



ZOLL AED Plus Defibrillator

Designed by **ZOLL Medical Corporation**

A rugged defibrillator, equipped with Real CPR Help technology; designed to provide complete audio visual guidance and feedback.



Company Profile

MineARC Systems is the global leader in the manufacture and supply of emergency safe refuge solutions for the mining, tunneling, chemical processing and disaster relief industries.

With over 20 years' experience, our dedication to ongoing research and development is driven by our key focus to continually offer the best and most advanced safety solutions on the market.

Our team of qualified engineers, electrical designers and technical experts form a global network across five international locations including;

- Perth, Western Australia
- Johannesburg, South Africa
- Dallas, Texas
- Santiago, Chile
- León, Mexico
- Beijing, China
- Reading, UK

This allows MineARC to provide 24 hour service and engineering support to our expanding list of clients in over 65 countries across the globe.

All MineARC Refuge Chambers and Safe Havens comply with the highest international regulations and recognized 'world's best practice' industry guidelines. Our key focus on quality control and product advancement has meant that MineARC Refuge Chambers have successfully saved lives in multiple real life industrial emergencies around the globe.

www.minearc.com



When it's time for CPR, the AED Plus Defibrillator with Real CPR Help® provides the best support to help save a life.

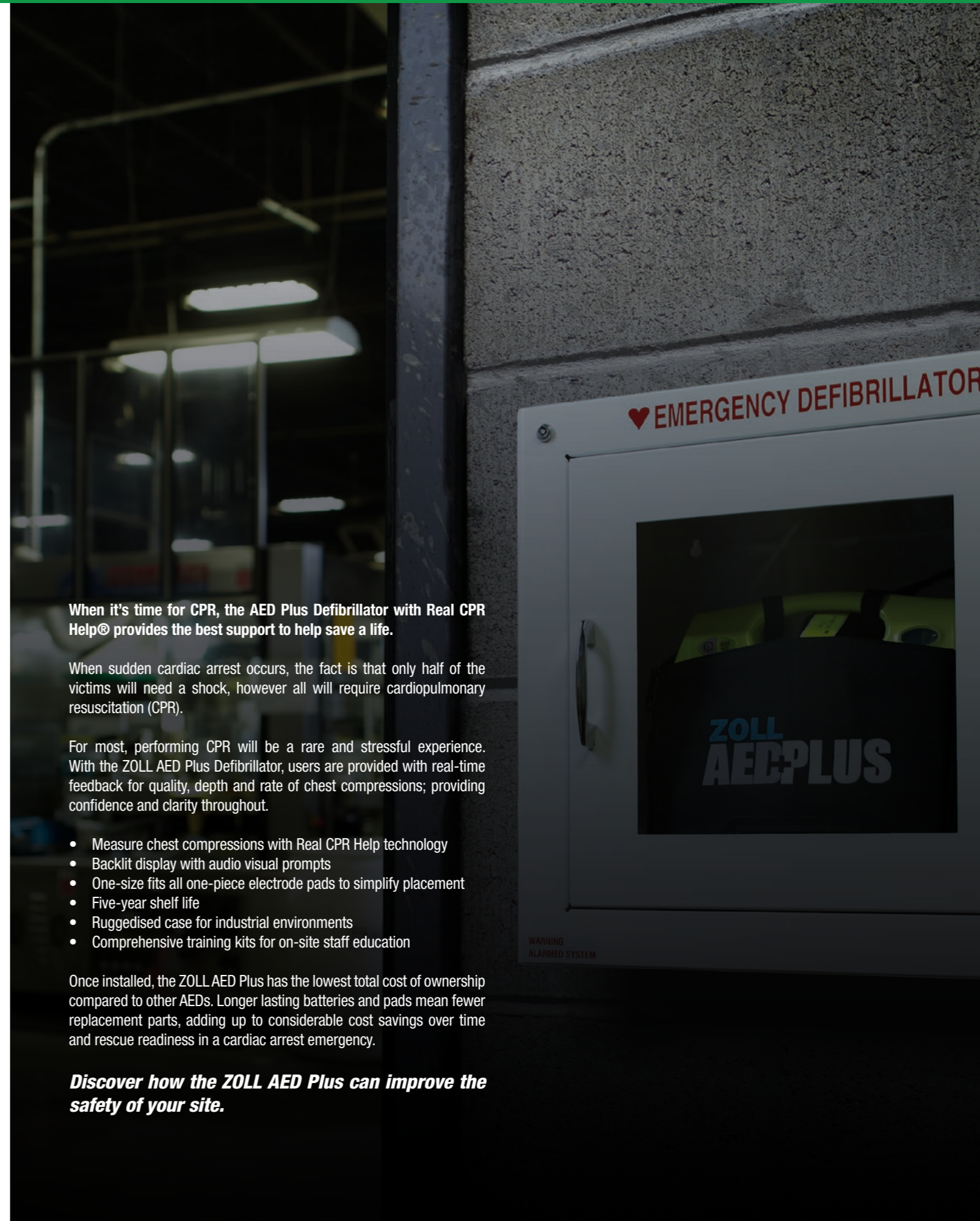
When sudden cardiac arrest occurs, the fact is that only half of the victims will need a shock, however all will require cardiopulmonary resuscitation (CPR).

