

forward until it begins to enter the socket.
Note: The battery's red wire should be positioned toward the outside edge of the of the battery compartment (fig7).

5. Use your finger to push the connector the rest of the way into the socket.
6. Insert the replacement battery into the compartment (fig 8), slide the compartment cover back on and replace the screw.
7. It is recommended that you allow the battery to fully charge overnight before first use to maximize the battery performance.
8. Dispose of the old battery properly.

Cleaning and disinfection

Use of the Aurora Barrier Sleeve (S130) is recommended, as it eliminates the need to disinfect the light after every patient and prevents composite from bonding to the lens.

The Aurora should only be cleaned with a reflector cover in place. Spray disinfectant onto a cloth to wipe down the unit.

Use a recommended disinfecting agent, for example glutaraldehyde solution or quaternary ammonium solutions, such as DisCide Ultra and Sani-Cloth Plus wipes.

Caution: Do not spray disinfecting agent directly onto Aurora or immerse unit in disinfectant solution. Do not autoclave the Aurora. Do not use phenolic based disinfectants or alcohol to disinfect the body as this will have a detrimental effect on the performance of the Aurora. Parkell will not be responsible for units that have been disinfected with these products.

Reflector Lens Care

The plastic covers are made of a chemically resistant material. They should be regularly wiped clean with a soft cloth. Any spots of dried liquid should be wiped off the reflector lens. Adhering polymerized composite should be removed with alcohol. A plastic spatula may help in removing the material. To protect the surface, do not use any sharp or pointed tools.

Storage or Extended Periods of Non-Use

If the Aurora is not to be used for an extended period of time (e.g., during vacation), fully charge the battery prior to departure. Otherwise, the battery may become excessively discharged, which may damage it. Fully or nearly discharged batteries must be recharged as soon as possible.

Servicing your Aurora light

Other than the rechargeable battery, there are no user-serviceable components in the light. Only Parkell technicians are authorized to open the housing to repair the light.

2-year limited warranty –

Your Parkell Aurora is warranted for 2 years from the date of purchase against manufacturing defects. The warranty covers all parts and Parkell factory labor for any authorized repair to the device.

NOT covered is damage due to misuse, abuse, tampering, modifications, installation of a non-Parkell battery, or opening of the Aurora case by anyone other than authorized Parkell personnel (other than for replacement of the battery.) The lenses, which are meant to be periodically replaced, are not covered by the warranty.

Warranty is effective only if the Aurora is returned securely packaged, freight/postage pre-paid to Parkell, Edgewood, NY.

For service in the USA and Canada contact Parkell - 1-800-243-7446

CAUTIONS (continued)

Other than changing the battery, only Parkell technicians are authorized to open the housing of the unit and carry out any repairs.

Individuals with a history of cataract surgery may be particularly sensitive to light exposure. Adequate safety measures, such as the use of protective goggles, must be undertaken.

Individuals with a history of retinal disease should consult their ophthalmologist prior to operating the unit. This group must take extreme care to comply with all safety precautions (including proper protective goggles).

Caution: Federal Law restricts this device to sale by or on the order of a properly licensed practitioner.

Parkell, Inc.

Aurora™ Dental Curing Light

Instructions for Use

Product Description

The Aurora™ is an LED curing light for dental materials. It is capable of corded and cordless operation. The Aurora uses a high-performance Light Emitting Diode (LED) that emits a high-intensity light to cure dental materials. The light output is primarily in the wavelength range of 420-480 nm. It will fully cure materials that include camphorquinone as the photo-initiator. The light is controlled with a single button and has both 20 and 40-second curing modes. The Lithium Ion battery is capable of providing total operation time of at least 40 minutes (at least sixty 40-second curing cycles) between charges.

