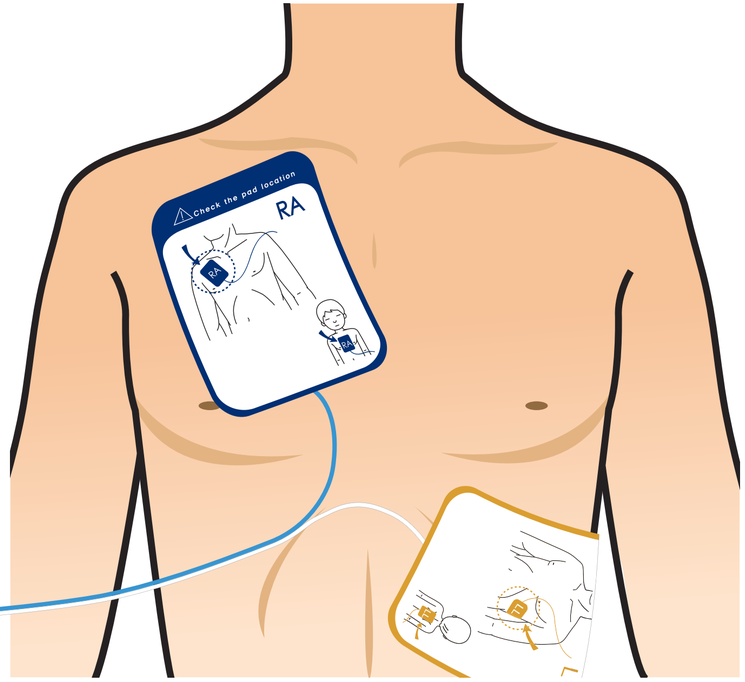

Out of Hospital Cardiac Arrest (OHCA) Chain of Survival

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CE 0120 NTDC-03
Made in KOREA

Simple Approach to Saving Lives

HeartPlus

AED (Automated External Defibrillator)

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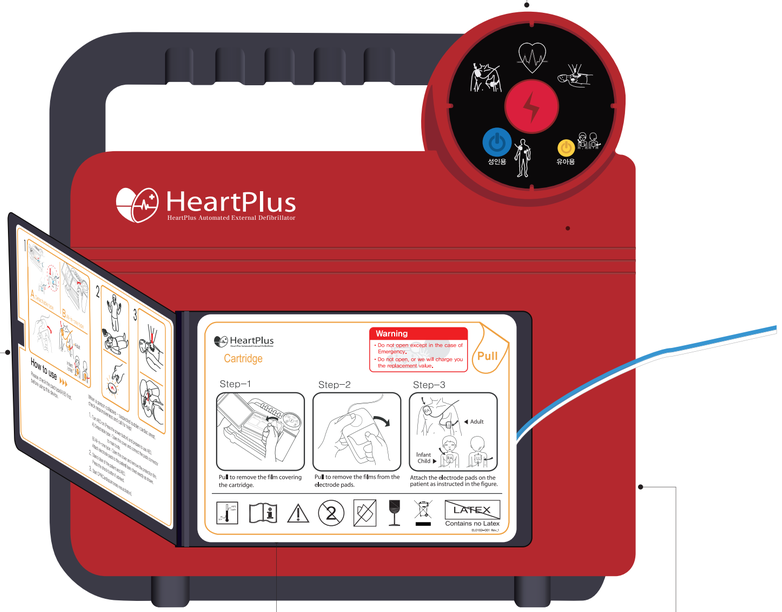
NANOOM TECH

HeartPlus
AED (Automated External Defibrillator)

Informative Cover
Even before defibrillator is turned on, a quick glance gives first responder a general idea of what must be done.

Step-by-Step Guide
Status LED light provides real-time, visual representation of each step to guide first responder through entire resuscitation process.



Cartridge
All-in-one type of cartridge that is linked in pad and battery.

USB
Upon installation of NT-MPR software, administrator is able to manage data such as self-diagnostics history, ECG recordings, and other operation data.

HeartPlus™ Defibrillator Specifications

Defibrillator

Defibrillator Series	HeartPlus™ NT-180
Set Configuration	Defibrillator, battery pack, sealed electrode pads, HeartPlus™ User Guide, Protective Carrying Case, "NT-MPR" CD-ROM, USB cable
Waveform	Truncated Exponential Biphasic
Energy	180J (Adult, Impedance 50Ω) 50J (Pediatric, Impedance 50Ω)
Shock Charge Time	Approx. 13 seconds
Shock Method	Manual button (flashes when ready)
Mode Conversion	Adult/Child separate power buttons Child Mode delivers 50J Pediatric shock for patients weighing less than 25kg, approximately 12 months to 8 years old)

Physical

Dimensions	7.1cm(H) x 29.3cm(W) x 29.1cm(D)
Weight	1.9kg (including battery pack and electrode pads)

Environmental

Water Resistance	IPX2 per IEC 60529
Temperature	Operating: 0°C to 40°C; Storage: -20°C to 60°C
Humidity (operating/storage)	10% to 95% Relative Humidity, Non-Condensing
Altitude (operating/storage)	0 to 2000 meters
Drop Test	1 meter

ECG

ECG Recording	LEAD II
Analysis Overview	Patient evaluated to determine whether ECG rhythm represents shockable or non-shockable state. Shockable rhythms are ventricular fibrillation (VF) and ventricular tachycardia (VT).
Analysis Time	Less than 11 seconds (Read: 5 seconds ± 2 seconds, Analyze: within 4 seconds)

Auditory/Visual Instructions

After device is powered on, step-by-step voice instructions guide first responder through resuscitation procedure, which includes pads placement, hands off times (analysis and shock process), and CPR instructions.

