User's Manual

PATTERSON® DENTAL

PATTERSON® *Curing Light Meter*
#085-1113

Operation Instruction

Manufactured for : ***Patterson Companies, Inc.***
Fabrique pour : *1031 Mendota Heights Road*
Saint Paul, MN 55120 USA

Contents

1. **Warranty**
2. **Installing**
3. **How Curing Light meter Works**
4. **Cleaning method**
5. **Feature**
6. **Operating**
7. **Equipment Specification**
8. **Troubleshoot**
9. **Interpreting the results**
10. **Service Center**

1. Warranty

Rolence curing light meter when used in accordance with manufacturer's instruction and under normal use, are guaranteed for one year after date of purchase. Within the period guaranteed Rolence Enterprise Inc will repair or replace free of charge, as its sole discretion, all parts that are defective because of material or workmanship not including costs for removing or installing parts.

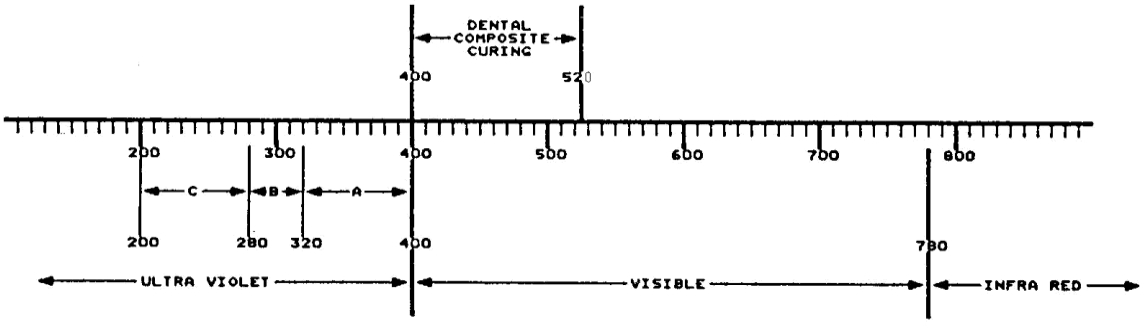
- Don't place meter in the environment(exceed 50℃)
- Don't ever use mineral acids or bleaches to clean the surface of meter.
- Don't ever press or drop the meter heavily.
- Don't disassemble the meter.
- Don't immerse the meter in water.

Failure to comply with these warnings will void your warranty.

2. Installing

Disassemble the battery cover in the back of the meter.
Assemble the 9V battery with the connector properly. Put the cover back.

3. How Curing Light meter Work



Visible-light-cured dental restorative resins are hardened only by light at the blue end of the visible spectrum. The wavelength range for activation is 400 nm to 520 nm, which includes the blue spectrum. The design of the DIGITAL LIGHT METER – 200 is versatile and can be used for various requirements.

