SHINING 3D

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FabCure N2 Posting−curing Unit

Quick Start Guide

What's in the Box

1 Turntable Assembly

2 Reuseable curing tray*5

FabCure N2

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4 Nitrogen Hose

3 Power Cable
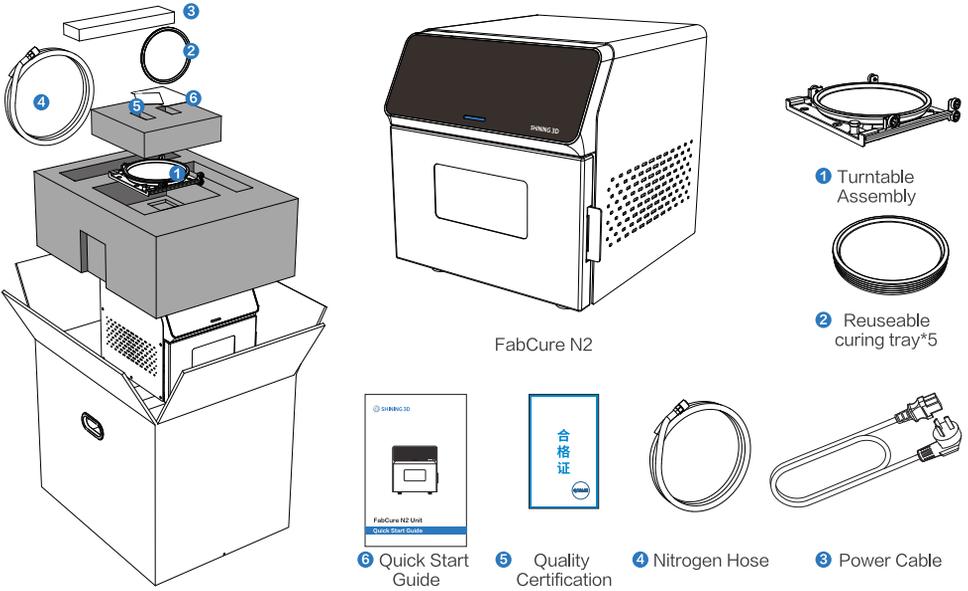
Please open the package with care. It should include all the listed components.

Product Overview

The FabCure N2 Nitrogen Curing Unit is a versatile UV curing post-processing unit, featuring heating and oxygen inhibition by use nitrogen when curing. It accommodates the thermal, optical, and oxidative characteristics of photopolymer materials, there by enhancing the stability and mechanical properties of 3D-printed products in the post-curing stage. In addition, the FabCure N2 can improve the surface details of the models, ensuring the high quality of printed products. The main modules are as follows:
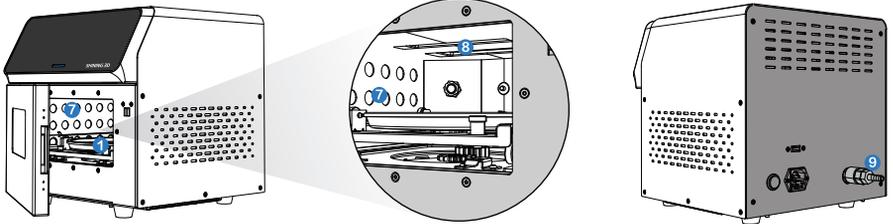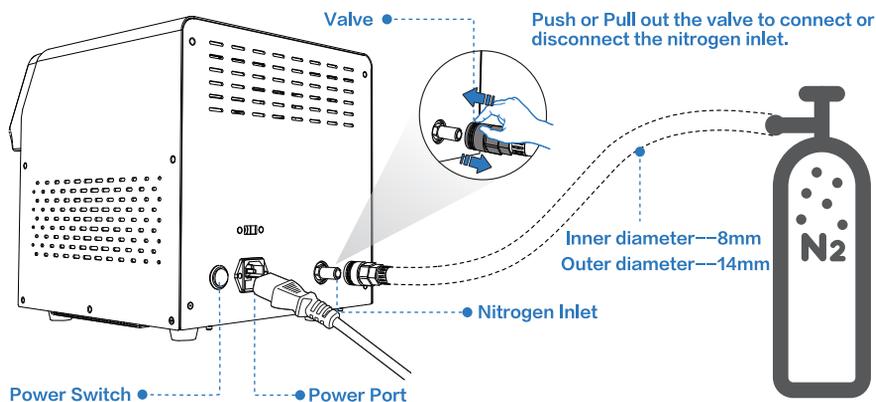

❶ **Turntable Assembly:** rotates to ensure balanced curing for all surfaces;

❼ **Light Source:** three sides Light soruce(left, right, and bottom), to provide comprehensive exposure, complemented by a reflective chamber to enhance UV curing efficiency;

❽ **Temperature Control System:** utilizing a PTC heating module and an integrated temperature control sensor, this system precisely maintains the ambient temperature within the chamber to 60℃;

❾ **Nitrogen Pipe Connector:** allows for the inflation and deflation of nitrogen hose.

