

TRAYDEX 45

LED Light Curing Machine



Instructions for use

説明書

INNOVATION

**SAVE TIME, SAVE COST,
MULTIPLE FUNCTIONS**



Dear Customer,

Thank you for choosing DENTMATE TRAYDEX 45.

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.



DENTMATE TECHNOLOGY CO., LTD.

8F, No. 8-11, Sec. 1, Zhongxing Road, Wugu District,
New Taipei City 24872, Taiwan

TEL : +886 2 8976 9226 FAX : +886 2 8976 9236

WEBSITE : www.dentmate.com.tw

EMAIL : info@dentmate.com.tw

Table of Contents

1. Symbols Used	2
1.1 In these instructions for use	2
1.2 On the product / packaging	2
2. Safety Information	3
2.1 Installation and connection	3
2.2 Operation	4
2.3 Maintenance	5
3. Product Information	6
3.1 Indications for use	6
4. Package And Part Name	7
4.1 Main unit part name	7
4.2 Table of contents	7
5. Functions	8
5.1 Instruction for touch panel	8
5.2 IDT (Intensity Duty-cycle Timer) setting	8
5.3 Basic operation	9
6. Troubleshooting	11
6.1 Instructions for fuse replacement	11
7. Maintenance And Cleaning	12
7.1 Cleaning inner chamber	12
7.2 Cleaning outer case	12
8. Product Specification	13
9. Warranty	14
10. Declaration Of Conformity	14

1. Symbols Used

1.1 In these instructions for use



Warning

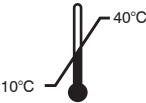
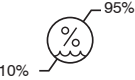
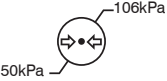
Indicates a potentially hazardous situation that could result in serious injury or death.



Caution

Indicates a potentially hazardous situation that may result in minor / moderate injury or damage of property.

1.2 On the product / packaging

 Serial number	 Catalogue number
 Manufacturer	 Date of manufacture
 Temperature limits	 Consult the Instructions for use
 Storage humidity range	 Atmospheric pressure for storage
 CE marking	 Store in a dry place
 Danger Electricity	 Hot Surface

2. Safety Information

2.1 Installation and connection



Warning

- Please install the product at least 5 cm away from the wall. In addition, do not place any objects above the product. Please keep the product away from any heating appliances. Overheating the product may cause fire and/ or electrocution.
- Do not block the ventilators on the left, right, and back side of the product. Blockage may cause fire and/ or breakdown because of rises in the inner temperature of the product.
- Keep the product at a location away from water.
- Keep the product at a location without excess humidity and temperature.
- Do not keep the product at a location for chemicals or a location where gas is 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 the wrong voltage input may cause fire and/or electrocution.
- Do not place heavy objects on the power cord. Damage to the cord may cause fire and/ or electrocution.
- Do not disassemble this product. Unauthorized disassembly of this product may cause electrocution and/ or breakdown.
- Do not damage, bend, twist or pull the power cord. Doing so may cause fire and/ or electrocution.
- Ensure earthing of terminal outlet and power socket. Electricity leak in the main unit might cause electric shock and/ or fire.
- Pay attention to the frequency of the power supply 、 power voltage and allowable current value (or consumed power.)

2.2 Operation



Warning

- This product should be operated by qualified people only.
- If the product is in an abnormal state, such as emitting smoke and/or making irregular noise, please switch off the power switch immediately. Pull out the plug and contact the distributor.
- If water leak inside the product, switch off the power switch immediately. Pull out the plug and contact the distributor. Continue to operate this product may cause fire and/ or electrocution.
- Never touch the power plug with wet hands to avoid electric shock.
- Never handle any liquid or metal power in the curing chamber to avoid electric shock or fire caused by internal circuit failure.
- Do not disassemble this product. Unauthorized disassembly of this product may cause electrocution and/ or breakdown.
- Please wear goggle during operation; protect eyes and skin away from UV exposure.
- To stop operation, please press the STOP button and confirm the light is off before opening the door and taking out the object.
- To stop operation by opening the door, please open the door slightly and confirm the light is off before opening the door entirely and taking out the object.



