

samaritan® PAD

Public Access Defibrillator



HeartSine®

Compact, easy-to-use, lifesaving technology.

Sudden Cardiac Arrest (SCA) is a leading cause of death globally. Response time is critical for survival. HeartSine's samaritan PAD was designed especially for use in public areas by providing a sophisticated defibrillator for adult or pediatric use, inside a lightweight and easy-to-operate system.

Compact in size, long on ability.

Compact. The samaritan PAD is lighter (2.4 lbs.) and smaller than other defibrillators.

Durable. The samaritan PAD resists shock and vibration and carries an IP56 Rating, the industry's highest rating against dust and water. It can be taken and used virtually anywhere, even in the most inclement conditions. It also carries a 7-year unit warranty.

Advanced technology. SCOPE™* Biphasic technology automatically optimizes energy output for each person, and has been reported to provide significantly better performance in removing ventricular fibrillation (VF) by the third shock.**

Easy-to-follow visual and verbal guides.

User-friendly. The samaritan PAD features easy-to-understand visual and oral prompts that guide a user through the process.

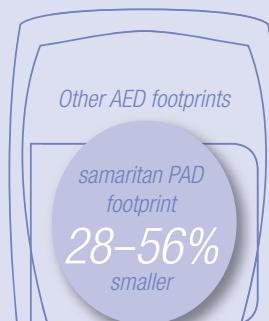
Two-button operation. Only two buttons, ON and SHOCK, are required, providing straightforward operation.

Always ready. A System Status Ready Indicator flashes to show that the complete system is operational and ready for use. Device automatically runs self check each week.

Real economy for the real world.

Two parts, one expiration date. Pad-Pak™ cartridge combines battery and electrode pads, with one expiration date to monitor.

Low cost of ownership. Cartridge typically has a shelf-life of 3.5 years from date of manufacture, offering significant savings over other defibrillators that require separate battery and pad units.



2.4 lbs. light.



Visual cues prompt pad placement



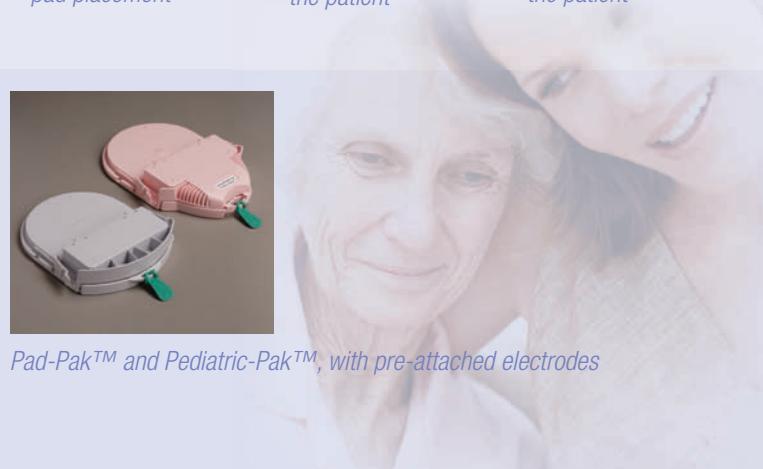
Stand clear of the patient



It is safe to touch the patient



Pad-Pak™ and Pediatric-Pak™, with pre-attached electrodes





HeartSine®

Technical Overview

Physical

Size: 8.0 in x 7.25 in x 1.9 in (20cm x 18.4cm x 4.8cm)
Weight: 2.4 lbs (1.1 kg) including Pad-Pak™ Battery

Defibrillator

Waveform: SCOPE® (self-compensating output pulse envelope) Biphasic waveform. Optimized biphasic waveform compensates energy, slope and envelope for patient impedance

Energy Selection

Pre-configured factory settings for escalating energy are AHA/ERC 2005
Adult
 1. Shock 150J 2. Shock 150J 3. Shock 200J
Paediatric
 1. Shock 50J 2. Shock 50J 3. Shock 50J

Patient Analysis System

Method: Evaluates patient's ECG, signal quality, electrode contact integrity and patient impedance to determine if defibrillation is required
Sensitivity/Specificity: Meets AAMI DF80:2003 requirements

