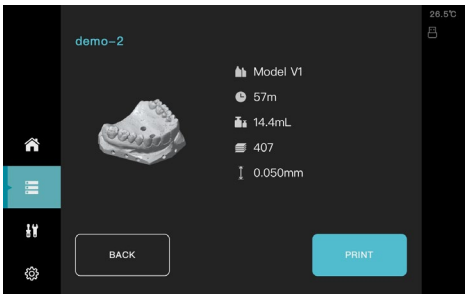


Printing file load

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 with the printing platform

① The surface of the printing platform should be clean and free of foreign matter.

② Make sure the printing platform to be installed in a correct and reliable way.

> ⚠ 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. But convex on the surface of the platform is not allowed to avoid the risk of damage to the release film.

Check with the resin tank

Do a visual check that whether the release film is damaged and any foreign matter is available in the resin tank if it is an empty one.

If there is residual resin available in the tank, use the plastic scraper to scrape the bottom of the resin tank slightly to check whether the release film is damaged, and mix the resin evenly in the meanwhile.

Printing

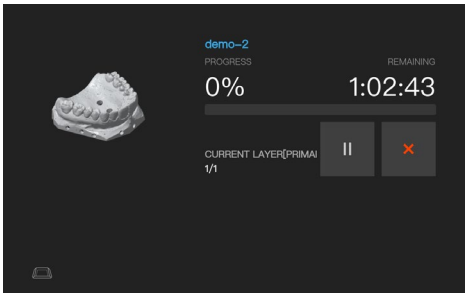
Add resin

Make judgement whether it is necessary to add resin according to the remaining amount in the resin tank and the consumption of next printing task.The bottle which is containing the resin material should be shaking up and down adequately just before pouring the resin material into the resin tank.

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

> The bubble generated by shaking does not affect the print quality.

> 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 "PRINT" button to initiate the task, then wait for completion of printing.

Post-Processing

Post-processing

Preparation

Post-processing work will lead to resin dripping, and waste liquid or waste residues would be generated accordingly also, then pollution prevention should be considered during the preparation.

Item should be prepared： Disposable glove, spray bottle, brush, shovel blade, hammer, tray, 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.

Remove the printing platform

Click "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 was separated at the corner, then tear down the whole layer of resin with your hands by wearing the disposal gloves and discard afterward.

Cover the resin tank with lid if the resin material is needed to be stored within the tank temporarily.

Please take resin material out of the tank if it will be not consumed in 3 days, make sure to get it filtered before store them in a light-proof container. It was not recommended to mix it with the original one directly.

Shovel printed parts

Gently tap the blade with the hammer to remove the model from 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 of the user during the operation.

Post-processing

Clean printed parts

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

Brush the model in the cleaning tank for preliminary cleaning.

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

After the preliminary cleaning, please spray cleaning solvent on the model. After cleaning, the surface of the model is dry and free of sticky hands.

Clean the printing platform

After the printed parts are removed, use a shovel blade to clean the surface of the platform, please be aware that do not damage the platform during the operation.

> If the type of resin material will change in the next task, the printing platform shall be cleaned with cleaning solvent carefully in order to remove residual resin.

Maintenance

Maintenance

Clean light path

LCD 3D printer is a precision optical device, and the light path shall be kept clean to avoid reduction on printing accuracy and quality. The optical path, which is composed of the screen and the release film, shall be cleaned regularly. Do the cleaning work with dust-free wipes, or absolute ethanol in case it is necessary.

Clean resin tank

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

1. Firstly you need to empty the resin tank by pouring the current resin material into an light-proof container for temporary storage.

2. Clean the resin tank thoroughly with cleaning solven, and then pour new resin into it afterward.

3. At the same time, clean the printing platform with solvent carefully.

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

1. Remove the current resin tank 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.Then cover it with a resin tank lid.

> The resin should be taken away from the resin tank, and filtered just before storing in a light-proof container if it will not be consumed in 3 days. Do not mix it with the original resin directly.

2. Clean the printing platform with cleaning solvent carefully in the meanwhile.

Maintenance work in case that printing part falls off during printing

In case of such problems as part falling off (the printing part falls off from the printing platform) and 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

According to the defined replacement interval of the built-in air filter which was located in the printing chamber, it will remind you to replace the filter element automatically.

