The unit must be installed by a qualified dental engineer.

All instructions in this USER’S MANUAL must be completely read before installation or operation.
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**NOTE**

Use only the specified accessories.

⚠️ : Read before use.

カメ : Type BF applied part.

☑️ : Double insulated equipment.
1. **PRESENTATION**

The unit is a LED curing unit intended for dental polymerization of light cured materials by professionals.

2. **SAFETY INSTRUCTIONS**

1. Licensed professionals shall operate the unit.

2. Do not use curing light as an illuminative device.

3. Never shine blue light directly into eyes. The light will cause injury.

4. Wear protective eyewear and place the attached oval protector on the optic fiber before operating.

5. To avoid injuring patients’ eyes, turn on the lamp ONLY after the optic fiber is in patients’ mouth.

6. Condensation inside an electrical appliance can be dangerous. If the device is transported from one place to another with vast differences in temperature, it must not be operated until the unit has attained the new ambient temperature.

7. Do not use the device near flammable anesthetic liquid, oxygen, or nitrous oxide.

8. Do not use near any heat source. Use of solvent or flammable products on this device could cause damage.

9. This unit must not be operated by any person with a heart stimulator, pacemaker, or who is advised not to operate small electrical devices.

10. Any person who suffers, or has suffered in the past, from photo-biological reactions (including Urticaria solaris or protoporphyrie erythropetique), or any person receiving medical treatment and using photosensitive medication (including methoxysorales or dimethylchlortetracyline) must not use this unit.
3. ADVANTAGES

1》 Latest in LED technology with long light life – no need to replace LED component constantly.

2》 Less heat produced to ensure patient comfort.

3》 Three Mode Presets

   F: FAST – full power all the time

   R: RAMP – gradually increasing power in first 2 seconds, then full power until ends

   P: PULSE – 0.2 second interval with full power for 0.8 second

   ※ Longer time needed for PULSE mode. User should follow the original instructions of the composite when curing.

4》 Timer

   Five preset curing times: 5, 10, 20, 30, & 40 seconds.

5》 Low Battery Sign

   When **CH** is displayed on the panel, the battery needs to be charged until the **Fu** sign is shown.

6》 Sleeping Mode

   When the unit is suspended for 90 seconds, it will turn to sleep mode to conserve power.

7》 Auto Charging

   When switching into sleep mode, it displays automatically if the battery power requires any charging, auto-charging of the battery is possible if the hand piece is connected to the adapter, or when placed on the holder with the adapter.

8》 Auto Memory

   When power is turned off, the last setting of Time and Program Mode from the previous operation will be memorize for the next operation.
9. Cord/Cordless Interchangeable

When the battery is been removed from the hand piece, the unit is still been able to be operated when connected to the power adapter.

4. CONSTITUTION and PANEL FIGURES

(A) Curing Hand
(B) Holder with digital meter
(G) Curing Switch
(D) Switching Power Adapter
(E) Optic Fiber
(F) Mini Protector (Rubber Shield)
(C) Oval Protector
(H) Battery
(I) Function Indicator
(J) Program, and Reset / Wake Button
(K) Curing Time Display
(L) Time Button

(Fig. 1)

(Fig. 2)
5. INSTALLATION

Step 1 Charge Li-ion Battery (Fig. 1: H)
- Place the battery inside the curing handpiece (Fig. 1: A) properly.
- Select the following two options to charge battery:
  1. Connect the switching power adapter with the curing hand piece directly to charge the battery.
  2. Connect the switching power adapter with holder to charge the battery once the hand piece is properly placed on the holder when not in use.

→ New battery is required to be charged at least 6~8 hours for the first time and 3~5 hours only for future use.

**Resting of Hand piece on Holder:**
Position the hand piece diagonally before inserting into the slot of the holder. Once “hooked up” the whole hand piece can be rest fully on the holder. (As displayed in the picture on the Left).

**Withdrawing Hand piece from Holder:**
Tilt the “nose” of the hand piece towards user before withdrawing it against the Holder slot. (As displayed in picture on the Left).

**NOTE 1:**
- If the unit is in sleep mode, depress the Program/Wake Button (Fig. 2: J) before charging the battery. the unit needs to be activated first otherwise the battery will not charge.
- **P** indicates when there’s connection with the switching power adapter. After the unit is idle for 90 seconds, it falls into sleep mode and automatically charges the battery.

**NOTE 2:**
- Life of battery will be long lasting if charged only when **CH** is shown on the display.
- **CH** will be flashing in the display while charging, and **Fu** indicate when it is fully charged.
- The unit has battery protection. **If the battery is removed and re-placed in the handpiece, connect it with adapter (AC100V ~ 240V) to release the protection. Otherwise, the unit will not function.**
Step 2  
**Install Oval Protector** (Fig. 1: C) or **Mini Protector** (Fig. 1: F)

**Oval Protector** – Directly put it onto the handpiece until “click” sound is heard. It is rotatable 360° after proper assembly.

**Mini Protector (Rubber Shield)** – Put the mini protector onto end of optic fiber with the small caliber toward the handpiece and set the large caliber outstrip toward the end of optic fiber (Fig. 1: E) about 1mm to obtain better curing.

Step 3  
**Install Optic Fiber** (Fig. 1: E)

Directly insert the stainless steel chuck of optic fiber into bottom of the nose of handpiece.

Optional

Step 4  
**Connect with Switching Power Adapter** (Fig. 1: D)

→ The unit is available for use with adapter as cord type when there's an urgent operation if battery is low in power.

Directly connect the switching power adapter to the curing hand piece (no need to remove the battery unless it is damaged).