Caution

- Do not look inside the product during operation.
- Do not push the Start-Stop button while the door is opened.
- Do not operate the product when the door is opened, as it may cause damage to your eye.

2.3 Maintenance



Warning

- If this product is dropped, broken or damaged, switch off the power switch. Then pull out the plug and contact the distributor. Continue to operate the product may cause fire and/ or electrocution.
- Be sure to pull out the plug when maintaining the product.
- When moving the product, please switch off the power switch and pull out the plug.
- When pulling out the plug, do not pull out the power cord.
- When checking, wiping or replacing fuses, always turn off and unplug the unit. Leave the unit off for at least 10 minutes to ensure that the unit has cool off completely.



Caution

- Remember to have regular inspections of the equipment and parts.
- If the product will not be used for a long time, please pull out the plug for safety.

3. Product Information

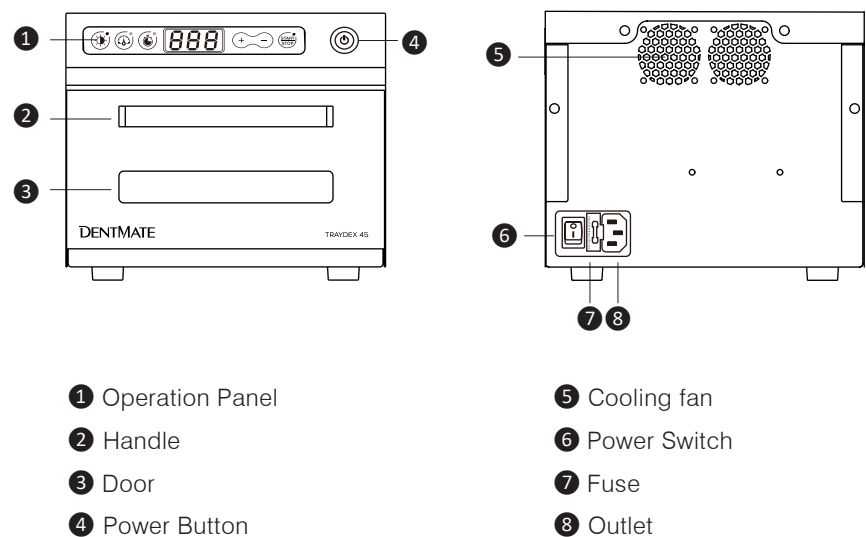
- Save time
Fast curing High power LED, broadband LED, save fabricating time.
- Save money
Stable and high power LED with constant current circuit, avoid the cost and hassle of replacing UV fluorescent light tube.
- Multiple functions
Users could set up the curing details easily to gain process efficiencies by Intensity Duty-Cycle Timer (IDT) settings.
- Post-curing for 3D printing
High power Ultra Violet A (UVA) LEDs is including, which results in a quick and uniform curing cycle.

3.1 Indications for use

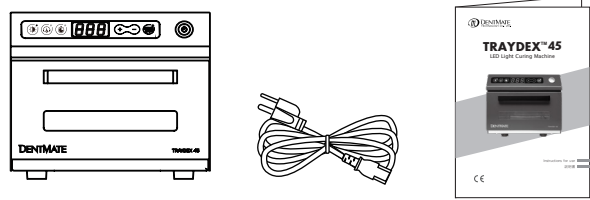
This product is a light curing machine for laboratory and professional use only.