Install the FabCure N2

（1）After unboxing, remove the turntable set and slide it along the track into the curing chamber, ensuring it is inserted at a tilted angle.
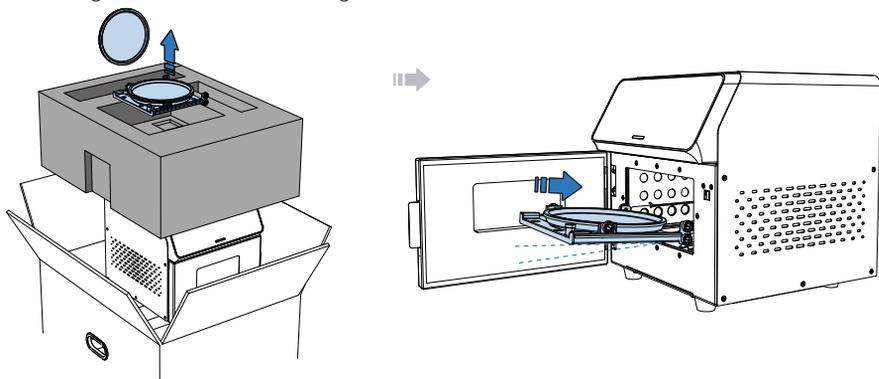
（2）Connect the power cable to the FabCure N2 and plug it into the power port. Then, turn on the power switch located at the back of the curing chamber.

（3）Connect the nitrogen inlet to nitrogen hose, fitted with a valve. Connect the other end to the nitrogen hose to gas source. Ensure the nitrogen output pressure is controlled between 0.1 −0.4 MPa(1−4 bar).

Valve

Push or Pull out the valve to connect or disconnect the nitrogen inlet.

Inner diameter——8mm
Outer diameter——14mm

N2

Nitrogen Inlet

Power Switch

Power Port

Safety Tips

NON−FLAMMABLE
2

The device requires an external nitrogen gas source for aesthetic mode.
The gas source is pressurized, so keep it away from heat sources. Store the gas source in a cool, dry place.
It is recommended that you store the gas source in an explosion−proof
safety cabinet and follow the management requirements for compressed gases.

This device is equipped with an internal UV curing light source. Avoid staring at the light source, as direct exposure may be harmful to your eyes.

This device is equipped with a PTC heating module. After heating stops, be aware of the risk of burns from high temperatures in the chamber and at the air outlet. The fan will continue to operate after curing is complete to assist in cooling the chamber.

Operation

（1）Open the chamber door, lift the metal latch on the right side of the turntable, and pull out the turntable.

Metal Latch ⋯⋯⋯●

⚠ Remove turntable: lift the latch upwards and then pull the turntable outwards.
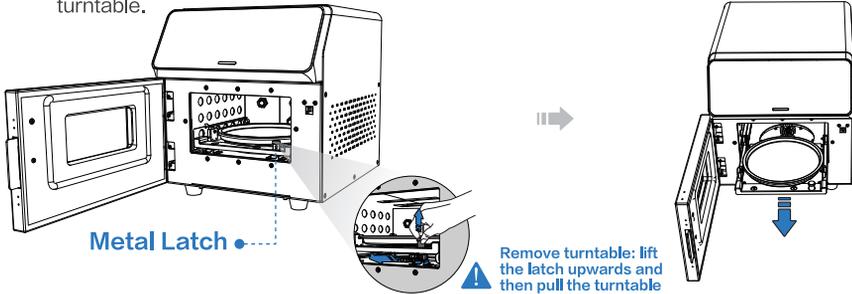
（2）Place the cleaned and dried model on the turntable. Then, push and lock the turntable.then close the chamber door to work.
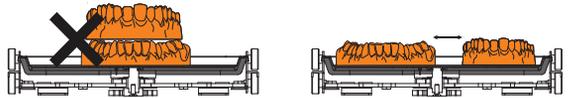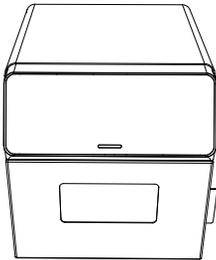

