

MADE IN USA

# LED BLAST®



First Medica  
**LB001**  
MAY05

## WARNING!

- \* Do not look directly at LED or light guide while unit is on
- \* Do not immerse unit in water or any liquid
- \* Use only for curing dental materials
- \* Do not use around any flammable liquids or gasses

United States law limits the sale of this device only to dental professionals for use as instructed in this manual.

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### PACKAGE CONTENTS

Your LED Blast box contains the following:

- Pistol handpiece
- Charging base
- Wall charger
- 11mm fiber optic tip
- Orange light shield
- Operating manual

If you are missing any part please call First Medica at (800) 777-7072 x3

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### Handpiece features



Illustration 1

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### Charging

The LED Blast is shipped from the factory with little if any charge. The LED Blast must be charged before use. A complete charge takes 12 hours.

The LED Blast can be charged two different ways:

- A. 1. Plug the wall charger unit into the wall.
- 2. Connect the wire from the wall unit into the receptacle at the end of the charging base.
- 3. Firmly press the handpiece into the charging base. Make sure that the charging light illuminates to show that the battery is properly charging.

- OR -

- B. 1. Plug the wall charger unit into the wall
- 2. Connect the wire from the wall unit directly into the receptacle at the top back of the handpiece.

\* The LED Blast uses metal hydride batteries which do not have a memory effect. These batteries can be recharged without first discharging with no adverse consequences.

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## Operation

1. Charge the unit overnight.
2. Firmly press the fiber optic tip into the nosecone. Make sure that the tip has been pushed past the retaining clip and is held in the nosecone.
3. Place the orange shield in the slot in the nosecone.
4. Press the Power ON switch on the back of the pistol head to turn the unit on. A timer indicator light will illuminate. There is no "Off" switch. The unit will automatically power off after 10 minutes of inactivity.
5. Use the timer selection switch to select 5, 10, 20 or 30 seconds curing time.
6. Start the curing cycle by momentarily pressing the Curing cycle on/off switch.
7. A beeper will sound when the curing cycle is started and every 5 seconds until the timer shuts the light off.
8. The curing cycle may be stopped by pressing the Curing cycle on/off button.

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## CAUTION!

- \* Though the LED is much cooler than a Halogen light it does emit some heat. When the unit has been used nonstop for more than 2 minutes the metal light tip collet may get very hot.
- \* The aluminum heat sink in the nosecone may heat up after prolonged use. This is normal and not a cause for concern.
- \* The LED Blast is designed to be used only by Dental professionals for the purpose of curing CQ based light activated restoratives or cements. Any other use may cause excessive heat buildup and will void the warranty.
- \* Always use the orange anti-glare shield or orange colored glasses. Do NOT look directly at the blue light. Do NOT let the patient look at the blue light.

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## CARE OF LED BLAST

LED Blast can be cleaned using Medica DC-10. DO NOT IMMERSE OR SPRAY!

The fiber optic tip can be autoclaved or sterilized in Medica-28 or any activated glutaraldehyde solution.

## WARNING!

- \* Do NOT immerse the curing light or charging base in any liquid.
- \* Do NOT use phenol or butyl based cleaners. These may cause the plastic to crack and flake and will void the warranty.
- \* Do NOT use abrasive cleaners such as Comet or Ajax, as they will scratch the finish and void the warranty.

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## Operating tips

- \* When the light is interrupted by pressing the Curing cycle on/off switch the timer will reset to the start of the selected cycle time.
- \* The curing light will power down automatically after 10 minutes of inactivity. The unit cannot be manually switched off.
- \* The last timer selection will be the default timer setting when the unit is turned on.
- \* The LED Blast can use any Demetron or Hilux fiber optic tip.
- \* **It is essential that the light is firmly pressed into the charging base.** The pistol is not charging if the charging light is NOT on.
- \* If the unit is fully discharged it can be used with the charging cord plugged directly into the Power cord receptacle.
- \* When the battery is discharged the timer indicator lights will flash alternately. The unit cannot be used until the battery is recharged.

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## CURING MATERIALS

LED Blast uses a high power blue LED as its light source. The LED emits light in a very narrow bandwidth centered at 460nm. This wavelength is very close to the optimal absorption wavelength of CQ (camphorquinone) of 469nm. A narrow bandwidth also increases efficiency of the curing light and significantly reduces IR or heat output as compared to a halogen or plasma curing light.

LED Blast works with all CQ initiated composites, cement and sealants. Most light-activated materials are CQ based.

ALWAYS TEST THE SELECTED MATERIAL WITH THE LED BLAST PRIOR TO USING ON A PATIENT.

## WARNING!

A very few light-activated materials are NOT CQ based and will NOT cure with the LED Blast. Refer to the material's documentation to ensure that the material is CQ based. If the material is NOT CQ based use a halogen light with a broad spectrum.

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## TECHNICAL SPECIFICATIONS

AC Power supply input - 120V AC, 60hz  
DC Power output - 9V DC, 1 Amp

Batteries, 10.5V nominal, Metal Hydride with safety sensor

LED Module, 5W, 460nm peak wavelength

Power output using supplied 11mm tip with full charge > 1,000mw/cm<sup>2</sup>

Duty cycle is 4 minutes on and 5 minutes off.

LED Blast is manufactured exclusively for First Medica. For accessories or questions, call First Medica at (800) 777-7072 x3 or write:

First Medica  
3704-C Boren Dr.  
Greensboro, NC 27407  
firstmedica.com

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## WARRANTY

First Medica warrants that the LED Blast shall be free of defects in material and workmanship for a period of two years after the initial sale.



This warranty does not cover damage resulting from using the LED Blast in a manner inconsistent with use described in this manual. The warranty does not cover damage due to physical abuse of the unit nor does it cover the fiber optic light guide.

THIS WARRANTY IS THE SOLE AND COMPLETE WARRANTY OF THE LED BLAST. FIRST MEDICA SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FAILURE OF THE LED BLAST. IT IS THE OWNER'S RESPONSIBILITY TO TEST THE LED BLAST'S SUITABILITY FOR USE WITH ANY PARTICULAR LIGHT-ACTIVATED MATERIAL.

For warranty service, call First Medica at (800) 777-7072 x3 or write First Medica, 3704-C Boren Dr., Greensboro, NC 27407