



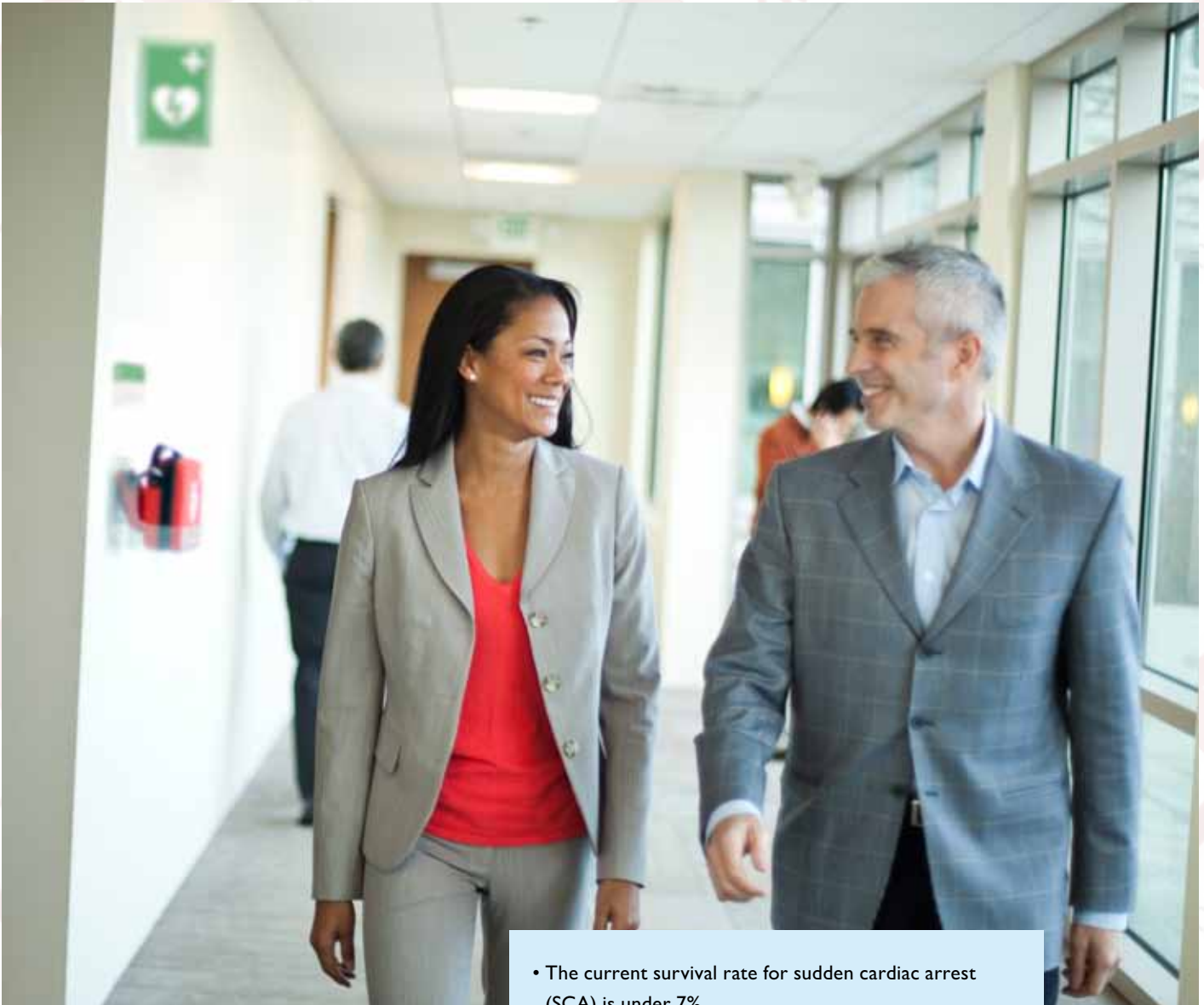
Ordinary person, extraordinary moment

Philips HeartStart OnSite Defibrillator

PHILIPS

sense and simplicity

Anyone, anywhere,



- The current survival rate for sudden cardiac arrest (SCA) is under 7%
- The likelihood of successful resuscitation decreases by about 10% with every minute that passes
- It is estimated that an additional 40,000 lives could be saved each year in the U.S. alone with widespread access to defibrillators¹

anytime

Power to save a life

Each year sudden cardiac arrest (SCA) strikes nearly 300,000 people in the US, 700,000 people in Europe, and hundreds of thousands more worldwide. The majority of these people have no warning, since they show no prior symptoms. And sadly, less than seven percent survive, often because emergency medical services cannot reach them in time.

