# R Series®







The worst time to find out a defibrillator isn't ready is at the code. Quick action is essential. Stress is high enough without delays from problems like lost or tangled cables, and outdated or missing electrodes don't help speed therapy either. Unfamiliar or confusing controls are the last thing needed when providing care. Not to mention unclear messages or prompts, hard-to-read displays, and alarms that don't tell you what to correct.

A Code-Ready® defibrillator simplifies every aspect of being ready for a code – efficiently and cost effectively. It automatically monitors and tests the complete system – electronics, batteries, cables, electrodes, and defibrillator discharge, and can notify and alert users and technical staff about problems before they affect your ability to provide care. Should something need to be corrected, it turns on the display and shows an alert that the defibrillator needs attention. An email will be sent to clinical and technical staff so a problem can be corrected.

A Code-Ready defibrillator should also help the user deliver better therapy with superior technology for pacing and defibrillation. And it provides users with help performing CPR at the correct rate and depth as well as proper release. A Code-Ready defibrillator provides the highest assurance that it is ready every time it is needed. A Code-Ready defibrillator sets a new standard.



OneStep Simplicity



Unmatched Clinical Excellence



Comprehensive Readiness Checks



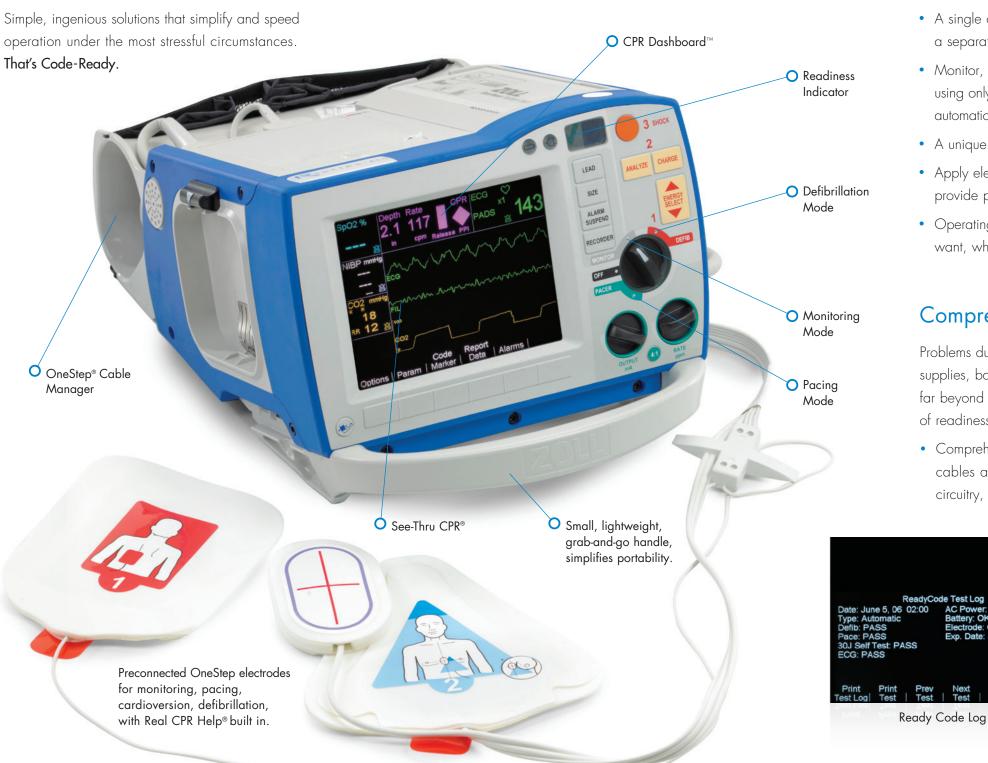
CPR Dashboard featuring Real CPR Help



Smart Tools

There has never been a truly Code-Ready defibrillator. Until now. R Series from ZOLL.®

# OneStep Simplicity



The OneStep System delivers therapy to patients with the simplest, easiest method ever designed.

- A single cable pacing, monitoring, and defibrillation without the need for a separate ECG cable.
- Monitor, pace, defibrillate, and get Real CPR Help and See-Thru CPR, using only one type of electrode. Electrodes are pre-connected and are automatically tested for an expiration date.
- A unique tube stores the cable for rapid, tangle-free application.
- Apply electrodes, turn the R Series to "Pacer," and you are ready to provide pacing.
- Operating options include AED, advisory, and manual modes. What you want, when you need it.

# Comprehensive Readiness Checks

Problems during a code are often related to inadequate tests, compromised supplies, batteries, and missed shift checks. The R Series extends testing far beyond a basic test shock to check more than 40 individual indicators of readiness. **That's Code-Ready.** 

- Comprehensive testing automatically confirms the presence of the correct cables and electrodes, senses the type of electrode, and checks important circuitry, including discharge.
  - There is no need to disconnect the electrodes or paddles, or get additional test equipment to test shock delivery. The system will even detect missing or expired electrodes and provide a printed or electronic log.
  - A simple indicator unmistakably communicates the defibrillator is ready, and if it's not, a screen message tells you why.
  - In the event a fault is detected, a page or email can be wirelessly generated to notify appropriate personnel.

# Unmatched Clinical Excellence

Being ready also means having the best technology available for resuscitation. R Series is built on an industry-leading pacing technology and unsurpassed biphasic waveform.

