Shape 1+ Series

User Manual V1.0

RAY**SHAPE**®

Contents

General Information

Instructions

This manual includes the technical information, safety guidelines,and detailed operation instructions for Shape 1+ series DLP 3D printers.Please keep it properly.

Please read the manual carefully just before doing operation with the printer. Any corresponding consequences,caused by the operation which was failed to comply with the safety guidelines and operating instructions defined in this manual, should be taken by the user themselves.

All the information in the manual is up to date as far as it was printing, the changes which was caused by the design update of the product will not be informed separately.

Due to minor deviation between specific models and specification,the pictures which was used in the manual may be different from your printer slightly.

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 products 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 guideline

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 already and take appropriate precautions during operation.

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 themselves finally.

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 spec. 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 was designed basing on the principle of UV light curing and there is UV light available just inside the device during operation definitely, then the risk of UV light leakage 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.

Risk of mechanical extrusion

The building 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 building area during the printing.

Risk of sharp edge cutting

After printing, a shovel blade is needed to separate the printing parts from the building 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 printing parts from the platform.

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

Avoid scalding

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

Risk of flammability of alcohol

The printed parts should be cleaned with alcohol which purity was more than 95%.

Make sure a good ventilation and keep away from any sources related to heat and fire during the storage and usage of alcohol.

Wear protective gloves

Please wear disposable medical gloves in any operation of the printer and avoid to contact with resin materials directly.

Wear anti-cutting gloves during the operation of separating the printing parts from the building platform.

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 printing parts from the building platform.

Good ventilation

The room that the printer was installed and also that for post processing of printed parts should be well ventilated.

Product Information

Specification

	Shape 1+	Shape 1+ HD
Build volume	192 × 108 × 200 mm	144 × 81 × 200 mm
Pixel size	100 μm	75 μm
Technology type	Low peeling force and DLP technology	
Dynamic layer thickness	0.025 - 0.3 mm	
Printing speed	Up to 80 mm / hour (Depend on the resin and print settings)	

Consumables

Available consumables	ShapeMaterials Basic / Functional / Advanced series	
Capacity / unit	1 kg	

Hardware

Light source	UV LED light source, DMD chip from Texas Instruments	
Wavelength of light source	405nm	
Resolution	1920 × 1080 pixels	
Building environment	Automatic heating resin tank	
Door control	Printing is automatically paused when the chamber door is opened during printing	
Touch screen	7' interactive touch screen	
Connectivity	USB, Wi-Fi, Ethernet	
Power requirement	100-240 VAC, 50/60 Hz	
Rated power	250 W	

Software

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, deliver	
Wireless printing	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 , Japanese	

Size and weight

Device dimension	420*400*604 mm	
Device dimension (With the hood open)	600*400*800 mm	
Net weight	26 kg	
Package size	600*600*950 mm	
Package weight	40 kg	

Packing List

No	Name	Quantity
1	Shape 1+ or Shape 1+HD printer	1
2	Printing platform	1
3	Resin tank	1
4	Power cord	1
5	Washing unit	2
6	Scraper	1
7	Shovel blade	1
8	Plastic nippers	1
9	Disposable filter (100 mesh)	10
10	Tweezers	1
11	Watering can	1
12	Brush	1
13	Disposable gloves	2
14	Dust-free cloth	8
15	Allen wrench	3
16	Spared screws	6
17	Cable	1
18	U drive	1
19	Resin tank lid	1

DLP photocuring 3D printing technology principle

RAYSHAPE Shape 1+ 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 that photosensitive resin will undergo 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 Shape 1+ 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, and 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 Adjustment

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: 110/220VAC

• Rated frequency: 50/60Hz

• Rated power: 250W

• 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 Shape 1+ series 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 in the air

The RAYSHAPE Shape 1+ 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.

Levelness of the platform

Keep away from fire, heat and vibration sources

The precise leveling of the resin should be ensured during the working process of the RAYSHAPE Shape 1+ series, so the levelness of the platform for placing the RAYSHAPE Shape 1+ series is very important.