SCA most often occurs when the electrical system of the heart becomes chaotic, causing it to stop beating effectively. Lacking proper blood flow, the person becomes unresponsive, stops breathing normally, and will likely die unless promptly treated.

CPR is important, but it alone cannot restore a normal heart rhythm. A shock from a defibrillator is the most effective way to restore the heart's normal pumping rhythm. The victim's best chance of survival is to receive that shock within five minutes of collapse. A defibrillator will not save every SCA victim, but more lives could be saved if victims were reached more quickly.

Philips HeartStart Defibrillators enable virtually anyone to treat the most common cause of SCA by delivering a shock quickly and effectively, wherever it happens – at work, at play, while traveling – providing the power to save a life.



Guides you through every step



Philips, the worldwide leader in automated external defibrillators (AEDs), designed the HeartStart OnSite Defibrillator for the ordinary person in the extraordinary moment. The first and only AED available without a prescription, the OnSite is designed to be the easiest to set up and use and the most reliable defibrillator available.^{2,3} Our innovative technology, based on extensive research and user feedback, has produced a defibrillator so easy to use that you can potentially save the life of a coworker, friend, or anyone else stricken with sudden cardiac arrest.

Weighing just 3.3 lbs/1.5 kg, the HeartStart OnSite Defibrillator is small and lightweight. Using clear, calm voice instructions, it guides you through each step of defibrillation, including CPR coaching. Integrated SMART Pads placed on the victim's bare skin sense and adapt the defibrillator's instructions to your actions every step of the way.

HeartStart OnSite includes highly proven Philips technologies for heart rhythm assessment (SMART Analysis) and defibrillation energy delivery (SMART Biphasic). And like all HeartStart Defibrillators, it can be used to treat infants and children as well as adults.⁴

Easy to set up

The Philips HeartStart OnSite Ready-Pack configuration is virtually ready to rescue out of the box. Enjoy peace of mind knowing your device is deployed correctly and is ready when needed:

- Arrives with pads cartridge and battery already installed
- Device positioned inside carry case with spare pads cartridge in place
- Just pull the green tab to launch the initial self-test
- Automatic daily self-tests, including pads, help ensure continued readiness

Easy to use

Using the HeartStart OnSite Defibrillator is simple. Pulling the green handle activates the defibrillator and its voice instructions and visual icons. These instructions are paced to your actions, to help guide you through the entire process – from placing each pad on the patient to delivering a defibrillation shock and performing CPR.



Determines if a heart rhythm is shockable

If a shock is advised, the defibrillator directs you to press the flashing orange Shock button.

The OnSite also advises you to call emergency services and perform CPR. While performing CPR, the defibrillator's voice instructions can be activated to coach you on the frequency and depth of compressions as well as breaths.

Should EMS need a summary of care, it can be retrieved from the defibrillator's internal memory. An EMS provider simply presses the i-button and HeartStart OnSite verbally recounts events from its last clinical use.

Establishing a successful program from the start

As the world leader in automated external defibrillators (AEDs), we're also a leader in providing products and services designed to help you establish and maintain a successful AED program, including SMART Track AED program management, medical direction, access to training providers, and post-event support options.

Our customers agree that with Philips, you're well prepared, even across multiple sites with hundreds or thousands of employees. Philips experts have helped define industry best practices in AED program management, and we support American Heart Association and European Resuscitation Council guidelines for early defibrillation programs.

Smart for a reason

Replaceable SMART Pads Cartridges

The cartridge contains two adhesive pads that are placed on the patient's bare skin as indicated by the pictures on the pads. The pads are "smart" because they sense when they have been removed from the cartridge and when each has been applied to the patient, adjusting the voice instructions to your actions.

The HeartStart OnSite can be used on patients of any age, including infants and children. OnSite senses when the special infant/child SMART Pads Cartridge is installed. It automatically adjusts to a lower energy level more appropriate for infants and children, and also provides coaching for performing infant/child CPR.

To practice your skills, a special training pads cartridge (adult or infant/child) can be installed in the defibrillator. It disables the defibrillator's ability to shock, while walking you through patient care scenarios.

HeartStart user considerations

- You cannot use the HeartStart OnSite to treat yourself.
- Responding to cardiac arrest may require you to kneel

Designed to help save a life in extraordinary circumstances

Lightweight

Just 3.3 lbs/1.5 kg ready for use.

