

The Powerheart® AED Family of Products



www.cardiacscience.co.uk

The Cardiac Science Difference



OUR ROOTS

The headlines are breathtaking:

Two Quick-Thinking Teachers Save 12-Year-Old Student's Life

Two Cable Car Employees Save the Life of a Tourist

Fitness Center Workers Save New Mother's Life

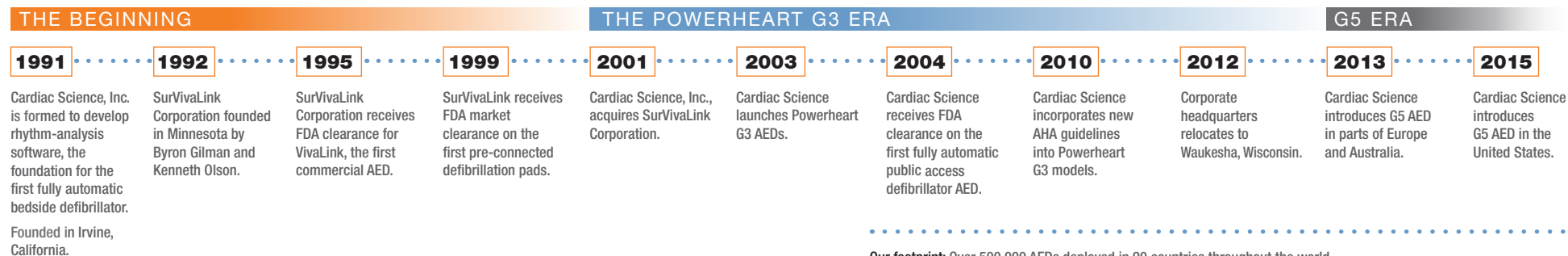
The common thread in these real-life stories? Rescuers used a Powerheart® automated external defibrillator (AED) with its green Rescue Ready® indicator that let these customers know that their device was ready for a cardiac emergency.

Welcome to Cardiac Science, a company founded in 1991 and recognised globally as a leader in developing AED technology, as evidenced by more than 100 patents to our name. We are based in the United States – yet with over 500,000 AEDs deployed globally, our presence is felt worldwide. Our singular purpose is to be the company that helps first responders increase sudden cardiac arrest (SCA) survival.

Should you ever need to deploy your AED, feel confident knowing that the technology inside your AED is built on a legacy of industry firsts.



Cardiac Science – A History of Innovation



Our footprint: Over 500,000 AEDs deployed in 90 countries throughout the world.

Our customers: Emergency services, public places, schools, gyms, sports associations, and many more.



Opening lid activates AED

RHYTHMx® Technology

RHYTHMx heart rhythm-analysis technology filters ECG signals for noise and classifies cardiac rhythms as shockable or non-shockable.

Intellisense CPR Feedback Device provides compression prompting for effective chest compression rate and depth

Variable Escalating Energy Technology

Designed to deliver customised energy needed to each patient. If more than one shock is required, the AED does not repeat the same effort. Rather, it increases the energy dose to an appropriate higher level.

Intellisense medical-grade battery communicates status and usage information to the AED

Non-Polarised AED Pads

This technology allows pads to be placed interchangeably on either location of the patient's chest – eliminating confusion and hesitation during rescue.

Fully Automatic Operation*

Also available as a semi-automatic AED.

Intellisense® Supplies

Embedded smart circuitry communicates performance condition, age and other vital information directly to your AED.

Rescue Ready® Technology

Patented Rescue Ready technology self-tests critical electrical components of the AED including medical-grade battery and rescue pads. Each day, over a half-million Powerheart® AEDs around the world account for a collective 4,100 hours of self-tests to ensure readiness.

Dual-Language Capability

Choose between two languages in select models. A touch of a button changes the voice prompts in the chosen language without restarting or delaying the rescue.