Keep the hood closed during printing

During the printing process, please try not to open the hood 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 consumables

In addition to the excellent performance, all official consumables of RAYSHAPE have also undergone extensive testing and optimization, and we can not guarantee that you can get the same or similar printing performance when using non-designated consumables.

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

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.

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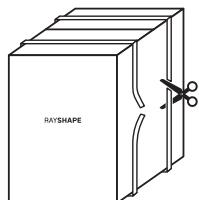
Cut the packaging tape with scissors, lift the upper carton vertically upwards, and the four sides of the lower carton will unfold to expose the device.

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

> ☞ The total weight of the device, the consumables inside the body, and the toolbox is about 40 kg, and if necessary, one helper is needed.

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13	Disposable gloves	2
14	Dust-free cloth	8
15	Allen wrench	3
16	Spared screws	6
17	Cable	1
18	U drive	1
19	Resin tank lid	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

Articles included in the tool kit

Washing box-Large   Tray   Washing box-Small Watering can Rubber gloves Disposible filter paper

Plastic nippers   Shovel blade   Brush   Tweezers   Hammer   Allen wrench   Scraper   Spared screw

Internet cable   Power cord   ShapeWare USB drive

Structure of equipment

No.	I t em	No.	I t em
01	Hood	06	Ethernet interface
02	Building platform	07	Power switch
03	Resin tank	08	Power interface
04	Touch screen	09	Nameplate
05	Air filter		

Installation of equipment

Placing platform

The platform which is used 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 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.

🖐️ Please note that, 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.

Installation of equipment

Power on/off

The 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.

Remove the protection foam

In order to avoid the risk that the moving parts of the device may get damaged due to vibration during the transportation, a form with certain thickness was clamped between the building platform and the resin tank for protection purpose. It should be removed definitely before operating with the printer.

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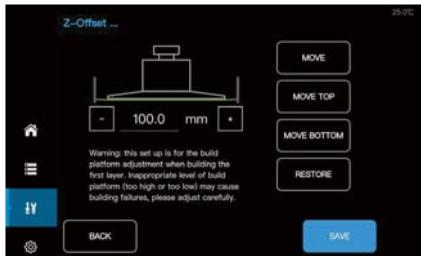
Remove protection foam from the resin tank.

Dis-assembly of building platform

Please hold the building platform with your left hand and rotate the hand wheel counterclockwise with your right hand until the blue sign is back to the body of operator to make the platform separate from the bayonet, then take away the platform outward.
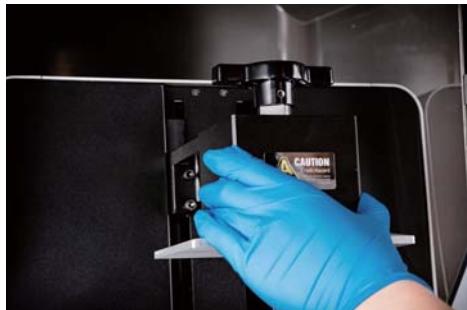
Assembly of building platform

Please align the printing platform with the cantilever bayonet as shown on the left and slide inward horizontally to the end when the building platform is installed.
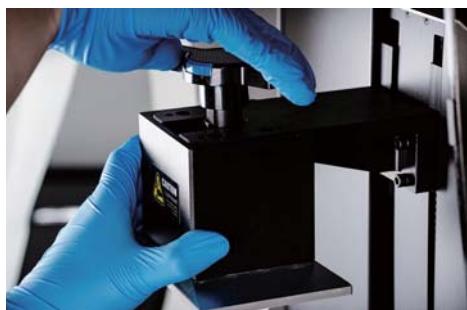
Hold the building platform with left hand and rotate the hand wheel clockwise with right hand until the blue sign was face to operator.

⚠️ It was recommended to tighten the rotation wheel until the building platform is not wobbled any more.

Dis-assembly of 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 building chamber. Please place the resin tank on a clean A4 paper to avoid the risk of being contaminated and damaged for the release film.

