HeartSine samaritan[®] PAD 500P 🗄 🕀 HeartSine[®]

Automated External 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 (SAM 500P) Automated External Defibrillator (AED) 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 force 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 HeartSine 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"



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

Most compact design. At 1.1 kg and with a compact footprint, the HeartSine samaritan PAD is the most portable AED on the market.





Simple to Own

Ready to Shock

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 from date of manufacture, 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			
Warranty:	8-year limited warranty			
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				
Туре:	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 cm² (15 in²)			
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 Jr VN, et al. 2002. Proceedings of the National Center for Early Defibrillation Police AED Issues Forum. Prehospital Emergency Care. 6(3):273-82.

3. Walsh SJ, McClelland A, Owens CG, Allen J, McCanderson J, Turner C, Adgey J. Efficacy of distinct energy delivery protocols comparing two biphasic defibrillators for cardiac arrest. Am J Cardiol. 2004;94:378–380.

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HeartSine Technologies LLC 121 Friends Lane, Suite 400 Newtown, PA 18940 Toll Free: (866) 478 7463 Tel: +1 215 860 8100 Fax: +1 215 860 8192 The HeartSine products described in this brochure meet the European Medical Directive requirement.

UL Classified. See complete marking on product.

H009-014-025-3 Intl



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