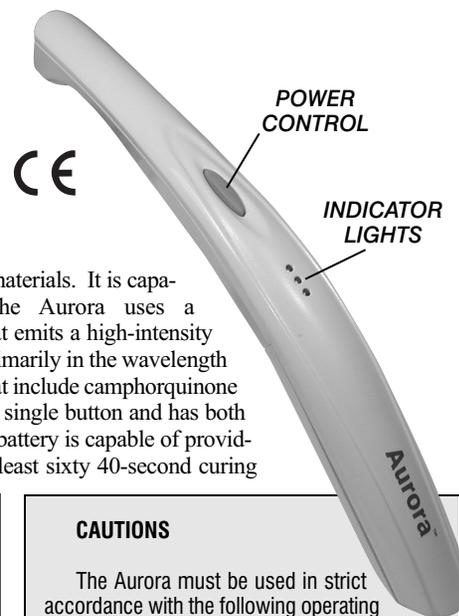
Through the use of a single button, the light can be set for a 20 or 40 second curing mode. An audible tone then signals at 5, 10, 20, and 30 seconds, so the operator can stop at any desired curing duration. The unique curved shape and output tip provides easy access to all tooth surfaces, especially the hard-to-reach palatal and lingual surfaces.

How Supplied

- 1- Aurora Curing Light - D540
- 1- Wall charger/transformer - D542
- 2- Curing Lenses - D541
- 1- Tacking Lens - D543
- Instruction Manual

Technical Data

Power Supply:	Li-Ion battery, 3.7V 2000mAh
Wavelength Range:	420-480 nm
Light Intensity:	Approx. 800 mW/cm ²
Operation:	Duty cycle of 2 minutes ON
Dimensions:	5 minutes OFF Approx. 9.4" length, 1" diam (240 mm length, 25 mm diam.)
Weight:	5 oz (140 g)
Protection Against Ingress of Liquids:	IPX0 (Ordinary)
Equipment not suitable for use in the presence of a flammable anesthetic mixture (when used with air or with oxygen or with nitrous oxide).	



CAUTIONS

The Aurora must be used in strict accordance with the following operating instructions. Parkell accepts no liability for any damage resulting from the misuse of this unit or uses for any other purpose.

Do not look directly at the light source and do not stare at light reflected from the tooth surface. Prolonged exposure may cause retinal damage.

Exposure must be restricted to the area of the oral cavity in which clinical treatment is intended.

Use only the original Parkell charger. The use of third party AC/DC wall plug adapters/chargers will result in damage to the unit.

Do not allow cleaning agents to directly enter the unit as this may cause premature failure. See Maintenance and Care on page 4.

Do not use on patients with a history of photo biological conditions including urticarial solaris or erythropoetic photoporphyria or who are on photo sensitizing medications.

Suitable blue-light filtering safety goggles must be worn by patient and dentist during use. Warning: LED Radiation. Avoid Direct Eye Exposure. Class 2 LED Product (IEC60825). Eye injury can result.

(continued on back)

PARKELL, Inc., 300 Executive Drive, PO Box 9004, Edgewood, NY 11717
631-249-1134 / Fax: 631-249-1242 • info@parkell.com • www.parkell.com



European Authorized Representative: (Not a dealer/distributor)
MDCI Ltd. Arundel House, 1 Liverpool Gardens Worthing, West Sussex BN11 1SL, UK

Power Supply/Charger:

Operating Voltage: 100-240V, 50/60 Hz input
Output Voltage: 5V
Output Current: 2.0 A
Dimensions: 3.4" x 1.8" x 1.3" (86mm x 46mm x 33mm)
Weight: 4.2 oz (120 g)
Classification: Protection Class II
Type B Applied Part

Time to charge/
discharged battery: Approx. 4 hours

Operating
temperature: 10°-32°C
Relative humidity 30%-75%

Transport and Storage Conditions

Ambient temperature range: -20°C to +40°C
Relative humidity range of 10% to 80%, non-condensing

Glossary of Symbols



Attention, Consult Accompanying Documents

Type B Equipment

Charging your curing light

IMPORTANT: Before using your new Aurora curing light for the first time, let it charge overnight.

Even if unused, the Aurora will hold its charge for just several days. So we recommend leaving the light connected to its charger each evening to assure a full charge the next time you need it. (You cannot "over-charge" the Aurora.)

While the battery is charging, the orange LED on the handle will illuminate. When the battery has fully charged, this light will switch off.



Fig. 2: Plug charger into square socket on the bottom of the handle.