Installation of equipment

Leveling check

Please fix the building platform, remove the tank, and place a clean piece of A4 paper on the resin tank glass just before the leveling check.
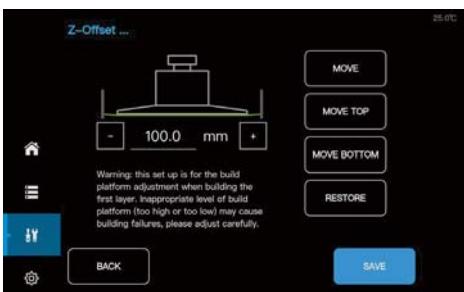
Click " TOOLS"-"Z-AXIS OFFSET "-"MOVE TO BOTTOM". The printing platform will move down until it contacts with the surface of the resin tank glass (maximum Z-axis travel).

⚠️ 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, the paper should be immovable in any case.

Level adjustment should be done in case the paper is movable during the checking process.

Adjustment method :

① The maximum travel of z axis would be added by 0.1mm with each clicking of "+", the building platform will move downward to the defined position by clicking on "Move" button.

② Drag the paper at four corners to check the leveling status, the level adjustment could be completed in case the paper is immovable.

In case it was not, repeat the procedure ① ② until the paper is immovable in any case. Then click the "save" button to set the new value for

the maximum travel of Z axis. Click "MOVE TO TOP " and "MOVE TO BOTTOM" in sequence to double check the leveling status.

✋ The maximum allowable adding of z axis in level adjustment is 0.5mm. Please contact with the manufacturer for further support in case that the leveling check is still failed with Maximum adding which is mor e than 0.5mm.

Click "TOOLS"-"Z-AXIS OFFSET SETTINGS"-"MOVE TO TOP " as soon as the leveling check is done.
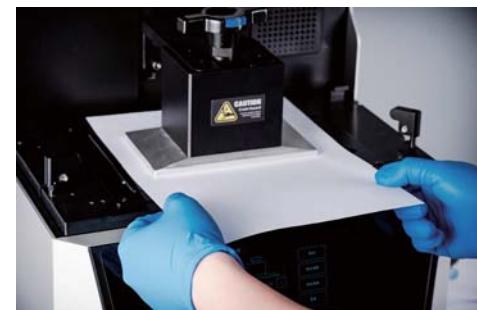
Installation of equipment

Installation of resin tank

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

② Place the anti-contaminated film on the surface of the resin tank glass, make sure it is flat and located in the middle then get it hold on by sticky tape.

> The anti-contaminated film should be plain and dust-free, clean it with clear alcohol before taping it on the resin tank glass if it is 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 finally.

Interface Introduction

Interface introduction
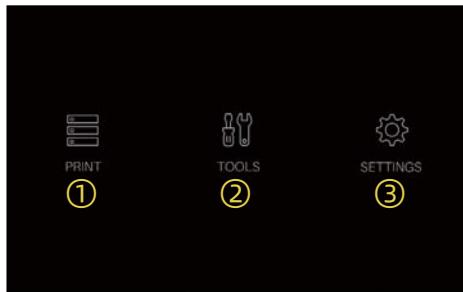
Main interface

① Printing

② Tools

③ Settings

Interface for printing task

① History task

② Local task

③ USB task

④ Task list

⑤ Load the file

⑥ Menu

⑦ Status of equipment：-Display of temperature

-Internet connection

-USB drive
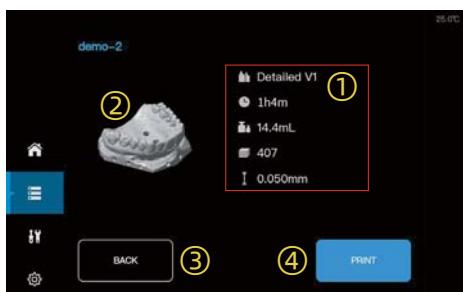
Start-up of printing

① Printing task information

② Preview of printing part

③ Return to former interface

④ Start with the printing
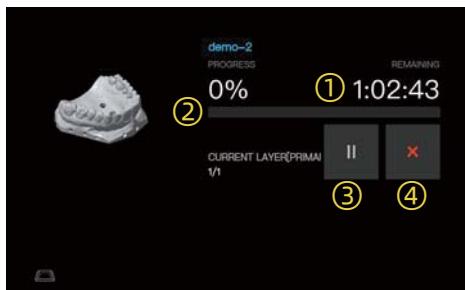
Printing in progress

