



AED

Automated
External
Defibrillator

Heart Guardian™ HR-501, a portable electric device operated by battery power, is an easy-to-use Semi Automated External Defibrillator. The AED automatically analyses patient's ECG and identifies and advises electrical shock if it is necessary. Nearly every procedure for AED operation is guided through voice audio guidance and beep sound, as well as visual cues prompts.

HR-501 is designed to operate in accordance with the CPR guidelines set by the American Heart Association (AHA).



HEART GUARDIAN

Technology for Life



MADE IN KOREA

HR-501

CE
2460

Technology for Life
RADIAN QBIO



Anyone can save a life with an AED

Easy-to-use

- ✓ Voice instructions guide you through use of the AED, as well as the beep sound leads the CPR compression speed.
- ✓ LED light guides for the current phase of defibrillation with visual cues that helps in noisy environment for the steps.

Safe-to-use

- ✓ If shock is needed, audio message will direct you to press the Shock Button. However, if unstable condition happens, you can skip the press to avoid unsafety.
- ✓ Every time LED status indicator shows the condition of device by blinking blue light for ready-to-use. If anything is amiss, the light blinks red and the device would emit an audio-message.
- ✓ Besides that the AED will conduct regular self-tests; the status of the device can also be known instantly by pressing the Test Button.



Low cost of ownership

AED electrode pads are applied to both adult and child, simply by pushing the mode button on AED. This is suitable for the place where children and adults attend, and operators can handle patients of different ages more quickly.



Heart Guardian HR-501 AED specifications

DEFIBRILLATOR

| | | | |
|---------------|---------------------------------------|-----------------------|---|
| Type | Semi Automated External Defibrillator | Waveform | Biphasic Truncated Exponential (BTE) |
| Products size | 225 (W) x 320 (L) x 85 (T) mm | Electric shock energy | .Adult mode: 150J ±10% .Child mode: 50J ±10% |
| Weight | 2.2 kg including battery | Impedance range | 25Ω to 175Ω |

PATIENT ANALYSIS AND DATA RECORDING

| | | | |
|------------------|---|------------------------------------|---|
| Patient analysis | The AED ECG analysis system automatically analyzes the patient's ECG and advises user when defibrillation is required | Safety and performance | IEC60601-1 (Type BF – Applied part) IEC60601-2-4, EN 1041, ISO 15223-1 |
| ECG Analysis | 8.5 seconds | Hi-Cap Charging | 8 seconds |
| ECG data record | 13.75 Mbyte (approx.100 ECG data and logs can be recorded) | Number of shock and Operating time | For a new, fully charged battery pack at 20~ 30°C: 200 discharges at maximum energy or 10 hours of continuous ECG monitoring. |

USER INTERFACE

| | | | |
|--------------|--|------------|---|
| Instructions | Voice prompts and visual cues guide user through operation of the defibrillator | Controls | Power button, Shock button, Adult/Child mode switch |
| CPR coaching | Voice coaching for adult CPR provides instructions and beep sound for appropriate number and rate of chest compressions and breath | Indicators | Status LED indicators, Procedure guidance LED, Shock button lights up when shock is advised |

SELF TESTS

| | | | |
|-------------------|--|-------------------|--|
| User-initiated | Unit and battery pack test initiated by the user | Status indication | Visual and audio indication of unit status |
| Battery insertion | Battery pack test initiated by battery insertion | Automatic | Monthly check on charge/discharge, Battery, internal electronics |

APPLICABLE STANDARD AND ENVIROMENTAL PARAMETER

| | | | |
|----------------|--|--|---|
| Shock | IEC60068-2-27 | Enclosure (Particle and water ingress) | IEC 60529, IP54 |
| Vibration | IEC60068-2-64 (10Hz to 2,000Hz) | Temperature | Operating: 0 ~ 40°C (32 ~ 104°F)* Storing/transporting (within 5days): -20°C to 60°C (-4°F to 140°F) If the temperature is out of the range 40°C, the operating temperature must be maintained to appropriated temperature for at least 1 hour. |
| Free fall drop | IEC60068-2-32 (1m) | Humidity | 5 ~ 95% (non-condensing) |
| EMC | IEC60601-1-2CEMC (EMC) Directive 2014/30/EU | Altitude | 0 to 4,575m (0 to 15,000ft) |

AED HR-501

Heart Guardian



- Automatic Self-test
- Adult/Child Mode Compatible Switch (Energy: 150J for Adult / 50J for Child)
- Size: 225(W)x320(L)x85(T)mm
- Weight (with battery): 2.2kg (5lb)
- Particle and Water Ingress: IP-54



Appropriate locations

- ♦ Offices
- ♦ Schools
- ♦ Homes
- ♦ Clinics
- ♦ Workplaces
- ♦ Shops and malls
- ♦ Sporting venues
- ♦ Recreation facilities
- ♦ Any public place

HR-501 Pads

Model: P-303

Usage: Delivers electric shock to patient, detect patient's ECG signal

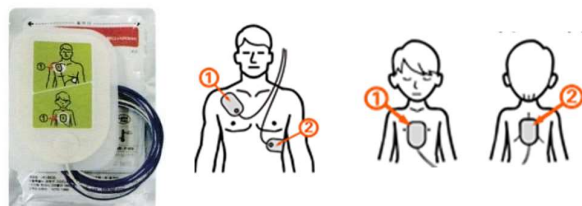
Type: Adhesive pads for both adult/child pre-gelled, self-adhesive, non-polarized

Pouch Size: 170(W)x250(L)mm

Pad Size: 110(W)x145(L)mm, cable length 1.8m

Weight: 120g

Shelf life: 2 years (Expiry date on package)
Single use only



HR-501 Battery

Model: BT-303

Usage: Electric power supply to AED

Type: LiMnO₂ (DC 12V 4.2Ah)

Size: 60(W)x175(L)x25(T)mm

Weight: 285g

Shelf Life: 4 years in standby mode



HR-501 Semi-Rigid Carrying Case



Model: HR-B1

Usage: Storage and protection

Type: Plastic, artificial leather

Size: 235(W)x330(L)x95(T)mm

Weight: 370g

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