CARDIAC SCIENCE

June 12, 2006

Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston, WV 25305-0130

RE: (RFQ) Request for Quotation #CRH60352 (AED) Automated External Defibrillator Equipment

This letter is in response to the above name solicitation that was received by us on May 16, 2006. We are pleased to provide you with information about our Powerheart AED G3, which offers superior demonstrative features. Also, please note that in Sudden Cardiac Arrest is a stressful situation that requires the "First Responder" to act quickly and decisively to save a person's life! All the key features of the Powerheart AED G3 have been built into the AED with the "Lay Rescuer" in mind.

Please note Cardiac Science Corporation's key features of our Powerheart G3 outlined as follows:

- Rescue Ready Reliability: Patented Daily, Weekly, and Monthly self-tests ensure that the Powerheart G3 is ready when you need it most.
- Ease of Use Features: Upon lid opening, Powerheart turns on - No buttons to push or be confused with, Lit Text Screen - Mirrors voice instruction. Patented Battery Gauge - tells user exactly how much power is left.
- Advanced Therapy Technology - 2003 Patented STAR BIPHASIC Waveform. This customized variable escalating energy is delivered based on patient's own "impedance" and can deliver 3 shocks in 55 sec. Non Committed Shock Feature, Pace Pulse Detection - Rejection , Monitoring During CPR Mode Option, and Synchronized Shock - Only AED on market to have this advanced life saving feature (Energy Range 105J-360J). Patented Battery Back-up System (9 shock battery back - up) Patented Battery with up to 290 shock capability....never needs to be recharged and industry first!
- Warranties: AED Warranty - 7 Years...Best in the industry by 2 years / 4 year Battery with 4 year "operation guarantee" No other manufacturer can make this bold claim and back it up!

We have noted that the bid specifications are intended for the ZOLL AED+ unit and ask that you consider the following bullet points regarding their AED Plus before making your final decision (please also see attached features comparison):

- Uses Consumer Grade Camera Batteries (Not long-life batteries which will require you to make future purchases. Purchases have to be made from retail stores which may be closed)
- NO Battery Gauge (No Guarantees that your AED unit will be in working order when you need it)
- Weekly NOT Daily Self-Test (No Guarantees)
- Maintenance of AED requires user to manually test (No Guarantees)
- Does not Test all 5 critical AED components Daily: Battery, Pads for Functionality, Internal Circuitry, Software & ECG (How can this AED be Rescue Ready at all times!)
- Busy & Confusing Interface
- CPR Function will only coach user 1x per CPR Cycle - Clarification: It will only give feedback "PUSH HARDER" until you do the correct compression depth "GOOD COMPRESSIONS". After that statement is made, the Zoll AED+ will no longer give the user feedback during that minute of CPR now 2 minutes of CPR if following New AHA Guidelines! If the user gets fatigued (which we all know to be the case during CPR) the Zoll AED+ will not continually correct your rate and depth of compressions

Please find enclosed our proposal offering completed per the RFQ instructions as attached. Please note that we have thoroughly reviewed your terms and conditions within and have not noted any exceptions. Also, we have thoroughly reviewed your bid specifications as stated within and we comply or exceed these specifications with the exception of the following statement:

"The Battery power shall be a combined total of 11 volts or greater, of either sulfuryl chloride or manganese dioxide lithium type."

Cardiac Science uses IntelliSense Lithium Sulphur Dioxide batteries for our AED units. These batteries have a shelf life of 5-years and come with a 4-year unconditional replacement guarantee. We do not require the use of a 2nd or spare battery due to our advanced battery technology (SMARTGAUGE BATTERY STATUS INDICATOR). The battery status indicator has five (5) LED's which act as a fuel gauge determining the battery capacity. If the battery is low, the red indicator LED lights up, a "Battery Low" prompt will be issued at once. However, the AED is capable of delivering at least 9 more defibrillation shocks after the first "Battery Low" prompt is issued. Also, when the AED battery cannot deliver any more shocks, the AED display will show "Battery Low", the STATUS INDICATOR will be RED as opposed to GREEN, and the device will "beep" every 30 seconds.

