

#### The standard choice for the U.S. military, NATO members, and global coalition partners



<sup>1</sup> Soar J, et al. Resuscitation. 2015;95:100–147.
<sup>2</sup> Arnold, Mark, "U.S. Army Oxygen Generation System Development." NATO, April 2010. RTO-MP-HFM-182.

3 Wilson, JE Jr, Barras WP, Advances in Anesthesia Delivery in the Deployed Setting. AMEDD Journal. 2016; April-September: 62–65.

<sup>4</sup> Bobrow BJ, et al. Ann Emerg Med. 2013; Jul;62(1):47-56.e1. <sup>5</sup> Westfall M, et al. Critical Care Medicine. 2013;41(7):1782-9. <sup>6</sup> Hoedemaekers CW, et al. Critical Care. 2007;11:R91

<sup>7</sup> Horn CM, et al. Journal of Neurointerventional Surgery. 2014 Mar;6(2):91-95.

#### ZOLL MEDICAL CORPORATION 269 Mill Road Chelmsford, MA 01824 978-421-9655 800-804-4356 zoll.com

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## IMPROVING OUTCOMES FOR EVERY ROLE IN MILITARY HEALTHCARE

# Our Mission Supports **YOUR MISSION**

For more than 25 years, ZOLL has been a trusted partner in delivering acute critical care technologies to the military. We understand the challenges that your missions bring. That's why, as a leading global medical device company, we are dedicated to supporting military medical providers and protecting our soldiers. We don't take the term "partnership" lightly – we work with you every day to earn your trust.





#### Designing Products Specifically for Military Medical Services

Difficult terrain and extreme climatic conditions such as rain, heat, and cold are only a few of the challenges you routinely deal with in the field. You can't choose your area of operation, so your equipment must be suitable and field-tested for all situations.

#### Helping to Improve Your Clinical Outcomes and Operational Efficiencies

Our resuscitation and critical care technologies primarily help to improve clinical outcomes for wounded soldiers. Because we understand that treatment and care during deployment and operational missions cannot compare to that in the civilian prehospital setting, we focus on ensuring that our products and solutions help improve your operational efficiency.

#### Understanding the Logistical Needs for Your Operational Readiness

As a global medical device company, ZOLL not only delivers equipment and consumables quickly and reliably, but we also work with you to develop and implement solutions that support your operational readiness – whenever and wherever it is required.

#### Quality of Care Everywhere

ZOLL products are extensively utilised throughout the entire military healthcare system in support of the warfighter and for casualty treatment within the En-Route Care System.

ZOLL's resuscitation and critical care technologies are field-proven in all roles of operational medical care: on the battlefield, in aeromedical evacuation and transport, in field hospitals, and in garrisons for definitive care. ZOLL technologies are reliable, ready, and trusted to treat warfighters anywhere on land, sea, or air.

#### Military Airworthiness Equipment

ZOLL has extensive experience engineering Military Airworthiness Equipment that meets the rigorous requirements of the Joint En-Route Care Equipment Test Standards (JECETS) in austere environments. With a strong history of collaboration with militaries to deliver customer-driven requirements, we are proud to be selected as the provider of airworthy devices for Patient Movement Items across the military services. ZOLL has also been awarded multiple contingency contracts as a critical supplier of medical equipment to meet surge demands during disaster, humanitarian, and operational needs.



## **SOLUTIONS** for Every Role and Environment



#### Force Health Protection

Protecting your soldiers' health is a top priority for you—and for us. By helping to improve, conserve, and restore service members' health, ZOLL demonstrates its commitment to maximum military readiness with its resuscitation solutions.

- AEDs
- IPR Therapy
- Patient Monitor/Defibrillators
- Automated CPR



#### Military/Civilian Cooperation

Reliability and ease-of-use are critical in disaster relief and humanitarian missions. When military and civilian cooperation is key, such as in EMS/HEMS scenarios, ZOLL delivers.

AEDs

- Automated CPR
- Patient Monitor/Defibrillators
- Telemedicine
- Ventilators
- Aspirator





#### **Military Hospitals**

Deliver high-quality care both within and outside the hospital. ZOLL solutions help military clinicians provide lifesaving care, including: airway management, enhanced perfusion, and temperature management. Post-event, our comprehensive software solutions support continuous quality improvement.