① Time remaining
② Progress bar
③ Pause
④ Terminate
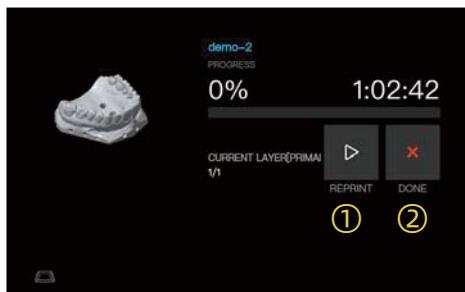
Pause of task

① Continue with the task
② Cancel the task

Completion of printing

① Click to return to the main interface
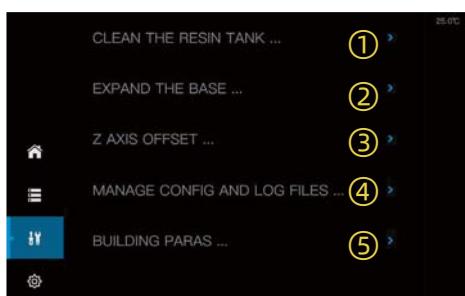
Tools

① Clean the resin tank
② Expand the base
③ Z axis offset
④ Management of config and log
⑤ Printing parameter
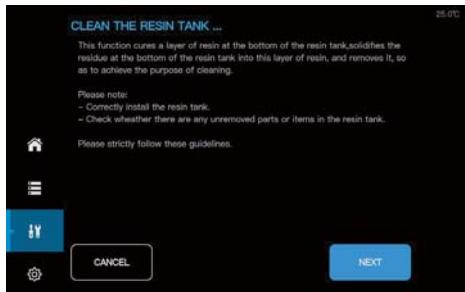
Clean the resin tank

Step 1:

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

⚠️ Click "NEXT", and make sure that the chamber door of the device was closed to avoid UV light exposure.
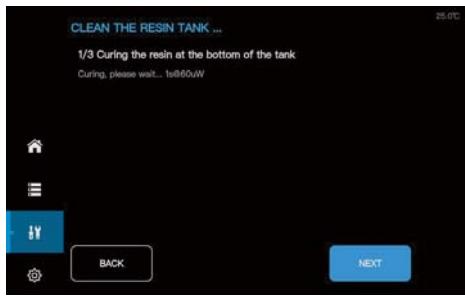
Step 2

The resin would be cured as soon as the projection finished.
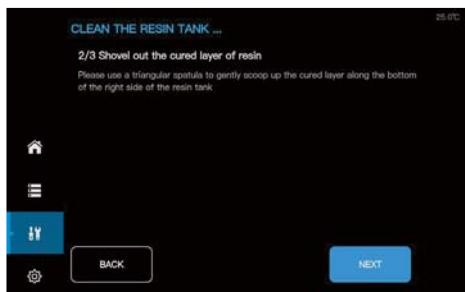
Step 3

Clean up the cured resin within the tank.
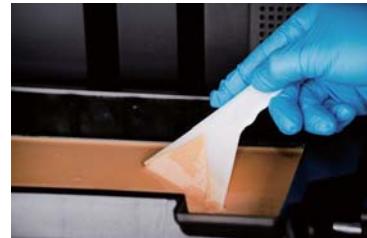

Shovel the cured layer of resin along the edge of the resin tank with the triangular scraper until it was separated at the corner.