We would welcome your business and look forward to hearing from you in the near future. If you have further questions or need additional information, please call me on my direct extension at 425-402-2321.

Thank you for this opportunity!

Sincerely,
Jeanne Thompson
Sales Support Coordinator

AED Features Comparison

	Cardiac Science Powerheart AED G3 Automatic	Zoll AED Plus
Manufacturer		
Product Model		
FEATURES		
Reliability		
Daily self-test of all 3 critical components	Yes	No
Electrodes tested for presence	Yes	Yes
Electrodes tested for functionality	Yes	No
Visible battery capacity gauge	Yes	No
Daily self-test	Battery, internal circuitry, software, electrodes for presence and function	No
Weekly partial energy self-test	Yes	Yes
Monthly full energy self-test	Yes	No
Status indicator	Visible and audible	Visual and audible
Ease of Use		
Buttons to operate	0	2
Automatic functionality	Yes	No
Pre-connected electrodes	Yes	Yes
Non-polarized electrodes	Yes	No
Text display	Yes	Yes
Additional electrode placement prompts	Yes	No
Enhanced CPR prompts	Yes	Yes
Technology		
Biphasic Technology		
Energy Range	Variable Energy, Escalating, 165-360 J	Fixed Energy, Escalating, 120, 150, 200 J
Energy protocol options	Yes	Yes
First shock efficacy 1, 2	100%	99%
Average # of Shocks Per Patient	2.3	Unknown
Average Time to Successful Defibrillation	55 seconds	Unknown
Analysis algorithm		
Programmable VF/VT rate, detection rate	Yes, 120-240 bpm	No, 150 bpm
Asystole threshold (mV)	0.08	0.10
Noise (artifact) detection during analysis	Yes	Yes
Non-committed shock	Yes	No
Monitoring during CPR mode option	Yes	No
Optional SVT therapy	Yes	No
Synchronized shock	Yes	No
Pacemaker pulse detection	Yes	No
Added Features		
Internal memory for ECG data	34 minutes	20 minutes
Compatible with Manual Defibrillators	Yes	Yes
Pediatric Capability		
Pediatric electrodes	Yes	Yes
Warranty		
AED warranty	7 years	5 years
Battery warranty	4 years*	none if purchased through consumer, 1 year from factory

*Full Operational Replacement

AED Features Comparison

Manufacturer Product Model FEATURES	Cardiac Science Powerheart AED G3	Zoll AED Plus
Reliability		
Daily self-test of all 3 critical components	Yes	No
Electrodes tested for presence	Yes	Yes
Electrodes tested for functionality	Yes	No
Visible battery capacity gauge	Yes	No
Daily self-test	Battery, internal circuitry, software, electrodes for presence and function	No
Weekly partial energy self-test	Yes	Yes
Monthly full energy self-test	Yes	No
Status indicator	Visible and audible	Visual and audible
Ease of Use		
Buttons to operate	1	2
Pre-connected electrodes	Yes	Yes
Non-polarized electrodes	Yes	No
Text display	Yes	Yes
Additional electrode placement prompts	Yes	No
Enhanced CPR prompts	Yes	Yes
Technology		
Biphasic Technology		
Energy Range	Variable Energy, Escalating, 105-360 J	Fixed Energy, Escalating, 120, 150, 200 J
Energy protocol options	Yes	Yes
First shock efficacy [1, 2]	100%	99%
Average # of Shocks Per Patient	2.3	Unknown
Time to Successful Defibrillation	55 seconds	Unknown
Analysis algorithm		
Programmable VF/VT rate, detection rate	Yes, 120-240 bpm	No, 150 bpm
Asystole threshold (mV)	0.08	0.10
Noise (artifact) detection during analysis	Yes	Yes
Non-committed shock	Yes	No
Monitoring during CPR mode option	Yes	No
Optional SVT therapy	Yes	No
Synchronized shock	Yes	No
Pacemaker pulse detection	Yes	No
Added Features		
Internal memory for ECG data	60 minutes	20 minutes
Compatible with Manual Defibrillators	Yes	Yes
Multiple Rescue Functionality	Yes	No
Pediatric Capability		
Pediatric electrodes	Yes	Yes
Warranty		
AED warranty	7 years	5 years
Battery warranty	4 years*	none if purchased through consumer, 1 year from factory

