



# THE POWER OF ONE

INTEGRATED, INNOVATIVE RESUSCITATION  
AND ACUTE CARE FOR ALL

**ZOLL**®

# A BENCHMARK FOR INNOVATION AND EMPOWERMENT

Welcome to ZOLL Medical Corporation, the leading maker of medical devices and software solutions that help advance emergency care. Our number one priority is to improve patient outcomes and help save lives, by empowering clinicians and rescuers worldwide with revolutionary resuscitation and acute critical care technology.

We are continually at the forefront of innovation for resuscitation technology, demonstrating proven research on the importance of maximizing the quality of CPR, as recommended by the American Heart Association Guidelines and the European Resuscitation Council guidelines.<sup>1</sup> Our advanced technology is embedded in our portfolio of professional defibrillators, automated external defibrillators (AEDs), and temperature management system.

From early intervention to post-resuscitation care, ZOLL® products set the benchmark for reliability and dependability for EMS, hospital, military, public safety, and alternative care rescue teams. Our products and services are designed to work together to help you save lives while enhancing operational efficiency and adhering to regulatory compliance programs.

Together, we can help save more lives.

## A Legacy of Excellence

Paul M. Zoll, MD, co-founded ZOLL Medical in 1980. His seminal work in electrophysiology, internal and external defibrillation, cardioversion, and external pacing provided the foundation for the company.

Throughout his life, Dr. Zoll was a practicing physician with a reputation for dedication and careful attention to his patients. Today, ZOLL Medical Corporation, an Asahi Kasei company, maintains the highest standards for innovative technology and improvements in patient care, keeping in tradition with its namesake.



# PROTECT AND MANAGE PATIENTS ANYWHERE

ZOLL's LifeVest® wearable cardioverter defibrillator (WCD) and cardiac monitor enable healthcare professionals to protect patients from sudden cardiac death and monitor patients for a wide variety of health data.



## LifeVest

The LifeVest WCD is worn by patients at risk for sudden cardiac death (SCD), allowing patients to return to their activities of daily living with peace of mind that they are protected from SCD. LifeVest is designed to continuously monitor the patient's heart and, if a life-threatening rapid heart rhythm is detected, deliver a treatment shock to restore normal heart rhythm with no bystander intervention.



## Mobile Cardiac Telemetry; Cardiac Event Monitoring

The ZOLL cardiac monitor continuously monitors a patient's heart rhythm, automatically detecting and recording clinical arrhythmias as well as patient-initiated recordings. This information is automatically sent to the patient's physician for review and diagnosis using the online patient management system.



### ZOLL AED 3®

The ZOLL AED 3 automated external defibrillator (AED) provides detailed CPR guidance with ZOLL's proprietary Real CPR Help® technology. Enhanced features include a full-color display, CPR cycle timer, voice and text prompts to help guide responders through the rescue, WiFi connectivity to enable automatic reporting of device readiness, CPR Uni-Padz® electrodes, an integrated child mode to support pediatric and adult victims, and an industry-leading 5-year battery and pad life.\*



### ZOLL AED 3 BLS

Designed for professional rescuers, the ZOLL AED 3 BLS defibrillator provides in-depth support for all victims of sudden cardiac arrest. The ZOLL AED 3 BLS helps rescuers deliver high-quality CPR and has one of the fastest AED shock times in the industry. It includes WiFi connectivity; RescueNet® CaseReview for event summaries and analysis; Enhanced Real CPR Help®, which measures and provides real-time feedback on the depth and rate of each compression, and on-screen display with ECG, CPR cycle time, and the number of shocks delivered.

# DESIGNED FOR PROFESSIONAL RESCUERS AND UNEXPECTED HEROES

Victims of sudden cardiac arrest require immediate action to restore a normal heart rhythm. Guidelines from resuscitation councils worldwide recommend high-quality CPR to support successful defibrillation. A rescuer armed with an automated external defibrillator can offer high-quality CPR, providing a struggling heart with oxygenated blood needed to help restore a normal rhythm.



