

# HeartSine® samaritan® PAD 500P B HeartSine® 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%<sup>1</sup> 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.<sup>2</sup>

More than a simple AED, the HeartSine<sup>®</sup> samaritan<sup>®</sup> PAD 500P with integrated CPR Advisor<sup>™</sup> 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.

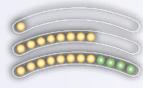
**Easy-to-Follow Visual and Verbal Guides.** Designed for ease of use, the samaritan PAD 500P uses easy-to-understand visual and voice prompts to guide the rescuer through the entire CPR process, providing specific feedback on the force and rate of compressions.

#### **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.**<sup>3</sup> The samaritan PAD 500P utilizes proprietary electrode technology and SCOPE<sup>™</sup> 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.



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"







**Two parts, one expiration date.** The innovative Pad-Pak,<sup>™</sup> 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<sup>™</sup> 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 <sup>™</sup> 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 <sup>™</sup> ) Optimised biphasic escalating waveform compensates energy, slope and duration for patient impedance
Patient Analysis Syste	m
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)
	KTCA/ DO 22/ (E130 C1428)

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 <sup>™</sup> 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)	
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Weight:	0.2 kg/0.44 lbs	
Weight: Size:	0.2 kg/0.44 lbs 10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in	
-		
Size:	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide	
Size: Battery Type:	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide (LiMnO2) 18V) > 60 shocks at 200J or 6 hours of continuous	
Size: Battery Type: Battery Capacity (New):	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in   Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide (LiMnO2) 18V)   > 60 shocks at 200J or 6 hours of continuous monitoring   HeartSine samaritan disposable defibrillation pads	
Size: Battery Type: Battery Capacity (New): Electrodes:	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in   Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide (LiMnO2) 18V)   > 60 shocks at 200J or 6 hours of continuous monitoring   HeartSine samaritan disposable defibrillation pads are supplied as standard with each device   Anterior-lateral (Adult);	
Size: Battery Type: Battery Capacity (New): Electrodes: Electrode Placement:	10 cm x 13.3 cm x 2.4 cm/3.93 in x 5.24 in x .94 in   Disposable single-use combined battery and defibrillation electrode cartridge (lithium manganese dioxide (LiMnO2) 18V)   > 60 shocks at 200J or 6 hours of continuous monitoring   HeartSine samaritan disposable defibrillation pads are supplied as standard with each device   Anterior-lateral (Adult); Anterior-posterior or Anterior-lateral (Paediatric)	

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.



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



CUUs UL Classified. See complete marking on product.

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