

PRODEXTM 53

LED Light Curing Machine



INNOVATION

SAVE TIME · SAVE COST · MULTIPLE FUNCTIONS

Dear Customer,

Thank you for choosing DENTMATE PRODEX™ 53.

A lot of researches & developments have gone into the manufacturing of this product.

We sincerely hope that it will give you many years of trouble-free use.

Please read and understand all the instructions before using this equipment. Save this instruction for use for your reference.

The instruction for use is subject to change without further notice.



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Table of Contents

1. Safety Information	1
1.1 Installation and Connection	1
1.2 Operation	2
1.3 Maintenance	3
2. Package Contents & Part Names	4
2.1 Main Unit Part Name	4
2.2 Table of Contents	4
3. Functions	5
3.1 Curing Mode Selection	5
3.2 Saving Customize Curing Profiles	7
3.3 Saving Favorite Curing Profiles	8
3.4 Language Settings	8
3.5 Update Settings	9
3.6 Nitrogen Pre-gas Settings	10
3.7 Information	11
4. Troubleshooting	12
4.1 Fuse Replacement Method	12
5. Maintenance and Cleaning	13
5.1 Cleaning the Curing Chamber	13
5.2 Cleaning the Product Exterior	13
6. Specifications	14
7. Warranty Terms	15
8. Declaration of Conformity	15

1. Safety Information

1.1 Installation and Connection



Warning

- Please install the product at least 5 cm away from the wall. Additionally, do not place any objects on top of the product. Keep the product away from heat sources, as overheating may cause fire and/or electric shock.
- Do not block the ventilation openings on the left, right, or back side of the product. Blocked ventilation may cause fire or malfunction due to increased internal temperature.
- Keep the product away from water.
- Install the product in a location free from excessive humidity and extreme temperatures.
- Do not place the product in areas where chemicals are stored or gases are released.
- Do not keep the product at a sloping location. Do not shake or impact the product.
- Use only AC100-240 V power-supply voltage. Using an incorrect voltage input may result in fire or electric shock.
- Do not place heavy objects on the power cord. A damaged power cord may lead to fire or electric shock.
- Do not disassemble this product. Unauthorized disassembly may cause electric shock or malfunction.
- Do not damage, bend, twist or pull the power cord. Doing so may cause result in fire or electric shock.
- Ensure the power socket is properly grounded. Leakage of electricity from the main unit may cause electric shock or fire.
- Pay attention to the frequency, voltage, and allowable current (or power consumption) of the power supply.

1.2 Operation



Warning

- This product should be operated by qualified people only.
- If the product is in an unnormal state, such as emitting smoke and/or making irregular noise, please switch off the power switch immediately. Unplug the power cord and contact the distributor.
- If water leaks into the product, switch off the power switch immediately. Unplug the power cord and contact the distributor. Continuing to operate this product may cause fire and/ or electric shock.
- Never touch the power plug with wet hands.
- Do not place any liquid or metal powder inside the curing chamber. This may cause electric shock or fire due to internal circuit failure.
- Do not disassemble the product. Unauthorized disassembly may lead to electric shock or malfunction.
- Always wear protective goggles during operation. Protect your eyes and skin from UV exposure.
- To stop or pause operation, press the STOP button and ensure the light is completely off before opening the door and removing the object.
- To stop or pause operation by opening the door, open it slightly and ensure the light is off before fully opening the chamber.



Caution

- Do not look directly inside the product during operation.
- Do not press the Start/Stop button while the door is open.
- Do not operate the product with the door open, as UV exposure may cause eye injury.

1.3 Maintenance



Warning

- If the product is dropped, broken, or damaged, turn off the power switch immediately. Unplug the unit and contact your distributor. Continuing to operate the product may result in fire or electric shock.
- Always unplug the unit before performing any maintenance.
- Before moving the product, switch off the power and unplug it from the outlet.
- Do not pull the power cord when unplugging the unit.
- Always hold the plug firmly to remove it.
- Before checking, cleaning, or replacing the fuse, make sure the unit is turned off and unplugged. Wait at least 30 minutes to allow the unit to cool down completely.

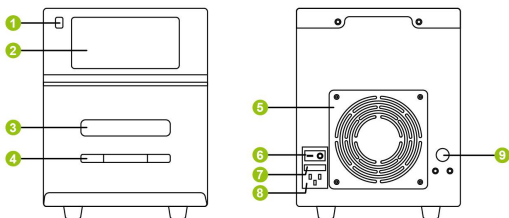


Caution

- Perform regular inspections of the equipment and its components.
- If the product will not be used for an extended period, unplug it to ensure safety.

