# ZOLL AED 3<sup>™</sup>

# 

# **Technical Specifications**

## Enhanced Real CPR Help®

The ZOLL AED 3<sup>™</sup> automated external defibrillator (AED) provides detailed CPR guidance with proprietary Real CPR Help® technology. More powerful full-colour images and a CPR cycle timer, combined with voice and text prompts, help guide responders through the rescue. The Real CPR Help integrated, real-time CPR feedback tells and shows rescuers when they need to "Push Harder" or whether they are doing "Good Compressions," so they know when they are administering high-quality CPR.

# RapidShock<sup>™</sup> Analysis

The ZOLL AED 3<sup>™</sup> with RapidShock<sup>™</sup> analysis enables the shortest rhythm analysis for more continuous care and more life-saving CPR. RapidShock analysis allows the ZOLL AED 3 to deliver a shock, if needed, in as little as 5 seconds. Minimising the pre-shock pause and providing more CPR can improve patient outcomes.\*

Research shows that minimising time to shock after the CPR cycle ends may improve survival.<sup>1</sup> The 2015 ERC Guidelines note, "The delay between stopping chest compressions and delivery of the shock (the pre-shock pause) must be kept to an absolute minimum; any delay will reduce the chances of the shock being successful."<sup>2</sup>

## Integrated Paediatric Rescue

Paediatric rescue is made easier with ZOLL's unique CPR Uni-padz<sup>™</sup> electrodes and a child-mode setting. Universal pad design provides rescuers a single, confident solution to treat both adult and paediatric victims of SCA by using the same set of electrode pads and simply activating child mode.

# Low Total Cost of Ownership

Longer-lasting 5-year battery and electrode pads reduce AED device maintenance requirements. Less maintenance can improve device readiness and has the added benefit of reducing the total cost of ownership over the life of your ZOLL AED 3.

## WiFi Connectivity

Easily manage your suite of devices via the cloud. Every ZOLL AED 3 is equipped with Wi-Fi connectivity for seamless communication with AED programme management systems through your wireless network. Once enabled, the ZOLL AED 3 will automatically report its readiness status, report a failed self-test, and will send email alerts so you can take the appropriate corrective action and make sure your AEDs are ready in an emergency.

\* On the ZOLL AED 3 Automatic, the pre-shock pause time is 5 seconds longer due to warning to stand clear of patient and shock countdown before delivery.





Real CPR Help<sup>®</sup> assists rescuers in delivering high-quality CPR by providing real-time feedback on chest compression rate and depth.



Activate child mode for paediatric rescue with CPR Uni-padz™.



WiFi connectivity makes it easy to manage all your devices and receive immediate email updates on AED readiness status.



Universal CPR Uni-padz can be used for both adult and child rescues. They are the only pads that last 5 years and also include an integrated rescue kit.

#### **ZOLL AED 3 Specifications**

#### Defibrillator

*Protocol:* Semiautomatic and Fully Automatic configuration

*Waveform:* ZOLL Rectilinear Biphasic<sup>™</sup>

Defibrillator Charge Hold Time: 30 seconds; ZOLL AED 3 Automatic model: 3 seconds prior to automatic shock delivery

*Energy Selection:* Factory preprogrammed selection (Adult: 120 J, 150 J, 200 J; Child: 50 J, 70 J, 85 J)

*Patient Safety:* All patient connections are electrically isolated

*Charge Time:* Less than 10 seconds with new battery

*Pre-shock Pause:* Less than 5 seconds (semi-automatic) and less than 8 seconds (automatic) with new battery

*Electrodes:* ZOLL CPR Uni-padz<sup>™</sup>

*Self-test:* Configurable automatic self-test every day or every 7 days. Default: every 7 days. Monthly full-energy test (200 J).

Automatic Self-test Checks: Battery capacity, status, and expiry; electrode connection and expiry; ECG and charge/discharge circuits; microprocessor hardware and software; CPR circuitry and pads sensor; audio circuitry

*Compression Depth:* 1.9 cm to 10.2 cm; 0.75 in to 4 in

*Defibrillation Advisory:* Evaluates defibrillation pad connection and patient ECG to determine if defibrillation is required.

