



## Warning!

- ▲ Use the AED Plus® unit only as described in this manual. Improper use of the device can cause death or injury.
- ▲ DO NOT use or place the AED Plus unit in service until you have read the AED Plus Operator's and Administrator's Guides.
- ▲ DO NOT use or place the AED Plus unit in service if the unit's status indicator window (located on the left side of the handle) displays a red "X".
- ▲ DO NOT use or place the AED Plus unit in service if the unit emits a beeping tone.
  
- ▲ Connect the electrode cable to the AED Plus unit after installing batteries.
- ▲ Keep the electrode cable connected to the AED Plus unit at all times.
- ▲ This device should only be used by properly trained individuals.
- ▲ Only use electrodes labeled "Infant/Child" on children less than 8 years old or weighing less than 55 lbs (25 kg). Use CPR-D-padz® if patient is older than 8 years or weighs more than 55 lbs (25 kg).
- ▲ Always stand clear of patient when delivering treatment. Defibrillation energy delivered to the patient may be conducted through the patient's body and cause a lethal shock to those touching the patient.
- ▲ DO NOT touch the electrode surfaces, the patient, or any conductive material touching the patient during ECG analysis or defibrillation.
- ▲ Move patient away from electrically conductive surfaces prior to use of equipment.
- ▲ DO NOT use the unit near or within puddles of water.
- ▲ Keep the patient as motionless as possible during ECG analysis.
- ▲ DO NOT use the unit near flammable agents, such as gasoline, oxygen-rich atmospheres, or flammable anesthetics.
- ▲ Avoid radio frequency interference from high-power sources that might cause the defibrillator to interpret cardiac rhythms incorrectly by turning off cell phones and 2-way radios.
- ▲ Disconnect non-defibrillation protected electronic devices or equipment from patient before defibrillation.
- ▲ Dry victim's chest, if wet, before attaching electrodes.
- ▲ Apply freshly opened and undamaged electrodes, within the electrode expiration date, to clean and dry skin to minimize burning.
- ▲ DO NOT place electrodes directly over the patient's implanted pacemaker. Pacemaker stimuli may degrade the accuracy of ECG rhythm analyses or the pacemaker may be damaged by defibrillator discharges.
- ▲ Check labeling inside the ZOLL® AED Plus cover before using the cover as a Passive Airway Support System (PASS) device to ensure it is intended for this use.
- ▲ DO NOT use the Passive Airway Support System (PASS) if there is a suspected head or neck injury. Place the patient on a firm surface before performing CPR.
- ▲ DO NOT recharge, disassemble, or dispose of batteries in fire. Batteries may explode if mistreated.
- ▲ DO NOT use or stack the AED PLUS unit with other equipment. If the unit is used or stacked with other equipment, verify proper operation prior to use.



## Caution!

- ▲ DO NOT disassemble the unit. A shock hazard exists. Refer all servicing to qualified personnel.
- ▲ Use only commercially available type 123A lithium manganese dioxide batteries. Discard batteries properly after removal from unit. Use only batteries from recommended manufacturers. See the AED Plus Administrator's Guide (P/N 9650-0301-01) for a list of recommended battery manufacturers.
- ▲ If the device is stored outside the recommended environmental conditions, the electrode pads and/or batteries may be damaged or their useful life reduced.
- ▲ The CPR-D-padz Electrode can be connected to other ZOLL defibrillators with Multifunction Cables. Defibrillation can be administered when connected to other ZOLL defibrillators. The CPR function does not operate with any device other than the AED Plus defibrillator.



## Important!

This symbol indicates that an AED Plus unit is equipped for treating adult and pediatric patients. An AED Plus unit without this symbol is not equipped to treat pediatric patients and will NOT work with pedi-padz® II pediatric electrodes. To upgrade an AED Plus unit for use with ZOLL pedi-padz II pediatric electrodes, contact ZOLL Medical Corporation or an authorized ZOLL distributor for information on the ZOLL AED Plus Pediatric Upgrade Kit.

