



LED radiometer

ENGLISH

INSTRUCTIONS FOR USE

INTRODUCTION:

Thank you for purchasing the SDI LED radiometer. Accurate and versatile, this easy to use LED radiometer will ensure your restorations won't fail due to under curing of the composite material. Under cure is the most common cause for failure of composite restorations. For various reasons LED curing lights can lose intensity, and it is imperative to test accurately the intensity occasionally to ensure constant high performance, and if needed, rectify any intensity issues with your LED curing light. The LED radiometer is designed to measure the energy between 400 and 525 nanometers, and gives readings from 0 to 2100 mW/cm². The LED radiometer is calibrated for LED curing lights.

INDICATIONS:

The LED radiometer is used to test the intensity of dental LED curing lights. It fits most lens caps and light guides, measuring up to 12 mm in diameter.

CAUTION:

- Suitable blue-light filtering safety goggles must be used when testing the intensity of LED curing lights with the LED radiometer.
- Do not allow cleaning agents to directly enter the unit as this may cause damage.
- Only SDI authorised service personnel are authorised to carry out any repairs to this unit.
- Testing the intensity of LED curing lights must not be performed by the following types of people:
 - 1) People with heart pacemaker implants who have been advised to be cautious in regards to their exposure to small electrical devices.
 - 2) People who have a history of photo biological reactions (including individuals with urticaria solaris or erythropoietic protoporphyria) or who are currently on photo-sensitising medication (including 8-methoxypsoralen or dimethylchlorotetracycline).
 - 3) Individuals with a history of cataract surgery.
 - 4) Individuals with a history of retinal disease.
- Federal law restricts this device to sale by or on the order of a dentist.

UNPACKING:

After receiving the LED radiometer, check the packaging and parts for any possible damage that may have occurred during transit. If damage is apparent please contact a sales representative as soon as possible.

OPERATION:

1. Place the activated LED curing light tip over the sensor.
2. The LED radiometer will turn on automatically.
3. Hold the curing light tip over the sensor for 10 seconds, then remove.
4. The display will show the maximum output achieved for a few seconds.
NOTE: Readings are given in milliwatts per centimetre squared.
5. The LED radiometer will turn off automatically.

INTERPRETATION OF INTENSITY READINGS:

Readings above 300 mW/cm² : use LED curing light as normal following both LED curing light and composite manufactures' instructions. Please note that some composites with dark shading require additional curing time.

Readings below 300 mW/cm² : Firstly, refer to LED curing light manufacture's instructions for use trouble shooting section. If problems persist refer to the following possible causes and rectification methods.

For LED curing light units which have a lens cap:

- 1) There could be some material on the lens cap such as composite: - the lens cap should be replaced.
- 2) The lens cap could be damaged or cracked: - it should be replaced.
- 3) The battery could be extremely low - the unit should be recharged.
- 4) In a severe case the internal workings in the light could be malfunctioning: - the unit should be serviced.

For LED curing light units which have a light guide:

- 1) There could be some material on the light guide such as composite: - the light guide should be cleaned. Note: repeated auto clavings of light guides can cause degradation of the light guide causing a loss of light output.
- 2) The light guide could be damaged or cracked: - it should be replaced.
- 3) The battery could be extremely low - the unit should be recharged.
- 4) In a severe case the internal workings in the light could be malfunctioning: - the unit should be serviced.

REPLACING THE 9 VOLT BATTERY:

Low battery warning occurs when 4 dashes "- - - -" appears on the display. Simply remove the three screws in the back of the unit, lift off the cover and replace the old battery with the new one. Replace the cover and the screws. After testing unit use as normal. Note: any tampering of the unit will void the warrantee.

CLEANING:

Should the radiometer become dirty, the surface can be cleaned using a soft cloth dampened with anti-microbial surface disinfectants such as Glutaraldehyde, Chlorhexidine gluconate, or 70% Isopropyl alcohol.

- **MAKE SURE NO CLEANING LIQUIDS ENTER THE DEVICE.**
- **DO NOT AUTOCLAVE THE RADIOMETER.**
- **DO NOT IMMERSUE UNIT IN WATER.**

TROUBLE SHOOTING THE LED RADIOMETER:

1. Different intensity reading every time: Make sure the lens cap or light guide is placed centrally on the light sensor, also be sure to keep it completely still when testing the intensity. It is recommended to place the LED radiometer on a flat surface rather than in your hand when testing LED curing light intensity.
2. No reading: check to see if 4 dashes "- - - -" appears on the display. If so, replace battery as per above instructions.

REPAIR:

When returning faulty units please make sure that they are returned in protective packaging for transit.

WARRANTY PERIOD:

SDI Limited., the Manufacturer, extends a two year warranty against defects in materials or workmanship to the original purchaser of this product. The Manufacturer agrees to correct any defects which develop within the warranty period, either by repair or replacement, at its option. This warranty is valid providing factory inspection indicates that any such defect developed during normal and proper use subject to the conditions below.

WARRANTY CONDITIONS:

- a) Claims for damage in shipment should be filed promptly with the transportation company.
- b) All shipments claimed defective can only be returned to the Manufacturer with the written consent of the Manufacturer. All returned products must be accompanied by a full description of discrepancy or malfunction.
- c) Manufacturer shall be released from all obligations under this warranty if repairs or modifications are made by persons other than Manufacturer's own or authorised service personnel, or in the event of improper installation of damage due to casualty or obvious misuse.
- d) Manufacturer shall in no event be liable for any consequential damages arising from the misuse of the product.
- e) Only the above stated warranty shall be applicable, and all other warranties, expressed or implied, are hereby excluded.

All correspondence concerning the product should specify the model and serial number. Any enquiries concerning details of operation should be addressed to SDI Limited., 3-13 Brunsdon Street, Bayswater, 3153, Victoria, Australia.

Re-order Code	Item
5600028	LED Radiometer

Made in Australia by SDI Limited
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CAUTION
(refer to accompanying instructions)