AEDs

- Ventilators
- IPR Therapy
- Patient Monitor/Defibrillators
- Automated CPR
- Temperature Management



#### **Operational and Peacekeeping Missions**

From Role 1 to Role 4, ZOLL monitoring, ventilation, defibrillation, perfusion, data, and temperature management solutions deliver advanced capabilities in small, lightweight and rugged devices designed for austere environments. Our solutions are field-proven for patient transport and certified for use on rotary and fixed-wing aircraft, driving multinational interoperability to facilitate safe patient handoffs, treatment, and evacuation to definitive care.







- Telemedicine
- Ventilators
- Concentrator
  - Aspirator



#### Propaq M

ZOLL's trusted and proven vital signs monitor is specifically designed for the rigours of military and aeromedical operations. Rugged and lightweight, the Propaq® M monitor features:

- Advanced monitoring and diagnostic technologies for BLS, ALS, and trauma patients
- Multiple display modes for operations in bright sunlight or at night
- Battery system and AC-power charger for worldwide sea, land, and air operating capabilities
- An optional integrated printer

- Robust communication options for flexible data sharing and streaming
- TBI Dashboard<sup>™</sup> to support rapid treatment and effective management of TBI patients
- Integration into the BATDOK<sup>™</sup> (Battlefield Assisted Trauma Distributed Observation Kit) point-of-injury software tool



Approved for use during all phases of flight aboard U.S. Air Force and Army aircraft. Refer to Military certification documents for details.

#### Propaq MD

The Propaq MD monitor/defibrillator is an ultra-lightweight, compact, airworthy device that provides all the advanced monitoring capabilities of the Propaq M. Additionally, the Propaq MD has innovative features from ZOLL that include:

- ERC and AHA Guidelinescompliant technology to help improve CPR quality
- ZOLL RapidShock<sup>®</sup> technology that can help reduce pause times, which the ERC Guidelines have attributed to increased survival rates<sup>1</sup>
- Low-energy, high-current biphasic defibrillation technology for manual and semi-automatic defibrillation

- Audio and visual feedback via Real CPR Help<sup>®</sup>
- See-Thru CPR<sup>®</sup> technology to help rescuers deliver highquality CPR and minimise pauses
- ZOLL's patented pacing technology, providing twice the capture of a typical defibrillator at half the current using a 40-millisecond pulse with constant current





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#### EMV+ Transport Ventilator

The EMV+® 731 Series is a rugged, yet lightweight, portable ventilator that offers the option of attaching a CBRN filter. Designed to meet military transport standards, the EMV+ 731 Series has Airworthiness Release and Safe-to-Fly certification on rotary and fixed-wing military aircraft and features:

- AC, SIMV, CPAP, and bi-level ventilation modes; volume- and pressure-controlled
- An energy-efficient, integrated, high-flow compressor and oxygen system
- Altitude compensation from -610 to 7.620 metres
- An unprecedented 10-hour battery runtime and multisource power system
- Fully reflective LCD and Silent and Dark mode capabilities for operation in all light conditions

#### SAROS 4000 Portable Oxygen Concentrator

The CAIRE<sup>®</sup> SAROS 4000<sup>™</sup> oxygen concentrator replaces oxygen cylinders and large oxygen generation equipment often used in field hospitals, casualty evacuation, en-route care, and on the battlefield.

Used with the ZOLL EMV+ portable ventilator, it supports the clinical treatment of deployed military forces and helps improve operational efficiency.<sup>2,3</sup>

The unique combination of these two field-proven devices helps resolve problems encountered in combat environments, such as depletion of oxygen supplies; size and weight challenges; logistical supply and resupply complications; bottle exchange; and potential personnel endangerment.

- Produces 3,000 mL/min of oxygen and weighs only 5.5 kg
- Operates at altitudes up to 5,490 metres
- Operates on AC, DC, and rechargeable battery power

#### 330 Multifunction Aspirator (no ce mark)

The 330 Multifunction Aspirator is a portable, self-contained suction device that can customise suction based on the clinical procedure. It provides continuous and intermittent suction capabilities as well as:

- A fully reflective LCD with Silent Altitude Compensation and and Dark mode capabilities for operations in any light condition
- U.S. Army AVVR and Safe-to-Fly certification

#### Public Access AEDs

ZOLL public access AEDs offer step-by-step instructions and corrective guidance, provide audio and visual prompts to guide rescuers, and withstand harsh environments and temperature extremes.





