



Ti-Lite *GT-1500*

The innovative cordless LED curing light



User Manual

Table of Contents

PREFACE	1
DISCLAIMER	1
SAFETY PRECAUTIONS	2
PARTS AND FUNCTIONS	3
GENERAL INSTALLATION	4
WARNING: LI-ION BATTERY	5
OPERATION	5
COOLING SYSTEM	7
CHARGER SIGNALS	7
TROUBLE SHOOTING TIPS	8
SPECIFICATION	9

**WARNING : Beware of high temperature and strong light.
Do not look directly into the light source without eye protection.**

PREFACE

Upon your purchase of the “**Ti-Lite GT-1500**” high efficiency **LED (Light Emitting Diode)** curing light, please pay attention to the following contents.

Prior to using the product, please read this USER MANUAL carefully and thoroughly as it provides details of proper implementation of the operations, maintenances, and troubleshooting instructions.

Please keep this manual well preserved for future reference.

DISCLAIMER

1. The manufacturer shall not assume any responsibility for any malfunction, damage, or accident of personal bodily injury caused by improper removal, modification, maintenance, or repair, which is conducted by an unauthorized technical personnel.
2. The manufacturer shall not assume any responsibility if any malfunction, damage, or accident of personal bodily injury is caused by the use of this product in conjunction with other regulated products.
3. The manufacturer shall not assume any responsibility if any malfunction, damage, or accident of personal bodily injury is caused by improper removal, modification, maintenance, or repair with device components not supplied by the manufacturer.
4. The manufacturer shall not assume any responsibility if any malfunction, damage, or accident of personal bodily harm is caused by improper operation that is incompliant with the manual instructions.
5. The manufacturer shall not assume any responsibility if any malfunction, damage, or accident of personal bodily harm is caused by inappropriate modifications to the power supply, installation environment or any other safety-regulated operating conditions as specified in this manual.

SAFETY PRECAUTIONS






Please follow instruction steps in this manual for correct and safe operations of the device. Pay high attention to the following warning signs beside the operation descriptions where applicable.

DANGER — This message appears where the operation may potentially cause severe injury if instruction not followed correctly.

WARNING — This message appears where the operation may cause serious damage or defect to other objects.

CAUTION — This message appears where the operation may cause slight damage to other objects or slight bodily harm if operation not properly conducted.

IMPORTANT — This message appears where the operation may involve risk of defecting the device itself if not properly conducted.

Symbol	Explanation
	Type B applied part
	Attention, consult ACCOMPANYING DOCUMENTS
	Signifies the device has meet all essential requirements of European Medical Device Directive 93/42/EEC & 2007/47/EEC.
	Symbol used to indicate the polarity of the DC power input.
	Direct Current

Sterilization for Fiber-Optic Tip:

After operation on each patient, the fiber-optic tip should be disinfected or sterilized. Suggestion is to use autoclave 134°C / 75 psi for maximum result. The sterilization time at 134°C should be 5 minutes.

Note: Please disconnect the fiber-optic tip off the handpiece and autoclave by itself.

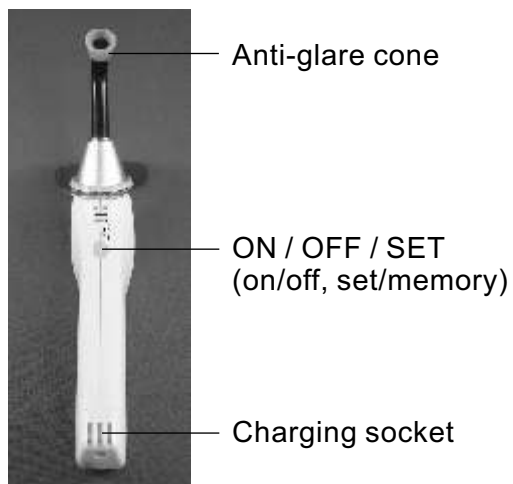
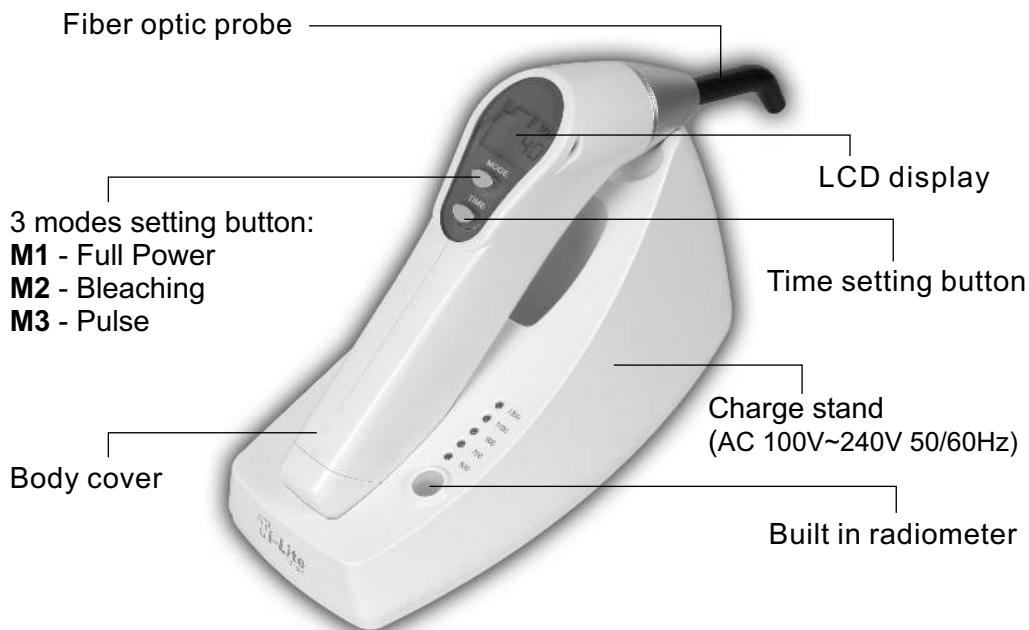
Note: Use of disposable sleeves is recommended.