4. Package And Part Name

4.1 Part name



4.2 Components



Description	Quantity
TRAYDEX 45	1
Power cord	1
Instructions for use	1

5. Functions

5.1 Instruction for touch panel



- ① Adjust the light intensity from Level 1 to Level 16.
- ① Adjust the duty cycle (See chapter 5.2) from Level 1 to Level 10 (consistent brightness)
- ① Adjust the working time between 5 seconds and 995 seconds.
- ② Display: Indicate numerical value and remaining seconds.
- ③ + : Increase the level of intensity, duty cycle and working time. Hold and press the button to fast-forward.
- ④ - : Decrease the level of intensity, duty cycle and working time. Hold and press the button to rewind.
- ⑤ : Start and stop curing

5.2 IDT (Intensity Duty-Cycle Timer) settings

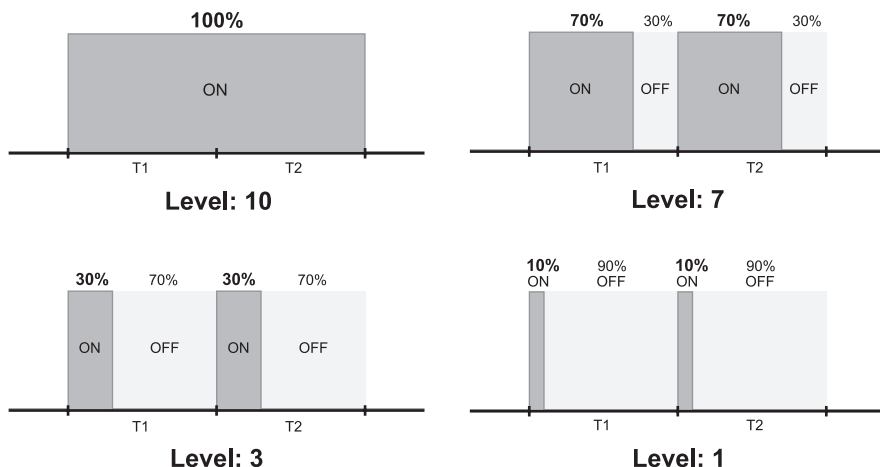
- Intensity Setting

Depending on the strength, thickness, and shape of the material, operator can set the light intensity from Level 1(lowest) to Level 16(strongest). Intensity range: 7018 –112295 mW/cm² when LED current at 43.8-700mA.

Suggestion: When curing flat and/ or thin material, lower the intensity level with longer timer to optimize the overall strength of the material.

- Duty Cycle

Duty cycle is the ratio between pulse duration and the period(Picture below shows the difference between differnt cycle). Depending on the shrinking rate of the material, operator can set the duty cycle from level1(10%) to level 10(100%).



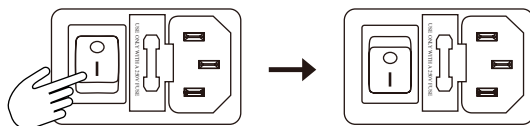
Suggestion: When curing small and/ or thin material, lower the duty cycle level to reduce the shrinkage deformation rate.

- Curing Time

Set the time between 5 - 995 seconds with 5 seconds interval.

5.3 Basic Operation

1. Turn on the Power Switch.



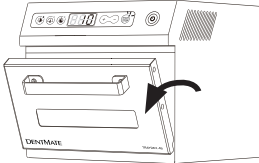
2. Press  to power on.
3. Press , ,  to set up IDT.
4. Press **START** to cure.

5.3.1 Pause curing during the operation



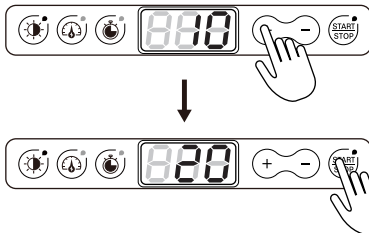
Press **START/STOP** to pause curing.

The **START/STOP** button will start flashing when paused.



Note, curing will be paused once the door is opened. The **START/STOP** button will start flashing as well.