Intuitive

Clean design and clear voice instructions, including CPR coaching, are designed to help instill the confidence that's needed when treating a person in cardiac arrest.

Effective

The first Biphasic therapy with sufficient evidence to be classed "standard of care" and "intervention of choice" by the American Heart Association, SMART Biphasic effectiveness is backed by over 40 published, peer-reviewed studies.⁵

And with patented Quick Shock, the OnSite is among the fastest in class at delivering a shock after CPR. Studies show that minimizing time to shock after CPR may improve survival.^{6,7,8,9,10} As American Heart Association Guidelines 2005 note, "Reduction in the interval from compression to shock delivery by even a few seconds can increase the probability of shock success."¹¹



HeartStart OnSite Defibrillator specifications

Defibrillator	
Defibrillator family	HS1. Order M5066A
Standard configuration	Defibrillator, battery, adult SMART Pads cartridge (1 set), Setup and Maintenance Guides, Owners Manual, Quick Reference Guide, Date sticker
HeartStart OnSite Ready-Pack configuration	Order option R01. Defibrillator, battery, carry case, adult SMART Pads (1 pre-installed set, 1 spare set), Setup and Maintenance Guides, Owners Manual, Quick Reference Guide, Date Sticker
Waveform	Truncated Exponential Biphasic. Waveform parameters adjusted as a function of each patient's impedance
Therapy	Adult defibrillation: Peak current 32A (150 J nominal into a 50-ohm load). Pediatric defibrillation with optional Infant/Child pads cartridge installed: Peak current 19A (50 J nominal into 50-ohm load)
Shock-to-Shock cycle time	Typically less than 20 seconds between shocks in a series
Quick Shock	Able to deliver a shock after the end of a CPR interval, typically in 8 seconds
Voice instructions	Detailed voice messages guide responder through use of the defibrillator
CPR coaching	Instructions for adult or infant/child CPR available at user's option
Shock delivery	Via adhesive pads placed on patient's bare skin as illustrated on pads
Controls	Green SMART Pads cartridge handle, green On/Off button, blue i-button, orange Shock button
Indicators	Ready light; blue i-button; caution light, Shock button lights up when shock is advised
Physical	
Size	2.8" x 7.4" x 8.3" (7 cm x 19 cm x 21 cm) D x H x W.
Weight	With battery and pads cartridge: 3.3 lbs. (1.5 kg) Without battery or pads cartridge: 2.4 lbs. (1 kg)
Environmental/Physical Requirements	
Sealing	Solid objects per EN60529 class IP2X Drip-proof per EN60529 class IPX1
Temperature	Operating: 32° - 122° F (0° - 50° C) Standby: 50° - 109° F (10° - 43° C).
Humidity	Operating: 0% to 95% relative, non condensing Standby: 0% to 75% relative, non-condensing
Altitude	Operating: 0 to 15,000 feet Standby: 0 to 8,500 feet > 48 hours and 8,500 to 15,000 feet < 48 hours
Shock/drop abuse	Withstands 1-meter drop to any edge, corner or surface
Vibration	Meets EN1789 random and swept sine, road ambulance specification in operating and standby states
EMI (radiated/immunity)	Meets EN55011 Group 1 Level B Class B and EN61000-4-3
Data Recording and Transmission	
Infrared	Wireless transmission of event data to a Smartphone or PC, using the IrDA protocol
Data stored	First 15 minutes of ECG and the entire incident's events and analysis decisions

