HeartSine® samaritan® PAD 500P AED

HeartSine

Public Access Defibrillator with Integrated CPR Advisor™

Key Link in the Chain of Survival

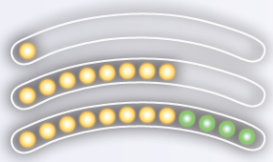
Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillators (AEDs) are key links in the chain of survival of sudden cardiac arrest (SCA). Some cardiac events are treatable with effective CPR alone. Others require a combination of effective CPR and the delivery a lifesaving shock by an AED. Either way, every minute counts. Typically, only about five percent of SCA victims survive. However, survival rates can increase up to 74%[1] if CPR and a shock from an AED are provided within three minutes of collapse. Reducing response time by even one or two minutes from collapse to shock can mean the difference between death and survival.[2]

More than a simple AED, the HeartSine® samaritan® PAD 500P with integrated CPR Advisor™ meets the needs of two key links in the chain of survival. Not only can the SAM 500P deliver a lifesaving shock, it provides real-time visual and verbal feedback to the rescuer on the force and rate of CPR compressions during an SCA resuscitation — effectively assisting the rescuer to perform CPR.

Real-Time CPR Feedback

ICG-Based Feedback. With its revolutionary technology, HeartSine's proprietary CPR Advisor detects the depth and rate of CPR being applied via the defibrillator electrodes, without the addition of accelerometers (or pucks) commonly used in other AED solutions.

Easy-to-Follow Visual and Verbal Guides. Designed for ease of use, the samaritan PAD 500P uses easy-to-understand visual and voice prompts to guide the rescuer through the entire CPR process, providing specific feedback on the force and rate of compressions.



No CPR being performed/Push harder

Push harder

Good compressions

Visual indicators and verbal feedback tell the rescuer if the force and rate of CPR compressions are in line with the ERC/AHA guidelines.

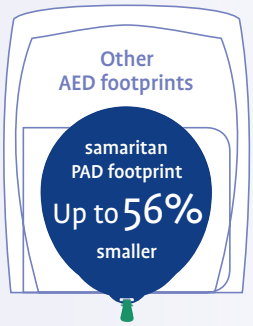
"Push faster"
"Push slower"
"Push harder"
"Good compressions"

Ready to Shock

Highest level of protection from dust and water. With its IP56 rating, the samaritan PAD 500P defibrillator offers unmatched ruggedness.

Clinically Validated Technology.[3] The samaritan PAD 500P utilizes proprietary electrode technology and SCOPE™ biphasic technology, an escalating, low-energy waveform that automatically adjusts for differences in patient impedance.

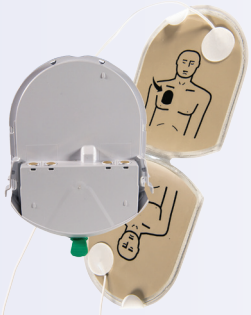
Most compact design. At 1.1 kg and with a compact footprint, the samaritan PAD is the most portable AED among top-selling brands.



Simple to Own

Two parts, one expiration date. The innovative Pad-Pak,™ an integrated battery and electrode single-use cartridge with one expiration date, offers one simple maintenance change every four years.

Low cost of ownership. With a shelf life of four years, the Pad-Pak offers significant savings over other defibrillators that require separate battery and electrode replacements.



Pad-Pak and Paediatric-Pak™ with pre-attached electrodes.

The HeartSine samaritan PAD's built-in intelligence and unique Paediatric-Pak ensure the appropriate energy level is delivered for children, between 1 and 8 years of age or up to 25 kg/55 lbs.

CPR Advisor is deactivated when the Paediatric-Pak is in use.

