



**HEART GUARDIAN** Technology for Life

**CE**

Organismo Notificaro n. 0476

AED Life Mode  
AED Trainer  
Accessories  
Safety container

Technology for Life  
**RADIAN**



## Survival Loop is with us here



AHA(American Heart Association) emphasizes 5 steps for improving the chances of survival and recovery for victims of heart attack.

Being a part of such the Survival Chain. AED now serves as an indispensable mean of saving lives. Many of North America and Europe countries are expending mandatory AED installation. Korea joins the trend, upon amendments of the governing Act to secure more AED sites

## Anyone can save a life with an AED

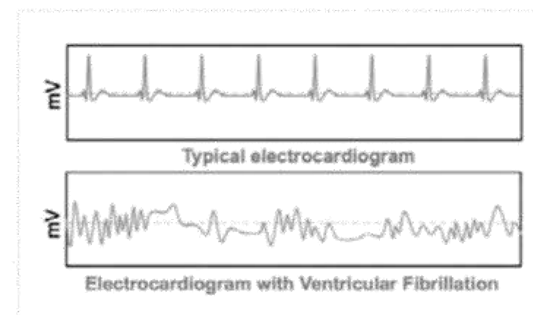
### Life is more precious than anything

For over 10 years, Radian has accomplished countless know-how focusing on the safety and quality management through our high-edge sensor technologies. With all those, we are newly opening up a new horizon for the medical/health care business. AED is our first step



## Sudden Cardiac Arrest

Involves failure in cardiac contraction for circulatory failure.<sup>1)</sup> Tissues are no longer supplied with Blood and, upon extensive cardiac arrest, cells are necrotized, leading to systemic paralysis and death.

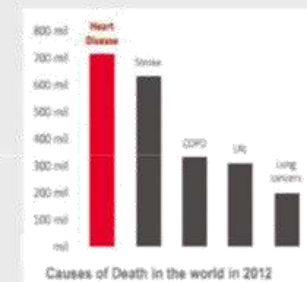


Over 75% of sudden cardiac arrests are occurred by the ventricular fibrillations, AED performs number of precise electric shocks on the victim's body for recovering the normal cardiac function.

1) Jamieson, J. N. St. C.; Dennis L. Kasper; Harrison, Tinsley Randolph Braunwald; Eugene Fauci; Anthony S. Fauci; Stephen L. Longo; Dan L. (2005). Harrison's principles of internal medicine. New York: McGraw-Hill Medical Publishing Division

2) WHO. 10 top causes of death in 2012. <http://www.who.int/mediacentre/factsheets/fs312/en>

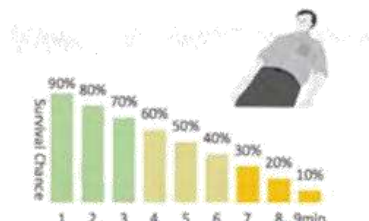
Heart disease is the top leading cause of death in the world



According to The World Health Organization report for 2012<sup>2)</sup> about the death causes research, indicated the heart disease is being the most dangerous threat for human being that is actually causing the most deaths. More deaths of heart disease than of AIDS and all cancers combines.



## With AED, The survival chance Increases about 500%



Without any treatment on victim

According to the AHA's 2010 Guidelines<sup>1)</sup>, if there is no treatment for a collapsed victim by heart attack, the chance of survival decreases about 10% per every minutes.



However, if any bystander performs CPR and AED immediately, in this case, the chance of survival chance significantly increases, and the drop rates are only 3% to 4% per minute.

1) 2010 AHA Guidelines for CPR and ECC. Circulation, 2010;122:5706.  
2) N Engl J Med. 2003;348(17):1206-9



Casino security officers were instructed in the use of AED. The locations where the AEDs were stored in the casinos were chosen to make possible a target interval of three minutes or less from collapse to the first defibrillation. The defibrillations performed first, followed by manual cardiopulmonary resuscitation. AEDs were used for 105 patients whose initial cardiac rhythm was ventricular fibrillation. The result was as below.



**CPR within one minute,  
First AED Shock within three minutes  
= 53% of Survival Rate**

Rapid defibrillation by nonmedical personnel using an automated external defibrillator can improve survival after out-of-hospital cardiac arrest due to ventricular fibrillation. Intervals of no more than three minutes from collapse to defibrillation are necessary to achieve the highest survival rates<sup>2)</sup>.

# HR-501

AED(Automated External Defibrillators)



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## HEART GUARDIAN

### AED(Automated External Defibrillators)

helps recover the normal cardiac function upon acute heart disease, such as acute cardiac arrest, by cardiac function analysis and, if necessary, electroshock.

### Heart Guardian, as an AED,

provides precise analysis of victim's body and configures the exact amount of shocks, promising the safety and quicker responses.

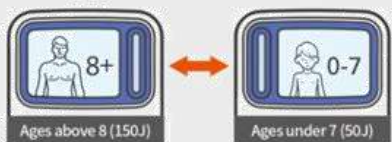


## Easy to use and accessible by all without special training



- ✓ As soon as uncovering AED, there will be an audio-guidance for every phase of operation
- ✓ In case where not audio LED indicator guides you for accurate
- ✓ From analysis to charging, services are all-Automated
- ✓ All you need to do is to pads at the right place and press a button to work

## Compatible with both Adults and kids



- ✓ AED pads is compatible among any ages and gender, simply by setting up one button
- ✓ Heart Guardian provides the precise amount of shock energy depends on the patient's boy size and condition into two levels.

## Heart Guardian offers data extraction with the embedded memory



- ✓ AED offers "defibrillation blackbox" by memorizing the operational history.
- ✓ Once recorded, data can be transferred out and analyzed by way of Bluetooth-enabled AED.

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## Prompt and Accurate Analysis of ECG

Heart Guardian offers ECG (Electrocardiography) analysis in just 8.5 seconds.

ECG Analysis function offers detecting irregular cardiac wave with 97.8% confidence and immediately commences electric charging upon detect.

Embedded shock timing table based on the patient's impedance levels enables the most accurate charging time and shock timing analysis.1)

## BiMos High-voltage Switching Circuit

Heart Guardian provides the precise amounts of shock energy depends on the patient's boy size and condition into two levels.

RADIAN's "BiMos High-voltage Switching Circuit technology" enables the sudden high voltage(above 2,000V) generation within 8 seconds. By using any kind of common battery types. This is especially useful technology for AED requiring an urgent defibrillation for the heart attack victims.



Technology for Life



**HEART  GUARDIAN**

**SOLE AGENT IN UAE AND GCC**

[www.radianqbio.ae](http://www.radianqbio.ae)

E-mail: [info@radianqbio.ae](mailto:info@radianqbio.ae)

