

Your Decision to Replace Your LIFEPAK CR® Plus AED with a New *CR Plus*



Your automated external defibrillator (AED) is one of the most important safety tools in your facility. In a cardiac emergency, it could help you save a life. Although not everyone can be saved from sudden cardiac arrest, studies show that early defibrillation can dramatically improve survival rates. As equipment matures, it is important to evaluate your AEDs to determine if it is time for a replacement.

Your decision to stick with the LIFEPAK CR Plus AED confirms the reasons you purchased the *CR Plus* the first time around:

- The ability to escalate energy delivered to the victim up to 360 joules—the most energy available in an AED today.
- Since most EMS systems use LIFEPAK defibrillators, the compatibility between the LIFEPAK CR Plus AED and advanced LIFEPAK defibrillators that will arrive on scene can help streamline the transition of a patient from your facility to the ambulance to the hospital.
- The synchronized two-year replacement cycle of the CHARGE-PAK™ battery charger and electrodes eases the burden on maintenance.

Having an AED in your workplace or community location also confirms the reason you purchased AEDs in the first place—to be prepared to treat people in your site daily.

The Importance of Ease of Use

Fully Automatic—No Shock Button Necessary

While all AEDs are designed to be user-friendly, fully automatic AEDs make it even easier for a responder to help a victim of sudden cardiac arrest. A fully automatic AED is designed to give a shock automatically, if needed, without the user having to push a button to deliver that shock. The LIFEPAK CR Plus AED communicates clear, calm, step-by-step instructions that let responders know when a victim is about to be shocked. Fully automatic models are designed to help responders who may hesitate to push the shock button. Studies have shown a number of benefits of fully automatic AEDs over semi-automatic AEDs, including improved safety of rescuers when in the presence of a bystander, reduced user errors, and reduced delays in therapy associated with hesitation to push the shock button.^{1,2}

Simple to Find “On” Button

A cardiac arrest in your workplace or community is a chaotic and stressful event. You want to have an AED that will be simple to use. And the first step of using that AED is turning on the device. After launching the LIFEPAK CR Plus AED in 2002, Physio-Control continued to monitor the use of the device to determine any opportunities for improvement. Since the launch of the product, the company has added a new feature to ensure even more simplicity for the responder when he or she must use the AED. *CR Plus* units now have a lid with a large arrow pointing to the “on” button. Internal studies showed that adding this simple feature took seconds away from any delay the user may have during the rescue. And in treating sudden cardiac arrest, seconds count.³

Clear Instructions on Electrode Placement

Untrained and minimally trained users often have difficulty with correct electrode pad placement. Correct pad placement helps optimize the amount of energy delivered to the victim’s heart, which can increase the chance of survival. *CR Plus* units now have enhancements which help improve pad placement, including more specific pad placement prompts and clearer placement graphics on the electrodes.

Cost of Ownership

If your warranty is expired, it can become cost-prohibitive to service or upgrade your AED. Check for any take-back or trade-in discounts that can help offset the cost of replacement.

When you decide it’s time to replace your AEDs, ask about the warranty period of your new devices. Physio-Control, for example, now offers an eight-year warranty on new LIFEPAK CR Plus AEDs—one of the longest warranties on the market today.

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Age of Device

There are currently two sources that regularly review depreciation of medical supplies. *The American Hospital Association 2004 Estimated Useful Lives of Depreciable Hospital Assets* lists the life expectancy of a defibrillator at five years. *The Department of the Army Technical Bulletin (TB MED 7)* lists life expectancy of a defibrillator at eight years.

In order to save a life, you want your device to be in the best condition. It is a fact that electronic components age. For example, batteries operate on chemical reactions. This reaction continues even as the battery is sitting on the shelf and not being used. If left long enough, batteries will essentially burn themselves out. In AEDs, batteries and internal components will age and lose effectiveness over time.

This aging effect occurs even with AEDs that have never been used. It is similar to prescription medications that lose effectiveness after an expiration date, or a survival pack with perishable goods that will expire even if the pack has been sitting on a shelf untouched.

Since your AED has a shelf life, it is important to perform routine inspections. Simply check the readiness indicator of your AED. If it reads "OK", you can feel comfortable knowing your device is ready to be used in an emergency.

One indication that it might be time to replace your LIFEPAK CR Plus AED is early depletion of your CHARGE-PAK™ battery charger. The CHARGE-PAK battery charger typically lasts about two years before it needs to be replaced. In some circumstances, the CHARGE-PAK symbol will appear on the readiness display before the end of the two year time frame. This can be attributed to a number of different causes, including using the device in an emergency, periodically turning the device on, and aging of the internal battery. If you can rule out the first two causes and you have an older device (five years or older), it might be most cost effective to replace the device, especially if it is no longer under warranty. Even if the CHARGE-PAK indicator is present, it is likely the defibrillator can still be used in an emergency and maintenance issues can be dealt with later.

- 1 Hosmans T, et al. Manikin and simulation study. Safety of fully automatic external defibrillation by untrained lay rescuers in the presence of a bystander. *Resuscitation*. 2008; 77:216-219.
- 2 Monsieurs KG, et al. A study comparing the usability of fully automatic versus semi-automatic defibrillation by untrained nursing students. *Resuscitation*. 2005; 64:41-47.
- 3 American Heart Association. CPR & Sudden Cardiac Arrest (SCA) Fact Sheet 2010 .

AED users should be trained in CPR and use of the AED. LIFEPAK AEDs are prescription devices. Please consult your physician. All claims valid as of December 2011.

For further information, please contact Physio-Control at 800.442.1142 (U.S.), 888.879.0977 (Canada) or visit our website at www.physio-control.com.



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