

AED Trainer User's Guide

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The Automated External Defibrillator (AED) Trainer is a device for teaching basic AED rescue skills and correct defibrillation procedures.

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Safety

Before using the Trainer, be aware of the following:



WARNING! Patient injury or death.

The AED Trainer is not a rescue device and cannot deliver defibrillation shock therapy. The AED Trainer is for training or demonstration only.

To avoid confusion, do not store the AED Trainer or AED Training Pads in the same area with other AED equipment.

To avoid confusion when referring to the AED Trainer and other devices in this manual, the following terms are used:

- ◆ Rescue—any device or accessory intended to deliver a therapeutic shock includes the word “rescue” (for example, the Powerheart[®] 9300A is a *rescue* AED)
- ◆ Training—any device or accessory used to demonstrate AED functionality includes the words “training” or “trainer” (for example, AED *Training* Pads cannot deliver a therapeutic shock)

Supported models

This Trainer approximates the function of the following Cardiac Science Corporation AED models:

- ◆ Powerheart[®] 9300A (G3 Automatic)
- ◆ Powerheart 9300E (G3 Semi-Automatic)

Additionally, the Trainer supports branded and other models that have the same functionality as the listed models.

Intended use

The AED Trainer and this manual are intended for use by qualified instructors with the following competencies and experience:

- ◆ American Heart Association or European Resuscitation Council (or their equivalents) cardio-pulmonary resuscitation (CPR) certification and first responder defibrillation training
- ◆ A thorough understanding of operation and use of supported rescue AED models and accessories

For detailed operation instructions for a specific rescue AED model, refer to the Operation and Service manual for that model.

Learning objectives

After training, students should have the minimum competencies:

- ◆ Successfully simulate a patient rescue using the AED Trainer
- ◆ Understand differences between the AED Trainer and rescue AEDs
- ◆ Understand the operation of rescue AEDs

AED Trainer overview

The AED Trainer is a simulated AED for teaching basic rescue skills and correct defibrillation procedure to first responders who use Cardiac Science AEDs.

The AED Trainer can:

- ◆ Simulate each rescue stage
- ◆ Change rescue scenarios
- ◆ Create simulated cardiac rescue scenarios, both shockable and non-shockable

Instructors operate the AED Trainer by remote control.

AED Trainer parts

The AED Trainer has the same general external features as a rescue AED.

Note: The AED Trainer uses special training pads used only to demonstrate proper pad placement. Training pads cannot deliver a shock or provide feedback.

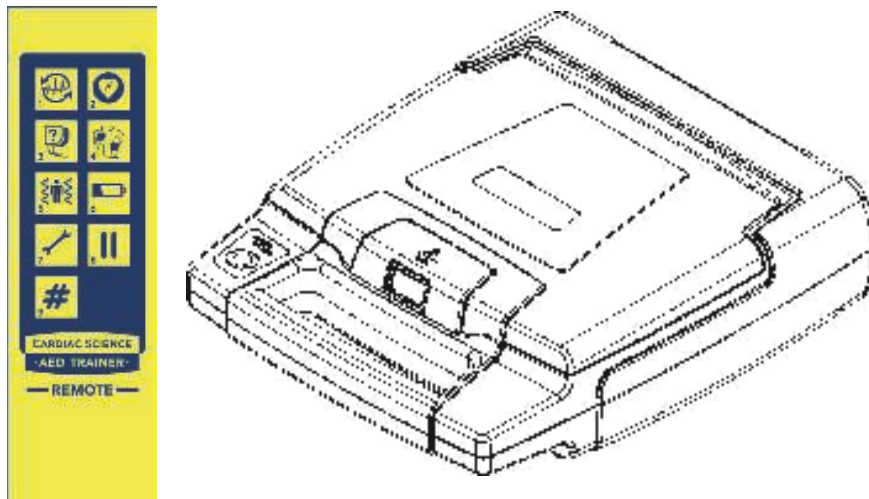


Figure 1: AED Trainer and remote

The AED Trainer may be configured for semi-automatic or automatic operation.

Refer to the appropriate rescue AED Operator and Service manual for detailed descriptions of parts of a rescue AED.

AED Trainer remote functions

The remote control has the following functions:

Table 1: AED Trainer Remote Buttons










| Button | Use |
|--|--|
|  <p>1, Shock Cancelled Scenario 1 Language Confirmation</p> | <p>Press while charging to prompt, "Rhythm changed. Shock cancelled."</p> <p>Press during Place Pads prompts to forward to the Analysis prompts. The next sequence (Shock or CPR) is determined by the selected scenario.</p> <p>Press during a CPR sequence to forward to the Analysis prompts, followed by another CPR sequence.</p> <p>Press # then 1 to start Scenario 1.</p> <p>Press to confirm language selection (see Language setup on page 7).</p> |
|  <p>2, Shock Advised Scenario 2</p> | <p>Press during Place Pads prompts to forward to the Analysis prompts. The next sequence (Shock or CPR) is determined by the selected scenario.</p> <p>Press during a CPR sequence to forward to the Analysis prompts followed by a Shock sequence.</p> <p>Press # then 2 to start scenario 2.</p> |
|  <p>3, Check Pads Scenario 3</p> | <p>Press during analysis to prompt, "Check Pads." Press again to continue the scenario.</p> <p>Press # then 3 to start Scenario 3.</p> |
|  <p>4, Place Pads Scenario 4</p> | <p>After the prompt, "Tear open package and remove pads," press to prompt:</p> <ul style="list-style-type: none"> • "Peel one pad from plastic liner" • "Place one pad on bare upper chest" • "Peel second pad and place on bare lower chest as shown" <p>Note: Use if necessary to advance through the prompts more quickly.</p> <p>Press again to indicate pad placement.</p> <p>Press # then 4 to start Scenario 4.</p> |

Table 1: AED Trainer Remote Buttons (continued)

| Button | Use |
|---|---|
|  5, Analysis Interrupted Scenario 5 | Press during Analysis prompts to prompt, "Analysis interrupted. Stop patient motion." Press again to continue. Press # then 5 to start Scenario 5. |
|  6, Low Battery | Press during a rescue scenario to prompt, "Battery low" (the battery LEDs will also show low battery). Press again to turn off the low battery LED and turn on two green battery LEDs (50% battery level). |
|  7, Service Required Decrease Volume | Press to prompt, "Service Required." Press again to continue. Press # then 7 to decrease speaker volume. |
|  8, Pause Increase Volume | Press at any time to Pause (the AED Trainer beeps while paused). Press again to continue. Press # then 8 to increase speaker volume. |
|  9, Change Scenario Change Volume | Press # then 1, 2, 3, 4, or 5 to change the shock scenario. Press # then 7 or 8 to decrease or increase the speaker volume. |

Language setup

To change the voice prompt language:

1. Open the Trainer lid and immediately press and hold the Shock button for 5 seconds. The Shock button stays lit and the current language is displayed on the screen.
2. Press and hold the Shock button to advance through the available languages.
3. When the desired language is displayed, release the Shock button and press the 1 button on the remote to confirm the selection.

The Trainer will reboot and operate in the selected language.

Modes and mode selection

The Trainer has eight modes to simulate the following types of rescue AEDs:

- ◆ Mode 1: Powerheart Semi-Automatic with Traditional CPR Prompts and CPR Metronome
- ◆ Mode 2: Powerheart Semi-Automatic with Traditional CPR Prompts and without CPR Metronome
- ◆ Mode 3: Powerheart Automatic with Traditional CPR Prompts and CPR Metronome
- ◆ Mode 4: Powerheart Automatic with Traditional CPR Prompts and without CPR Metronome
- ◆ Mode 5: Powerheart Semi-Automatic with Compressions-Only CPR Prompts and CPR Metronome
- ◆ Mode 6: Powerheart Semi-Automatic with Compressions-Only CPR Prompts and without CPR Metronome
- ◆ Mode 7: Powerheart Automatic with Compressions-Only CPR Prompts and CPR Metronome
- ◆ Mode 8: Powerheart Automatic with Compressions-Only CPR Prompts and without CPR Metronome

To set the mode:

1. Select the language (see *Language setup* on [page 7](#)) and then press the 1 button. The Operation Mode number flashes.
2. Press and hold the Shock button to advance through the available modes.
3. When the desired mode is displayed, release the Shock button and press the 1 button on the remote to confirm the selection. The Trainer reboots and begins the voice instructions.

Rescue scenarios

This section describes a typical rescue scenario and then lists the four pre-set rescue scenarios. To change scenarios, refer to the button functions in the *AED Trainer remote functions* section.

Note: Unlike a rescue AED, the AED Trainer does not store rescue information.

Typical rescue scenario

The following steps demonstrate a typical rescue scenario. Once the AED Trainer is set and the lid is opened, the AED Trainer advances through the complete scenario. The instructor may speed up the scenario if required.

1. Open the lid of the AED Trainer. The AED Trainer prompts, “Tear open package and remove pads.”
2. Press 4 on the remote to continue the Pads prompts:
 - “Peel one pad from plastic liner.”
 - “Place one pad on bare upper chest.”
 - “Peel second pad and place on bare lower chest as shown.”
3. Press 4 again to indicate pad placement.
4. The AED Trainer advances to the analysis stage of the rescue sequence and prompts, “Do not touch patient. Analyzing rhythm.”
5. If a shockable rhythm is selected, the AED Trainer prompts, “Shock Advised. Charging.” The next steps depend on the simulation used.

For a semi-automatic simulation:

- a. The AED Trainer prompts “Stand clear. Push flashing button to deliver shock.”
- b. The student presses the Shock button to deliver the first simulated defibrillation.