CPR instruction prompts user to commence cardiopulmonary resuscitation, while flashing metronome light sets pace at 100 compressions per minute for 30 compressions with brief pause for 2 mouth-to-mouth breaths (5 repetitions), in accordance with American Heart Association guidelines.

Data

Stored Contents	ECG recordings, operation information (whether shock delivered or not), ambient noise, self-diagnostics history
Memory Capacity	ECG: 1,000 instances of 5 seconds recordings Ambient Noise: Total 60 minutes (4 instances of 15 minute cycles) Self-Test: Times & results of 3,000 events
Storage Type	Internal Memory
Access / Retrieval	"NT-MPR" App (for PC) via USB connection

Self-Diagnostics Test

Daily self-diagnostics tests ensure that circuits for measuring patient impedance, control circuit internal discharge of electric energy, and control circuit for charge/discharge of electric energy are functioning properly.

A voice prompt stating "Equipment check is needed" continuously in the event self-diagnostics check fails.

Upon completion of daily self-diagnostics test, results are automatically stored within device's internal memory.

Battery Check

When battery reserve is at acceptable level to provide sufficient electric charges and there are no problems with circuitry detected during self check, three Status LEDs above the power button blink in order from left to right during self check.

All three Status LEDs blink at the same time continuously with low or critical battery voice prompts when battery is at low or critical levels (low: shock possible, critical: shock not possible).

Battery Status Audible Warnings	*Low*: Voice prompt states "Battery's voltage is low, check battery" *Critical*: Voice prompt states "Change cartridge"

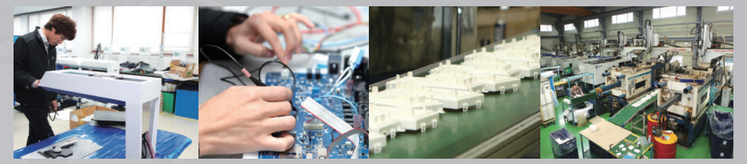
Battery Cartridge

Type	Non-rechargeable lithium (LiMn02)
Capacity	180 shocks @ 25°C, 130 shocks @ 0°C
Voltage	DC 21V & DC 9V / 1,400mAH
Standby Mode Life	Recommended five (5) years @ 25°C
Dimensions	3.3cm(H) x 15cm(W) x 11cm(D)

Electrode Pads

Shelf Life	Two (2) years, for one-time use only
Conductive Gel	PE Foam, Hydrogel
Conductive Element	AgCl (Silver Chloride)
Cable Length	2.1 meters (±1%)
Applicable Ages	All ages (12 months & older)
Sealing	Airtight
Size	125mm x 95mm
Pads Placement	Anterior-lateral (visual details on pads)

Company Introduction



Nanoom Tech Co., Ltd. is a manufacturer of medical and electronic devices in South Korea. Established in 2005 as a medical device import / export company, Nanoom Tech has dedicated a significant amount of time and resources to the development of its patented proprietary software and hardware technologies, such as the HeartPlus AED, the Image Plus (endoscope imaging software), and the BonePro (bone density diagnostics system).

Mission & Vision

Our goal is to provide businesses and governments with high quality products that are upgraded regularly through continued emphasis on research and development. We want our products to not only stay relevant in markets, but also lead the way by offering new features and solutions to enhance effectiveness and comfort for both users and patients. Since our entry into international markets in 2009, we have encountered strong demand for our products and services in over 40 countries.

History

- 2015. 09 Approval of TFDA(ReHeart)
- 2015. 09 Designated of Excellent Procurement Product(PPS)–ReHeart
- 2014. 12 Approval of JFDA (Cardiac ResQ)
- 2014. 09 Attained Certification of BMD(whole body type medical device)
- 2014. 01 CE 0120, ISO13485 : 2012, EN ISO 13485: 2012 Approved
- 2013. 04 Designated as "Digitized Projects Production Site" by NIA
- 2013. 03 Selected as "IP Star Company" by KIPA
- 2013. 03 Attained Certification of Compliance in Mexico
- 2012. 12 Designated "Next Gen World Class Company" by Korean Government
- 2012. 07 Attained Certification of TGA Compliance (Australia)
- 2012. 05 Awarded Gov't Grant – AED Manufacturing Co–work System
- 2011. 03 Recognition of Excellent Product – Gov't Procurement Office
- 2005. 08 Founded in the Republic of Korea
- 2006. 10 Medical Devices Manufacturing Approval from KFDA
- 2007. 11 Registered Online Sales Portal
- 2008. 04 Signed MOU for Joint Tech Development with GIST
- 2008. 06 Registered as Licensed Trader
- 2009. 02 Established Research & Development Center
- 2009. 07 AED Approved by the KFDA
- 2010. 01 ISO 13485 (Quality Management System of Medical Device)
- 2010. 03 Successful Registration of Two Patents for AED
- 2010. 11 Recognition of Excellent Performance - SMBA