For most, performing CPR will be a rare and stressful experience. With the ZOLL AED Plus Defibrillator, users are provided with real-time feedback for quality, depth and rate of chest compressions; providing confidence and clarity throughout.

- Measure chest compressions with Real CPR Help technology
- Backlit display with audio visual prompts
- One-size fits all one-piece electrode pads to simplify placement
- Five-year shelf life
- Ruggedised case for industrial environments
- Comprehensive training kits for on-site staff education

Once installed, the ZOLL AED Plus has the lowest total cost of ownership compared to other AEDs. Longer lasting batteries and pads mean fewer replacement parts, adding up to considerable cost savings over time and rescue readiness in a cardiac arrest emergency.

Discover how the ZOLL AED Plus can improve the safety of your site.



ZOLL AED Plus Defibrillator

The latest American Heart Association (AHA) Guidelines, issued in 2010, are clear: successful defibrillation requires high-quality CPR performed at the proper depth and rate.

Whether a shock is advised or not, rescuers should focus on delivering compressions correctly; as only good CPR can restore the heart rhythm to one required for a shock to work.



Real CPR Help® Technology

The AHA Guidelines recommend that rescuers push hard to a depth of at least 5 centimeters at a rate of 100 compressions per minute. This is easier said than done. The AED Plus removes any guess-work during the administration of CPR with the addition of *Real CPR Help*® technology - providing the best support for saving a life.

Pad sensors allow the AED see each chest compression; providing instant feedback to the user. It provides continual guidance throughout the CPR process, with prompts and a real-time bar gauge to indicate the recommended depth and rate of compressions.



- ✓ One-piece CPR-D-padz contain a pair of electrodes, which sense and report the motion of chest compressions
- ✓ Audio and text prompts relay compression quality
- ✓ Compression depth bar gauge displays the depth of each compression in real-time
- ✓ Adaptive metronome detects compression rate and guides to at least 100 per minute

RESCUER ACTIONS	AED PLUS SUPPORT MESSAGING
Not yet started?	'START CPR'
Stopped?	'CONTINUE CPR'
Too slow?	Adaptive metronome indicates requirement to speed up
Not deep enough?	'PUSH HARDER'
Performing correct CPR?	'GOOD COMPRESSIONS'
Want to see how you are doing?	Visible bar gauge indicates compression depth

Because the AED Plus can 'see' compressions being administered, users are provided with direct, useful feedback in order to improve their technique; ultimately resulting in the best possible outcome for the patient.

ZOLL AED Plus Defibrillator

No other defibrillator on the market supports a rescuer as thoroughly as the AED Plus.