## Set-up and Check-out Procedure:

1. Insert 10 new batteries into AED Plus unit.
2. Connect electrode cable to AED Plus unit and pack sealed electrodes inside unit cover. Close cover.
3. Turn unit on and wait for "Unit OK" audio message. Verify that unit issues appropriate "Adult Pads" or "Pediatric Pads" audio message.
4. Turn unit off.
5. Wait 2 minutes. Verify that green check symbol (✓) appears in status indicator window (located on left side of handle) and that unit does not emit a beeping tone.
6. Place AED Plus unit in service.
7. Check AED Plus unit periodically to ensure that green check symbol (✓) appears in status indicator window.

## Battery Replacement

For AED Plus units running software version 5.32 or higher, replace batteries every 5 years or if unit prompts. For earlier software versions, replace batteries every 3 years and place a dated AED Plus battery replacement reminder label next to the On/Off button. These labels are available from ZOLL Customer Service. Use only type 123A lithium manganese dioxide batteries from recommended manufacturers.

- Remove all batteries from battery compartment and discard before installing any new batteries.
- Insert 10 new batteries into battery well. Do not use old batteries.
- Press button in battery well only after installation of new batteries.

## Cleaning

- Clean and disinfect unit with soft, damp cloth using 90% isopropyl alcohol or soap and water, or chlorine bleach (30 ml/liter water).
- Do not immerse any part of the unit in water.
- Do not use ketones (MEK, acetone, etc.).
- Avoid using abrasives (e.g., paper towels) on the LCD display, if so equipped.
- Do not sterilize the unit.

## TROUBLESHOOTING

### Problem

### Recommended Action

Self-test failed.

Manually test by pressing and holding the ON/OFF button for more than 5 seconds. If unit fails test again, remove from service.

"Change batteries" prompt.

Replace all batteries at the same time.

Red "X" in Status Indicator window  
OR  
beeping noise when unit is OFF.

Perform manual test. Check to see if cable is attached properly to unit. Replace batteries. If unit still does not operate correctly, remove from service.

Red "X" in Status Indicator window  
when unit is ON.

Power cycle the unit. If Red "X" is still present in Status Indicator window, remove unit from service.

# AED Plus®

## Automated External Defibrillator

# Operator's Guide

ERC 2010

# ZOLL®

For Technical support or repair:



**ZOLL Medical Corporation**  
269 Mill Rd.  
Chelmsford, MA 01824-4105  
978-421-9655 • 800-348-9011  
Fax: 978-421-0010



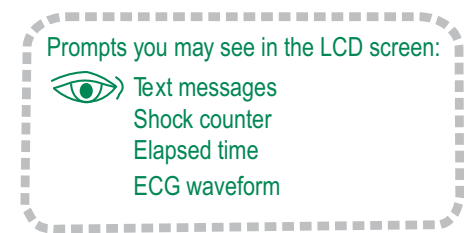
ZOLL Medical Europe  
Newtonweg 18  
6662 PV ELST  
The Netherlands  
+31 (0) 481 366410  
Fax: +31 (0) 481 366411

International Service:  
Contact your local distributor.

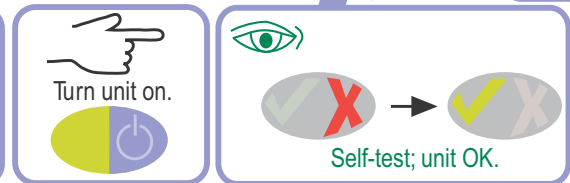
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REF 9650-0300-05 Rev. D

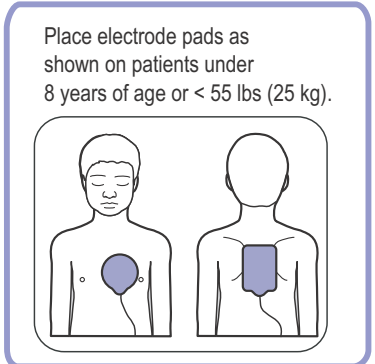
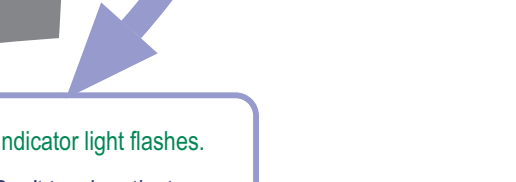
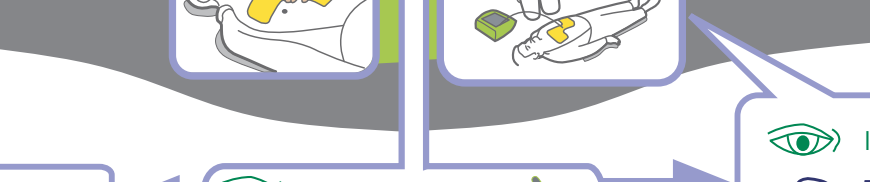
Federal (U.S.A.) law restricts this device for sale to or on the order of a physician.



