

ART-L5 LED CURING LIGHT

Directions for Use



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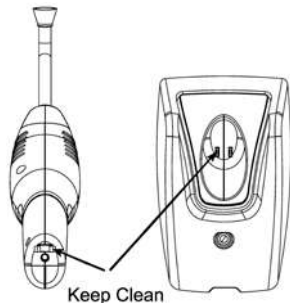


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Important Notice:



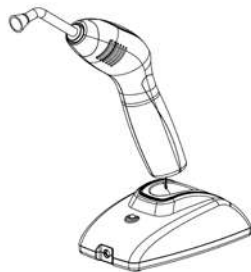
Keep the contact points clean to avoid bad connection.



Power saving & charging.

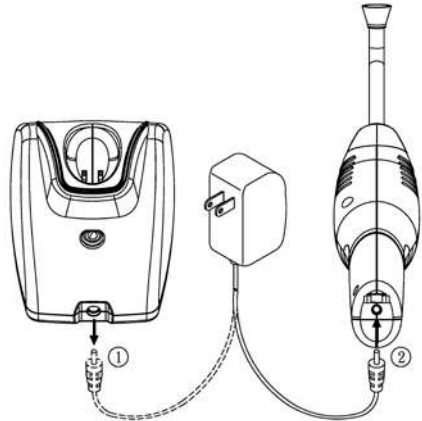
The ART-L5 LED cordless Curing Light System is designed to automatically switch to sleep mode after the system has been idle for a few minutes to be energy efficient.

To terminate the sleeping mode, press the “ ⏻ ” key. Place the handle into the charging base after each use.



NOTE :

Plug the power cord adapter to the handle of the system as an alternative option for user to system while battery is low.



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Operator Safety:

Read carefully and thoroughly before operating unit.

ENGLISH VERSION:

ART-L5 LED CURING LIGHT

Only properly trained personnel are designated to use this system as described in this manual. Only qualified personnel shall carry out any kinds of adjustment, maintenance and repair of the equipment.

● ***WARNING!***

WARNING: The intended use of ART-L5 system is for light curing only; it is not suitable for work in full power for more than 2 minutes continuously.

WARNING: For continuous operation, allow at least 30 seconds interval between each curing cycle.

WARNING: Use only specified accessories.

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Installation and Operations:

1. Plug the optic fiber light guide into the nozzle of the system's handle.
2. Plug the power adaptor into the wall outlet.
3. Attach the eye shield cap on the tip of the optic fiber light guide or put on a blue light resistant goggles to protect the user's eyes.
4. Press the "T" key to set up the desired curing time; various selections of 5 second, 10 seconds, 15 seconds or 20 seconds is available each time the "T" key is pressed.

***Note: a. The selected curing time comes on the LCD display each time the "T" key is pressed.
b. 5 second time is only available when system is set in Fast mode.***

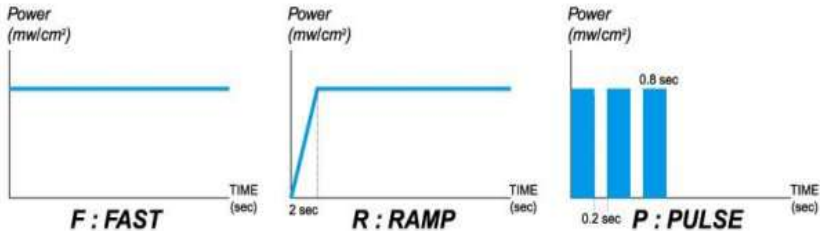
5. Press the "M" key to set the desired mode. System has 3 selective modes: **Fast, Pulse and Ramp**; an icon of each mode comes on the LCD display each time the key is pressed.
6. Adjust the optic fiber light guide to the desired angle that is suitable for the appropriate restoration position in the mouth. The optic fiber can be rotated by 45°.

7. Press the “ ⏻ ” key to start or activate the LED output.
8. Curing will end automatically based on the time set or when “ ⏻ ” key is pressed manually during light curing process.
9. Press “ ⏻ ” key to terminate sleep mode.



ADVANCED FEATURES

ART-L5 LED Curing Light System has three operating modes F, R and P, (Fast, Ramp, and Pulse). F mode starts the unit on full power for the duration of the cure time set. R mode gradually ramps the power up to full over 2 seconds, and then continues at full power for the remainder of the cure time set. P pulses the light at full power for a second with a rest of 0.2 seconds for the duration of the cure time set.



Note: Default setting is fast mode, which is generally accepted. Other modes are promoted for minimizing stress due to shrinkage; however research showed that resin formulation has a greater effect on stress than light intensity. Use at your own discretion.

System Maintenance:

1. Prevention of cross infection, cleaning, disinfections and storage:

It is mandatory that doctors need to wear sterilized gloves during these procedures at all time to avoid any possibilities of incomplete sterilization and/or getting infected. After each use, remove the optic fiber light guide and eye shield cap from the handle of the system. Clean and disinfect the handle with commercial alcohol based surface disinfecting solution (Dürr FD 322, Henkel Incidin Liquid, S&M Mikrozyd Liquid, B. Braun Meliseptol rapid). Keep other solvents or flammable liquids as well as intense sources of heat away from the system as they may damage its external plastic housing. Always protect the base charger against moisture as this may cause electrical short-circuit or system malfunction.

