stryker

Data sheet

LIFEPAK® CR2 defibrillator
USB

Features

- Layered, easy to follow design
- QUIK-STEP electrodes for both adult and pediatric patients
- Faster time to first shock[1]
- Child Mode button
- Fully automatic and semi-automatic models available

Sudden Cardiac Arrest (SCA) can happen to anyone—anywhere. Immediate treatment is vital. A victim's chance of survival dramatically decreases for every minute without treatment.[2] That's why public access defibrillators are so important. They put lifesaving technology where it can do the most good. So when an emergency happens, you should have nothing less than the best.

- **Designed for user confidence**
  CR2 will help keep the rescuer focused on what really matters—saving a life.[1]
- **Layered design**
  Layered design with easy to follow bold graphics. Both trained and untrained AED users clearly know how to begin.
- **QUIK-STEP™ electrodes**
  Peel directly off the base for faster placement.[1]
- **Child Mode**
  Child Mode button delivers lower energy levels appropriate for children without having to change electrodes.
- **Metronome and CPR coaching**
  Quickly sets an effective pace and audibly guides users.
- **ClearVoice™ technology**
  Detects background noise and adjusts tones and voice prompts so they can be heard clearly in noisy environments.
- **Highest available escalating energy**
  Provides up to 360J for difficult to defibrillate patients.
- **LIFEPAK TOUGH™**
  IP55 rating for challenging environments.
- **8-year warranty**
  Backed by an 8-year warranty.

Specifications

Defibrillator

Waveform: Biphasic Truncated Exponential with voltage and duration compensation for patient impedance.

Patient impedance range: 10–300 ohms.

Energy accuracy:
10% of the energy setting into 50 ohms.

15% of the rated energy output into 25–175 ohms.

Output energy sequence: Multiple levels, configurable from 150 joules to 360 joules.

Energy default: 150J, 200J, 300J, or 360J (adult) 35J, 50J, 75J, or 90J (pediatric).

Shock Advisory System™: An ECG analysis system that advises whether a shock is appropriate; meets rhythm recognition criteria specified in IEC 60601-2-4.

CPR coaching: Instructions for adult and pediatric CPR, including feedback when no CPR is detected, rate and depth guidance, a metronome and instructions on hand placement.

Time to shock at 360J after CPR:
- **Semi-automatic:** < 17 seconds

Charge time: 0 seconds for first 150J or 200J shock (as device is pre-charged).

Controls

Lid release/ON-OFF:
Controls device power.

Shock button, semi-automatic: Delivers energy when button pressed by the user.

Shock button, fully automatic: Flashes prior to delivering shock without requiring user intervention.

Child Mode button: Allows operator to switch to Child Mode for reduced energy and CPR guidance appropriate for children from one year old.

Electrical protection: Input protected against high voltage defibrillator pulses per IEC 60601-1/EN 60601-1.

Safety classification: Internally powered equipment. IEC 60601-1/EN 60601-1.

User interface

User interface: The user interface includes voice prompts and audible tones.

ClearVoice technology: Detects background noise and adjusts audio and voice prompts to ensure they can be heard clearly in noisy environments.

Device status indicators: Visual and audible indicators indicating system readiness (device, pads and battery).

Environmental

Note: All performance specifications defined assume the unit has been stored (two hours minimum) at operating temperature prior to operation.

Operating temperature: +32° to +122°F (0° to +50°C).

Storage temperature: -22° to +140°F (-30° to +60°C) with battery and electrodes, maximum exposure time limited to one week.

Long term storage: Always store the defibrillator within the recommended temperature range of 59° to 95°F (15° to 35°C).

Altitude: -1,253 to 15,000 ft (-382 to 4,572 m).

Relative humidity: 5 to 95% (non-condensing).

Water resistance: IEC 60529/EN 60529 IPX5 with electrodes connected and battery installed.

Dust resistance: IEC 60529/EN 60529 IP5X with electrodes connected and battery installed.

Shock: IEC 60068-2-27, (40g, 11 ms pulse, ½ sine each axis).

Vibration: MIL-STD-810G, Method 514.6, Helicopter – category 14 and Ground Vehicle – category 20.

Physical characteristics

With handle, including electrodes and battery:

Height: 3.8 in (9.7 cm).

Width: 8.9 in (22.6 cm).

Depth: 10.8 in (27.4 cm).

Weight: 4.5 lb (2.0 kg).

Accessories

Primary battery

- **Type:** Lithium manganese dioxide (Li/MnO_2), 12.0V, 4.7 amp-hours.
- **Capacity (at 20°C):** Will provide 166 200 joule shocks (with one minute of CPR between shocks) or 103 360 joules shocks (with one minute of CPR between shocks) or 800 minutes of operating time.
- **Standby life (assuming daily tests only):** A new battery provides device power for 4 years if installed in device that is not used.
- **Replace battery indication:** At least 6 shocks and 30 minutes of operating time remain when first indicated.
- **Weight:** 0.7 lb (0.3 kg).

Electrode pads

- **Pads:** Can be used on both adult and pediatric patients.
- **Pads packaging:** User intuitive, rapid access electrodes.
- **Pads replacement:** Replace every 4 years.

Data storage

Memory type: Internal digital memory (flash RAM).