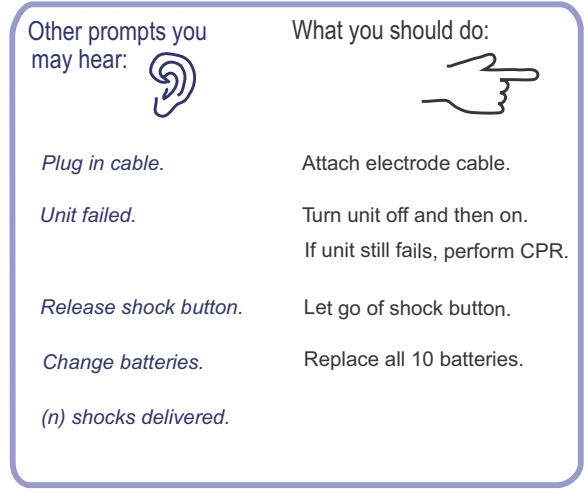
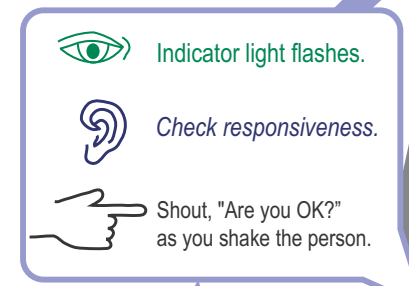
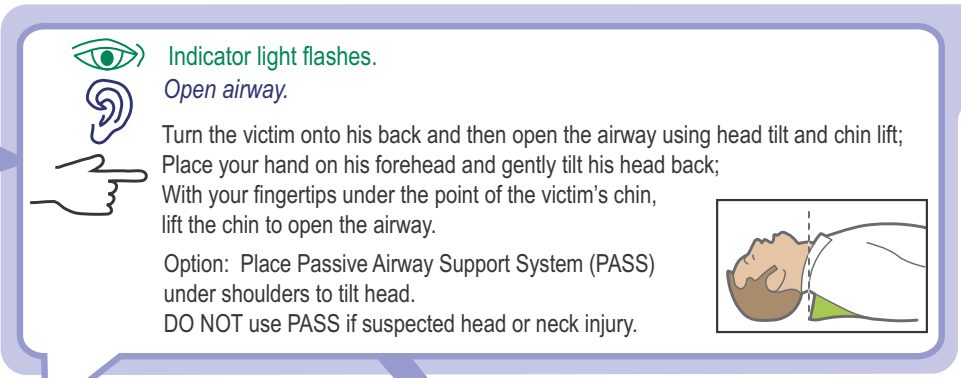
start here



Unit equipped to treat adult and pediatric patients.



If not responsive, Open Airway.



**INDICATIONS FOR USE**

Use the AED when a suspected cardiac arrest victim has an apparent **LACK OF CIRCULATION** indicated by:

- Unconsciousness and
- Absence of normal breathing and
- Absence of a pulse or signs of circulation.

When a victim is less than 8 years of age, or weighs less than 55 lbs (25 kg), the ZOLL AED Plus should be used with ZOLL AED Plus Pediatric Electrodes. Therapy should not be delayed to determine the patient's exact age or weight.

**CONTRAINDICATIONS FOR USE**

- Do NOT use when a patient:
- Is conscious; or
  - Is breathing; or
  - Has a detectable pulse or other signs of circulation.

**INTENDED USER**

The ZOLL AED Plus external defibrillator is intended to be used by personnel who are qualified by training in the use of the AED Plus device and basic life support, advanced life support, or other physician-authorized emergency medical response to defibrillate victims of cardiac arrest. The CPR monitoring function provides a metronome designed to encourage rescuers to perform chest compressions at the ERC recommended rate of 100 compressions per minute. Voice and visual prompts encourage a compression depth of 5 - 6 cm for adult patients. The CPR monitoring function is not intended for use on patients under 8 years of age.



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