

## LIFEPAK® 20 defibrillator/monitor Upgrade Information

### **What changes were included in the LIFEPAK 20 defibrillator/monitor software release?**

We added new set-up options, collectively known as cprMAX™ technology, and changed the default settings for CPR Time 1 & 2 to allow responders to more faithfully follow the 2005 AHA/ERC Guidelines.

Medtronic cprMAX technology is designed to allow resuscitation protocols to maximize the quantity of CPR administered during treatment with an AED, consistent with the 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Resuscitation Council Guidelines for Resuscitation 2005.

Setup options should be changed only under the direction of a physician knowledgeable in cardiopulmonary resuscitation who is familiar with the literature in this area.

The following is a list of cprMAX technology set-up options for the LIFEPAK 20 defibrillator/monitor (for more information, please refer to the LIFEPAK 20 Operating Instructions):

**STACKED SHOCKS**—Set-up option is STACKED SHOCKS ON or OFF. If set to ON, the defibrillator delivers a series of up to three consecutive shocks, as necessary, without an intervening CPR period. If STACKED SHOCKS are set to OFF, the defibrillator will deliver a single shock and immediately prompt for CPR (or advance to the PULSE CHECK step if activated). In order to adhere to the 2005 Guidelines STACKED SHOCKS should be turned OFF.

**PULSE CHECK**—Set-up options in PULSE CHECK are ALWAYS, AFTER NSA (No Shock Advised), After Second NSA NEVER. If the PULSE CHECK is set to ALWAYS it will prompt for a pulse check after completion of the shock sequence and after NSA decisions. If the PULSE CHECK is set to AFTER NSA, then the defibrillator will prompt for a pulse check only after a NSA decision. If the PULSE CHECK is set to NEVER then the AED will never prompt for a pulse check. In order to adhere to the 2005 Guidelines PULSE CHECK should be set to NEVER.

**INITIAL CPR**—Set-up option allows a period of CPR prior to first shock delivery. The 2005 Guidelines stated that no data was available to comment on the utility of INITIAL CPR in the hospital.

**PRESHOCK CPR**—Set-up option allows a period of CPR after a SHOCK ADVISED decision and while the defibrillator is charging. The defibrillator will be prepared to deliver a shock after the completion of the PRESHOCK CPR period. The 2005 Guidelines state that CPR while defibrillator is charging may be desirable.

### **Other Important Changes Included with this software upgrade:**

- Voice, text, and graphic prompt to remind the operator to REMOVE TEST PLUG prior to patient connection. Refer to Section 4, “Therapy”, in the Operating Instructions.

**o IMPORTANT NOTE for CUSTOMERS WHO CHOOSE TO UTILIZE the QUIK-COMBO®**

**THERAPY CABLE USER TEST.** Please review and incorporate into your testing protocol. When beginning a User Test, the “remove test plug” prompt WILL appear. Users should proceed to selection of the User Test and NOT disconnect the test plug. The prompt appears because the device is not yet in a test mode. As a reminder, we recommend that customers connect to the test plug before selecting “Options” and then “User Test”. Refer to Section 7, “Maintaining the Equipment” in the Operating Instructions.

- Ability for expanded range of energy levels 1, 2, and 3 in AED mode.
- Label to detail Medtronic’s dosage recommendation for biphasic shocks using the LIFEPAK 20 defibrillator/monitor.
- Motion detection feature: If motion is detected, the ECG analysis will be inhibited and the operator will be advised by a displayed message, a voice prompt, and an audible alert. After 10 seconds, if motion is still present, analysis will proceed to completion.
- Shock button behavior: The SHOCK button is disabled during the preshock CPR interval to avoid accidental shock delivery while the defibrillator is charged and a responder is performing CPR. The Shock button is not activated until after charging is complete (if it is held down, the user will need to release it and press again).
- Updated Operator’s Checklist for inspecting and testing the defibrillator in conjunction with the Daily Auto Test/User Test. Refer to Appendix D of the Operating Instructions.
- Ability to perform a battery check. Refer to Section 7, “Maintaining the Equipment” in the Operating Instructions.

#### Information for U.S. customers

#### **How can I upgrade my LIFEPAK 20 defibrillator/monitor?**

We offer two methods for upgrading your defibrillators in the U.S.:

#### **Basic upgrade package**

This option includes a CD with defibrillator upgrade software and configuration tool. Simply load the software from the CD onto a computer (PC), establish a communication link between the computer and the LIFEPAK 20 defibrillator/monitor with a 9-pin serial port cable and perform the upgrade following the instructions provided. Once the defibrillator is upgraded, the software can be used to change the defibrillator settings to the new Guidelines.

In order to perform this update you will need a computer (PC) with Windows® XP (Professional or Home Edition) with Service Pack 2 and a 9-pin serial port (a standard connector found on the back of most computers). An Internet connection is required to automatically send a report to Medtronic at the conclusion of the upgrade process.

(To check for Service Pack 2, right click on your My Computer icon on your desktop, click properties. This will show you the operation system and level of service packs installed.)

**Premium upgrade package**

Our field service team is also available to load the upgrade software on your defibrillator and then change the set-up options according to your specifications.

**How much will it cost to upgrade my LIFEPAK 20 defibrillator/monitor?****Basic upgrade package**

Kit 1: Update CD only (Cat. #21340-000393) \$30  
Kit 2: Update CD and (1) RS-232 DB9 communications cable (Cat #. 21340-000394) \$60

Upon request, we will provide the basic upgrade package at no additional cost above and beyond the original purchase price of the defibrillator to customers who were shipped defibrillators after the Guidelines were issued (November 28, 2005). Customers must request the Guidelines upgrade within 24 months of purchase of their defibrillator(s). This offer does not extend to warranty/service replacement for defibrillators shipped prior to November 28, 2005.

**Premium upgrade package**

\$275 per device

For customers with a Medtronic service agreement providing for free software upgrades, the premium upgrade will be performed (at the time of annual inspection) onsite or on a ship-in basis per the terms of your agreement at no charge.

Additional items for order

Single sheet of 30 AHA English dosage labels (Cat. #21501-001935) \$2  
Serial Port cable - 6 foot (LP20 to PC) (Cat. # 11230-000018) \$60

**When will the new software be available?**

We are currently accepting orders for new Guidelines-ready upgrades. Please contact your local sales representative or Medtronic Customer Support (1-800-442-1142, option 6).

Information for customers outside the U.S.

The same upgrade methods available inside the U.S. will also be available in many countries outside the U.S. See your local sales consultant for details.

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