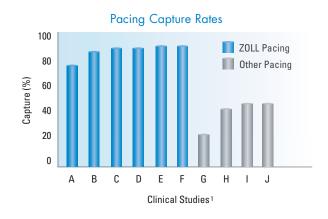
# That's Code-Ready.

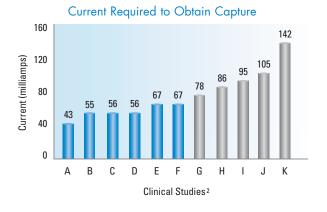
- Unique, constant-current 40 msec pacing has the highest capture rate at the lowest average current required, assuring efficacy and patient comfort. Validated in over 4000 patients in more than 16 studies.
- High Current Rectilinear Biphasic™ waveform delivers the highest constant current at the optimal duration for defibrillation.

# **Pediatric Solutions**

ZOLL has developed a dedicated pediatric arrhythmia analysis algorithm that can distinguish shockable versus non-shockable pediatric rhythms. This algorithm detects whether pediatric or adult electrodes are connected and automatically adjusts the arrhythmia analysis processing for a child.

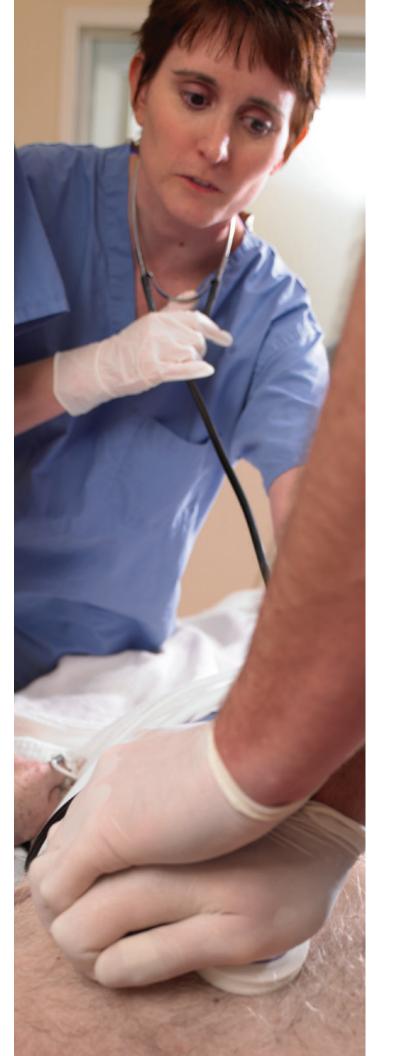
OneStep™ Pediatric Electrode also works with the R Series to automatically lower the energy setting to 50 Joules, preventing accidental overdose during defibrillation. OneStep Pediatric CPR electrodes provide information on CPR depth and rate.





The ZOLL Rectilinear Biphasic Waveform 6 msec Fixed duration first phase Fixed duration

Duration (msec)



# Real CPR Help

Good CPR is critical for effective resuscitation, so feedback to provide better CPR performance is standard on the R Series. That's Code-Ready.

- Easy to use, the CPR sensor is incorporated in the electrodes, eliminating extra steps or cables.
- The integrated CPR sensor provides help to achieve proper compression rate, depth and release.
- Configurable visual and audio cues give feedback without excessive prompts or screen clutter.
- Real time rate, depth and release are displayed with each compression.
- The Perfusion Performance Indicator (PPI) provides rapid visualization of compression rate and depth to help provide better support, while the release bar indicates proper chest recoil.
- See-Thru CPR® reduces interruptions by allowing clinicians to see organized electrical activity during compressions.
- All CPR performance data, as well as the entire resuscitation record with ECG, is available for review and quality assurance with ZOLL CodeNet® software.

#### **CPR** Dashboard



Inadequate compressions —



Unfiltered ECG signal during CPR Signal filtered by See-Thru CPR



# **Smart Tools**

Better training and better maintenance can both help staff be better prepared for a code. R Series has a complete suite of tools to help with training and deliver cost-effective maintenance, support, and efficient asset management. That's Code-Ready.

#### Clinical Education and Quality

Comprehensive tools support training and operation.

- Smart prompts provide users with specific guidance rather than mindless alarms.
- An on-screen tutorial allows staff to quickly familiarize themselves with defibrillator operation.



- Interactive, self-paced online training enables staff training 24/7.
- R Series wirelessly uploads code data to ZOLL CodeNet, making electronic code documentation faster and easier.

#### **Technical**

Biomedical and asset management software utilities brings efficiency to maintenance programs and reduces the hidden costs of defibrillator ownership.

 The SurePower<sup>™</sup> battery system tests, calibrates, and captures battery information to optimize battery life and reduce costs.

The battery indicator displays runtime, not obscure capacity percentages.

- A unique log records all messages, keystrokes, and interactions, and helps technical staff distinguish between user understanding and technical issues.
- Industry-standard (802.11) a/b/g/n wireless networking is able to send an email or page when the readiness is compromised, complete with specific information about the fault.
- Remote troubleshooting, defibrillator tracking, and centralized test records are available with the Defibrillator Dashboard.

References Clinical studies on file Clinical studies on file

ZOLL Medical Corporation, an Asahi Kasei Group company, develops and markets medical devices and software solutions that help advance emergency care and save lives, while increasing clinical and operational efficiencies. With products for defibrillation and monitoring, circulation and CPR feedback, data management, fluid resuscitation, and therapeutic temperature management, ZOLL provides a comprehensive set of technologies that help clinicians, EMS and fire professionals, and lay rescuers treat victims needing resuscitation and critical care. For more information, visit www.zoll.com.

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