Product Cleaning:

If there is any dirt or stains on the surface of control panel or surface of the handpiece, please use cloth to wipe clean. If it is hard to clean, please use a neutral cleansing agent.

Note: Never use a solvent or volatile oil for cleaning. This can lead to fading in the fiber optic shades.

PARTS & FUNCTIONS



Protective Shield

GENERAL INSTALLATION

** Please follow the instructions below carefully to ensure proper function of the device.

1. Insert the fiber optic probe into the handpiece and make sure it is securely installed at the fixed position.

2. Connect the electric wire to the charger stand and plug it into an electricity outlet.

****NOTE:** Check to make sure the red (**CHARGE**) led light on the left side is lit and immediately switch to green (**READY**) led is lit.

3. Place the handpiece in the charger stand to begin the initial charging as the red (**CHARGE**) led is lit.

4. Put on the anti-glare cone and the protective shield.

5. Adjust the cone and shield position according to the dentist's preference.

6. When the handpiece is fully charged, the green (**READY**) led light will switch on.



Charging



Stand by

IMPORTANT :

> Please make sure to fully charge the battery for at least 6 hours before the FIRST time of using this device. This will insure the full length of battery life.

> When battery power decreases to the lowest supply level, a continuous beeping sound will ring for one minute to remind the user to recharge.

Warning: Li-Ion Battery.

To prevent a possibility of the battery from locking out, leaking, heat generation or explosion, please observe the following precautions:

- Do not disassemble.
- Keep the battery dry
- Keep away from high temperature.
- Do not crush.
- Please charge the battery every 2-months period if left idled.
- Please recycle the battery.
- Do not dispose the battery in fire to prevent injury or burns.
- Do not short circuit.

Improper care-taking of the battery may result possible battery burnt, it is recommended for regular battery check up by your nearest local dealer to ensure proper functioning of the unit.

OPERATION

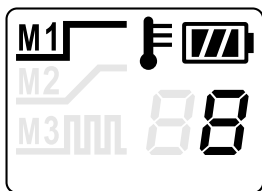
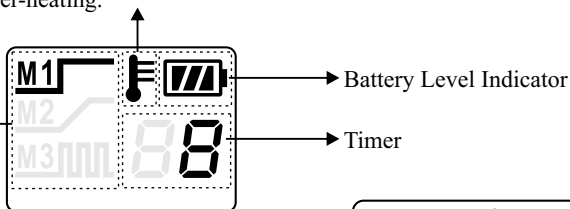
Thermometer:

The thermometer symbol will blink after continuous usage of about 30 consecutive sessions with each session lasts for 30 seconds. This function will shut off the unit to prevent the device from over-heating.

MODES:

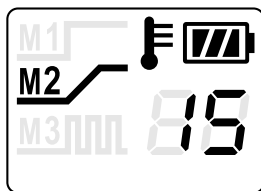
There are 3 modes at your choice.

The working time of **M1** and **M3** can be reset while the timer for **M2** is fixed.



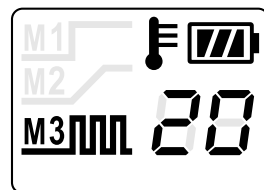
M1 : Full Power

Default time is 8 sec. with optional time setting to the user's preference. (maximum timer setting up to 90 sec. for extra oral indirect application.)



M2 : Bleaching Mode

70% of full power. Default time pre-set 15 minutes.



M3 : Pulse Mode

Full power 1 second on, 1 second off. Default time 20 sec. with optional time setting to the user's preference. (maximum timer setting up to 90 sec. for some particular application.)

Time Setting :

1. Once the user sets the mode (**M1** or **M3**), please press **TIME** button continuously for longer than 2 seconds (till the number shown in the LCD panel starts to blink), and press again to change time, one second per push.
2. (**M1** and **M3**) Operating time will start to add up after one second if the user pushes the **TIME** button continuously. Press **ON/OFF/SET** button to complete time setting.
3. The time setting of **M2** is for 15 minutes which can not be re-set.