Technical Overview

SAM 500P

Physical	With Pad-Pak™ Inserted
Size:	20 cm x 18.4 cm x 4.8 cm/8.0 in x 7.25 in x 1.9 in
Weight:	1.1 kg/2.4 lbs

Defibrillator	
Waveform:	Self-Compensating Output Pulse Envelope (SCOPE™) optimised biphasic escalating waveform compensates energy, slope and duration for patient impedance

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 IEC/EN 60601-2-4
Impedance Range:	20 - 230 ohms

Environmental	
Operating/Standby Temperature:	0°C to 50°C/32°F to 122°F
Transportation Temperature:	–10°C to 50°C/14°F to 122°F for up to two days. If the device has been stored below 0°C/32°F, it should be returned to an ambient temperature of between 0°C to 50°C/32°F to 122°F for at least 24 hours before use.
Relative Humidity:	5% to 95% (non-condensing)
Enclosure:	IEC/EN 60529 IP56
Altitude:	0 to 4,575 metres/0 to 15,000 feet
Shock:	MIL STD 810F Method 516.5, Procedure 1 (40 G's)
Vibration:	MIL STD 810F Method 514.5+, Procedure 1 Category 4 Truck Transportation – US Highways Category 7 Aircraft – Jet 737 & General Aviation
EMC:	IEC/EN 60601-1-2
Radiated Emissions:	IEC/EN 55011
Electrostatic Discharge:	IEC/EN 61000-4-2 (8 kV)
RF Immunity:	IEC/EN 61000-4-3 80 MHZ-2.5 GHZ, (10 V/m)
Magnetic Field Immunity:	IEC/EN 61000-4-8 (3 A/m)
Aircraft:	RTCA/DO-160G, Section 21 (Category M) RTCA/DO-227 (ETSO-C142a)
Falling Height:	1 metre/3.3 feet

Energy Selection	
Pad-Pak:	Shock 1: 150J; Shock 2: 150J; Shock 3: 200J
Paediatric-Pak:	Shock 1: 50J; Shock 2: 50J; Shock 3: 50J

Charging Time	
New Battery:	Typically 150J in < 8 seconds, 200J in < 12 seconds

Event Recording	
Type:	Internal Memory
Memory:	90 minutes of ECG (full disclosure) and event/ incident recording
Review:	Custom USB data cable (optional) directly connected to PC with Saver EVO™ Windows-based data review software

Materials Used	
Housing:	ABS, Santoprene
Electrodes:	Hydrogel, Silver, Aluminum and Polyester

Pad-Pak — Electrode and Battery Cartridge Adult Pad-Pak (Pad-Pak-03) and Paediatric Pad-Pak (Pad-Pak-04) **ETSO-certified aviation Pad-Pak also available*	
Shelf Life/Standby Life:	See the expiration date on the Pad-Pak/Paediatric-Pak (4 years from manufacture date)
Weight:	0.2 kg/0.44 lbs
Size:	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in
Battery Type:	Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide (LiMnO2) 18V)
Battery Capacity (New):	> 60 shocks at 200J or 6 hours of continuous monitoring
Electrodes:	HeartSine samaritan disposable defibrillation pads are supplied as standard with each device
Electrode Placement:	Anterior-lateral (Adult); Anterior-posterior or Anterior-lateral (Paediatric)
Electrode Active Area:	100 cm^2/15 in^2
Electrode Cable Length:	1 metre/3.3 feet
Aircraft Safety Test (ETSO-certified Pad-Pak):	RTCA/DO-227 (ETSO-C142a)

1. Valenzuela TD, et al. 2000. Outcomes of Rapid Defibrillation by Security Officers After Cardiac Arrest in Casinos. *New England Journal of Medicine*. 343:1206-09.
2. Mosesso VN Jr. MD, et al. 2002. Proceedings of the National Center for Early Defibrillation Police AED Issues Forum. Prehospital Emergency Care. 6(3):273–82.
3. Simon J. Walsh, Anthony J.J. McClelland, Colum G. Owens, James Allen, John McCanderson, Colin Turner, A.A. Jennifer Adgey, Efficacy of Distinct Energy Delivery Protocols Comparing Two Biphasic Defibrillators for Cardiac Arrest, *Am J Cardiol* 2004;94:378–380.

NOTE: The samaritan PAD 500P is not available in the U.S.

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CE 0120 The HeartSine products described in this brochure meet the European Medical Directive requirement.

UL Classified. See complete marking on product.

H009-014-025-2

Lifesaving, Pure and Simple

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