## AED Plus®

The ZOLL AED Plus was the first AED with Real CPR Help to guide rescuers and let them know when they are performing high-quality CPR. Real CPR Help provides integrated, real-time feedback on compression rate and depth and advises if a shock is needed. Designed to be durable, the AED Plus can be used in various environments and features a 5-year battery and pad life, as well as a low cost of ownership.



### Z Vent™

The Z Vent portable ventilator is easy to use and lightweight, allowing rescuers to seamlessly transport adult, pediatric, and infant patients. The unprecedented 10-hour battery runtime and multisource power system allow rescuers to rapidly charge and operate the ventilator using any power source in the operating environment. Designed with the user in mind and for optimal patient care, the Z Vent has CPAP (NPPV) with or without pressure support and Smart Help™ technology to guide the clinician when responding to alarms.



### X Series®

The X Series is the most complete monitor available in the pre-hospital market. Lightweight and compact, it is unsurpassed in its ability to deliver key insights on cardiac arrest, chest pain, respiratory, and trauma patients. The X Series also features advanced communications technology to ensure medics can always be in contact with the next level of care.

# ADDRESSING THE EVOLVING NEEDS OF EMS

Anticipating the changing needs in patient care and delivery models is the key to maximizing care in the pre-hospital environment. ZOLL EMS rescue devices empower rescuers to be flexible and maximize care for a wide range of emergency situations.



## ZOLL Data Solutions

From dispatch through discharge, ZOLL's software suite fully integrates patient care, clinical, operational, and financial functions of emergency response events. With tools such as RescueNet® CaseReview and RescueNet 12-Lead, EMS and Fire businesses can focus on saving lives.



## ResQCPR™ System

The ResQCPR System is a CPR adjunct consisting of two synergistic devices — the ResQPOD® ITD 16 and the ResQPUMP® ACD-CPR device. Used together, these devices improve blood flow to the brain and vital organs and have been shown to increase the likelihood of survival<sup>1</sup>.