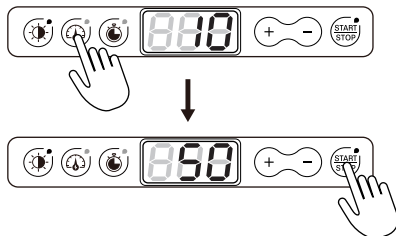
5.3.2 Increase/decrease curing time when pause curing



Press + to increase or press – to decrease curing time.

After adjusting the curing time, press **START/STOP** to restart.

5.3.3 Reset IDT when pause curing



Press the buttons to reset IDT setting.

After resetting, press **START/STOP** to restart it

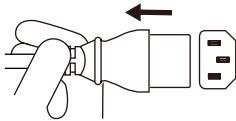
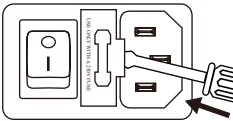
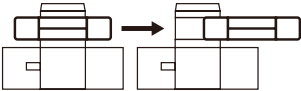
5.3.4 Memory mode

1. Make sure the power is on
2. Press    to set up the terms of curing.
3. Hold and press the button . After hearing 2 beeps, the system will memorize the IDT setting and save it as the new default.

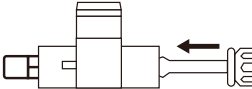
6. Troubleshooting

Trouble	Possible Cause	Measures
Time display does not light up even if the power switch is turned on.	Blowout of fuse.	Replace with new fuse. Contact our customer service if the problem persist.
LED do not light up even if the START/STOP is pressed.	Door is not closed correctly.	Ensure the door is closed properly.
Er1	Overheat	Immediately turn off the unit. Contact our customer service and mention the error number on the display.

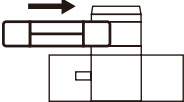
6.1 Instructions for fuse replacement

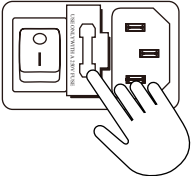
❶ Before replacing the fuse, turn off the power switch and pull out the plug.



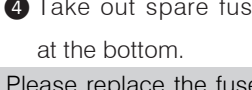
❷ Use flat head screw driver to unclench the cover shown above.



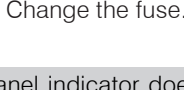
❸ Take the fuse out.



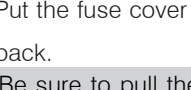
❹ Take out spare fuse at the bottom.



❺ Change the fuse.



❻ Put the fuse cover back.



* Please replace the fuse if the panel indicator does not work. Be sure to pull the power cord before replacement. After replacement, if there's still a problem with the panel indicator, please contact customer and service for repair.

7. Maintenance And Cleaning

- Remember to have regular inspections of the equipment and parts.
- In case of malfunction, do not attempt to repair the product by yourself. Contact customer and service for repair.
- Before maintenance, switch off the power switch and pull out the plug.

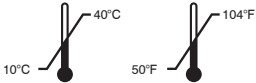
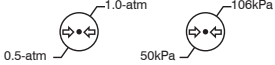
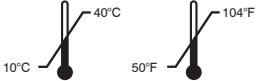
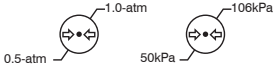
7.1 Cleaning inner chamber

- 1- When the inner chamber gets dirty, clean it with soft cloth moisture with alcohol or cleaner.
- 2- If resin adheres to any part of the curing chamber, please remove it prior to next curing.

7.2 Cleaning outer case

- 1- Do not use organic solvent including benzene and thinner to clean.
- 2- Gently wipe the unit with a soft cloth moisture with alcohol or cleaner.