*Full Operational Replacement

1. Bain AC, et al., Ann Emerg Med, 2001;37:6-12

CARDIAC SCIENCE

Investor Contact
Mike Matysik
Cardiac Science Corp.
Sr.Vice President and CFO
(425) 402-2009

Cardiac Science Powerheart® AEDs Will Meet New AHA and ERC Resuscitation Guidelines

BOTHELL, WA – January 10, 2006 – Cardiac Science Corporation, (NASDAQ: CSCX), a global leader in advanced cardiac monitoring and defibrillation products, announced today that its entire line of Powerheart® automated external defibrillators (AEDs) will meet the newly updated American Heart Association (AHA) Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, as well as the recently released European Resuscitation Council (ERC) Guidelines for Resuscitation.

Future Powerheart® AEDs will fully incorporate the new guidelines. In addition, all Powerheart® AEDs currently in use today are capable of being reconfigured to support the new recommended one-shock defibrillation protocol. Software updates to implement the new guidelines in current Powerheart® AEDs will be available during 2006.

Many customers already regard Powerheart® AEDs as the easiest-to-use, most technologically-advanced available. Powerheart® AEDs include patented Rescue Ready® technology to assure functionality when needed to rescue a sudden cardiac arrest victim. Powerheart® AEDs also incorporate the company's patented RHYTHMx® analysis software, which boasts 100 percent sensitivity in detecting life-threatening heart rhythms, as well as its STAR® biphasic shock technology which determines, based on each patient's unique physiology, the amount of defibrillation energy needed to successfully restore a victim's heartbeat. Daily automatic self-testing for the presence

and functionality of pre-connected defibrillation electrodes, a self-contained battery system with an integrated memory chip that automatically stores important operational history, and hardware components that help ensure reliability offer distinct advantages compared to competitive devices.

About AEDs

According to the AHA, the odds of surviving sudden cardiac arrest decrease by approximately 10 percent for every minute that passes, and wide deployment of AEDs could save as many as 50,000 lives in the United States annually. AEDs are designed to quickly and easily provide a life-saving defibrillation shock to restore normal heart rhythm to a cardiac arrest victim and, as appropriate, to instruct the user to perform CPR in order to temporarily circulate oxygenated blood to the brain and body of a victim who is unable to sustain circulation.

AEDs are currently used by first responders such as police, fire and ambulance personnel. They are also increasingly being deployed at places where people gather or work, such as airplanes, airports, train stations, corporate offices, factories, schools, shopping malls, stadiums, restaurants, casinos and federal, state, municipal and commercial buildings.

About the New AHA Guidelines

The new AHA guidelines are based on the evidence evaluation from the 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, which was hosted by the AHA last year. The guidelines contain recommendations designed to improve survival from sudden cardiac arrest and acute life-threatening cardiopulmonary problems.

The recommendations in the new guidelines confirm the safety and efficacy of many approaches, acknowledge that other approaches may not be optimal, and recommend new treatments that have undergone evidence evaluation. However, the AHA has emphasized that these new and revised treatment recommendations do not imply that care involving

the use of earlier guidelines is unsafe. For more information about the new AHA guidelines, visit the AHA website at www.americanheart.org.