- Real CPR Help
- Fully or semi-automatic
- Long-life consumables
- Visual and audio prompts
- User-friendly one-piece electrode design for fast and accurate placement



#### Powerheart® G5

- Intellisense® CPR Feedback
- Rescue Ready<sup>®</sup> self-tests to ensure readiness
- RescueCoach<sup>®</sup> user-paced voice/text prompts



#### ZOLL AED 3®

- Enhanced Real CPR Help
- Universal CPR Uni-padz<sup>®</sup> electrodes
- WiFi connectivity
- Long-life consumables

#### **Professional Defibrillators**





#### ZOLL AED 3 BLS

- RescueNet CaseReview for capturing key event data
- RapidShock, the industry's shortest rhythm analysis

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- AED Pro®
  - Real CPR Help for delivery of high-quality CPR
  - See-Thru CPR to filter out compression artefact

- Enhanced Real CPR Help and CPR Dashboard<sup>™</sup> to support high-quality CPR delivery
- 3-lead ECG for basic monitoring
- Certified airworthy and safeto-fly on most U.S. military platforms



#### AutoPulse Resuscitation System

The AutoPulse<sup>®</sup> Resuscitation System is a mechanical chest compression system designed to deliver high-quality automated CPR to victims of sudden cardiac arrest. Compared to manual CPR, AutoPulse:

- Helps improve blood flow to the heart and brain by squeezing the patient's entire chest
- Has shown improved outcomes in numerous clinical trials<sup>4</sup>
- Automatically sizes to the patient
- Has been shown to reduce interruptions in compressions during transport by more than 85%<sup>5</sup>



#### **R** Series

The R Series<sup>®</sup> monitor/defibrillator is a battery-operated hospital monitor/defibrillator featuring cutting-edge technology to help meet current Guidelines for achieving high-quality CPR. The R Series device features:

- Real CPR Help, which guides rescuers with real-time audio and visual feedback on CPR quality measures
- OneStep<sup>™</sup> electrodes that simplify and speed up therapy
- Optional pacing, SpO<sub>2</sub>, NIBP, and EtCO<sub>2</sub>
- Unique paediatric algorithm and CPR electrodes
- RescueNet<sup>®</sup> Defibrillator Dashboard<sup>®</sup> software that streamlines fleet management, records daily self tests, and ensures defibrillator readiness



## Thermogard XP<sup>®</sup> Temperature Management System

Patients reach target temperature quickly and accurately with the Thermogard  $\rm XP, ^{6,7}$  offering:

- Superior clinical efficiency reaching and maintaining target temperature 100% of the time.<sup>6,7</sup>
- Unmatched control regardless of target temperature
- The ability to tailor individual treatment with a variety of standard central venous catheters (CVCs)
- Cooling to 36°C or 33°C

## OUR SUPPORT SERVICES Help You Succeed

Operational readiness depends on partners who can respond quickly and reliably during peacetime, wartime, or a crisis. Our global support and logistics network is ready to support you and includes partners in more than 140 countries.

#### ZOLL at the Bench

ZOLL Global Service Centres and authorised partners are staffed with highly skilled technicians who adhere to stringent quality controls and regulatory compliance to deliver rapid, high-quality bench repair and service.

#### ZOLL at the Base

We can provide service and maintenance at your site when needed. As your partner in life-cycle maintenance, ZOLL equipment is compatible with many test equipment solutions, allowing technicians to properly maintain, troubleshoot, and repair ZOLL equipment with ZOLL-specific test equipment or with your existing test equipment and repair protocols.

#### **ZOLL Trains Military Biomeds**

Training is available in person or virtually, which means maintenance technicians in all situations—on base, in physically challenging locations, or geographically separated can benefit from our high-quality e-learning programs. Knowing where, how, and on whom you're using ZOLL equipment lets us provide training that helps you improve clinical outcomes and operational efficiencies.



## **DIGITISATION AND TELEMEDICINE** Using Digital Data to Help Improve Outcomes

Military missions require continuum of care and the ability to gather, transmit, and securely share clinical data in a timely manner – anywhere, anytime, and under any circumstance.



ZOLL's advanced technologies let you manage and transmit digital patient information and case data within your secure military network.

All digitised patient data can be recorded for patient-care documentation and integration with third-party systems, registries, and post-case review.

From the field to hospitals and more, you can securely stream digital, near real-time clinical data and waveforms to optimise overall patient care by:

- Providing situational awareness at receiving facilities and improving transport decisions and triage during MedEvac missions
- Enabling the medic's ability to access remote clinical support during prolonged field care
- Securely sharing data in a real-time environment

In addition, you can view multiple critically ill patients simultaneously via a centralised monitor in a field hospital or during aeromedical transport.