*Shockable Rhythms:* Ventricular fibrillation with average amplitude >100 microvolts and wide complex ventricular tachycardia with rates greater than 150 BPM for adults, 200 BPM for paediatrics. For ECG analysis algorithm sensitivity and specificity, refer to ZOLL AED 3 Administrator's Guide.

Patient Impedance Measurement Range: 10 to 300 ohms

*Defibrillator:* Protected ECG circuitry

*Display Format:* High-resolution LCD with capacitive touch panel

*Display Screen Size:* 5.39 cm x 9.5 cm; 2.12 in x 3.74 in

Data Recording and Storage: User-configurable for 1 or 2 clinical events for total of 120 minutes. Includes ECG, impedance measurements, device prompts and CPR data.

Data Recovery: Controlled by touchscreen, uploaded to USB memory stick, or ZOLL Case Review<sup>™</sup> over a Wi-Fi network

*Internal Clock Synchronisation:* Coordinated Universal Time (UTC) synchronisation occurs when communicating with the ZOLL Online server.

#### Device

*Size:* (H x W x D) 12.7 cm x 23.6 cm x 24.7 cm; 5.0 in x 9.3 in x 9.7 in

*Weight:* 2.5 kg; 5.5 lbs (with battery)

Power: Battery

Wireless: 802.11 a/b/g/n

*Security Protocols:* WPA 1, WPA 2, WPA Personal, WPA Enterprise

Port: USB 2.0

*Rescue Accessory Pack Contents:* Non-latex gloves, a CPR barrier mask, razor, paper towel, and towelette.

*Device Classification:* Class II and internally powered per EN60601-1

*Design Standards:* Meets applicable requirements of EN 60601-1, IEC 60601-1-11, IEC 60601-2-4

#### Environmental

*Operating Temperature:* 0° to 50°C; 32° to 122°F

*Storage Temperature:* -30° to 70°C; -22° to 158°F

*Humidity:* 10% to 95% relative humidity, non-condensing

*Vibration:* IEC 60068-2-64, Random, Spectrum A.4, Table A.8, Cat 3b; RTCA/D0-160G, Fixed Wing Aircraft, Section 8.6, Test Cat. H, Aircraft Zone 1 and 2, EN 1789, Sweep per EN 60068-2-6 Test Fc.

Shock: IEC 60068-2-27; 100G

*Altitude:* -381 m to 4573 m; -1250 to 15,000 ft

*Particle and Water Ingress:* IP55

Drop Test: 1 meter; 3.28 feet

#### Battery

*Battery Capacity:* Typical new battery running at an ambient temperature of +20° C to +25° C (68° F to 77° F) can provide: 140 defibrillator discharges at maximum energy (200 joules), or 6 hours of continuous monitoring (with 2-minute CPR periods) Note: CPR periods shorter than 2 minutes can decrease the operating time that can be obtained from a new battery.

*Type:* Disposable, sealed lithium manganese dioxide

*Battery Standby Life (once installed):* 5 years with weekly self-test. End of life indicated by blank status window (typical remaining shocks: 9).

*Battery Shelf Life:* Store for up to 2 years at 23°C (77°F) prior to installing in ZOLL AED 3 to maintain above battery life.

*Temperature :* 0°C to 50°C (32°F to 122°F)

*Humidity:* 10% to 95% (non-condensing)

Weight: 317.5 grams; 0.7 lbs

*Size:* (H x W x D) 27.75 mm x 133 mm x 88 mm; 1.0 in x 5.16 in x 3.5 in

Nominal Voltage: 12 volts

#### **CPR Uni-padz**

Shelf Life: 5 years

*Conductive Gel:* Polymer Hydrogel

Conductive Element: Tin

*Packaging:* Multilayer foil laminate pouch

Impedance Class: Low

*Cable Length:* 142 (+/-3.8) cm; 56 (+/- 1.5) in

*Design Standards:* Meets requirements of IEC 60601-2-4, 2010

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