About Cardiac Science Corporation

Cardiac Science Corporation develops, manufactures, and markets a family of advanced diagnostic and therapeutic cardiology devices and systems, including automated external defibrillators, electrocardiographs, stress test systems, Holter monitoring systems, hospital defibrillators, cardiac rehabilitation telemetry systems, patient monitor - defibrillators and cardiology data management systems. Cardiac Science Corporation also sells a variety of related products and consumables, and provides a comprehensive portfolio of training, maintenance and support services. The company is the successor to various entities that have owned and operated cardiology-related businesses which sold products under the trusted brand names Burdick®, Powerheart®, and Quinton®. Cardiac Science Corporation is headquartered in Bothell, WA, and also has operations in Lake Forest, California, Deerfield, Wisconsin, Shanghai, China, Copenhagen, Denmark and Manchester, United Kingdom.

Forward Looking Statements

This press release contains forward-looking statements. The words "believe," "expect," "intend," anticipate," variations of such words, and similar expressions identify forward-looking statements, but their absence does not mean that the statement is not forward-looking. These are forward-looking statements for purposes of the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. Actual results may vary significantly from the results expressed or implied in such statements. Factors that could cause or contribute to such varying results and other risks are more fully described in the registration statement on Form S-4/A that was filed by Cardiac Science Corporation under the name CSQ Holding Company on July 28, 2005, under the caption "Risk Factors," and in the Annual Reports of Quinton Cardiology Systems, Inc. and Cardiac Science, Inc. on Form 10-K for the year ended December 31, 2004, under the captions "Certain Factors that May Affect Future Results" and in other documents, we file with the Securities and Exchange Commission. Cardiac Science Corporation undertakes no duty or obligation to update the information provided herein.

CARDIAC SCIENCE

In Partnership with The State of West Virginia

Cardiac Science Corporation is pleased to be considered as your exclusive business partner that will provide 90 Automated External Defibrillators (AED) s and Trainers to be shipped to The Department of Health and Human Resources. According to the (AHA), the odds of surviving sudden cardiac arrest decrease by approximately 10 percent for every minute that passes, and wide deployment of (AED)'s could save as many as 50,000 lives in the United States annually. Cardiac Science is passionately committed to improving survival rates, and we believe we offer unmatched experience, service and technology that provide the basis for a highly successful deployment of AED's and Trainers.

Cardiac Science will offer the following:

- **Provide the State of West Virginia with Automated External Defibrillators (Powerheart G3 Automatic or Semi-Automatic) that will meet the newly updated American Heart Association (AHA) Guidelines for CPR /ECC/ERC and that include 70 + patents that no other AED can offer.**

Reliability & Warranty

Only AED that offers:

- ✓ Patented Rescue Ready technology that assures first-time, ever-time shock delivery (See attachment entitled "Cardiac Science Patented Technology)
- ✓ Patent and capability for pre-connected, functionality-tested electrodes
- ✓ Automatic daily, weekly, and monthly self-testing of ALL critical components (software/electronics, pads, battery)
- ✓ Automatic monthly *full energy* tests – simulates a full rescue every month!
- ✓ *Downloadable, comprehensive self-test history* that proves device was maintained and all components were functional at time of rescue
- ✓ 7-year parts & labor warranty on device
- ✓ 4-year, unconditional full-replacement battery guarantee from date of installation

Ease-of-Use

Only AED that offers:

- ✓ *Zero-button operation* (mitigates risks associated with rescuer fears), combined with pre-connected electrode pads that are labeled for interchangeable position (non-polarized)
- ✓ Intelligent *voice and text* prompts – prompts "watch and wait" for rescuer to complete critical steps, and text display mimics voice prompts to facilitate rescues in loud environments or by hearing-impaired rescuers
- ✓ Patented battery gauge for immediate, equipment-free battery capacity check

Advanced Technology

Only AED that offers:

- ✓ RHYTHMx analysis algorithm with 100% sensitivity (ability to identify shockable rhythms) and 99.4% specificity (ability to classify non-shockable rhythms)
- ✓ STAR Biphasic defibrillation algorithm with variable, escalating energy to *customize the energy* of the shock therapy accordingly and delivery a *synchronized shock* for maximum efficacy
- ✓ Engineered battery that stores history & usage data.