8. Product Specification

Type of Information	Specifications
Device name	LED Light Curing Machine
Model name	TRAYDEX 45
Power input	AC 100-240 V / 50-60 Hz
Power consumption	70 W
Fuse	2 A
Quantity of LEDs	25
Wavelength of LEDs	375~470 nm
Curing time	5-995 seconds
Dimensions	L200 x W220 x H160 mm (max)
Weight	3 Kg
Operating environment	Indoor use only. Ambient temperature:  Relative humidity:  Atmospheric pressure: 
Storage and transport environment	Ambient temperature:  Relative humidity:  Atmospheric pressure: 

9. Warranty

DENTMATE TECHNOLOGY Co., Ltd. warrants the product to be free of manufacturing defects for a period of one year from the date of purchase; this is deemed as the date of the invoice. It could be repaired or replaced at its own discretion all equipment failures due to manufacturing defects. However,the followings are expressly excluded from the warranty:

- 1. Damage and/ or failure of the equipment caused by falling and/ or jolting during transportation after purchase and/or during the normal use.
- 2. Damage and/ or failure of the equipment caused by natural disasters, such as earthquakes, floods, lightning, pollution, incorrect electrical voltage and voltage spikes.
- 3. Any attempts to change or re-model the product will invalidate the warranty.

10. 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

INNOVATION

省時 · 省錢 · 多功能使用



親愛的顧客您好,

感謝您選擇 DENTMATE TRAYDEX 45 本公司致力於研發更好的產品給您。我們衷心的希望本產品能長期並安全的被使用，因此請在使用本產品前先仔細閱讀本使用說明書，並將本說明書收好，以利下次參考使用。

本說明書內容如有變更，恕不另行通知。



丹美科技有限公司

新北市五股區中興路一段 8 號 8 樓之 11

電話：02 8976 9226

傳真：02 8976 9236

官網：www.dentmate.com.tw

信箱：info@dentmate.com.tw

內 容

1. 使用的符號	18
1.1 符號說明	18
1.2 在產品或包裝上的符號說明	18
2. 產品安全資料	19
2.1 安裝	19
2.2 操作	20
2.3 維護	21
3. 產品特色	22
3.1 適用	22
4. 產品部件名稱及配件	23
4.1 產品部件名稱	23
4.2 包裝配件一覽表	23
5. 基本功能	24
5.1 操作面板說明	24
5.2 模式說明	25
5.3 基本操作	25
6. 故障排除	27
6.1 保險絲更換方法	27
7. 維護與清潔	28
7.1 清潔固化室	28
7.2 清潔產品外觀	28
8. 規格說明	29
9. 保固條款	30
10. 符合性聲明	30

1. 使用的符號

1.1 符號說明

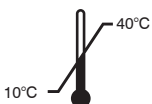


表示潛在的危險情況，如果不避免，可能導致嚴重傷害或死亡。



表示潛在的危險情況，如果不避免，可能會導致輕度 / 中度傷害或財產損失。

1.2 在產品或包裝上的符號說明

 序號	 料號
 製造商	 製造日期
 溫度限制	 詳閱說明書
 儲存濕度限制	 儲存大氣壓力限制
 CE 商標	 放置於乾燥處
 有電注意	 高溫注意

2. 產品安全資料

2.1 安裝



警告

- 產品安裝需離牆面 5 cm 以上空隙。另外，不要放置任何物體在產品上方。與其他電器商品請保持一定距離。避免因為過熱而導致火災或觸電。
- 不要堵塞產品的左側和右側通風孔及後側的風扇孔，堵塞可能會導致內部溫度上升，因而造成火災或觸電。
- 產品不可安置在有水的地方。
- 請勿安裝在潮濕或高溫處。
- 請勿在化學品或者氣體釋放的位置安裝本產品。
- 產品請安置於平面上，不可傾斜，不可搖晃或撞擊產品。
- 使用電源電壓 (AC100-240 V)。錯誤的電壓可能會引起火災或觸電。
- 請不要在電源線上放置重物，損壞電源線可能會引起火災或觸電。
- 不可自行拆卸本產品。未經授權的拆卸可能會導致觸電或產品損壞。
- 不可損壞、彎曲、扭曲或拉扯電源線。這樣可能導致火災或觸電。
- 確保插座孔及電源插座有接地，因未接地導致的漏電有可能造成觸電或火災。
- 安裝前請注意電源、電壓和電流 (或消耗功率) 的頻率。