To avoid any possible contamination or infection, it is recommended to clean the optic fiber light guide and eye shield cap after each use with a supersonic cleaner first. This can be done manually by scrubbing the both items with a brush or ultrasonic cleaner with solution of detergent and water. Then, the optic fiber and eye shield cap should be rinsed thoroughly with water to remove all detergent and more importantly, air-dry the light guide fiber and eye protecting cap. Finally, put the optic fiber and eye shield cap in a sterilization pouch, and then put them into a medical equipped autoclave unit; sterilize the fiber at 260 degrees F or (127 degrees C[°]) for 30 minutes or as recommended by the manufacturer of the particular sterilizer used.


Warning: The optic fiber light guide is made of delicate fragile glass material so it recommended to handle item with extra caution to prevent severe damage and breakage.

2. Light Output Control:

Make sure that the optic fiber light guide is cleaned and scratch-free, otherwise light output intensity and its effectiveness could be reduced in curing composite or bonding material for its intended purposes. Control of light efficiency is recommended (e.g. by using CureRite™ light intensity testing device). The light intensity measured by Dentsply CureRite testing device should exceed 1,200 –1,500 mW/cm² or more.

Note: There will be a variation of the light intensity results with some of the radiometer unit used.

3. Battery Operations and Maintenance:

WARNING: Stop operation when low battery sign “  “ appear. Charge immediately.

NOTICE: When battery capacity is low, a beep sound will come on every 2 seconds.

The battery needs approximately 2 hours to be fully charged. When the battery is being charged, the battery indicator on the LCD display should be flashing. When the battery is fully charged, it has at least a maximum capacity of approximately 200 ten-second cures which is about approximately about 30 minutes operating time). Under most conditions of use, the device only needs to be recharged for a full 2 hours.

When the battery is running low, the battery indicator on the LCD display will start to flash. User has about 80 ten-second-cure times left to completion the treatment. **More importantly, light output is not reduced during this period.** After the 80 ten-second cures elapsed, the device switches off automatically.

Caution: Battery must be initially charged for 4 full hours. Lithium battery is used with this system so LED light can be kept at the charger at full capacity without damage. But battery needed to be replaced when its shelf life has expired.

4. Charging Methods:

A. Charging with Base Charging Station

- (1) Plug the base charger station's power adaptor to the charger and the wall outlet.
- (2) Place the handle of the system into the base charging station (Refer to Fig.3).

Note: Make sure that the handle is properly place in the charger and that its contact point is charging properly.

B. Charging with Power Adaptor Directly with the Handle

- (1) Plug in the power adaptor to the very end of the handle as sown in Fig.2.

Components and Accessories

1. 7.5mm Optic Fiber Light Guide
2. ART-L5 Main Unit (Handle)
3. Eyes Shield Cap
4. Power Adaptor
5. Charger

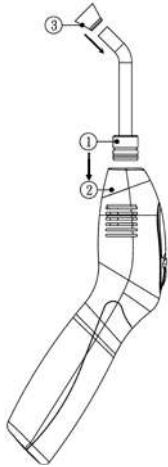


Fig.1



Fig.2

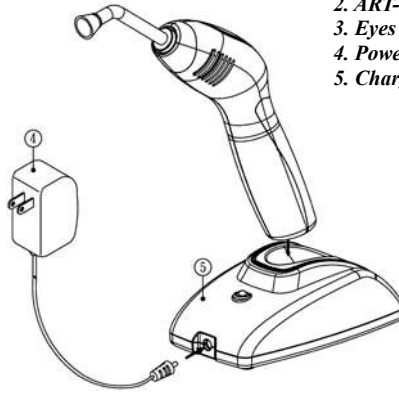


Fig.3



Fig.4

Specifications:

Power:

LED Curing Light:

Optical specifications: wavelength 430~480nm

Flux intensity: 1200-1600mW/cm² (Min.) with

Cure Rite's and Bonart's Radiometer.

LED Power Consumption: 5watt

Equipment class: *Class II*



Protection from electric shock: *Type BF*



Operation environment

Temperature: 0 °C ~ 40 °C

Relative Humidity:

10% ~ 90% (non-condensing)

Transport and storage conditions

Temperature: 0 °C ~ 60 °C

Relative Humidity:

10% ~ 90% (non-condensing)

Atmospheric pressure: 860~1060 hPa

Power Adaptor:

Input: 100~240VAC, 50~60Hz, 0.6A

Output: 5.0VDC/3.0A±5%

Battery:

Type: **Lithium**

Voltage: **DC.3.7V**

Capacity: **2500mAh**

System will operate for approximately 30 minutes after each complete recharging.

Time for battery charge: approximately 2 hours