ECG storage: Minimum 60 minutes of ECG stored for two patient episodes.

Communications

Communications: USB

BRIEF SUMMARY OF INDICATIONS AND IMPORTANT SAFETY INFORMATION

INDICATIONS FOR USE:
LIFEPAK CR2 AED is indicated for use on patients 1 year of age or older in cardiopulmonary arrest. The patient must be unresponsive (unconscious), not breathing normally, and showing no signs of circulation (for example, no pulse, no coughing, or no movement). cprCOACH™ Feedback Technology in *CR2* AED is indicated for use on cardiopulmonary arrest patients and provides CPR guidance in accordance with AHA Guidelines for patients 1 year of age or older. AED is intended for use by personnel who have been trained in its operation. Users should have received training in basic life support/AED, advanced life support, or a physician-authorized emergency medical response training program. The LIFEPAK CR2 Defibrillator is indicated to be used with the QUIK-STEP™ Pacing/ECG Defibrillation Electrodes and the LIFEPAK CR2 Lithium Battery.

CONTRAINDICATIONS:
LIFEPAK CR2 AED is not indicated for patients who are conscious and responsive.

DANGER:
Do not use LIFEPAK CR2 in presence of flammable gases or anesthetics.

WARNINGS:

- LIFEPAK CR2 AED delivers up to 360 joules of electrical energy. Unless used properly by following AED's visual and audio prompts, this electrical energy may cause serious injury or death.
- When instructed EVERYONE CLEAR, do not touch AED, patient, electrode pads or any material/fluid in contact with patient. Make sure no one is touching patient when AED shocks patient.
- Do not immerse AED in water or other fluids. Avoid spilling fluids on AED or its accessories.
- Do not store in presence of flammable gases, anesthetics or in direct contact with flammable material. Use care when operating close to oxygen sources. Turn off gas source or move it away from patient during defibrillation.
- Equipment operating in close proximity may emit strong electromagnetic interference (EMI) or radio frequency interference (RFI) which could affect performance of AED.
- Keep AED away from magnetic resonance imaging (MRI) equipment as it is unsafe.
- AED should not be used adjacent to or stacked with other equipment.
- Do not touch patient and USB connector on back of AED simultaneously.
- Replace battery immediately when AED indicates battery is low.
- Use only accessories specified by Stryker. Using other manufacturers' accessories may cause AED to perform improperly and may invalidate safety agency certification. Contact authorized service personnel or repair.
- QUIK-STEP electrode pads: Place pads so they adhere to skin completely.
- Do not allow pads to touch each other or any material on patient's chest.
- Do not use damaged, expired, or dried-out pads. Dried out or damaged pads may cause electrical arcing and skin burns during defibrillation.
- Do not pull red handle to open electrodes until immediately before use.
- QUIK-STEP electrodes provided with *CR2* are not compatible with LIFEPAK 500 device. Emergency medical personnel should not connect these electrodes to LIFEPAK 500 device.

CAUTIONS:

- Damaged batteries may leak and cause personal injury or equipment damage; handle with extreme care.
- Do not open device lid unnecessarily as this will reduce internal battery power.

POTENTIAL ADVERSE EFFECTS (for example, complications):

- Failure to identify shockable arrhythmia
- Failure to deliver a defibrillation shock in presence of ventricular fibrillation (VF) or pulseless ventricular tachycardia, which may result in death or permanent injury
- Inappropriate energy delivery which could cause failed defibrillation or post-shock dysfunction
- Myocardial damage
- Incorrectly shocking a pulse-sustaining rhythm and inducing VF or cardiac arrest
- Bystander shock from patient contact during defibrillation shock
- Interaction with pacemakers
- Skin burns around electrode pad placement area
- Allergic dermatitis due to sensitivity to materials used in electrode construction
- Minor skin rash
- Fire hazard in presence of high oxygen concentration or flammable anesthetic agents
- EMI from AED impacting other devices especially during charge and energy transfers

U.S. Federal law restricts this device to sale by or on the order of a physician.

Please consult Operating Instructions at **strykeremergencycare.com** or call 800.442.1142 for complete list of indications, contraindications, warnings, cautions, potential adverse events, safety and effectiveness data, instructions for use and other important information.

References
1 Stryker Internal Semi-Automatic AED Comparison Usability Study, August 2016.
2 Graham R, McCoy M, Schultz A. Strategies to Improve Cardiac Arrest Survival, A Time to Act. Institute of Medicine Report, 2015.

All claims valid as of December 2019.

For further information, please contact Stryker at 800 442 1142 (U.S.), 800 668 8323 (Canada) or visit our website at strykeremergencycare.com

Emergency Care Public Access

Stryker's AEDs require a prescription in the U.S. Please consult your physician. AED users should be trained in CPR and in the use of the AED.

Although not everyone can be saved, studies show that early defibrillation can dramatically improve survival rates. AEDs are indicated for use on adults and children. AEDs may be used on children weighing less than 25 kg (55 lbs) but some models require separate defibrillation electrodes.

The information presented is intended to demonstrate Stryker's product offerings. Refer to operating instructions for complete directions for use indications, contraindications, warnings, cautions, and potential adverse events, before using any of Stryker's products. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your representative if you have questions about the availability of Stryker's products in your area. Specifications subject to change without notice.

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