2.2 操作



- 本產品只能由合格人員進行操作。
- 使用產品如出現異常狀態；例如冒煙或不規則的噪音時，請立即關閉電源按鈕、拔出電源插頭，並與經銷商聯繫。
- 如果產品進水，請先關閉電源按鈕、拔出插頭，並與經銷商聯繫。本產品在潮濕狀態下繼續使用會導致火災或觸電。
- 千萬不要用潮濕的手去觸摸插頭以免觸電。
- 千萬不可放置任何液體或金屬粉末進入固化室，以避免觸電或引起內部電路故障或起火。
- 請勿自行拆卸本產品。未經授權的拆卸可能會導致觸電或電路故障引發火災。
- 操作時請正確配戴護目鏡，並遠離U V光源曝曬以保護雙眼及皮膚。
- 欲停止操作，請先按 S T O P 鍵並確認光源熄滅後再開門將物件取出。
- 欲使用開門停止操作，請勿直接將門開啟，請微開門並確認光源熄滅後再將物件取出。



- 產品運行時，請勿直視避免光線傷害眼睛。
- 當門打開時，請勿操作 開始 / 暫停 按鍵。
- 當門開啟時運行產品，可能導致視力的損壞。

2.3 維護



警告

- 如果產品有摔落或機體產生破損，請切斷電源、拔出插頭，並與經銷商聯繫。如持續操作可能會導致火災或觸電。
- 保養產品時請先拔除插頭。
- 移動產品時，請務必關掉電源按鈕，拔出插頭。
- 請正確從插頭端拔除插頭，勿拉扯電源線。
- 當檢查、清潔或更換保險絲時，請先關閉電源、拔除電源至少 10 分鐘，以確保產品已完全冷卻。



注意

- 請定期檢查設備和零件。
- 如果打算不長期使用產品時，請拔出插頭。

3. 產品特色

省時

高功率、寬頻帶的 LED 能快速固化產品，節省製造時間。

省錢

採用穩定及高功率的 LED；免除傳統頻繁更換 UV 燈管的費用及麻煩。

多功能使用

可分別調整輸出強度、工作週期、固化時間，且具有記憶功能，使操作步驟更簡單。

3D 列印固化

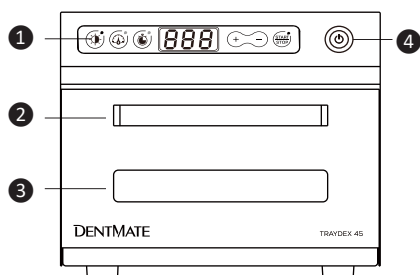
高功率紫外線能夠快速和均勻的固化 3D 列印。

3.1 適用

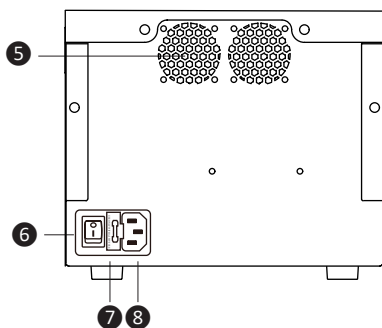
本產品乃專業用品，僅限實驗室或技工所使用。

4. 產品部件名稱及配件

4.1 產品部件名稱

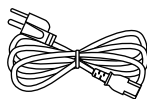
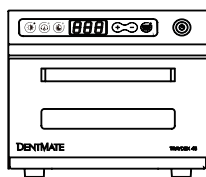


