AED

PHILIPS HEARTSTART HS1

ABOUT

The Philips HeartStart HS1 is an automated external defibrillator (AED) designed for quick and effective response to sudden cardiac arrest (SCA) situations. Easy to use and reliable, it is suitable for both lay rescuers and trained responders in various settings.

FEATURES

Guided Voice Instructions: Provides clear, step-by-step voice prompts to guide users through the defibrillation process

Quick Shock Delivery: Designed to deliver a shock quickly, with minimal interruptions in chest compressions

Smart Analysis Technology: Uses SMART Analysis technology to assess the patient's heart rhythm

Ready-to-Use Indicator: Features a comprehensive self-test system that checks all main AED components

Durable Design: Built to withstand rigorous use and harsh environments

Long-Life Battery: Equipped with a long-life lithium battery that provides reliable power for extended periods

Child/Infant Compatibility: Includes an optional infant/child key that adjusts the device's settings for safe and effective use on younger patients

Philips Heartstart HS1

SPECIFICATIONS

DIMENSIONS

Height: 2.8 in (7.2 cm)

Width: 8.3 in (21 cm)

Depth: 7.4 in (19 cm)

Weight: 3.3 lb (1.5 kg)

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 last chest compression 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 is minimized

DEFIBRILLATOR

Defibrillator family: HS1. Order M5066A

Standard configuration: Defibrillator, battery, adult SMART Pads cartridge (1 set), Setup and Maintenance Guides, Owner's 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, Owner's Manual, Quick Reference Guide, date sticker

Waveform: Truncated exponential biphasic; waveform parameters adjusted as a function of each patient's impedance

Therapy Adult defibrillation: nominal peak current 32 A (150 J nominal into a 50-ohm load) Pediatric defibrillation with optional Infant/Child SMART Pads cartridge installed: nominal peak current 16 A (50 J nominal into 50-ohm load)

Shock-to-shock cycle time: Typically less than 20 seconds between shocks in a series

Voice instructions: Detailed voice messages guide the responder through
use of the defibrillator

CPR coaching: Instructions for adult or infant/child CPR available at the user's option

Shock delivery: Via adhesive pads placed on the patient's bare skin as illustrated on pads

Controls: Green SMART Pads cartridge handle, green On/Off button, blue-lit i-button, orange Shock button

Indicators: Ready light; blue-lit i-button; caution light; Shock button lights up when shock is advised

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

ENVIRONMENTAL REQUIREMENTS

Sealing: Solid objects per IEC60529 class IP2X Protected against a uniform flow of water drops over the defibrillator per IEC60529

Temperature:

- **Operating:** 0° – 50° C (32° – 122° F)
- **Standby:** 10° – 43° C (50° – 109° F)

Humidity:

- **Operating:** 0% to 95% relative, non-condensing
- **Standby:** 10% to 75% relative, non-condensing

Altitude: Operates at -400 m to 4,572 m (-1312 ft to 15,000 ft), can be stored at up to 2,591 m (8,500 feet) in standby mode

Shock/drop/abuse: Withstands one-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 CISPR 11 Group 1 Class B and IEC 61000-4-3

BATTERY

Battery Capacity: Minimum 200 shocks or 4 hours of operating time

Type: 9 Volt DC, 4.2 Ah, composed of disposable long-life lithium manganese dioxide primary cells

Install-by date: The battery is labeled with an install-by date of at least 5 years from the date of manufacture

Standby life: Typically, 4 years when the battery is installed and when stored and maintained according to directions provided in the document.

DATA RECORDING AND TRANSMISSION

Infrared: Wireless transmission of event data to a PC using the IrDA protocol

Data stored: First 15 minutes of ECG and the entire incident's events and analysis decisions