Research conducted with EMS personnel in Arizona has shown that when professionals are trained to conduct high-quality CPR using ZOLL's professional defibrillators equipped with Real CPR Help technology, the chance of survival from cardiac arrest more than doubled.

The AED Plus offers a range of features, enabling the best possible outcome, no matter the level of experience.

BACK-LIT DISPLAY SCREEN PROVIDES TEXT WITH EVERY AUDIO PROMPT

ILLUMINATED GRAPHICAL ICONS PROVIDE EASY, STEP-BY-STEP GUIDANCE



Option: Fully Automatic Model

For those who prefer to keep things simple, the fully automatic model of the AED Plus takes charge and delivers the shock with no rescuer interaction needed.

Stay clear and let the **Fully Automatic AED Plus** deliver its life-saving shock, following a distinct 3 second audible countdown.

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One Size Fits All

ZOLL's clever one-piece electrode design accounts for anatomical variation.

Based on extensive human data, CPR-D-padz meet the anthropometric chest characteristics of 99% of the population. If needed, the lower (apex) electrode can be separated and adjusted to accommodate the remaining 1% of the population.

Pedi-padz are also available; designed for patients under the age of 8, or individuals under 25kg. The AED Plus will sense when paediatric electrodes are attached and will switch from an adult to a paediatric ECG analysis algorithm.



Simplified Placement

Affixing two separate electrode pads to the patient's bare chest can be confusing to a lay rescuer.

ZOLL's CPR-D-padz simplify this step by guiding placement of the red crosshairs at the center of the imaginary line connecting the patient's nipples. Once in place, the hand-locator and the two electrode pads fall naturally into optimal position for both defibrillation and CPR.

CPR-D-padz come complete with rescue essentials, including a barrier mask, a razor, scissors, disposable gloves, and a towelette.



Five-Year Shelf Life

All AED electrodes transmit defibrillating electricity into the patient via metal in close contact with a salt-infused gel that is positioned between the metal and the skin. Over time, however, the salt in the gel will corrode the metal and eventually compromise electrode functionality.

ZOLL's unique electrode design includes a sacrificial element that prevents significant corrosion for five years, which is unmatched in the market today.

Specifications

- *Patient analysis:* 9 seconds
- *Pre-shock pause:* 12 seconds
- *Patient safety:* All connections are electrically isolated
- *Self-test:* Configurable - default every 7 days
- *Display:* Monochrome
- *Rescue images:* Graphic icons
- *Dimensions:* 1330H x 2410W x 2920Dmm ; 3.1kg
- *Operating temperature:* 0-50°C
- *Storage temperature:* -30-60°C
- *Shock:* IEC 68-2-27: 100G
- *Particle and water ingress:* IP-55

Mounting & Storage Options

Choose from a range of mounting and storage options available, including steel and clear wall cabinets and aluminium wall brackets.

Soft and hard carry cases are also available; allowing quick and easy transport of the AED Plus in times of need.