- ❶ 操作面板
- ❷ 門把
- ❸ 視窗
- ❹ 電源按鍵



- ❺ 冷卻風扇
- ❻ 電源開關
- ❼ 保險絲
- ❽ 插座孔

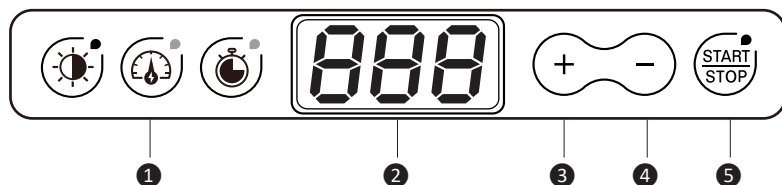
4.2 包裝配件一覽表



內容物	數量
TRAYDEX 45	一台
電源線	一條
說明書	一本

5. 基本功能

5.1 操作面板說明



- ①  : 調整輸出強度，選取範圍：1-16
- ①  : 調整閃爍曝光頻率，選取範圍：1-10
- ①  : 調整固化時間，選取範圍：5-995 s.
- ② 顯示面板：顯示選取數值、剩餘秒數
- ③ + : 強度、週期每次增加一，秒數每次增加五秒，長按可快速增加秒數
- ④ - : 強度、週期每次減少一，秒數每次減少五秒，長按可快速減少秒數
- ⑤  : 開始 / 暫停固化

5.2 模式說明

-  輸出強度

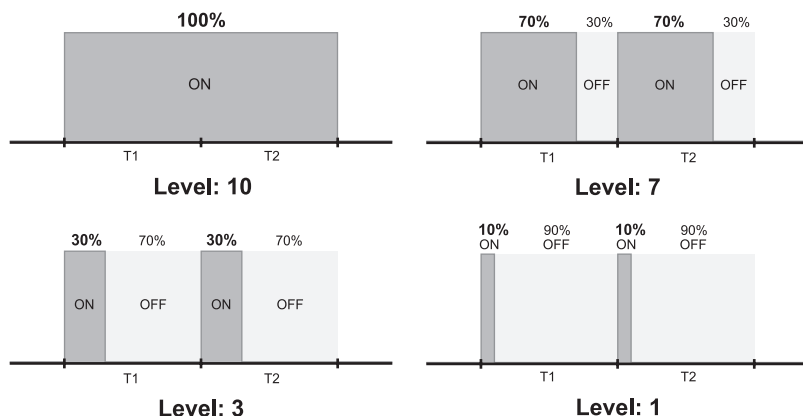
可依照不同待固化材料之特性、外型及厚度，設定 1–16 段光源強度，1 為最低光強度，16 為最高光強度。輸出強度範圍：LED 電流 43.8–700 mA/ 光強度 7018–112295 mW/cm²。

使用建議：若需固化平整且較薄之待固化材料，可使用較低的輸出強度，並配合較長的固化時間，使固化後材料強度達最佳狀態。

-  工作週期 (脈衝持續時間與間隙時間之比)

依材料收縮特性，設定 1–10 段之光源工作與波段長之比例，10 為恆亮 (工作週期 100%)，依序遞減至設定值 1 (工作週期 10%)。

使用建議：若需固化小且薄之待固化材料，可使用較低的設定值，以降低固化中的收縮變型率。

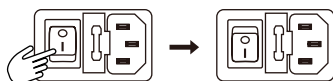


-  固化時間

以 5 秒為調整單位，設定 5~995 秒的固化時間。

5.3 基本操作

1. 開啟 TRAYDEX 45 背面之電源開關。



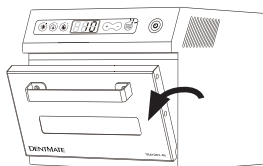
2. 開啟電源 
3. 按壓    設定固化條件。
4. 確定後，按壓  開始固化。