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.
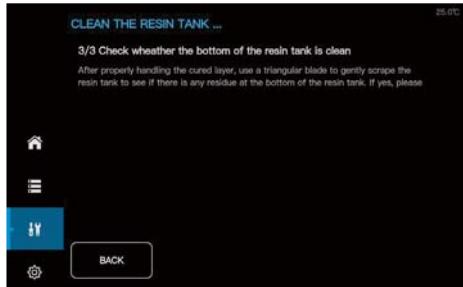
Step 4

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 residual fragment within it.
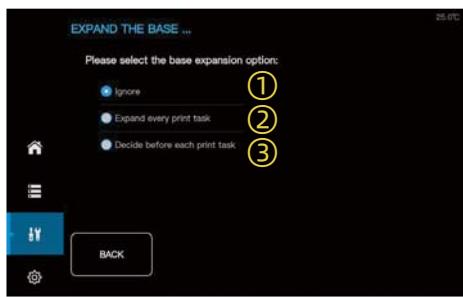
Expand the base

The function of base expanding is used to enlarge the 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
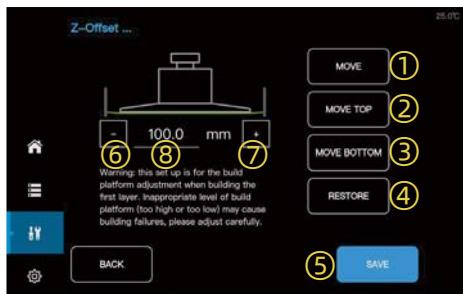
Z axis offset

① Move to the position defined in ⑧ Maximum Z-axis travel
② Move to the initial position

Reset the building platform by clicking on "MOVE TO TOP" in any case that the building platform was not in the initial position causing accident (equip menafurlure,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
⑧ The value in Maximum Z-axis travel

Setting of parameter

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 Save the updating.
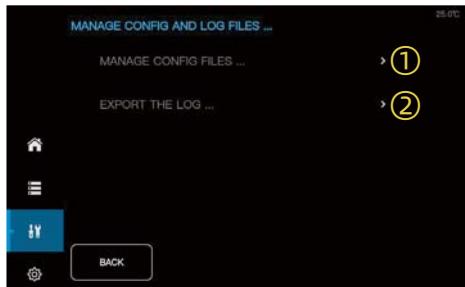
Management of Config and Log

① Management of Config

② Log file export
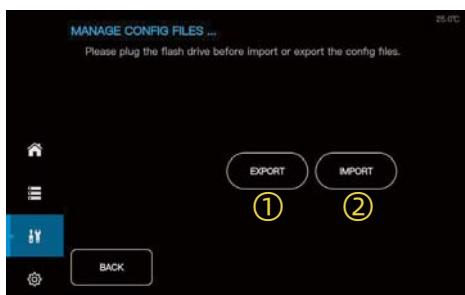
Management of Config

① Config file export

② Config file import
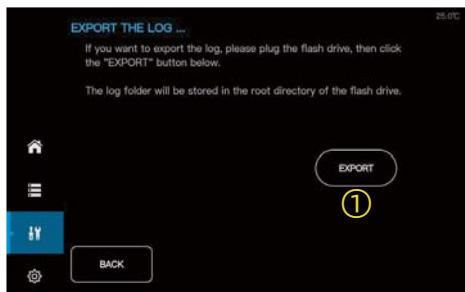
Log file export

① Log file export
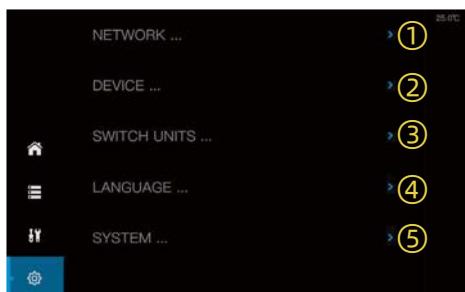
Setting of system

① Setting of internet

② Equipment related

③ Unit-conversation

④ Language

⑤ System
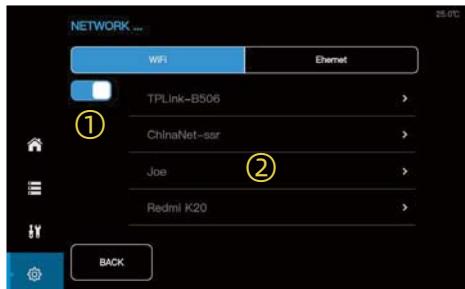
Setting of Wi-Fi

① Enable the function of Wi-Fi.