Patient analysis system	
Patient analysis	Evaluates patient ECG to determine if a rhythm is shockable. Rhythms considered shockable are ventricular fibrillation (VF) and certain ventricular tachycardias (VT) associated with lack of circulation. For safety reasons, some VT rhythms associated with circulation will not be interpreted as shockable, and some very low-amplitude or low-frequency rhythms will not be interpreted as shockable VF
Quick Shock	Able to deliver a shock after the end of a CPR interval, typically in 8 seconds
Sensitivity/specificity	Meets AAMI DF80 guidelines and AHA recommendations for adult defibrillation (Circulation 1997;95:1677-1682)
Artifact detection	The effects of pacemaker artifact and electrical noise are minimized
Battery (M5070A)	
Type	9 Volt DC, 4.2 Ah, composed of disposable long-life lithium manganese dioxide primary cells
Capacity	Minimum 200 shocks or 4 hours of operating time (EN 60601-2-4:2003)
Install-by date	Battery is labeled with an install-by date of at least 5 years from date of manufacture
Standby life	Four years typical when battery is installed by the install-by date. (Will power the AED in standby state within the specified standby temperature range, assuming 1 battery insertion test and no defibrillation uses)
SMART Pads	
Adult SMART Pads cartridge	M5071A defibrillation pads for patients 8 years of age and older or 55 lbs. (25 kg) and over
Infant/child SMART Pads cartridge	M5072A defibrillation pads for patients under 8 years of age or 55 lbs. (25 kg). By prescription only
Active surface area	13.2"² (85 cm²) each
Cable length	Adult pads: 54" (137.1 cm) Infant/Child pads: 40" (101.6 cm)
Use-by date	Cartridge is labeled with a use-by date of at least 2 years from date of manufacture
Training Pads	
M5073A	Adult Training Pads cartridge
M5074A	Infant/Child Training Pads cartridge
Function	Training pads feature 8 real-world training scripts. Used with training mat (included) or with adapters on manikins
Automated and User-activated Self-tests	
Daily automatic self-tests	Tests internal circuitry, waveform delivery system, pads cartridge, and battery capacity
Pads integrity test	Specifically tests readiness-for-use of pads (gel moisture)
Battery insertion test	Upon battery insertion, extensive automatic self-tests and user-interactive test check device readiness
Status Indicators	Blinking green "Ready" light indicates ready for use. Audible "chirp" indicates need for maintenance

* Refer to the HeartStart OnSite Defibrillator Owner's Manual for detailed product instructions.

All specifications based on 25° C unless otherwise noted. The defibrillator and its accessories are made of latex-free materials.

**Philips Healthcare is part of
Royal Philips Electronics**

How to reach us

www.philips.com/healthcare
healthcare@philips.com

Asia
+49 7031 463 2254

Europe, Middle East, Africa
+49 7031 463 2254

Latin America
+55 11 2125 0744

North America
+1 425 487 7000
800 285 5585 (toll free, US only)

HeartStart Defibrillators
+1 978 659 3332
800 263 3342 (toll free, US only)

Philips is a Global 500 company and one of the world's largest medical products companies.

Philips has shipped nearly three-quarters of a million AED units.

Philips HeartStart defibrillators are deployed on airlines and in airports, workplaces, schools, healthcare facilities, and communities worldwide.

1. About Sudden Death and Cardiac Arrest. American Heart Association. Available at: <http://www.americanheart.org/presenter.jhtml?identifier=604>. Accessed July 28, 2010.
2. Andre, et al. Automated External Defibrillator Use by Untrained Bystanders: Can the Public-use Model Work? *Prehospital Emergency Care*. 2004;8:284-291.
3. Snyder. Time to Shock vs Voice Prompt Duration: Optimization of Defibrillators for Public Access and Home Deployment. 6th Scientific Congress of the European Resuscitation Council. Oct 2002.
4. The Infant/Child pads cartridge is sold separately, and available only under the order of a physician, by prescription only.
5. Philips Medical Systems. SMART Biphasic Studies, listed alphabetically by study author: http://www.healthcare.philips.com/au_en/products/resuscitation/biphasic_technology/references.wpd
6. Yu et al. Adverse Outcomes of Interrupted Precordial Compression During Automated Defibrillation. *Circulation*. 2002;106:368-372.
7. Eftesol T, Sunde K, Steen PA. Effects of Interrupting Precordial Compressions in the Calculated Probability of Defibrillation Success During Out-of-Hospital Cardiac Arrest. *Circulation*. 2002;105:2270-2273.
8. Snyder et al. Biphasic Defibrillation Waveform Combined with AED-Imposed "Hands-Off" Intervals Significantly Affect Outcome Following Prolonged Cardiac Arrest. Abstract from 7th Scientific Congress of the European Council. 2004.
9. Snyder & Morgan. CPR Interruption Interval Varies Widely Among Commercially Available AEDs. Abstract from 7th Scientific Congress of the European Council, 2004.
10. Snyder, D.E. and Morgan, C. Wide Variations in Cardiopulmonary Resuscitation Intervals Among Commercially Available Automated External Defibrillators May Affect Survival Despite High Defibrillation Efficacy. *Critical Care Medicine*. 2004;32(9) Supplement:S421-S424.
11. American Heart Association. 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. 2005. 112:IV-36.

Please visit www.philips.com/OnSite for more information



© 2010 Koninklijke Philips Electronics N.V.
All rights are reserved.

Philips Healthcare reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Printed in The Netherlands.
4522 962 61611 * JUL 2010