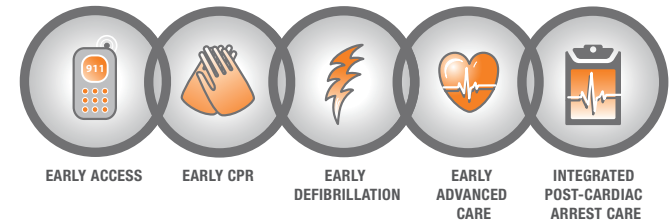
* Powerheart fully automatic AEDs may not be authorised for sale in your country. Contact Cardiac Science to determine availability.

Why You Need an AED



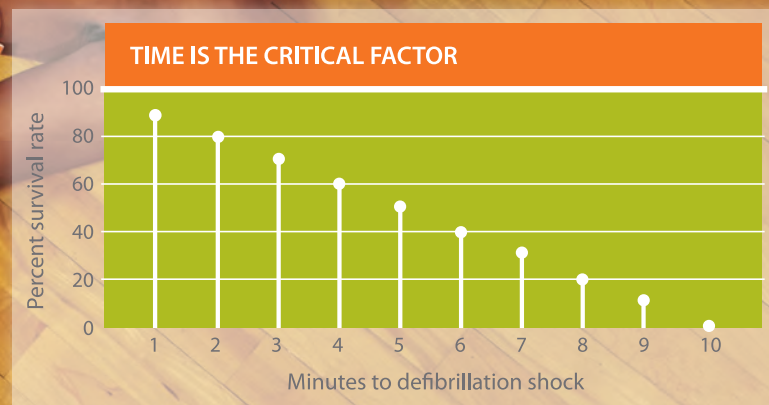
EMPOWER EVERYDAY PEOPLE TO BECOME PART OF THE CHAIN OF SURVIVAL THROUGH POWERHEART® AEDS

According to the European Resuscitation Council (ERC) approximately 350,000 people suffer SCA every year in Europe, or 1,000 people each day. SCA is triggered by an abrupt, unpredictable electrical malfunction in the heart causing an irregular heartbeat. Victims are often healthy and fit adults and children, who have no known risk factors. The sooner the defibrillation, the better the victim's chances of survival – precisely why having your own AED to use while you're waiting for emergency medical responders is so important.



TIME IS CRITICAL FOR SURVIVAL

Several studies document the effects of time to defibrillation on survival from cardiac arrest and the consensus is that minutes count: If a rescuer can provide defibrillation in the first minute, the victim's chance of survival increases to more than 90 percent. However, each minute that passes will decrease the victim's chance of survival by 7–10 percent if no defibrillation is provided.¹



1. A.S. Go et al. *American Heart Association Guidelines 2010 - Electrical Therapies*. American Heart Association Circulation, 122 (2010): S710.

Why Cardiac Science AEDs?

Five reasons to choose a Powerheart® AED

1

PATENTED RESCUE READY® TECHNOLOGY

Powerheart AEDs perform automatic daily, weekly, and monthly self-tests to monitor critical components including the internal circuitry, software, and medical-grade battery for readiness; the pre-connected defibrillation pads are also tested for both presence and functionality. If anything is amiss, the Rescue Ready indicator immediately changes from green to red and emits an audible distress tone to cue users that attention is required.

2

EASY WITHOUT COMPROMISE

A CPR feedback device, along with extensive rescue and CPR prompts, guides first-time rescuers through the stressful situation. Our innovative RescueCoach™ technology, backed by research,² guides first-time responders through the entire rescue process. And it delivers the confidence to perform a rescue. The fully automatic shock delivery feature eliminates user hesitation.³

3

ADVANCED PATIENT CARE

Each Powerheart AED includes patented RHYTHMx® technology to assess the patient's heart rhythm. Sophisticated STAR® biphasic technology delivers a customised shock at an appropriate energy level.

4

FLEXIBILITY AND DURABILITY

Powerheart AEDs are designed to be tough and have been deployed in the most challenging settings. The high-impact AED meets rugged military standards and a high ingress protection rating (IP55) against water and dust. The Powerheart G5 lets you choose from an array of prompt settings, shock protocols, and CPR settings to meet specific requirements.