Operation :

1. After setting up the **MODE** selection and operating time, triggers the **ON/OFF/SET** button to start curing cycle.
2. Press again **ON/OFF/SET** button to stop operation at any time.
3. **Auto Power Saving Mode**: the device will turn off automatically if it is left idled for longer than 90 seconds. Operation resumes once the user presses the trigger **ON/OFF/SET**.
4. Under “**M1, 8 seconds**” setting, the device can be continuously utilized for approximately 30 curing sessions.



Caution :

Operating GT-1500 at **Mode 1**, 8 seconds for more than 30 cycles continuously could result in high temperature accumulation, which is hazardous to the patient's teeth. The user should pay more caution to check if any over-heating or contraindication.

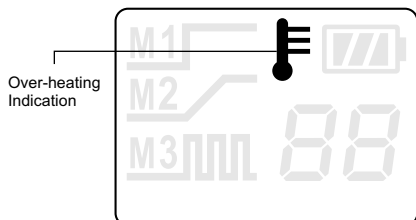
Radiometer Sensor :

1. Choose **M1** (full power)
2. Insert the Fiber-Optic tip to the handpiece.
3. Aim the tip at the **Sensor of Radiometer** and press **ON/OFF/SET** button to start checking the light intensity.



COOLING SYSTEM

Ti-Lite GT-1500 is equipped with a special built-in magnetic fan motor to prevent over-heating and to prolong the light emitting time.

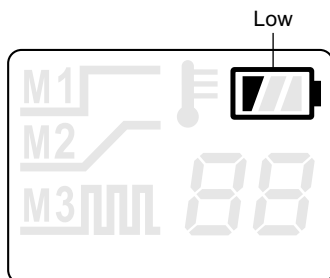
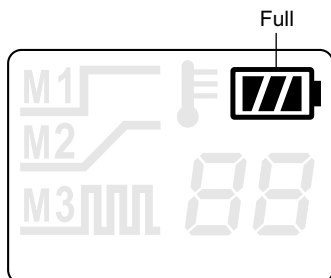


IMPORTANT :

- > The cooling system will be activated with the motor fan which starts turning when the heat starts to accumulate.
- > The thermometer symbol will start to blink and shut off the system for complete cooling and for protection purpose.

CHARGER SIGNALS

1. When the power of battery is low, place the handpiece onto the charger stand in up-right position to begin charging.
2. When the charger starts charging, the **red (CHARGE)** light will be turned on to indicate the charging begins.
3. The **green (READY)** light resumes after the handpiece is fully charged.



TROUBLE SHOOTING TIPS

CAUTION :

As failures or errors occur, please use the following table to try and fix the device. If the device remains problematic, please send back to the manufacturer for repair.

Federal law restricts this device to sale or on the order of a dentist.

DESCRIPTIONS		
FAILURE	CAUSE	SOLUTION
The red and green signal lights of charger stand are unable to light up	Poor connection between plug and cable	Check the connection between plug and cable
	Defect in charger	Return to manufacturer / agent for repair
LCD device is unable to light up	Defect in LCD device or pc board	Return to manufacturer / agent for repair
No activation	Lithium-ion battery is defective	
	Defect in main IC board	
LED lamp is unable to emit	Defect in LED module	

SPECIFICATION

CURING HANDPIECE :

- LED LAMP : 5 Watt.
- LIGHT INTENSITY : up to 1,500 mW/cm²
- WAVE LENGTH : 450 ~ 470 nm
- DIMENSION : 18.5(L) x 3.86(W) x 8.2(H) cm
- WEIGHT : APPROX. 206g

CHARGER :

- OUTPUT VOLTAGE : 8.4 V (TYPICAL)
- DIMENSION : 19.3(L) X 8.38(W) X 9.59(H) cm
- WEIGHT : APPROX. 177 g

BATTERY :

- LI-ION BATTERY PACK : 1 PC
- VOLTAGE : 7.4 V (TYPICAL)
- CAPACITY : 1,350 mAh (TYPICAL)
- DIMENSION : Approx. 1.8 x 6.5 cm
- WEIGHT : Approx. 78 g

ADAPTOR :

- INPUT : AC100 V ~ 240 V 50/60 Hz
- OUTPUT : DC 9 V
- CURRENT : 1.3 A (TYPICAL)

LIGHT GUIDE :

- FIBER OPTIC WITH TAPERED TIP
∅10mm taper to ∅8mm
- AUTOCLAVABLE UP TO 134 °C

MONITEX INDUSTRIAL CO., LTD

6F, 70, SEC. 1, GUANG-FU ROAD, SAN-CHONG
CITY, 24158, TAIPEI COUNTY, TAIWAN
TEL : 886-2-29993869 FAX: 886-2-29993647
E-mail : monitex@monitex.com.tw
<http://www.monitex.com.tw>