If the Shock button is not pressed after 30 seconds, the AED Trainer enters CPR mode.

For an automatic simulation:

- a.** The AED Trainer prompts “Stand clear. Shock will be delivered in 3...2...1. Shock delivered.”
- b.** The AED Trainer enters CPR mode.

If the scenario defines a non-shockable rhythm, the AED Trainer prompts, “Start CPR. Give 30 compressions then give 2 breaths.”

Recommended rescue scenarios

The following table lists the five rescue scenarios recommended by the AHA.

Note: If simulating an automatic AED, instead of prompting for shock, the AED Trainer counts down and then automatically delivers a shock.

Table 2: Recommended AHA scenarios

| Step | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 | Scenario 5 |
|------|-------------------------------|----------------------------|----------------------------|------------------|----------------------|
| 1 | Opens AED Trainer lid | | | | |
| 2 | Places pads on manikin | | | | |
| 3 | AED Trainer performs analysis | | | | |
| 4 | No shock advised | | Shock advised | | |
| 5 | 2 minutes of CPR | | Charge and prompt to shock | | |
| 6 | Second analysis | | 2 minutes of CPR | | |
| 7 | No shock advised | | Second analysis | | |
| 8 | 2 minutes of CPR | | Shock Advised | No Shock Advised | Analysis interrupted |
| 9 | | Third Analysis | Charge and prompt to shock | 2 minutes of CPR | No shock advised |
| 10 | | Shock Advised | 2 minutes of CPR | | 2 minutes of CPR |
| 11 | | Charge and prompt to shock | Third Analysis | | |
| 12 | | | Shock Advised | | |
| 13 | | | Charge and prompt to shock | | |
| 14 | | | 2 minutes of CPR | | |

Maintenance

The AED Trainer has no user serviceable parts. The only maintenance required is to:

- ◆ Clean external surfaces with a damp cloth
- ◆ Replace batteries in the AED Trainer or Remote as needed.
 - The AED Trainer requires two D-cell alkaline batteries
 - The remote control requires two AAA alkaline batteries

When replacing batteries, ensure that the polarity is correct.

For any other maintenance or repair problem, call Cardiac Science Technical Support or International Operations outside the United States (see [Contact Information](#) on [page 14](#)).

Specifications

The following table lists the AED Trainer specifications:

Table 3: Specifications

| Parameter | Detail |
|--------------------------------------|---|
| Dimensions | Height: 8 cm (3.3 in) Width: 27 cm (10.6 in) Depth: 31 cm (12.4 in) |
| Operating and Standby Conditions | Temperature: 0° C to +50° C (32° F to +122° F) Humidity: 5% to 95% (non-condensing) |
| Shipment Conditions (Up to one week) | Temperature: -40° C to +65° C (-40° F to +149° F) Humidity: 5% to 95% (non-condensing) |
| Battery | AED Trainer: Two D-cell alkaline batteries Remote Control: Two AAA alkaline batteries |
| Emissions | Radiated E-M: EN 55011, Group 1, Category B |
| Immunity | Radiated E-M: EN 61000-4-3 Radiated M: EN 61000-4-8 ESD: EN 61000-4-2 |

FCC notice to United States users

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. See 47CFR Sec. 15.19(3).

Contact Information

Inside the United States:

To order additional Powerheart G3 AEDs or accessories, contact Cardiac Science Customer Care:

- ◆ Toll Free (USA): 1.800.426.0337
- ◆ Telephone: +1.262.953.3500
- ◆ Fax: +1.262.953.3499
- ◆ Email: care@cardiacscience.com

Cardiac Science provides 24-hour telephone technical support. You can also contact Technical Support through fax, email, or live web chat.

There is no charge to the customer for a technical support call. Please have the serial and model numbers available when contacting Technical Support. (The serial and model numbers are located on the underside of the Trainer.)

- ◆ Toll Free (USA): 1.800.426.0337
- ◆ Telephone: +1.262.953.3500
- ◆ Fax: +1.262.798.5236
- ◆ Email: techsupport@cardiacscience.com

internationalservice@cardiacscience.com (International)

- ◆ Web site: <http://www.cardiacscience.com>

Outside the United States :

Contact your local Cardiac Science representative to order devices or accessories and to receive technical support for your AED products.

Cardiac Science Corporation • N7 W22025 Johnson Drive Waukesha WI 53186 U.S.A. • 262.953.3500 • US toll-free 800.426.0337

• Fax: 262.953.3499 • care@cardiacscience.com

Orders and Customer Care (US and International) • US toll-free 800.426.0337 • Fax: 262.953.3499 • care@cardiacscience.com

Technical Support • US toll-free 800.426.0337 • (US) Fax: 262.798.5236 • techsupport@cardiacscience.com

• (International) internationalservice@cardiacscience.com



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MDSS GmbH, Schiffgraben 41, D-30175 Hannover, Germany