⚠ When curing multiple models, ensure there is adequate spacing between them to avoid stacking, which will lead to better curing results.
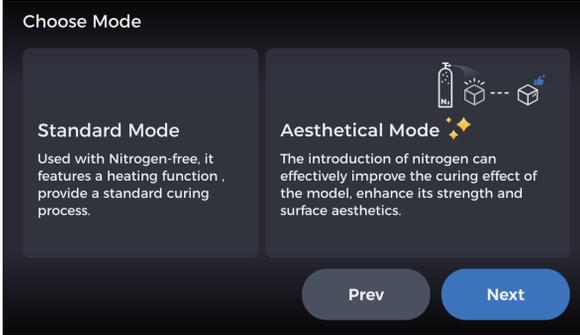
Function Overview

（1）Network Settings：

After connecting to the network, you can receive task information from the printer and update software and firmware packages. To enable the wireless network, go to Settings ＞Connection ＞ Network. The device will automatically search for nearby networks. Select a network to connect.
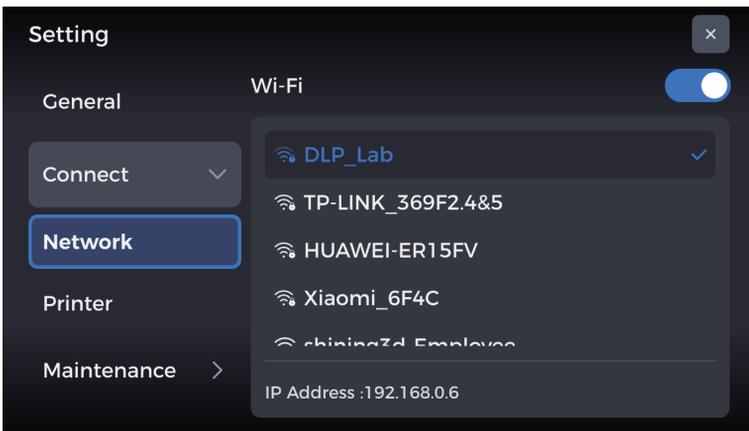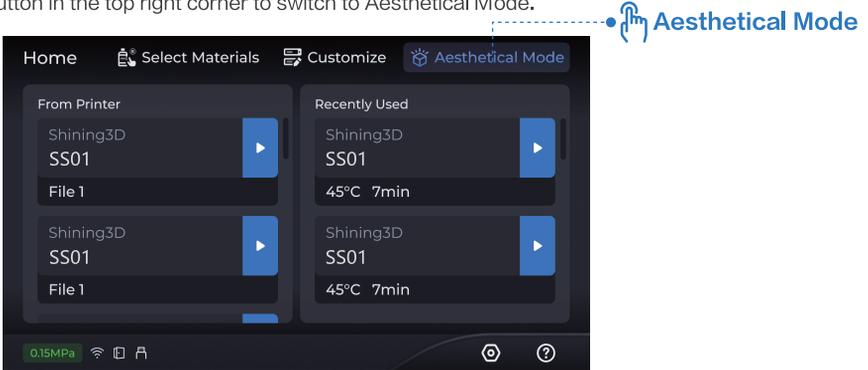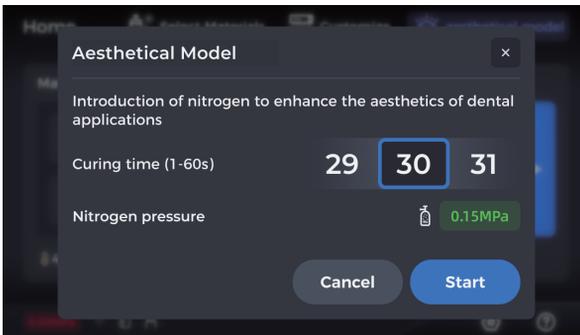
（2）Working Modes：

a. Standard Mode: this mode follows the standard curing process and includes parameters for nitrogen filling, heating, and setting curing duration

b. Aesthetical Mode: this mode defaults to nitrogen filling to optimize aesthetical applications in dentistry.

Choose Mode

Standard Mode

Used with Nitrogen-free, it features a heating function , provide a standard curing process.

Aesthetical Mode ✦✦

The introduction of nitrogen can effectively improve the curing effect of the model, enhance its strength and surface aesthetics.

Prev   Next

Mode switching: the home page shows material parameters of Standard Mode. Tap the button in the top right corner to switch to Aesthetical Mode.