Industry-Leading Technology combined with Low Total Cost of Ownership
Industry-leading warranties – No service contract required – No spare battery needed

RESCUE READY®

POWERED BY RHYTHMX® TECHNOLOGY

STAR® BIPHASIC

CARDIAC SCIENCE

CARDIAC SCIENCE CORPORATION

CORPORATE OVERVIEW

Cardiac Science Corporation (Nasdaq: CSCX) is a global leader in developing, manufacturing and marketing diagnostic and therapeutic cardiology products and services.

Formed by the merger of Cardiac Science, Inc. and Quinton Cardiology Systems, Inc., the company employs more than 550 people worldwide. Headquartered near Seattle, WA, the company also has operations in California, Wisconsin, China, Denmark and the United Kingdom.

The strategic benefits of the merger are significant – including substantial operational savings, stronger distribution networks, enhanced customer service and greater technology capabilities to support cutting-edge product development.

Three Trusted Brands, One New Company.
By leveraging the market leadership of its predecessor companies and their established brands – Burdick®, Powerheart®, and Quinton® – Cardiac Science Corporation is uniquely positioned to achieve significant growth in both established and emerging cardiology market segments.

A Broad Range of Cardiology Products and Services.
Cardiac Science Corporation provides a full spectrum of cardiology products and services that protect hearts and save lives.

From individual devices designed to identify the early stages of heart disease—such as Electrocardiographs, Cardiac Stress Testing Systems, and Holter Monitors—to sophisticated systems that enable Cardiac Rehabilitation and Cardiology Data Management, as well as life-saving, innovative and patented automated external defibrillators (AEDs) for both medical and non-medical markets, Cardiac Science Corporation offers solutions across the entire continuum of cardiac care.

A variety of related products and supplies, as well as superior customer and technical support through a comprehensive portfolio of training, maintenance and service programs, are also available to accommodate diverse budgets and needs.

Moving Forward.
Led by a seasoned management team experienced with both publicly held and medical device companies, Cardiac Science Corporation is well-positioned to expand its business into new global markets to maximize profitability and future growth opportunities.

3303 Monte Villa Parkway, Bothell, WA 98021-8969
Phone: 425.402.2000 www.cardiacscience.com

CARDIAC SCIENCE

CARDIAC SCIENCE CORPORATION

FACT SHEET

COMPANY	Cardiac Science Corporation, formed by the merger of Cardiac Science and Quinton Cardiology Systems, is a global leader in developing, manufacturing and marketing diagnostic and therapeutic cardiology products and services.
STOCK SYMBOL and EXCHANGE	NASDAQ: CSCX
ESTABLISHED	2005
LEADERSHIP	John R. Hinson, Chief Executive Officer Michael K. Matysik, Chief Financial Officer
WORLD HEADQUARTERS	Bothell, Washington
LOCATIONS	Lake Forest, California Deerfield, Wisconsin Shanghai, China Copenhagen, Denmark Manchester, United Kingdom
EMPLOYEES	550+
REVENUES	Approximately $160M
PRODUCTS and SERVICES	The company's broad range of products include automated external defibrillators, electrocardiographs, stress test systems, Holter monitoring systems, hospital defibrillators, cardiac rehabilitation telemetry systems, patient monitor-defibrillators and cardiology data management systems. The company also sells a variety of related products and consumables, and provides a comprehensive portfolio of training, maintenance and support services.
RECOGNITION (2004 -05)	• *Association for Corporate Growth Seattle*, Regional Emerging Growth Award (Quinton) • *Deloitte Technology Fast 500*, Ranked 4th (Cardiac Science) • *Frost & Sullivan*, Product Innovation Award (Quinton) • *Health Industry Distributors Association*, Product of the Year (Quinton) • *Puget Sound Business Journal*, Top 10 Fastest Growing Public Companies (Quinton) • *Wisconsin Manufacturer of the Year*, Grand Award (Quinton)
WEB SITE	www.cardiacscience.com
MEDIA CONTACT	Traci Paulk, The Fearey Group for Cardiac Science Corp. tpaulk@fearеygroup.com, (206) 343-1543