Environmental

Operating Temperature: 0°C to 50°C (+32°F to +122°F)
Storage Temperature: -10°C to 50°C (+14°F to +122°F)
Relative Humidity: 5% to 95% (non-condensing)
Water Resistance: IEC 60529/EN 60529 IP56
Altitude: 0 to 15,000 feet (0 – 4,575 meters)
Shock: MIL STD 810F Method 516.5, Procedure I (40G's)
Vibration: MIL STD 810F Method 514.5+
 Category 4 Truck Transportation – US Highways
 Category 7 Aircraft – Jet 737 & General Aviation (Exposure)
EMC: EN 60601-1-2, Second Edition: 2001
Radiated Emissions: CISPR11: 1997 +1A:1999+A2:2001 Group 1 Class B
Electrostatic Discharge Immunity: EN61000-4-2:1995 (8KV)+A1:1998+A2:2000
RF Immunity: EN61000-4-3:1996, 80 MHz – 2.5 GHz, (10V/m)+A1:1998+A2:2000
Magnetic Field Immunity: EN61000-4-8:1993 (3 A/m)+A1:2000
Aircraft: RTCA / DO – 160D: 1997, Section 21 (Category M)
Falling height: 1 meter

Event Documentation

Type: Internal memory
Memory Capacity: 45 minutes of ECG (full disclosure) and event/ incident recording
Playback Capabilities: Custom USB cable directly connected to PC and Saver™ EVO Windows-based data review software

Materials Used

PAD SAM300P: ABS, Santoprene. Printed circuit board with electronic components.
PAD Cartridge: Battery: Lithium Manganese Dioxide
 Housing: ABS – Electrodes: Hydrogel, Silver, Aluminium and Polyester

Combined Electrode and Battery Cartridge

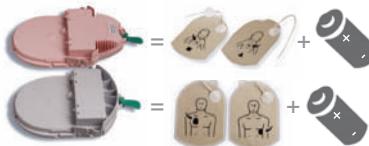
Pad-Pak™
Shelf Life: Check Expiration Date (typically 3.5 years from manufacture)
Weight: 0.44 lbs (0.2kg)
Size: 3.93 in x 5.24 in x .94 in (10cm x 13.3cm x 2.4cm)
Battery
Type: Lithium Manganese Dioxide (LiMnO₂)
Capacity: 18V, 0.8 Amp Hrs
 >30 shocks at 200J or 6 hours of continuous monitoring.

Adult Electrodes (Pad-Pak-01)

Standby Life: Typically 3.5 years from manufacture date
Electrodes: Samaritan® disposable defibrillation pads are supplied as standard with each device
Placement: Anterior-lateral
Active Gel Area: 100cm²
Cable Length: 3.5 ft (1m)

Children Electrodes (Pad-Pak-02)

Standby Life: Typically 3.5 years from manufacture date
Electrodes: Samaritan® disposable defibrillation pads are supplied as standard with each device
Placement: Anterior-Posterior
Active Gel Area: 100cm²
Cable Length: 3.5 ft (1m)cable



*Self Compensating Output Pulse Envelope technology automatically compensates energy, slope and pulse envelope for the patient.

**Efficacy of Distinct Energy Delivery Protocols Comparing Two Biphasic Defibrillators for Cardiac Arrest, Walsh, McClelland, Owens, Anderson, Turner, Adege, *The American Journal of Cardiology*, Vol. 94, Aug.1, 2004

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CAUTION: U.S. Federal law restricts this device to sale by or on the order of a licensed practitioner.



The products described in this brochure all meet the applicable European Medical Directive requirements.

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What is Recommended for an Effective AED Program?

AEDs are an essential link in the chain of survival for sudden cardiac arrest victims. Selecting the right AED is the first step. Medical oversight, effective training and proper management of an AED program completes the lifesaving process.

Most organizations do not have the resources available or trained staff to properly administer an effective early defibrillation program. HeartSine's solution provides a customized, validated AED program with seamless geographic coverage that minimizes customer administrative time and optimizes organizational readiness.

What Are the Advantages of the HeartSine samaritan® PAD 300P?