5.3.1 固化中暫停



固化中如欲暫停請按 **START/STOP**，即可暫停固化。

START/STOP 燈會開始閃爍。



開啟門板，固化也會暫停。

START/STOP 燈會開始閃爍。

5.3.2 暫停固化中增加 / 減少 秒數



按壓 + 增加或 - 減少秒數，重新調整您要的數值。

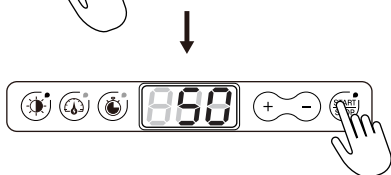


按壓 **START/STOP** 重新開始固化。

5.3.3 暫停固化中重新選擇模式



按壓    重新選擇模式。



按壓 **START/STOP** 重新開始固化。

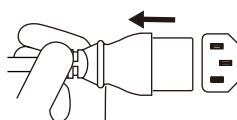
5.3.4 記憶模式設定

1. 開啟電源 
2. 按壓    設定固化條件。
3. 確定後，長按 ，直到聽到嗶嗶兩聲，表示設定完成，往後開機即自動帶入此設定條件。

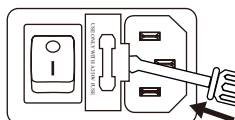
6. 故障排除

故障狀態	原因	解決方法
電源已開啟，顯示面板未亮燈	保險絲損壞	更換新的保險絲
按下 START/STOP 後 LED 燈並未亮起	門未緊閉	確保門已被緊閉的闔上
Er1 錯誤代碼	產品過熱	立即停止使用，並關閉電源。 聯繫我們的客戶服務，並告知所顯示的錯誤代碼。

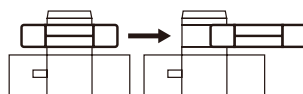
6.1 保險絲更換方法



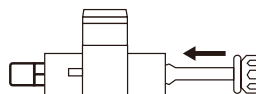
❶ 務必先拔除電源線



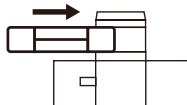
❷ 找到電源孔，利用一字起子撬開保險絲。



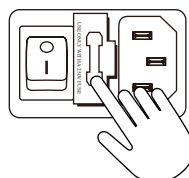
❸ 取出保險絲。



❹ 取出備用保險絲。



❺ 替換保險絲。



❻ 將保險絲裝回電源孔。

* 如遇操作面板指示燈不亮，請更換保險絲，更換前請務必拔除插頭。
更換後，操作面板指示燈還是不亮請與經銷商聯繫

7. 維護與清潔

- 定期維護和檢查產品。
- 在發生故障時，不要嘗試自行修復產品。請將產品送回經銷商進行維修。
- 維護和檢查產品之前，請先切斷電源並拔出插頭。

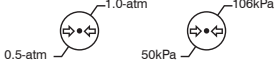
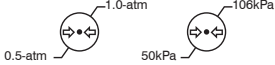
7.1 清潔固化室

- 1- 當固化室變髒，請用酒精沾濕軟布後清潔。
- 2- 如果樹脂附著在固化室的任何部分，請在下次固化前移除。

7.2 清潔產品外觀

- 1- 不可使用有機溶劑包含苯及稀釋劑。
- 2- 請用清水沾布擦拭外觀。

8. 規格說明

規格類型	規 格
產品名稱	LED Light Curing Machine
型號	TRAYDEX 45
電源	100-240 Vac / 50-60 Hz
消耗功率	70 W
保險絲	2 A
數量	25
波長	375~470 nm
固化時間	5-995 秒
尺寸	長 200 x 寬 220 x 高 160 mm (最大範圍)
重量	3 公斤
使用條件	僅限室內使用 環境溫度  相對濕度  大氣壓力 
儲存及運輸條件	環境溫度  相對濕度  大氣壓力 

9. 保固條款

本產品在正常使用下保固壹年。若因天災、使用不當、人員自行拆卸等因素，恕不在保固範圍內。超過保固範圍，本公司會視狀況予以維修並酌收費用。

10. 符合性聲明

 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



☎ +886 2-8976-9226

☎ +886 2-8976-9236

✉ info@dentmate.com.tw

🌐 www.dentmate.com.tw



8F, No.8-11, Sec. 1, Zhongxing Road, Wugu District,
New Taipei City 24872, Taiwan