



# 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 0~40°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

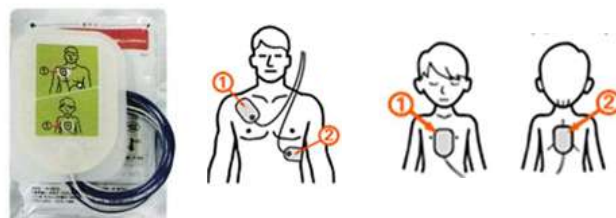


### Appropriate locations

- ◆ 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: 22 months  
 Single use only



## HR-501 Battery

- Model: BT-303  
 Usage: Electric power supply to AED  
 Type: LiMnO<sub>2</sub> (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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