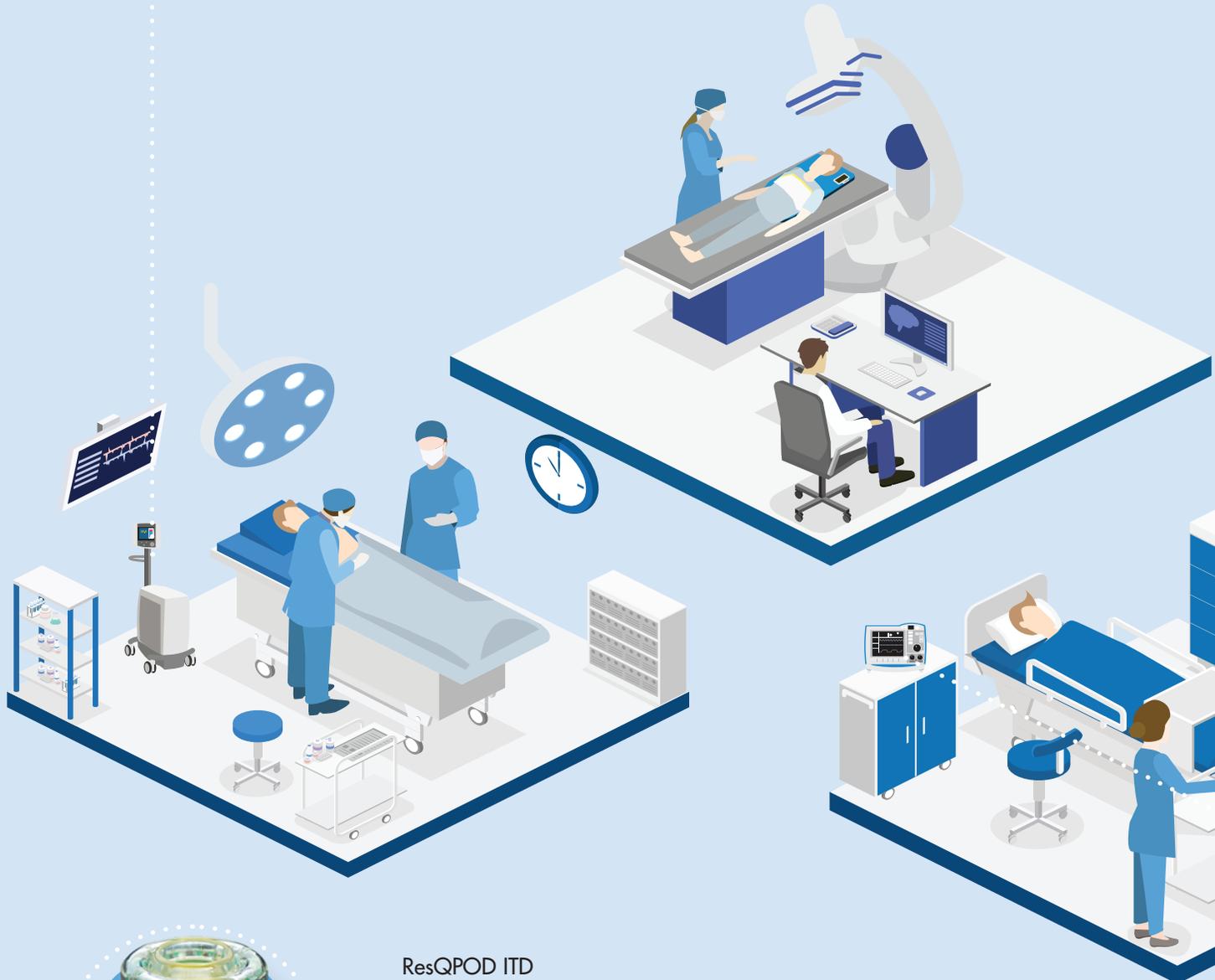
## AutoPulse®

Designed for Resuscitation on the Move™, the AutoPulse is an automated CPR device that delivers customized, high-quality CPR wherever — and whenever — it's needed. Rescuers can continue delivering CPR while moving patients down a set of stairs, in the back of an ambulance, or in the cath lab.



### Thermogard XP®

ZOLL's Thermogard XP® intravascular temperature management system provides health care professionals with the power and control needed to rapidly, safely, and accurately manage the core body temperature of critically ill or surgical patients with warming and cooling applications. It offers superior clinical efficiency in reaching and maintaining target temperature 100% of the time,<sup>27</sup> while decreasing demands on nursing staff and reducing nursing workload by 74%.<sup>8</sup>



### ResQPOD ITD

The ResQPOD impedance threshold device (ITD) is a simple, non-invasive device that delivers intrathoracic pressure regulation therapy during basic or advanced life support CPR to improve perfusion. The ResQPOD lowers intracranial pressure during the recoil phase of CPR by selectively restricting unnecessary airflow into the chest and increasing blood flow to the heart and brain.

# RESUSCITATION SOLUTIONS DESIGNED WITH YOU IN MIND

ZOLL helps hospitals address every aspect of resuscitation and support continuous quality improvement post-event. Our product platform promotes consistent, high-quality CPR for adults and pediatrics with our patented CPR Dashboard; Real CPR Help real-time feedback on compressions; RapidShock™ to decrease interruptions;\* See-Thru CPR® to reduce CPR pause times; and EtCO<sub>2</sub> to signal early changes in patient condition. ZOLL also offers ResQPOD ITD intrathoracic pressure regulation (IPR) therapy.



## Hospital Wearable Defibrillator (HWD)

After the start of cardiac arrest, the chance of survival decreases by 10% each minute that passes without CPR and defibrillation.<sup>9</sup> The HWD is a monitoring tool worn outside the chest by in-hospital patients at risk for cardiac arrest. It continuously monitors the patient's heart with adhesive electrodes, and if needed, delivers a life-saving shock.