When replacing, remove the filter element box cover, take out the old air filter element, install the new filter element, and replace the box cover.

Troubleshooting

Troubleshooting

No.	Description	Reason	Solution
1	The device cannot start up normally	The socket does not have normal power supply.	Check whether the socket is working normally.
		The cable is not plugged in or becomes loose.	Re-plug the cable and confirm the connection is reliable.
		The power switch is not turned on.	Turn on the power switch and confirm that the light is on.
		Electrical fault	Contact the re-seller / distributor or after-sales department.
2	Part falling off.	The bottom of 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.
		The printing platform is not leveled and zeroed in place.	Do the leveling check under the guidance of after-sales personnel. Increase the value of initial position if necessary.When leveling the building platform, don't crush the screen.
		The ambient temperature is too low.	Place the printer in an air-conditioned room to ensure that the ambient temperature is between 25-30℃.
		There is foreign matter in the tank.	Pour out the resin in the tank, clean the resin tank with clean alcohol/IPA, and confirm the removal of the foreign matter.
		Light path pollution	Check and clean the light path, and confirm that the bottom of the resin tank and the LCD screen are clean and bright.
		Resin and slicing package do not match.	The resin is inconsistent with the resin selected during slicing. Please confirm whether it matches.
3	The bottom of part is peeling off.	The support is not added properly.	Check the structure of the support and add enough support accordingly.
		Unreasonable design of part	The structure such as cupping and large cross-section should be avoided.
4	The surface of the part is coarse.	Unreasonable design of part	The structure such as cupping and large cross-section should be avoided.
		Resin and slicing package do not match.	The resin is inconsistent with the resin selected during slicing. Please confirm whether it matches.
		The tank is seriously damaged.	Pour out the resin in the tank, check the quality of the tank, and if it is seriously damaged, contact the dealer and purchase a new tank.
		Light path pollution	Check and clean the light path, and confirm that the bottom of the resin tank and the LCD screen are clean and bright.
5	The part is difficult to be shoveled from the build plate or is easily broken when being shoveled off.	Unreasonable design of part	Shell the part for printing, with a thickness of not less than 2.5mm.
		The shovel blade becomes blunt.	Replace it with a new shovel blade.
6	Abnormal interruption during printing.	Power off	Check the main power supply of the site.
		The part has a problem.	Check whether there is a problem with the interrupted layer, e.g. a blank outline.
		Other abnormalities	Export the log of the printer and send it to the after-sales department.
7	The support in some area of the part is broken.	The support is not added in place.	Check the structure of the support and add enough support accordingly.
		The support is too thin.	Increase the diameter of the support bar.
		The 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 device in an air-conditioned room to ensure that the ambient temperature is between 25-30℃.
8	Part of the printed part is missing.	Insufficient resin in the tank.	Add enough resin and print it again.
		Light path pollution	Check and clean the light path, and confirm that the bottom of the resin tank and the LCD screen are clean and bright.
		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.
		There is foreign matter in the tank.	Pour out the resin in the tank, clean the resin tank with clean IPA/alcohol, and confirm the removal of the foreign matter.

Service

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.

-LCD screen is a consumable with a warranty period of 3 months.

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 as well.

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, and the supplier could promise that the best printing performance and reliability would be obtained if the supplier's official consumables and supporting software was used and the instructions of the equipment's user manual was complied with strictly during usage; Such warranty requests, which was caused by the application of 3rd party software and consumables, would not be accepted by the supplier definitely.

6. Warranty services

Supplier would offer maintenance service to the request which is not complied with the warranty condition or out of the warranty period, but the cost related to spare parts and transportation should be undertaken by the requester 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 contact 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.

Running log file of the device

Enter the menu: TOOLS- CONFIG AND LOG FILES-EXPORT THE LOG-Export, export the running log file of the device, which will be saved in the root directory of the USB disk.

Photos and videos

Some faults are difficult to describe and judge, and in this case, providing photos or videos is the most effective way to explain the problem.

Please provide photos or videos under 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 or difficult to describe;

4.Problems in printing quality.

Contact

For more information:

Sales Inquiries

sales.os@rayshape3d.com

+86 400 0983 356

Comments and suggestions:

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

RAYSHAPE®
Year Warranty

RAYSHAPE®

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.

W0500012

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