🖑 **Aesthetical Mode**

Home   🖹 Select Materials   🗐 Customize   ⚙ Aesthetical Mode

From Printer

Shining3D
SS01
File 1

Shining3D
SS01
File 1

Recently Used

Shining3D
SS01
45°C 7min

Shining3D
SS01
45°C 7min

0.15MPa 🛜 ▣ 🗔   ◎   ⑦

Aesthetical Mode Guide: After completing a standard curing, proceed to Aesthetical Mode for additional curing. In Aesthetical Mode, you can adjust the curing duration(default of 30s).

Aesthetical Model   ×

Introduction of nitrogen to enhance the aesthetics of dental applications

Curing time (1-60s)   29 **30** 31

Nitrogen pressure   🗴 0.15MPa

Cancel   Start

Status Alerts

Nitrogen Gas Source Alerts:

The device monitors the real-timepressure of the nitrogen gas source. After activating the Aesthetical Mode:

Pressure below 0.1 MPa: a warning indicates insufficient gas supply. Replace the gas source.

Pressure between 0.1 and 0.4 MPa: nitrogen can be suitbale to start curing.

Pressure above 0.4 MPa: a warning indicates that the gas source pressure is too high. Reduce the gas pressure and confirm before proceeding with the nitrogen curing.

(3) Setting Parameters:

**a. Curing Parameters from Printer:** go to Settings > Connection to enable automatic connection to the printer. Once connected, your printer on the same wireless network will share printed material tasks to the FabCure N2, and you can start the curing directly.
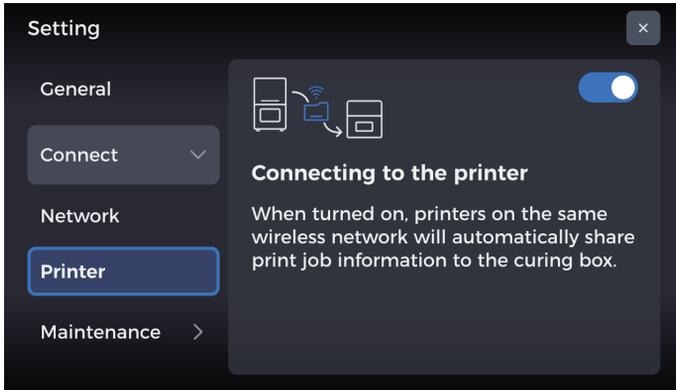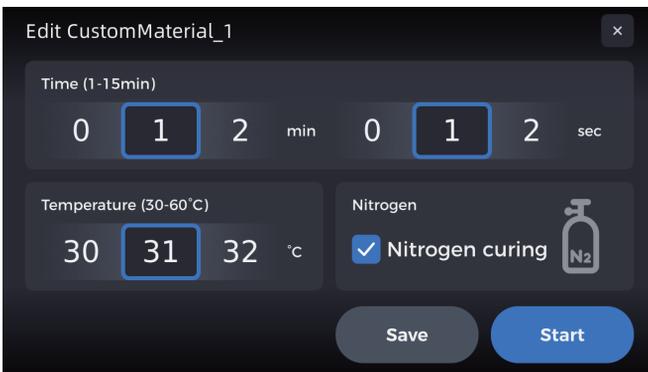

b. Recently Used Curing Parameters: Your most recent curing parameters will appear in the Recenly Used tab page, up to 5 items, sorted by used time .
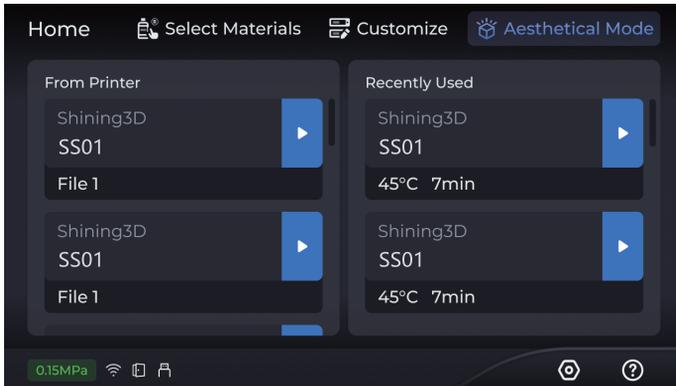
c. Set Curing Parameters Manually: Select the material brand and model. The software will match the curing parameters.