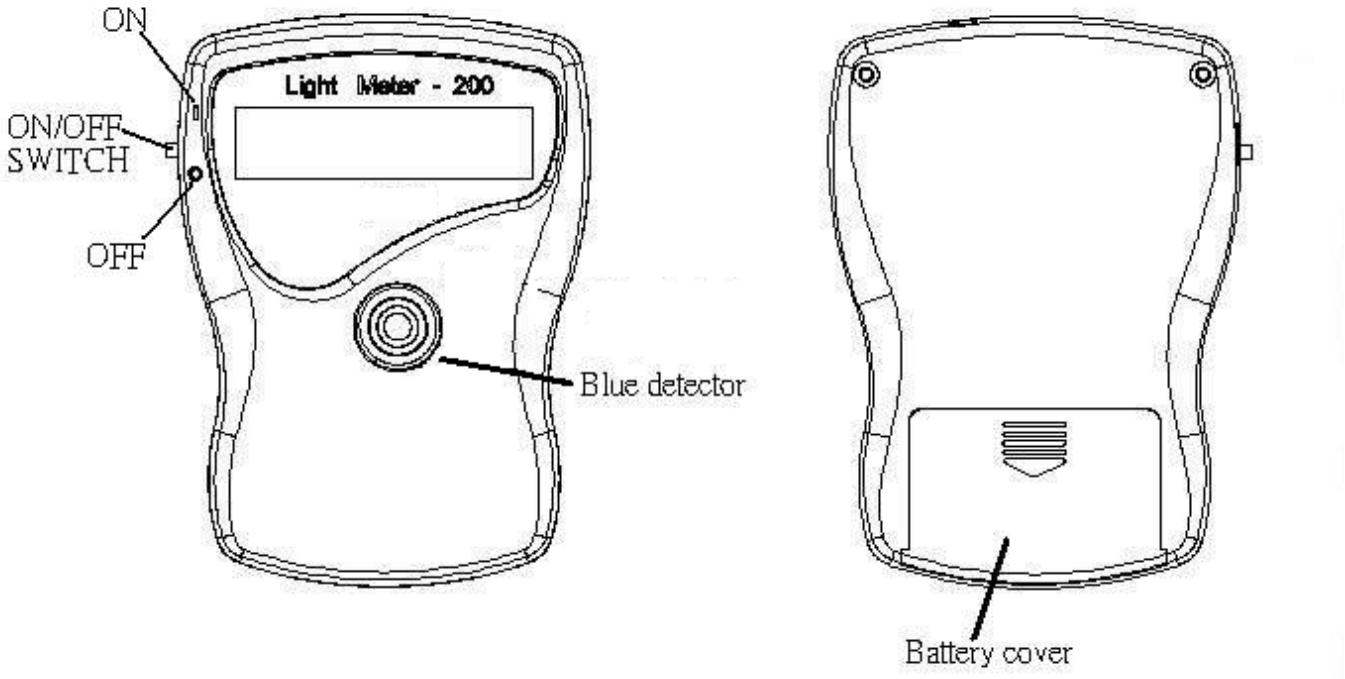
4. Cleaning method

Use alcohol and a cotton swab clean the surface then keep it dry and clean place.

5. Feature

a. Could be used for both LED & Halogen curing light.
b. Instant reading from LCD digital displayer. Does not require a warm-up time.
c. Measures blue light from 0 to 5000 mw/cm^2 curing power densities at light guide tip.
d. A battery fed low power indicator will show the results on the screen.
e. User-friendly because of its design.
f. Accommodates tip diameters of 8mm to 13mm.
g. Requires minimal care.
h. An internal filter admits only useful curing light.

6. Operating



Tune power on. Then you can measure the light intensity of blue light used for curing. Align the tip of the light guide to the aperture window. Position your curing light guide so that the light is perpendicular the window. Read the output directly on the meter.

7. Equipment Specification

Dimension : L*W*T =125*90*20mm
Weight : 239g
Color : white body and green display panel.
Battery voltage : 9V
Measuring range:
Blue light : 0~5000mw/ cm^2

8. Troubleshoot

Problem	What to do
Turn on the power on and you can't read the data form LCD display panel.	1.Turn off the meter and turn on it again. 2.Check the battery to make sure that it was well connected. 3.Replace battery with a new one.
Measure curing-light and find the reading number is changing.	It will be normal phenomenon. Because the light intensity could be changing.

9. Interpreting the Result

- Blue Mode
  - 300 mw/ cm^2 or higher: For best results maintain output above 300 mw/ cm^2. This should provide sufficient energy for polymerization of materials up to 3mm depth, following the manufacturers recommended curing time. If the reading is higher than 600 mw/ cm^2 , it may be shorten the curing time.
  - 200~300 mw/ cm^2: if the output falls between 200~300 mw/ cm^2, increase the recommended curing time
  - Below 200 mw/ cm^2: if the output fall bellows 200 mw/ cm^2, the curing light should not be used. Inspect the unit for deterioration at this time, lamp, filter, and light guide. If it still reads below 200 mw/ cm^2 after these adjustments, either send the unit back to the manufacturer for repair, or replace it with another unit.

Note:

In normal use all curing lights deteriorate from a number of causes, even before the lamp burns out, such as:

- Aging of LED module due to improper driving current or poor cooling
- Frosting or blackening of the Halogen bulb, or contamination or breakdown of filter coatings.
- Fiber breakage, particularly in flexible bundle designs.
- Power output not steady.

10. Service Center

With normal use, your curing light meter should not require servicing. However, if it fails to operate satisfactorily first try to diagnose the problem by following the suggestions in the troubleshooting Guide.

DO NOT DISASSEMBLE YOUR METER OR YOU WILL VOID THE WARRANTY.

If you find that your meter needs repair, carefully pack and return it to your local distributor. If under warranty, remember to include proof of purchase.

Your meter will be shipping by ground service unless you specify otherwise.