

samaritan® PAD 350P

Public Access Defibrillator with CPR Coaching

Compact, Easy-to-Use, Lifesaving Technology

Sudden Cardiac Arrest (SCA) is a leading cause of death globally. Response time is critical for survival. The samaritan® PAD 350P is 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.

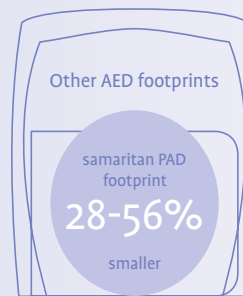


Compact in Size, Long on Ability

Portable and lightweight. The samaritan PAD 350P is lighter (1.1 kg/2.4 lbs) and smaller than other defibrillators.

Durable. The samaritan PAD 350P resists shock and vibration and carries an IP56 Rating, the industry's highest rating against dust and moisture ingress. It also carries a ten year unit warranty.

Advanced technology. The samaritan PAD 350P utilizes proprietary electrode technology, advanced and stable firmware, 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.



Advanced technology balanced against the demands of real world use. At HeartSine, our innovation changes lives. And saves lives.

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

Easy-to-Follow Visual and Verbal Guides

User-friendly. The samaritan PAD 350P features easy-to-understand visual and voice prompts that guide a user through the process including CPR coaching.

Two-button operation. Only two buttons, ON/OFF and SHOCK, are required for straightforward operation.

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



Visual cues prompt pad placement



Stand clear of the patient



Safe to touch the patient

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. 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 pad units.



Pad-Pak and Pediatric-Pak with pre-attached electrodes.

The HeartSine PAD's built-in intelligence and unique pediatric Pad-Pak ensure the appropriate energy level is delivered for children.



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) including Pad-Pak Battery

Defibrillator	
Waveform:	Self-Compensating Output Pulse Envelope (SCOPE) Biphasic waveform. Optimized biphasic escalating waveform compensates energy, slope and envelope 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 ISO 60601-2-4

Environmental	
Operating/Standby Temperature:	0°C to 50°C (+32°F to +122°F)
Temporary Transportation Temperature:	-10°C to 50°C (14°F to 122°F) for up to two days. Unit must be returned to standby/operating temperature for 24 hours before use.
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 (40 G'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
Radiated Emissions:	EN55011
Electrostatic Discharge RF Immunity:	EN61000-4-3 80MHZ-2.5GHZ (10 V/m)
Magnetic Field Immunity:	EN61000-4-8 (3 A/m)
Aircraft:	RTCA/DO-160F, Section 21 (Category M)
Falling Height:	1 meter (3.3 feet)

Energy Selection	
Adult:	Shock 1: 150J; Shock 2: 150J; Shock 3: 200J
Pediatric:	Shock 1: 50J; Shock 2: 50J; Shock 3: 50J

Charging Time	
New Battery:	Typically 150J in < 8 seconds, 200J in < 12 seconds
After 6 Discharges:	Typically 150J in < 8 seconds, 200J in < 12 seconds

Event Documentation	
Type:	Internal Memory
Memory Capacity:	90 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	
samaritan® PAD 350P:	ABS, Santoprene. Printed circuit board with electronic components.
Housing:	ABS – Electrodes: Hydrogel, Silver, Aluminium and Polyester

Pad-Pak — Electrode and Battery Cartridge	
Adult Pad-Pak (Pad-Pak-03) and Pediatric Pad-Pak (Pad-Pak-04)	
Shelf Life:	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:	Lithium Manganese Dioxide (LiMnO ₂)
Capacity:	> 60 shocks at 200J 18V, 1.5 Amp Hrs
Electrodes:	HeartSine samaritan® disposable defibrillation pads are supplied as standard with each device
Placement:	Anterior-lateral (Adult); Anterior-posterior (Pediatric)
Active Gel Area:	100 cm ² (15.5 in ²)
Cable Length:	1 meter (3.3 feet)

Lifesaving, Pure and Simple

Authorised Distributor

U.S./Americas

HeartSine Technologies, Inc.
121 Friends Lane, Suite 400
Newtown, PA 18940
Toll Free: (866) 478 7463
Tel: +1 215 860 8100
Fax: +1 215 860 8192
info@heartsine.com

Europe/Rest of the World

HeartSine Technologies, Inc.
203 Airport Road West
Belfast, Northern Ireland BT3 9ED
Tel: +44 28 90 93 94 00
Fax: +44 28 90 93 94 01
info@heartsine.co.uk



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



UL Classified.
See complete marking on product.



www.heartsine.com

Why the HeartSine samaritan® PAD?