## R Series®

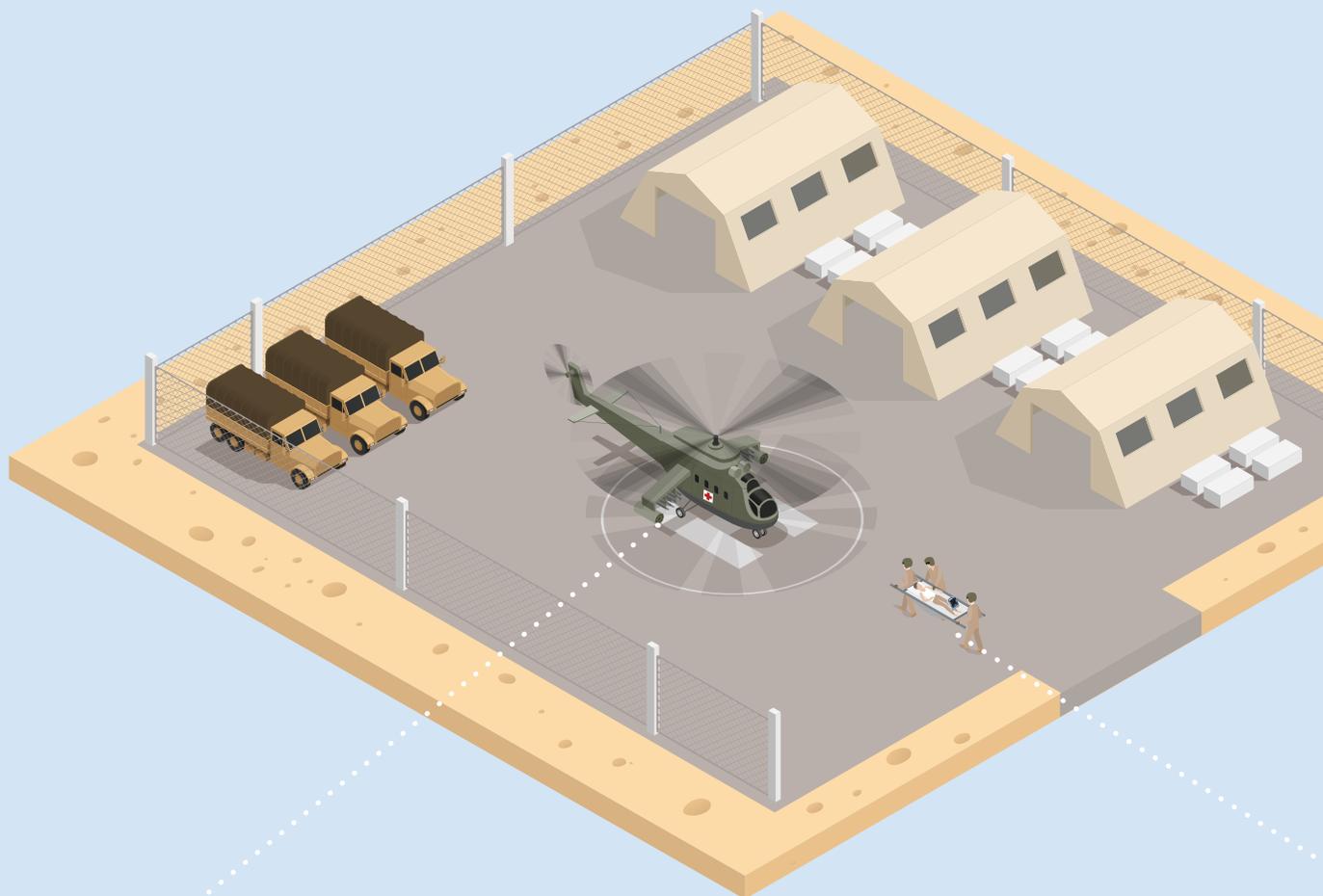
The R Series monitor/defibrillator is the worldwide choice of hospitals for in-patient resuscitation. It features a full suite of tools to support CPR, including a complete CPR dashboard for both adults and pediatrics, See-Thru CPR filtering, and OneStep™ adult and pediatric electrodes that automatically initiate CPR feedback after placement.