2. Package Contents & Part Names

2.1 Main Unit Part Name



- ① USB Port
- ② LCD Screen
- ③ Door
- ④ Handle

- ⑤ Cooling Fan
- ⑥ Power Switch
- ⑦ Fuse
- ⑧ Outlet
- ⑨ N2 Push-in Fitting

2.2 Table of Contents



PRODEX 53



Power Cable



Glass



**Push-in Connector
(8-6mm)**



**Hose
(Ø6 mm, L20 cm)**



USB

3. Functions

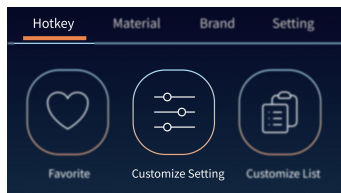
1. Turn on the power switch located on the back of the PRODEX 53.
 2. Open the door and place the glass plate inside the chamber.
 3. Enter Customize Settings or select a predefined material profile.
 4. Press the Start button to begin operation.
 5. The unit will operate according to the selected settings:
 - Heating setting
 - Nitrogen setting
 - Curing setting
 6. Curing is complete when the process finishes.
-

3.1 Curing Mode Selection

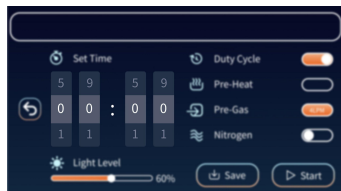
Custom Mode: Allows users to freely select functions and parameters for curing.

Material Library Mode: Uses default curing profiles for specific materials.

3.1.1 Curing Mode Selection

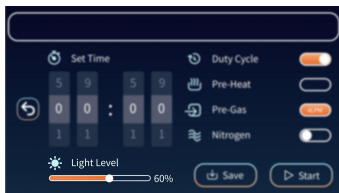


Select and enter the Customize Setting page.



Curing Time Setting:

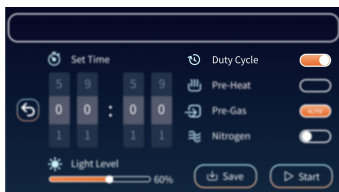
Scroll up or down to set the desired curing time. The maximum allowable time is 59 minutes and 59 seconds.



Curing Light Intensity:

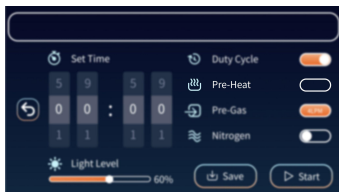
Swipe left or right to select the light intensity.

Intensity ranges from 20% to 100%, from left to right.



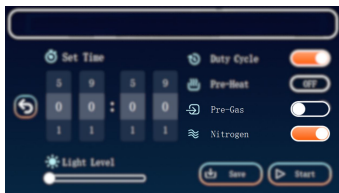
Light Flashing Setting:

Enable or disable flashing mode during curing.



Curing Heat Setting:

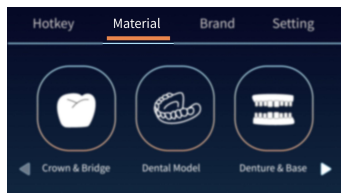
When enabled, you can select a curing chamber temperature of 40°C, 50°C, 60°C, 70°C, or 80°C.



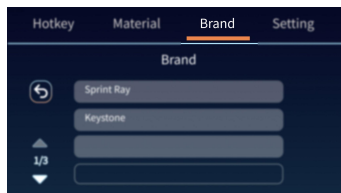
Nitrogen Curing Setting:

Nitrogen will be continuously injected during the curing process. (Please connect nitrogen to the rear port. Recommended 20 psi)

3.1.2 Curing Mode Selection

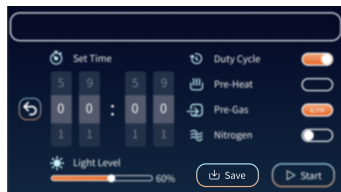


You can select curing profiles categorized by Material.

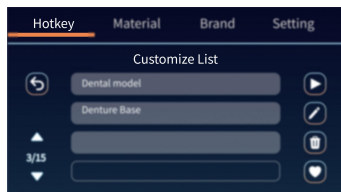


You can also select curing profiles categorized by Brand.

3.2 Saving Customize Curing Profiles

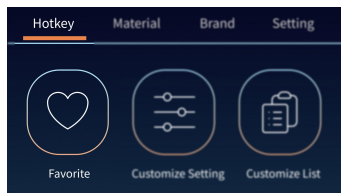


You can save curing profiles to the Customize List.

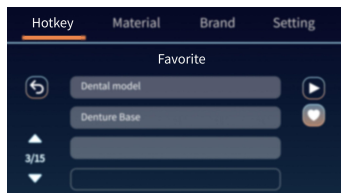


Up to 100 profiles can be stored.

3.3 Saving Favorite Curing Profiles

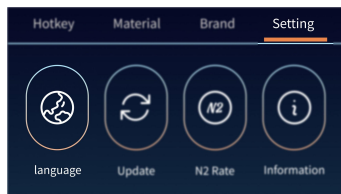


You can also add curing profiles to Favorites.



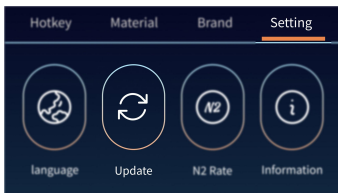
A maximum of 100 favorites is supported.

3.4 Language Settings



Select the language from the settings page. Multiple language options are available.