5

THE PEACE OF MIND IN WORKING WITH CARDIAC SCIENCE

For more than 20 years, Cardiac Science has developed patented technologies such as fully automatic AED operation, pre-connected pads, and many other innovations that shape how first responders use AEDs to save lives. Each Powerheart is supported by an experienced global staff of AED Certified Specialists and a team of select partners to provide expert deployment consultations and training. Finally, Powerheart AEDs are built to last with a multi-year device warranty program, the industry's strongest indemnification policy, and a 4-year full operational guarantee on genuine Intellisense® non-rechargeable medical-grade batteries.

2. Peer reviewed study by Benjamin S. Abella et. al. "Untrained Volunteers Perform High Quality CPR When Using an Automatic External Defibrillator with a CPR Voice Prompting Algorithm," Circulation. 2007; 116:11_437.

3. Note: Fully automatic models are not available in every country.

SCA Heroes: David Lloyd Leisure

David Lloyd Leisure (DLL) is responsible for employee and customer safety in multiple high-volume locations. The company has health clubs throughout Europe, including 80 sites in the United Kingdom (UK) alone. With more than 440,000 members, the company receives 25 million club visits a year.

There's no legal requirement yet in the UK for fitness clubs to have AEDs on the premises, but the health and safety experts at the DLL insist on having AEDs readily accessible at every one of their busy fitness clubs. This policy, along with staff training in AED use, has made a world of difference: Since 1998, more than 100 lives have been saved at their clubs.

"It's an amazing feeling to know that the actions I took resulted in a life being saved."

– A David Lloyd Leisure team member



Power to Believe. Power to Act.

Whether you are an experienced rescuer or a first-time responder, you will appreciate how the Powerheart G5* AED combines ease of use, reliability and advanced technology to help respond to an SCA victim. The Powerheart G5 is the first AED to combine fully automatic shock delivery, dual-language functionality, variable escalating energy, fast shock times and CPR Feedback.

Powerheart® G5.

EASY TO USE

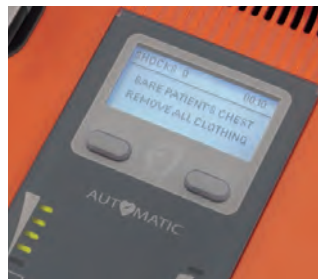
- Fully automatic shock delivery eliminates user hesitation. (Semi-automatic AED version also available.)
- Intuitive, interchangeable pad design simplifies placement.
- RescueCoach™ user-paced prompts guide users through each critical step of a rescue.
- Text prompts provide extra help in noisy and chaotic environments.
- Switch to an alternate language during a rescue with the push of a button to help more potential responders. (Available in select languages.)
- Intellisense® CPR Feedback Device when used with the Powerheart G5, provides rescuer CPR feedback to aid with effective chest compression rate and depth. Simply place and press.

ADVANCED TECHNOLOGY

- Delivers post-CPR shock in as few as 10 seconds for effective therapy.
- Assesses the patient's therapy needs and delivers customised shock at an appropriate energy level.
- Customisable prompts and protocols to meet user's needs and preferences.
- Automatically detects pediatric pads and delivers a reduced energy shock.
- Enables quick transfer and review of data via USB.

RUGGED AND RELIABLE

- Rugged, durable design for transport, storage and use in challenging settings.
- High ingress protection (IP55) against dust and water for performance in harsh environments.
- Meets rigorous military standards for shock and vibration testing.
- Rescue Ready® technology self-checks all main AED components (battery, hardware, software, and pads) daily. The AED completes a partial charge of the high-voltage electronics weekly, and a full charge monthly.
- The highly visible Rescue Ready indicator assures responders that they are retrieving a working AED.
- 8-year AED warranty.
- Medical-grade battery with a 4-year full operational guarantee.



* Contact your local Cardiac Science representative to determine availability.



Enables both professional and first-time users to swiftly provide effective, life-saving therapy.