Advanced technology for the real world – compact in size, long on ability.

- ▶ Portable – light, easy to transport
- ▶ Durable – highest durability rating of any AED
- ▶ Ease of use – visual and voice prompts will guide even the inexperienced lay rescuer through rescue steps
- ▶ Cost of ownership – low maintenance cost; easy to replace Pad-Pak® contains both electrodes and batteries
- ▶ Optimized performance – the HeartSine samaritan® PAD 300P utilizes advanced SCOPE™ Technology to assess rhythm and recommend defibrillation if necessary
- ▶ Developed by a world leader in portable defibrillation technology since 1967



Lifesaving, Pure and Simple

The best things in life are often simple. That's true for the best lifesaving technology as well. The simple truth is that Sudden Cardiac Arrest (SCA) strikes from 400,000 to 460,000 people a year in North America with no warning and no pattern. There's little time to react and even less time to think. So your Automated External Defibrillator (AED) solution must be close at hand, reliable and effective even when used by someone with little or no training.

Distributed By:



HeartSine®

Inventor. Innovator. Lifesaver.

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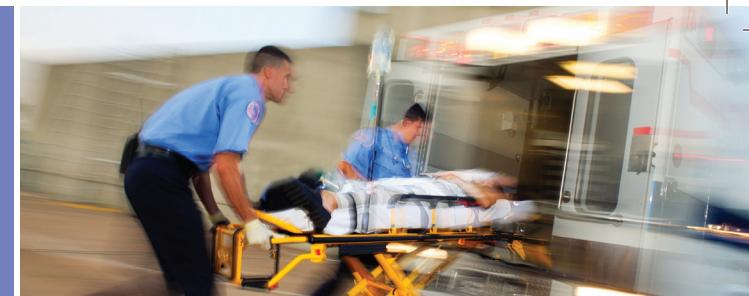
Inventor. Innovator. Lifesaver.



Are You Prepared For Sudden Cardiac Arrest?



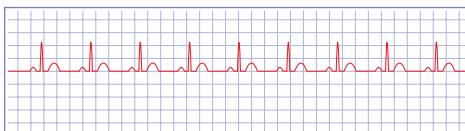
Are You Prepared For Sudden Cardiac Arrest?



What is Sudden Cardiac Arrest?

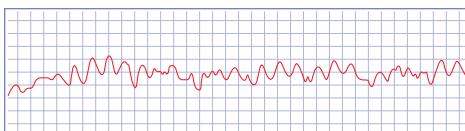
Normal Heart Activity:

Note the regular pattern with each beat of the heart.



Sudden Cardiac Arrest:

The heart enters a chaotic, typically ventricular fibrillation (VF) rhythm, as shown below.



Problem:

The heart cannot pump blood effectively and the victim will collapse.

Symptoms:

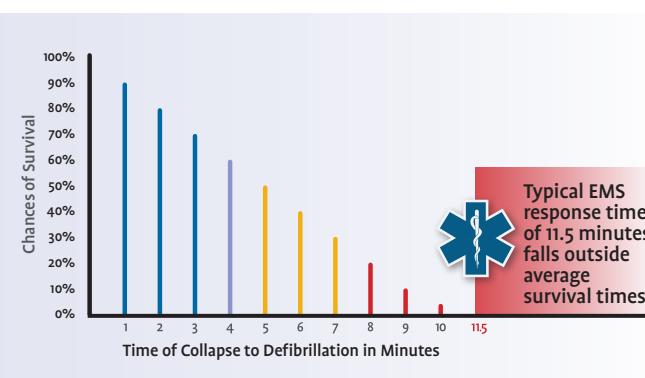
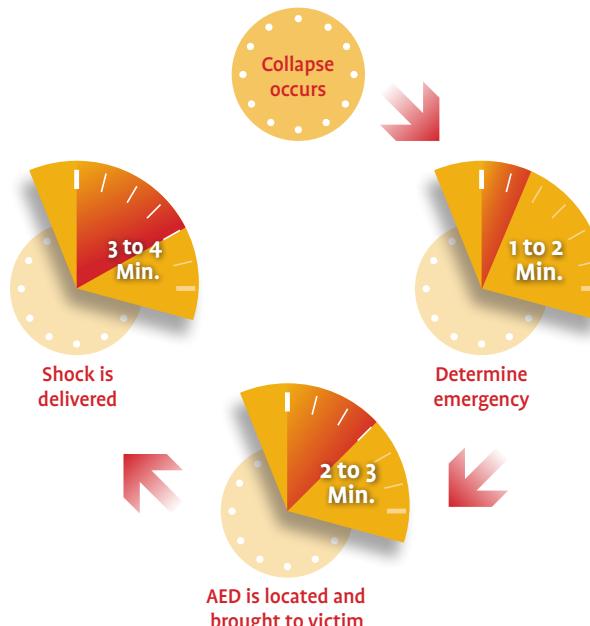
- ▶ Victim is unconscious
- ▶ Not breathing spontaneously
- ▶ No pulse