Heartsine technologies is a world leader in personal and public access defibrillator

The AED designed for the real world

- **Compact** – One of the smallest and lightest AED on the market, easy to transport **1.2kg**
- **Durable** – highest durability rating of any AED, designed to be used in almost any environment. **IP 56 Rating**
- **Ease of use** – visual and audible 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. **Auto Self-Test**
- **8 year manufacture warranty** – **Longest warranty** compared to other AED manufactures
- **Fully upgradeable to latest AHA/ERC Guidelines**
- **Two parts, one expiration date.** Pad-Pak™ cartridge combines battery and electrode pads, with one expiration date to monitor.(4 yrs)



IP Ratings: Dust and Water resistance chart

First No. (Protection against solid objects)	Definition	Second No. (Protection against liquids)	Definition
0	No Protection	0	No Protection
1	Protected against solids objects over 50mm (eg. accidental touch by hands)	1	Protected against vertically falling drops of water
2	Protected against solids objects over 12mm (eg. fingers)	2	Protected against direct sprays up to 15° from the vertical
3	Protected against solids objects over 2.5mm (eg. tools and wires)	3	Protected against direct sprays up to 60° from the vertical
4	Protected against solids objects over 1mm (eg. 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 of water from all directions-limited ingress permitted.
6	Totally protected against dust	6	Protected against strong jets of water eg. 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

IP - Ingress Protection rating is used to specify the environmental protection - electrical enclosure - of electrical equipment



HeartSine®

Inventor. Innovator. Lifesaver.

HeartSine Product and Company Overview

Samaritan® PAD features and benefits

- **Size** — Smallest and lightest AED available (2.4 lbs or 1.2kg)
- **Durability** — Highest durability ratings of any AED available (IP56 Dust & Water Rating, Military Standard Drop Test)
- **Warranty** — At 7 years, the samaritan PAD provides the longest device warranty available. Competitive products typically provide a 5-year warranty.
- **Ease of Use** — HeartSine's samaritan PAD provides clear and calm audible prompting along with visual prompting via 3 illuminated icon displays. Many AEDs on the market provide only audible prompting that may be difficult to hear in loud or crowded environments.
- **Economical** — Patented Pad-Pak design provides for a single cartridge that contains both battery and defibrillation pads with a 4-years standby life. This technology provides a single expiration date for all consumables (batteries, pads, etc). Every competitive product will require at least two (sometimes three) separate consumable expiration dates for the customer to track.
- **Upgradeable** — Fully upgradeable in the field via software updates. This ensures device will be compliant with any future AHA updates.
- **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.
- **CPR Advisor** — Using Impedance Cardiogram – ICG technology to provide feedback to rescuers on the depth and rate of CPR compressions: “Press Harder”, “Press Faster”, “Press Slower”, or “Good Compressions”.
(This CPR Advisor feature only available in HeartSine samaritan PAD 500P)
- **Affordability** — HeartSine samaritan PAD is available at a very affordable price



Samaritan PAD with carrying case.



PadPak contains Battery & electrodes. Adult & Pediatric are Available.



Inserting PadPak into samaritan PAD



HeartSine samaritan PAD 500P with CPR advisor feature



HeartSine®

Inventor. Innovator. Lifesaver.

HeartSine Product and Company Overview *continued*

Samaritan® PAD features and benefits

- The samaritan PAD is appropriate for use in public areas including schools, corporations, restaurants, health clubs, sports teams, places of worship, police, medical, dental, chiropractic offices.

- Sampling of key customers:

Worldwide

- Air Force One
- The White House
- FBI Gaelic Athletic Association (GAA)
- US Secret Service
- US Military
- Israeli Prime minister, etc...

Singapore

- PUB, Ministry of Environment & Water Resources
- ST Groups
- Singapore Prison Services
- Republic Polytechnic, Singapore Polytechnic, NUS, ITE
- Marina Bay Sands Hotel
- Glaxo Wellcome, Novartis, etc..

HeartSine...a Legacy of Leadership



HeartSine® was founded for the purpose of developing a family of products focused on the public access segment of the medical device marketplace. The samaritan PAD is an affordable and easy to use automated external defibrillator (AED).

HeartSine's technology and innovation is based on a proven history of development in the field of cardiac defibrillation that began in the 1960s. Our R&D is spearheaded by our Co-Founder and Chief Technology Officer Professor John Anderson who is responsible for the world's first mobile defibrillator and coronary care unit.

Paramedic and ALS services in the US are founded and based on the work of Dr. Frank Pantridge and Professor Anderson. Professor Anderson has been miniaturizing defibrillators for four decades. He has been a cornerstone in

developing HeartSine's state-of-the-art samaritan PAD Public Access Defibrillator. Also steering our research is a leading authority in the field of clinical cardiac research, Dr. Jennifer Adgey.

Note: The pediatric PadPak

A pediatric version of the PadPak cartridge is available for the samaritan PAD. This is used for patients <8 years old and less than 55 lbs (25 kg).