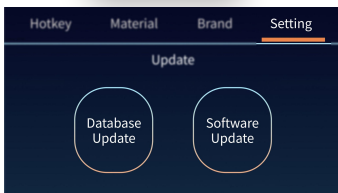
3.5 Update Settings



Go to the Update section in the settings page.

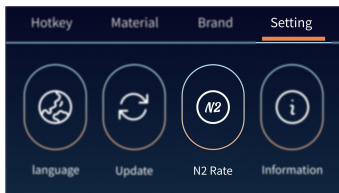


Insert a USB drive containing the update files.



You can choose to perform a Database Update or a Software Update.

3.6 Nitrogen Pre-gas Settings



Go to the Pre-gas Nitrogen section in the settings page.

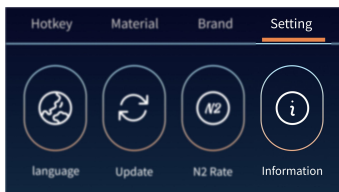


Available nitrogen pre-gas flow rates: 20 psi, 27 psi, 34 psi, and 40 psi.

3.6.1 Nitrogen Flow Rate Conversion Table

bar	psi	kPa	kgf/cm ²
1.38	20	138	1.41
1.86	27	186	1.90
2.34	34	234	2.39
2.76	40	276	2.81

3.7 Information



Go to the Information section in the settings page.

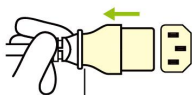


You can view details such as the official website, software version.

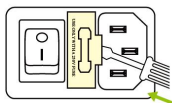
4. Troubleshooting

Symptom	Possible Cause	Solution
Power switch is ON, but the display panel does not light up.	The fuse is blown.	Replace with a new fuse.
Light does not turn on after pressing the Start button.	The door is not fully closed.	Ensure the door is securely closed.

4.1 Fuse Replacement Method



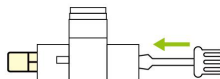
1 Before replacing the fuse, turn off the power switch and unplug the power cord.



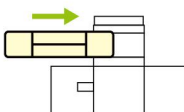
2 Use a flat-head screwdriver to open the fuse cover as shown.



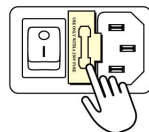
3 Remove the fuse.



4 Take out the spare fuse located at the bottom of the holder.



5 Replace the fuse.



6 Reinsert the fuse holder back into the power socket.

* If the panel indicator does not light up, please replace the fuse. Always unplug the power cord before replacing the fuse. If the problem persists after replacement, please contact Customer service for assistance.

5. Maintenance and Cleaning

- Perform regular maintenance and inspection of the product.
- In the event of a malfunction, do not attempt to repair the product yourself.
- Please contact your distributor for proper servicing.
Always turn off the power and unplug the device before performing any maintenance or inspection.

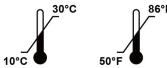
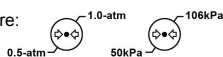
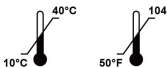
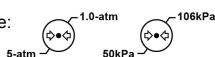
5.1 Cleaning the Curing Chamber

- 1-If the curing chamber becomes dirty, wipe it clean using a soft cloth dampened with alcohol.
- 2-If resin adheres to any part of the curing chamber, be sure to remove it before the next curing cycle.

5.2 Cleaning the Product Exterior

- 1-Do not use organic solvents such as benzene or thinner.
- 2-Wipe the exterior using a cloth dampened with clean water.

6. Specifications

Type of Information	Specification
Device name	LED Light Curing Machine
Model name	PRODEX™ 53
Power input	100-240 Vac / 50-60 Hz
Power consumption	300 W
Fuse	4 A
Quantity of LEDs	50
Wavelength of LEDs	355~415 nm ,Peak: 365 nm, 385 nm, 405 nm
Curing time	59 min 59 sec(max)
Dimensions	L 355 x W 205 x H 260 mm (max)
Weight	9.3 kg
Mains supply voltage fluctuations	±10%
Overvoltage category	II
Pollution degree	II
Operating environment	Indoor use only. Ambient temperature:  Relative humidity:  Atmospheric pressure: 
Storage and transport environment	Ambient temperature:  Relative humidity:  Atmospheric pressure: 

7. Warranty Terms

DENTMATE TECHNOLOGY Co., Ltd. warrants that this product is free from manufacturing defects for a period of one year from the date of purchase as indicated on the invoice.

During this period, the product may be repaired or replaced at the company's discretion for any malfunction caused by manufacturing defects.

The warranty does not cover the following:

1. Damage or failure caused by dropping, impact, or vibration during transportation after purchase or during normal use.
2. Damage or failure resulting from natural disasters, including but not limited to earthquakes, floods, lightning, pollution, incorrect voltage input, or power surges.
3. Any unauthorized modification, disassembly, or remodeling of the product. Such actions will immediately void the warranty.

8. Declaration of Conformity

 Manufacture	DENTMATE TECHNOLOGY CO., LTD. 8F, No.8-11, Sec 1, Zhongxing Road, Wugu District, New Taipei City 24872, Taiwan
Safety	IEC / EN 61010-1 3rd : 2010
EMC	EN 61326-1:2013