**Holder with Digital Meter**

A. **HOLDER**
   Refer to Fig. 1: B.

B. **DIGITAL METER**
   The meter is built into the holder.
   - Connect the switching power adapter with the holder.
   - Place properly the light guide on the meter and start curing.
   - After removing the light guide, the meter will automatically turn off in 5 seconds.

6.**OPERATION**

a. **Set Program Mode**

   Press (Fig. 2, J: left button) to select program mode

   (1)F: FAST      (2)R: RAMP      (3)P: PULSE

   (Refer to **ADVANTAGES** for further function explanation)

b. **Set Timer**

   Press (Fig. 2, L: right button) to select curing time between 5, 10, 20, 30, and 40 seconds.
c. Start to Operate

Press “curing switch” (Fig. 1: G) to start curing program. “Beep” sound will be heard every 10 seconds. The curing light will turn off automatically after the preset timing is over. To interrupt the selected program, press “curing switch” button once again.

d. Wake up from Sleeping Mode

The operation will turn into sleeping mode automatically when the unit is suspended for 90 seconds. Press (Fig. 2, J: left button) to activate the unit.

e. For Urgent Operation if Power is Low

When (low battery sign) is shown, pressing (Fig. 2, J: left button) can continue the curing when an urgent operation is needed. The battery should be recharged immediately after the operation.

7. MAINTENANCE

1) Be sure no residual material is sticking on the surface of the optic fiber after using.
   ※ Be sure to turn off the LED light while checking. Be careful not to look directly at the blue light which may injure the eyes.

2) If there are materials sticking on the optic fiber, immediately clean it with soft cloth or cotton swab. Keep it clean for better light output and longer lifespan.

3) The optic fiber should be sterilized after each use. It can be safely autoclaved in saturated at 121°C, 1kg/cm² for 30 minutes. Let it cool down for 30 minutes before handling.

4) The other accessories such as handpiece, plastic oval protector…etc., in close contact to the patients or from other possible contamination should be scrubbed by pure water or antiseptic and sheathed in accordance with standard disinfection procedures.
   ※ Soaking will damage the handpiece body. Thus, do not use soaking as a disinfection procedure.

5) The Li-ion battery should be dumped according to the national law.

6) Remove the battery to save energy if the unit will not be used for a long time.
# 8. TROUBLE SHOOTING

<table>
<thead>
<tr>
<th>FAULT</th>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Curing light, display panel and function indicators are not working. No power comes out.</td>
<td>a. The adapter is not in good and proper connection with the hand piece and electric power socket.</td>
<td>a. Re-connect the adapter properly.</td>
</tr>
<tr>
<td></td>
<td>b. Battery or adapter is not properly placed.</td>
<td>b. Place the battery or the adapter properly.</td>
</tr>
<tr>
<td></td>
<td>c. The curing handpiece is out of order.</td>
<td>c. Return to the dealer for further checking.</td>
</tr>
<tr>
<td></td>
<td>d. Battery or adapter is out of order.</td>
<td>d. Use another battery or adapter instead.</td>
</tr>
<tr>
<td></td>
<td>e. The battery is removed and re-placed.</td>
<td>e. Whenever the battery is re-place, connect the unit with the adapter firstly to release the battery protection.</td>
</tr>
<tr>
<td>B) The power of blue light is reduced.</td>
<td>a. The optic fiber is not properly seating.</td>
<td>a. Check the optic fiber and make sure it is assembled properly.</td>
</tr>
<tr>
<td></td>
<td>b. The optic fiber has creviced.</td>
<td>b. Replace the optic fiber and make sure no fracture lines appeared.</td>
</tr>
<tr>
<td></td>
<td>c. Some materials sticking on the surface of the optic fiber.</td>
<td>c. Remove materials with a soft blunt tool from the optic fiber.</td>
</tr>
<tr>
<td></td>
<td>d. The circuit is damaged.</td>
<td>d. Return to the dealer for further evaluation.</td>
</tr>
<tr>
<td>C) LED light is not working, but display and mode indicators works fine.</td>
<td>a. The unit is over heating.</td>
<td>a. Cool down the unit for a while and restart it.</td>
</tr>
<tr>
<td></td>
<td>b. Control unit is out of order.</td>
<td>b. Return to the dealer for further checking.</td>
</tr>
<tr>
<td>D) CH indicated very often even though the battery is fully charged.</td>
<td>The capacity of battery is not enough.</td>
<td>Replace with a new battery.</td>
</tr>
</tbody>
</table>
9. SPECIFICATION and ACCESSORIES

SPECIFICATION

1. Switching Power Adapter
   Input : AC 100~240V, 50/60Hz, 0.3A
   Output : DC 5V, 2A

2. Light Source
   Model Type : High - flux Blue 5 watt LED
   Wavelength : 430~490nm

3. Battery
   Type : Li-ion
   Voltage : DC 3.7V
   Capacity : 2000mAH
   Dimension : 18D x 65L mm

4. Holder with digital meter
   Input : DC 5V
   Output : DC 5V

STANDARD ACCESSORIES

1) Curing handpiece × 1
2) Holder × 1
3) Li-ion Battery × 1
4) Oval Protector × 1
5) Optic Fiber × 1
6) Switching Power Adapter × 1
7) Mini Protector (rubber shield) × 2

10. WARRANTY

1. This instrument described in this manual has been fully inspected and conforms to the current product specification.

2. This instrument is warranted for its designated use, against original defects in materials and workmanship for period of 12 months from date of purchase.

3. To prevent delay in processing a claim under the warranty, the registration card should be completed and returned at the time of purchase.

4. All warranty terms are subject / based upon the warranty card enclosed in each unit.