Material brand and model ✕

Shining3D ▼

SS01 ▼

▶

🌡 45℃   ⏱ 7min
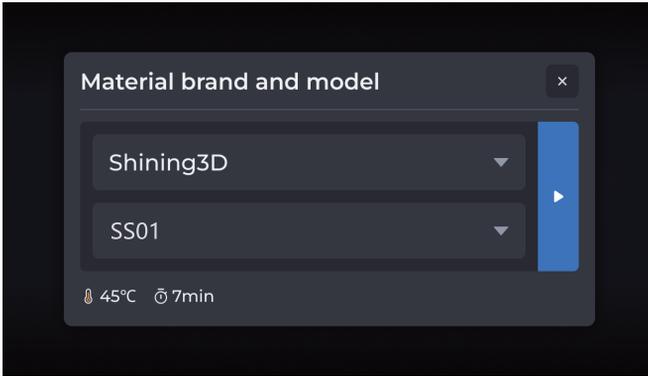
d. Customize Curing Parameters: enter the edit menu to set the parameters of curing duration, temperature, and nitrogen using. Save the parameters for custom settings. and click the start menu to working with setted parameter.

Customize Parameters ✕

CustomMaterial_1 ✎
🌡 31℃   ⏱ 1min1sec   🧪 Nitrogen curing   ✎ ▶

CustomMaterial_2 ✎
🌡 42℃   ⏱ 1min2sec   ✎ ▶

CustomMaterial_3 ✎
🌡 33℃   ⏱ 1min3sec   🧪 Nitrogen curing   ✎ ▶

Edit CustomMaterial_1 ✕

Time (1-15min)

0 **1** 2 min   0 **1** 2 sec

Temperature (30-60℃)   Nitrogen

30 **31** 32 ℃   ☑ Nitrogen curing N₂

Save   **Start**

During curing, the left side shows the temperature curve, and the right side shows the progress. **Once curing is complete,** open the chamber door, lift the metal latch on the right side of the turntable, and pull out the turntable to get the model.
(Note: please be cautious as the chamber temperature may be high to burns.)

（4）**Software Version & Parameter Updates:**

Tap Settings > About > Update to enter the update page, where you can view the details of updates for the software and parameter packages.

a. Update via Wi-Fi: when prompted with "NEW", it indicates that there is a new version waiting to be updated. You can tap update to upgrade the device software.
b. Update via USB Flash Driver: insert a USB flash drive. Click the "USB flash drive update" menu to select the update file. Select the update file and import it to upgrade the software.
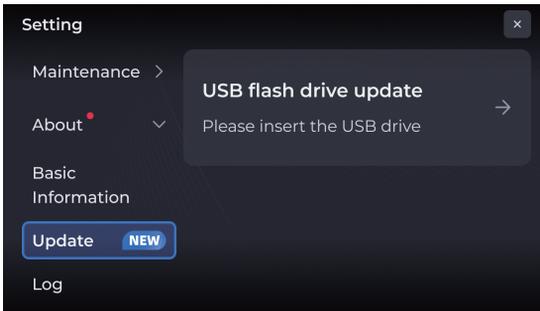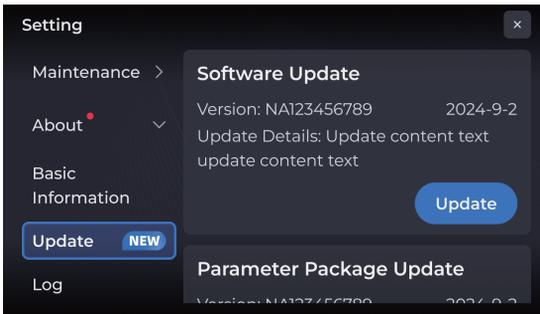
Device Specifications

Product Name		
Posting−curing Unit		FabCure N2
Parameter		
Light Source	UV LED Light	**Light Wavelength** 365nm
Curing Light Power		≥50mW/cm²
Curing Materials		Photopolymer resin
Turntable Speed		10r/min
Maximum Curing Volume		D*H φ150mm*72mm
Turntable Diameter		Diameter φ150mm
Assisted Curing Mode		Heating/Nitrogen Curing
Heating Temperature	60℃	**Heating Power** 200W
Filling Gas	Nitrogen	**Chamber Volume** 200*187*98mm
Inlet Pressure	0.1MPa~0.4MPa	**Filling Time** 30s
Interactive Parameters		
File Transfer Method		Wi−Fi
Display		5−inch LCD Display
Operation		Touch Screen
Audio Alerts		Buzzer
Visual Indicators		RGB Light
Others		
Power Requirments		AC100−240V; 9A; 50/60Hz;
Operating Temperature		18~32℃
Storage / Transport Temperature		−20℃～60℃
Operating Humidity		30%~70%RH（no condensation or freezing）
Storgae / Transport Relative Humidity		30%~93%RH（no condensation or freezing）
Product Dimensions		346*307*308mm
Packing Dimensions		460*420*450mm
Net Weight		15.5kg
Packaging Weight		20kg

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