How Serious Is It?

- ▶ From 400,000 to 460,000 people are impacted each year in the US alone
- ▶ Can happen to anyone, anywhere, anytime
- ▶ Only 5-10% currently survive nationwide
- ▶ Survival rates above 50% have been achieved when effective CPR is applied and Automated External Defibrillators (AEDs) are readily available

How Critical is Response Time to Survival?

Every minute that passes without defibrillation reduces survival rate by 7-10%.



Why HeartSine®: Inventor, Innovator and Lifesaver

- ▶ **Technology Advantage.** samaritan PAD 300P utilizes proprietary electrode technology, advanced firmware and stable software, and proprietary SCOPE™ Biphasic Technology (an escalating and low-energy waveform that automatically adjusts for patient impedance differences) to assess rhythm and recommend defibrillation if necessary.
- ▶ **Most Portable.** HeartSine offers the smallest and lightest AED on the market, so it's the most convenient unit to use and store.
- ▶ **Most Durable.** samaritan PAD 300P offers the highest durability rating of any AED (including an Ingress Protection [IP] rating of IP56 and US military one-meter drop test).
- ▶ **Most Reliable.** The HeartSine AED's 10-year warranty is the longest warranty in the industry. That includes the samaritan PAD's advanced system self-diagnostic protocols. Even HeartSine's one-click Pad-Pak®—with integrated battery and electrode in a single cartridge—comes with the industry's longest warranty.
- ▶ **Lowest Maintenance Cost.** Unlike competitive products that require separate consumable expiration dates for customers to track and replace, samaritan PAD 300P is simpler and less costly to maintain, thanks in large part to its single-unit battery/electrode replacement cartridge.
- ▶ **Lowest Cost of Ownership.** Lowest labor cost, lowest maintenance cost, field upgradable and low acquisition cost.
- ▶ **Easiest to Use.** Designed for use by rescuers of all skill levels, samaritan PAD 300P is a completely self-contained unit with no lid to open, complex displays or controls. Our simple two-button operation and voice/visual prompts with clear instructions guide the user through every step, including pad application, shock delivery and CPR.



**IP Ratings
Dust and Water resistance chart**

First number (Protection against solid objects)	Definition	Second number (Protection against liquids)	Definition
0	No protection	0	No protection
1	Protected against solids objects over 50mm (e.g. accidental touch by hands)	1	Protected against vertically falling drops of water
2	Protected against solids objects over 12mm (e.g. fingers)	2	Protected against direct sprays up to 15° from the vertical
3	Protected against solids objects over 2.5mm (e.g. tools and wires)	3	Protected against direct sprays up to 60° from the vertical
4	Protected against solids objects over 1mm (e.g. tools, wires and small wires)	4	Protected against sprays from all directions - limited ingress permitted
5	Protected against dust - limited ingress (no harmful deposit)	5	Protected against low pressure jets if water from all directions - limited ingress permitted
6	Totally protected against dust	6	Protected against strong jets of water e.g. for use on ship decks - limited ingress permitted
		7	Protected against the effects of temporary immersion between 15cm and 1m. Duration of test 30 minutes
		8	Protected against long periods of immersion under pressure

**HeartSine samaritan PAD - IP56 rating, highest in the industry
for Dust and Water resistance**