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

Setting of Wi-Fi

① Enter the password

② Connect with network

Setting of Wi-Fi

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

> It is recommended to define IP address manually.
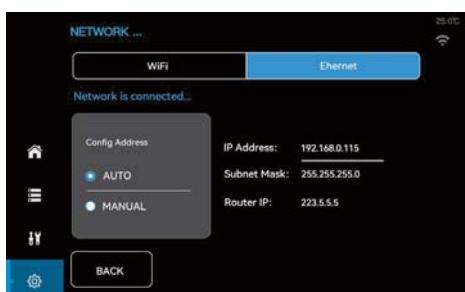
Setting of wired network

The net work 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.
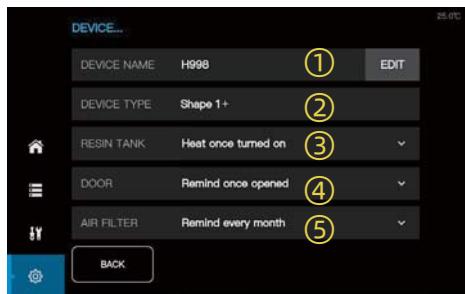
Setting of equipment

① Device name（Could be customized）

② Equipment type （Choose the right type equipment while preparing the slicing file ）

③ Heating of resin tank（Preheat as soon as turning on the equipment or before printing）

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

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

Unit-conversion

① Dimension：mm or inch

② Temperature：centigrade or Fahrenheit

③ Weight：g or oz

Setting of Language

① Chinese

② English
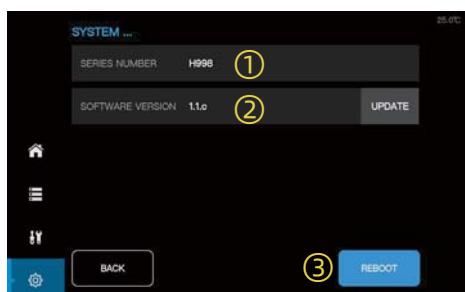
System information

① Series No. of the device

② Version number of the device （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 building platform

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

② The building platform should be with a correct type and reliable.

⚠ 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 wax 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.

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.

Pour the resin slowly.

The liquid level of the resin should be kept between line " 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 "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, watering can, brush, shovel blade, rinse tank(It is recommended to equip with ShapeWash washing unit)

Remove the building platform

Loosen the fixing hand wheel counterclockwise, pull it towards to your body and remove the building platform.
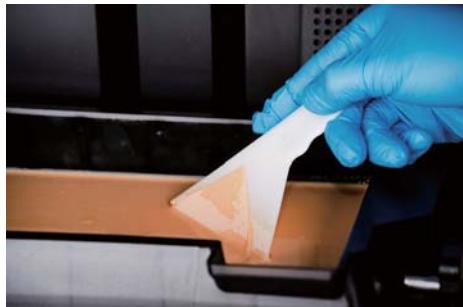
Clean the resin tank

Click "Clean resin tank". After curing, please shovel a cured layer of resin along the edge of the resin tank with the triangular 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.

Please take the layer of solid resin with your hands by wearing rubber gloves . 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.

Cover the resin tank with lid if the resin material is needed to store within the tank temporarily

👆 *Please take resin material out of the tank if it will be not consumed in one week, 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 the part

Please use the shovel blade to shovel the printed part off from the building 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.*

Clean the printing part

Preparation: Please fill the watering can with alcohol which purity was more than 95%.

Please hold the part above the cleaning tank, and spray alcohol on the part for preliminary cleaning.

