

AED Plus®

Technical Specifications



Measuring Chest Compression with Real CPR Help

The force required to depress the chest during CPR varies with the patient's size and build. The standard measure of chest compression quality, however, is not force but depth. The Real CPR Help® technology in ZOLL's CPR-D-padz® includes a hand-placement locator, an accelerometer, electronics, and a processing algorithm that work together to measure vertical displacement in space as each compression occurs.

One Size Fits All

ZOLL's 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.

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.

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

AED Plus Specifications

Defibrillator

Waveform: Rectilinear Biphasic

Defibrillator Charge Hold Time:
30 seconds

Energy Selection: Automatic
preprogrammed selection
(120J, 150J, 200J)

Patient Safety: All patient
connections are electrically
isolated

Charge Time: Less than 10
seconds with new batteries

Electrodes: ZOLL CPR-D-padz,
pedi-padz® II or stat-padz® II

Self-test: Configurable automatic
self-test from 1 to 7 days.
Default = every 7 days. Monthly
full-energy test (200J).

Automatic Self-Test Checks:
Battery capacity, electrode
connection, electrocardiogram
and charge/discharge circuits,
microprocessor hardware and
software, CPR circuitry and CPR-D
sensor, and audio circuitry

CPR: Metronome Rate: Variable
60 to 100 CPM

Depth: 3/4" to 3.5"; 1.9 to 8.9 cm

Defibrillation Advisory: Evaluates
electrode 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 pediatrics.
For ECG Analysis Algorithm
sensitivity and specificity, refer to
AED Plus Administrator's Guide.

**Patient Impedance Measurement
Range:** 0 to 300 ohms

Defibrillator: Protected ECG
circuitry

Display Format: Optional LCD
with moving bar

Size: 2.6" x 1.3"; 6.6 cm x 3.3 cm

Optional ECG Viewing Window:
2.6 seconds

**Optional ECG Display Sweep
Speed:** 25 mm/sec; 1"/sec

Battery Capacity: Typical new
(20°C) = 5 years (225 shocks) or 13
hours continuous monitoring. End
of life designated by Red X (typical
remaining shocks = 9).

Data Recording and Storage:
50 minutes of ECG and CPR data.
If audio recording option is
installed and enabled, 20 minutes
of audio recording, ECG, and CPR
data. If audio recording is disabled,
7 hours of ECG and CPR data.

**PC Minimum Requirements
For Configuration and Patient
Data Recovery:** Windows® 98,
Windows® 2000, Windows® NT,
Windows® XP, Windows® 7, IBM-
compatible PII with 16550 UART
(or higher) computer. 64MB RAM.
VGA monitor or better. CD-ROM
drive. IrDA port. 2MB disk space.

Device

Size: (H x W x D) 5.25"x 9.50" x
11.50"; 13.3 cm x 24.1 cm x 29.2 cm

Weight: 6.7 lbs; 3.1 kg

Power: User-Replaceable Batteries.
10 Type 123A Photo Flash lithium
manganese dioxide batteries

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

Design Standards: Meets
applicable requirements of UL
2601, AAMI DF-39, IEC 601-2-4,
EN60601-1, IEC60601-1-2

Environmental

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

Storage Temperature:
-22° to 140°F; -30° to 60°C

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

Vibration: MIL Std. 810F, Min.
Helicopter Test

Shock: IEC 68-2-27; 100G

Altitude: -300 to 15,000 ft.;
-91 m to 4573 m

Particle and Water Ingress:
IP-55

CPR-D-padz

Shelf Life: 5 years

Conductive Gel: Polymer Hydrogel

Conductive Element: Tin

Packaging: Multilayer foil
laminate pouch

Impedance Class: Low

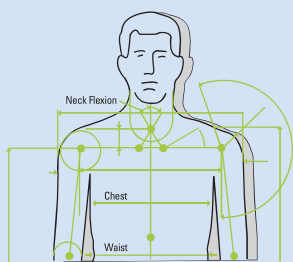
Cable Length: 48 in (1.2 m)

Sternum: Length: 6.1 in (15.5 cm);
Width: 5.0 in (12.7 cm); Length,
conductive gel: 3.5 in (8.9 cm);
Width, conductive gel: 3.5 in
(8.9 cm); Area, conductive gel:
12.3 sq in (79.0 sq cm)

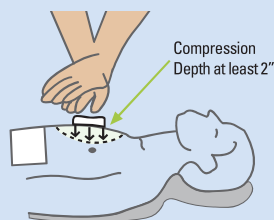
Apex: Length: 6.1 in (15.5 cm);
Width: 5.6 in (14.1 cm); Length,
conductive gel: 3.5 in (8.9 cm);
Width, conductive gel: 3.5 in
(8.9 cm); Area, conductive gel:
12.3 sq in (79.0 sq cm)

Complete Assembly: Folded
Length: 7.6 in (19.4 cm); Folded
width: 7.0 in (17.8 cm); Folded
height: 1.5 in (3.8 cm)

Design Standards: Meets
applicable requirements of
ANSI/AAMI/ISO DF-39-1993



Real CPR Help® provides unique assistance
to rescuers with real-time feedback on
CPR compression depth and rate.



ZOLL's one-piece CPR-D-padz is designed to
fit 99% of the population's chest anatomy.



CPR-D-padz offers clear anatomical
placement illustrations and a CPR hand
positioning landmark.



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

**ADVANCING
RESUSCITATION.
TODAY.®**

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