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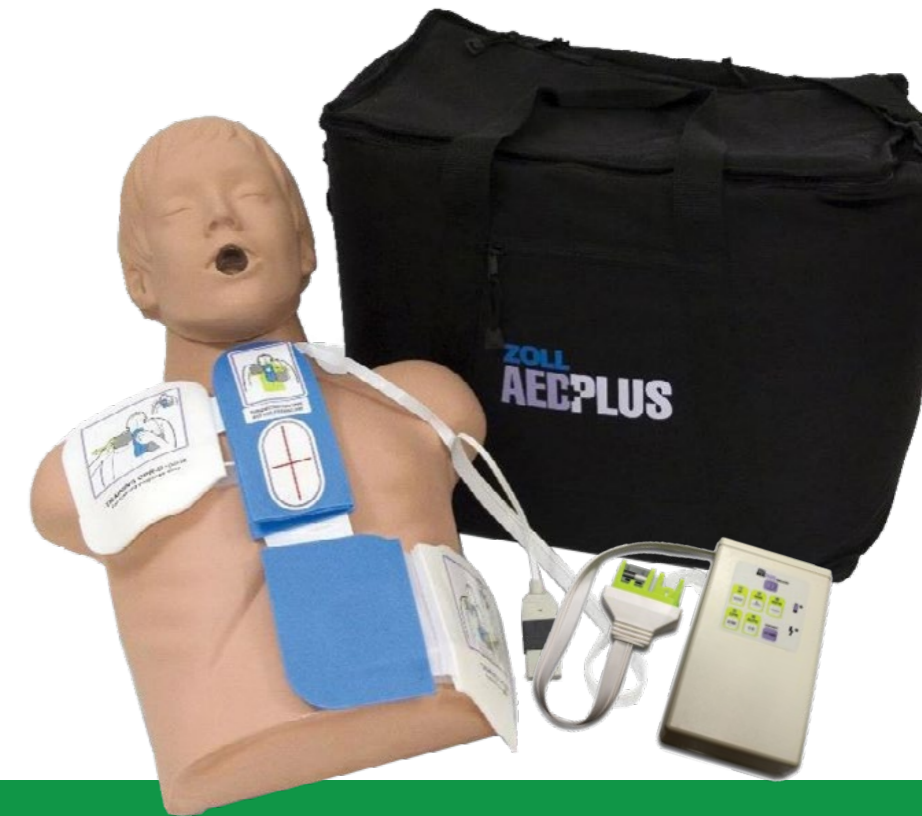
Train Your Team

The ZOLL Training Kit allows site instructors to provide their team with the ultimate hands-on experience when it comes to learning how to operate the AED Plus and perform CPR.

Choose from four different fixed rescue scenarios or maintain manual control of the entire rescue simulation.

A wireless remote provides control over multiple training kits at any one time.

Additional training pads, replacement adhesive gels and a carry case are all available options.



In the Field: Coworkers Save Colleague at Industrial Plant

"Guy down", echoed through the facility of the Bemis Company in Boscobel, Wisconsin. The operations partner at the plant had just witnessed his colleague collapse. The 60-year old employee was lying on the floor turning blue and purple. His eyes were glazing over. He had no pulse.

The operations partner immediately alerted the plant's Environmental Health and Safety (EHS) manager and employees sprung into action. One employee called 911 and contacted plant management, while the EHS manager performed an initial assessment on the victim and began Cardiopulmonary Resuscitation (CPR).

Another employee ran to retrieve the Automated External Defibrillator (AED) mounted on the wall 30 yards away, while yet another secured the valve mask for giving ventilations and cut away the victim's shirt so he'd be ready to apply the electrodes.

Once the ZOLL AED Plus® arrived, the EHS manager briefly stopped CPR while a fellow employee hooked up the unit. One person continued to monitor the victim's pulse as another immediately began monitoring the AED Plus' audio and visual prompts.

The AED Plus soon advised a shock, which was administered. While the employee response was immediate, the victim's response to CPR and the shock was not. The EHS manager resumed compressions, as the AED Plus instructed. The AED provided him with feedback on the quality of chest compressions. The adaptive metronome also helped him maintain the correct rate.

Within 45 seconds, the victim took a deep, gasping breath. "It was pretty amazing," the EHS manager said.

"It was the shock that brought him back to life. He went from blue to pink."

As color returned to the victim's face, the Boscobel rescue squad arrived and took control of the scene. They administered oxygen and kept the AED Plus attached in case it needed to be used again.

"The AED is so simple to use," said the EHS manager. "Easy-to-read graphics, very clear directions, and clearly marked electrodes showing where to place your hands for chest compressions made it very easy to continue CPR. It directed us during a stressful time."

The response from employees went like clockwork because Bemis has a comprehensive Environmental Health and Safety program in place. "Everyone knew just what to do since we had practiced drills," said the EHS manager, who had been overseeing the program at the 170,000-square-foot plant for more than a decade.

While 10 employees participated in the actual rescue, several additional people were at the scene, trained in CPR, first aid, and the use of the AED, to offer help if needed.



MineARC Systems - Built for Safety.

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