👆 *In order to obtain a better effect of cleaning, it is recommended to conduct the ultrasonic washing with alcohol which purity is more than 95% twice, and 1-2 minutes was needed every time. Clean alcohol should be used for the second washing.*
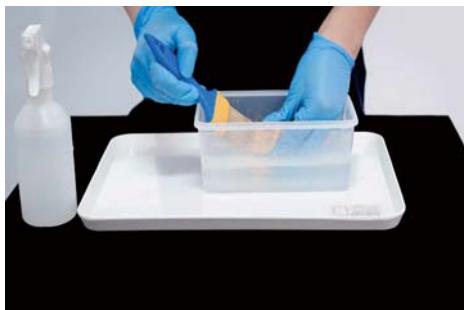
If there are many depressions or wrinkles in the part , please use a brush to do the preliminary cleaning, and spraying alcohol in the corresponding area for further treatment.

After the further cleaning in local area is completed, please spray alcohol on the part as a whole.

Clean the building platform

After the printing part is removed, use a shovel blade to clean the surface of the build plate, 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 build plate shall be cleaned with alcohol carefully in order to remove residual resin.

Remove the support

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

Maintenance

Maintenance

Clean light path

DLP 3D printer is a precision optical device, and the light path shall be kept clean to avoid the The optical path (the surface of dust prevention glass, glass of resin tank, release film, and other related component) shall be cleaned regularly. Do the cleaning work with a dust-free cloth, 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 opaque container for temporary storage.

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

3. At the same time, clean the building platform with alcohol 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 (e.g., laying on a piece of A4 paper), covering the resin tank with a piece of A4 paper for temporary storage.

> The resin should be taken away from the resin tank, and filtered just before storing in an opaque container if it will not be consumed in one weeks. Do not mix it with the original resin directly.

(2). Clean the building platform with alcohol 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 building 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 building chamber, it will remind you to replace the filter element automatically.

Please do the replacement according to the procedure as follow

(1). Remove the magnetic filter box cover,

(2). Pull the original filter element out via grabbing the drawstring,

(3). Install a new one,

(4). Re-install the box cover

Trouble Shooting

Trouble shooting

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 pile of the first layer is completed and the case that the area of first layer is too small should be avoided.
		The support is not added in place	Check the structure of the support and add enough support accordingly
		The printing platform is not leveled and zeroed in place	Do the leveling check, increase the value of initial position by 0.1mm if it is necessary
		Unreasonable design of part	The structure such as cupping and large plain surface should be avoided
		There is foreign matter in the tank	Pour out the resin in the tank, clean the material tank with clean alcohol, and confirm the removal of the foreign matter
		Unreasonable design of part	Try to avoid the inverted cup mouth or large plane shape
		The ambient temperature is too low	Place the printer in an air-conditioned room to ensure that the ambient temperature is between 25-30℃
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 plain surface should be avoided
4	The surface of the part is coarse	Unreasonable design of part	Try to avoid the inverted cup mouth or large plane shape
		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 agent and purchase a new tank
		The tank bottom or dust-proof glass is dirty	Wipe it with a dust-free cloth dipped in clean alcohol, and then wipe again with a dry dust-free cloth to confirm that the tank bottom and the dust-proof glass are clean and bright
		There is foreign matter in the tank	Pour out the resin in the tank, clean the material tank with clean alcohol, and confirm the removal of the foreign matter
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; the liquid level of resin shall be slightly higher than that of the build plate when it is contacted with the tank bottom
		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

Warranty

1. Warranty period

RAYSHAPE 3D printers are provided with 12 months of warranty and lifetime maintenance services from the date of receipt of them.

2. Preconditions

-The equipment failure is not caused by human reasons or force majeure.

-A valid proof of purchase is provided.

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 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 3 rd party software and consumables, would not be accepted by the supplier definitely.

6. warranty services

Supplier would offer free 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

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-MANA GE CONFIG AND LOG FILES-EXPORT THE LOG-Export, export the running log file of the device, while will be saved in the root directory of the U 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 us

For more information:

Sales Inquiries

✉ sales.os@rayshape3d.com

☎ +86 400 0983 356

Comments and suggestions:

✉ feedback@rayshape3d.com

Your feedbacks are greatly appreciated, and your comments and suggestions will be fed back to our sales, R&D, and technical support departments to help us provide you with better products and services.

Warranty card

RAYSHAPE®
1 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 : ＿＿＿＿＿＿＿＿＿＿

RAY**SHAPE**®

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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.