Powerheart® G3 Plus

RELIABLE, SIMPLE-TO-USE AND RESCUE READY®

You don't become legendary overnight. The Powerheart G3 Plus* introduced industry-leading features such as fully automatic functionality, and pre-connected rescue pads. These features, and other patented technologies, provide rescuers around the world with the confidence to respond to an SCA emergency. Rescue Ready technology provides assurances that your G3 Plus will be ready when called upon while RescueCoach™ prompting guides users through the entire rescue. Available in fully automatic and semi-automatic models.



Features emergency workers need to know – heart rate, ECG waveform, number of shocks delivered, and the elapsed rescue time – are all offered on a backlit colour display.






Powerheart® G3 Pro

PUTS ADVANCED RESPONDERS IN COMPLETE CONTROL

The advanced Powerheart G3 Pro* is the industry's first AED with backlit color ECG display, manual override, and 3-lead ECG monitoring capabilities. Thanks to its RHYTHMx® analysis algorithm, the G3 Pro lets professional rescuers proactively monitor the patient's heart rhythm for life-threatening arrhythmias. This is a major benefit: The earlier a responder detects life-threatening arrhythmias, the shorter the time to defibrillation and the better the chance for survival.

* The Powerheart G3 Plus and G3 Pro are not available for sale in Europe. For all other countries, contact your local Cardiac Science representative to determine availability.

Powerheart® AEDs

	Powerheart G3 Plus	Powerheart G5	Powerheart G3 Pro
			
KEY FEATURES			
Size (H x W x D)	8 cm x 27 cm x 31 cm (3.3" x 10.6" x 12.4")	9 cm x 23 cm x 30 cm (3.4" x 9.0" x 11.8")	8 cm x 27 cm x 31 cm (3.3" x 10.6" x 12.4")
Weight (with battery and pads)	3.10 kg (6.6 lbs.)	2.6 kg (5.7 lbs)	3.10 kg (6.6 lbs.)
Fully Automatic Mode	●	●	
Semi-Automatic Mode	●	●	●
Variable Escalating Energy	●	●	●
Rescue and CPR Prompt Settings	Basic, Standard	Basic, Standard or Advanced	Professional
RescueCoach™	●	●	
Daily, Weekly, and Monthly Rescue Ready® Self Testing	●	●	●
Weekly Partial Charge of the AED High-Voltage Electronics	●	●	●
Monthly Full Charge of the AED High-Voltage Electronics	●	●	●
Dual-Language Functionality		●	
Fast Shock Functionality (<10 seconds)*		●	
Device Warranty	7 years	8 years	7 years
4-Year, Non-Rechargeable Battery Replacement Performance Guarantee	●	●	
Ingress Protection Rating	IP24	IP55	IP24
Data Transfer	Direct Connect Cable	USB Flash Drive or Direct Connect Cable	Direct Connect Cable
Recommended User Type	First-Time Rescuer and Intermediate Rescuer	First-Time Rescuer, Intermediate Rescuer and Professional Rescuer	Professional Rescuer

* Post CPR

Intellisense® Supplies & Accessories

THE INTELLISENSE FACTOR

With over 500,000 Powerheart® AEDs worldwide, it is not by chance that Intellisense batteries and pads deliver consistent and reliable performance. Only Intellisense supplies are designed with embedded smart circuitry to constantly communicate performance condition and other vital information directly to your Powerheart AED.

With Intellisense supplies installed, you and your Powerheart AED are protected by a multi-year product warranty and the industry's strongest indemnification policy.

When you're responding to a cardiac arrest, every second is critical. Take advantage of every second with Intellisense AED supplies from Cardiac Science.

INTELLISENSE BATTERIES FOR POWERHEART AEDS

Intellisense battery circuitry works with patented Rescue Ready® technology to communicate battery performance, capacity, and other vital information directly to your Powerheart AED. Other devices require as many as ten digital camera batteries for power. Only one genuine Intellisense medical-grade battery is required to provide your Powerheart AED with years of unmatched performance. In fact, each new Intellisense non-rechargeable battery comes with a 4-year performance guarantee.