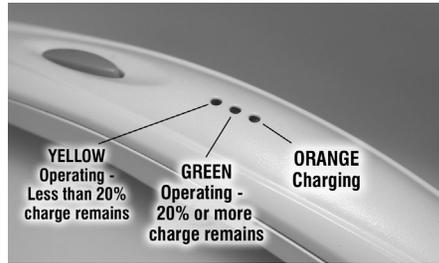


Fig. 3: The color of the indicator light indicates battery status.

The green and yellow LEDs, which indicate the amount of charge left in the battery, will only light when the Aurora is in use.

1. Plug the charger into an AC outlet.

2. Plug the wire from the charger into the handle end of the Aurora light (fig 2.). The reddish-orange light on the Aurora will indicate the unit is charging (fig 3). For best battery performance, fully charge the Aurora prior to first use. It will take approximately 4 hours to initially charge the Aurora. The light will turn off when unit is fully charged.

When you activate the light, the green light will illuminate if the remaining charge is 20% or more. The yellow light will illuminate if the remaining battery charge is less than 20% (fig 3). The Aurora will cure composite properly even when the battery is weak. When insufficient charge remains to power a full curing cycle, the light will not switch on.

You can keep the unit connected to the charger when not in use to trickle-charge the unit and keep it at full strength. However, for extended periods of non-use, the Aurora should be fully charged (overnight) and then unplugged from the charger.

Curing with your Aurora light

The Aurora can be used as either a cord-free or corded light. If the battery is weak (or even uncharged) simply leave it plugged into the charger during use.

All operation is controlled using a single button.

Press the button once to initiate a pre-programmed 20-second curing cycle. After 20-seconds of operation, the light will shut off

automatically.

Press the button twice (within 2 seconds) to initiate a preprogrammed 40-second cycle. After 40-seconds of operation, the light will shut off automatically.

You can turn the light off manually any time during operation by pressing the button again.

A guide to audio signals

The Aurora beeps each time you press the button to indicate that it has understood your command.

During operation, there are two types of signals:

Tacking signal - The Aurora emits a low pitched beep at 5 seconds. When positioning veneers, press the button again at this tacking signal to turn off the light and avoid permanent bonding.

Timing signals - The Aurora emits high pitched beeps to indicate elapsed curing time.

at 10 seconds - one beep
at 20 seconds - two beeps
at 30 seconds - three beeps

Use these signals to cure for periods other than the pre-programmed 20- and 40-second cycles. For example, to cure for 30 seconds, push the button twice (this will start a 40-second cure) and when the device beeps 3 times (30-seconds), push the button again to stop curing.



Fig. 4: To remove, rotate 1/8th turn counterclockwise.



Reflector Lenses

Your Aurora comes with three reflector lenses (two curing lenses and one tacking lens.) Additional lenses may be purchased separately. To remove a lens, turn it 1/8th turn counterclockwise and remove it from the light. Reverse the process to install the new lens.

The reflector lens should be inspected prior to

each use for scratches, cracks or materials that may interfere with output of the Aurora and, if necessary, replaced.

Caution: Do not touch the reflector surface or the LED.

Cure Times

Due to the variation in light cured materials, curing times will differ. Review manufacturer product instructions for recommended curing times. ALWAYS bench test new materials before use in vivo.



Fig 5: Remove screw.



Fig 6: Bend replacement battery wire to facilitate positioning of the connector.

Maintenance and Care

Replacement of the Battery

Use Parkell-supplied batteries only. The use of other manufacturer's batteries or non-rechargeable or primary batteries is a potential hazard and may damage the unit.

1. Remove screw below the charger socket (fig 5) and remove the battery compartment cover.

2. Remove the battery from the compartment and disconnect the two-prong connector by pulling the battery's connector wires.

3. Bend the replacement battery's connector wires to form a right angle (fig 6). (Plugging in the new battery will be easiest if one person holds the Aurora, while another positions and snaps the tiny connector into its socket.)

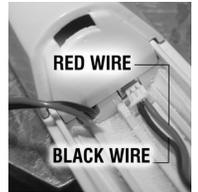


Fig 7: After positioning the connector, use your finger to push it in place.



Fig 8: Seat the battery in the compartment, slide the cover in place and replace the screw.