### 330 Multifunction Aspirator

Designed for the unique needs of the military to handle austere environments, the 330 Multifunction Aspirator features a Smart Help display to guide the operator through on-screen commands when responding to alarms; Smart Flow™ for extremely quiet operation during patient care; and Silent and Dark Mode to prevent interference with advanced infrared night-vision equipment. Airworthiness Release certified, the 330 is approved for use during all phases of flight aboard fixed-wing and rotor U.S. military aircraft.



### EMV+®

Designed to meet military and civilian transport standards, the versatile EMV+ portable ventilator is ideal for air medical and ambulance transport of infant, pediatric, and adult patients. The EMV+ is lightweight yet rugged and features an energy-efficient integrated, high-flow compressor and oxygen system. Its unprecedented 10-hour battery run-time and multisource power system allow operation and rapid charging using any power source.

# FROM BATTLEFIELD TO BEDSIDE

Whether on the battlefield, during aeromedical transport, or in a CONUS or VA hospital, ZOLL is committed to developing leading-edge resuscitation technologies for the military. From vital signs monitoring and defibrillation to critical care ventilation, ZOLL has been the standard of care chosen by military health care providers for more than 25 years.



## Propaq® MD

The Propaq MD monitor/defibrillator is an ultra-lightweight, airworthy device that provides advanced monitoring capabilities, including multiple display modes to operate in bright sunlight or during night missions (NVG-friendly display). The battery system and AC power charger provide worldwide sea, land, and air operating capabilities. The rugged Propaq MD can monitor all physiologic parameters and provide numerous shocks for more than six hours on a single battery charge.



## Propaq M

The Propaq M is a trusted and proven vital signs monitor specifically designed for the rigors of military and aeromedical operations. Rugged and lightweight, the Propaq M has advanced physiologic monitoring with three invasive blood pressure channels, robust data communications, and a hot-swappable battery with more than 7.5 hours of monitoring.

# CONNECT WITH US

To learn more about ZOLL, please visit us at [www.zoll.com](http://www.zoll.com).

ZOLL Medical Corporation is a subsidiary of Asahi Kasei Group, a diversified group of companies led by holding company Asahi Kasei Corp., with operations in the material, homes, and health care business sectors. Its health care operations include devices and systems for acute critical care, dialysis, therapeutic apheresis, transfusion, and manufacture of biotherapeutics, as well as pharmaceuticals and diagnostic reagents. With more than 30,000 employees globally, the Asahi Kasei Group serves customers in more than 100 countries. For more information, visit [www.asahi-kasei.co.jp/asahi/en/](http://www.asahi-kasei.co.jp/asahi/en/).



<sup>1</sup>Meaney PA, et al. *Circulation*. 2013 Jul 23; 128(4):417-35

<sup>2</sup>Bobrow BJ, et al. *Ann Emerg Med*. 2013 Jul;62(1):47-56.e1.

<sup>3</sup>Hoedemaekers CV, et al. *Critical Care*. 2007;11:R91.

<sup>4</sup>Knapik P, et al. *Kardiologia Polska*. 2011;69(11):1157-63.

<sup>5</sup>Mayer SA, et al. *Critical Care Medicine*. 2004;(3)212:2508-15.

<sup>6</sup>Diringer MN, et al. *Critical Care Medicine*. 2004;(32)2:559-564.

<sup>7</sup>Heard KJ, et al. *Resuscitation*. 2010;81:9-14.

<sup>8</sup>Horn CM, et al. *Journal of Neurointerventional Surgery*. 2014 Mar;6(2):91-95.

<sup>9</sup>Icerea Deye N, et al. *Circulation*. 2015;132:182-193

<sup>10</sup>Link MS, et al. *Circulation*. 2010;122[suppl 3]:S706-S719.

\*The ZOLL AED 3 defibrillator and RapidShock pause algorithm are not available in the United States.

## ZOLL MEDICAL CORPORATION

An Asahi Kasei Group Company | 269 Mill Road | Chelmsford, MA 01824 | 978-421-9655 | 800-804-4356 | [www.zoll.com](http://www.zoll.com)

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