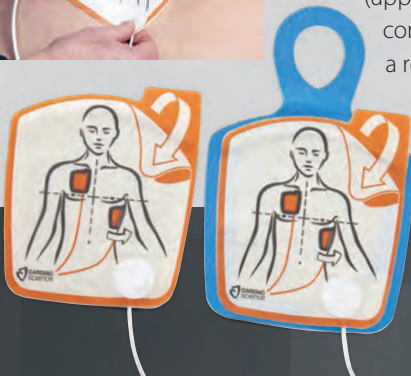
INTELLISENSE CPR FEEDBACK ELECTRODES

Intellisense CPR Feedback Electrodes ensure effective chest compression rate and depth. No complicated assembly or special preparation required; simply place and press.



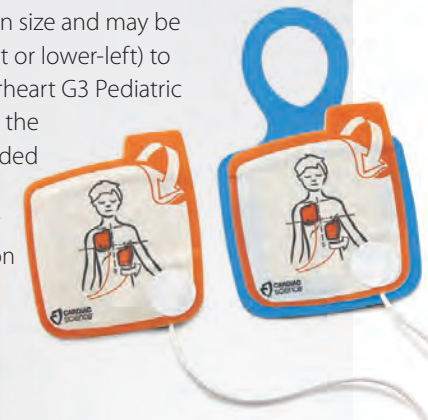
INTELLISENSE DEFIBRILLATION PADS FOR POWERHEART AEDS

Intellisense Defibrillation Pads for adults use the pre-connected connector, a technology originally developed by Cardiac Science to expedite the rescue process. Intellisense non-polarised defibrillation pads may be placed in either position on the chest (upper-right or lower-left) to reduce confusion and save you time during a rescue.



INTELLISENSE PEDIATRIC DEFIBRILLATION PADS FOR POWERHEART G5 AED

Intellisense Pediatric Defibrillation Pads are small in size and may be placed in either position on the chest (upper-right or lower-left) to reduce confusion and expedite the rescue. Powerheart G3 Pediatric Pads use a special attenuator to reduce energy to the pediatric patient. The Powerheart G5 uses embedded circuitry to quickly detect the pad style and automatically adjusts the AED to pediatric energy and CPR protocols. Intellisense Pediatric Defibrillation Pads are for patients 8 years of age or younger or who weigh less than 55 pounds.



Rescue Ready® Services



RESCUE READY® SERVICES

Cardiac Science Rescue Ready® AED Management Services is an investment toward making your organisation heart safe. As your program service partner, we can perform an on-site assessment of your facility to determine the ideal number and location of your devices. AED/CPR training and, other essential components of your heart safe program. Cardiac Science Rescue Ready AED Management Services is available in most regions. Contact Cardiac Science for availability of this program in your area.



To see the full list of accessories
for your Powerheart® AEDs, visit:
www.cardiacscience.co.uk

At the Heart of Saving Lives®

Founded in 1991 on the guiding principle that AEDs must be simple to use and ready when called upon, Cardiac Science is the leader in developing AED technology.

We are based in the United States yet our presence extends globally, with over 500,000 AED deployed worldwide. We are the company that helps first responders increase sudden cardiac arrest survival rates.

Cardiac Science Corporation • N7 W22025 Johnson Drive, Suite 100, Waukesha, WI 53186 USA

Orders and Customer Care • 262.953.3500 • US toll-free 800.426.0337 • Fax: 262.953.3499 • care@cardiacscience.com

Technical Support • 262.953.3500 • US toll-free 800.426.0337 • Fax: 262.798.5236 • techsupport@cardiacscience.com

Cardiac Science International A/S • Willemoesgade 8 kld. th., DK 2100 Copenhagen, Denmark • +45.4438.0500 • Fax: +45.4438.0501 • international@cardiacscience.com

United Kingdom • +44.161.926.0000 • sales@cardiacscience.co.uk | **France** • +33.4.42.12.37.91 • france@cardiacscience.com | **Benelux** • +32.54.32.57.66

benelux@cardiacscience.com | **Italy** • +39.0523.1901052 • italia@cardiacscience.com | **Germany** • +49.2422.183074 • international@cardiacscience.com

Iberia • +39.0523.1901052 • iberia@cardiacscience.com

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