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CARDIAC SCIENCE

CARDIAC SCIENCE CORPORATION

LEADERSHIP

John R. Hinson
President and Chief Executive Officer

John R. Hinson serves as President and CEO of Cardiac Science Corporation, a global leader in developing, manufacturing and marketing cardiology products and services, which was formed by the merger of Cardiac Science and Quinton Cardiology Systems.

Prior to the merger, Hinson held a number of key roles at Quinton. He joined the company in 1999 as Executive Vice President of Operations and CFO. He was promoted to President and COO in 2000 and named CEO in 2003. During his tenure, Hinson played a pivotal role in Quinton's corporate turnaround, growing the company by refocusing its core business strategy and increasing R&D investment to capture market-leading advantage. He was also instrumental to Quinton becoming one of only seven medical companies to successfully complete an IPO in 2002.

Hinson's extensive background and experience includes executive positions in publicly traded companies as well as in the medical device sector. His executive roles included CFO at aerospace electronics company DeCrane Aircraft Holdings, where he participated in that company's IPO and follow-on offerings, as well as its overall growth from $55 million to $225 million. Earlier, he held executive positions in finance and operations at Minimed, a medical device company, also helping position it for a successful IPO. He previously held finance positions at Hewlett-Packard and Bankers Trust Company, and was also an officer in the United States Army, where he attained rank of Captain.

Hinson is currently a board member of the Educational Foundation of the Health Industry Distributors Association, the Washington Biotechnology and Biomedical Association and the King County Chapter of the American Heart Association.

The *Puget Sound Business Journal* selected Hinson as one of its "40 Under 40" honorees in 2001, which spotlights the next generation of dynamic business leaders in the greater Seattle region. He holds an MBA in Finance from the Anderson Graduate School of Management at UCLA and a BA in Economics from Claremont McKenna College.

CARDIAC SCIENCE

CARDIAC SCIENCE CORPORATION
LEADERSHIP

Michael K. Matysik
Senior Vice President, Chief Financial Officer and Secretary

Michael K. Matysik serves as Senior Vice President, Chief Financial Officer and Secretary of Cardiac Science Corporation., a global leader in developing, manufacturing and marketing cardiology products and services, which was formed by the merger of Cardiac Science and Quinton Cardiology Systems.

Matysik previously served as Senior Vice President, Chief Financial Officer and Secretary of Quinton, where his strategic guidance was vital in developing the company's track record of strong financial performance and success.

Prior to joining Quinton, Matysik served as Executive Vice President and CFO of DMX Music and Vice President and CFO of AEI Music Network, Inc. – both global media and technology companies. Matysik completed numerous acquisitions and financings aggregating over $200 million in these roles and led the merger AEI and DMX, creating a leading global media and technology player.

Matysik also has extensive experience in the medical diagnostic services and products industry. He grew professionally with publicly held Nichols Institute through many roles, until it attained $300 million in revenue. He was instrumental in the sale of Nichols to Corning, then serving the new Corning Nichols Institute as VP, Finance.

Prior to that, Matysik was a Manager at Deloitte & Touche in the Emerging Business Services Group, where he advised clients through numerous mergers, acquisitions and public offerings.

Matysik is currently a member of the American Institute of Certified Public Accountants (AICPA) and the CFO Roundtable, as well as a former board member of Abacus Engineered Systems. He holds an MBA from the University of Southern California and a BA in Business Administration from the University of Washington.

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CARDIAC SCIENCE

CARDIAC SCIENCE CORPORATION
HISTORY

The formation of Cardiac Science Corporation represents the merger of two companies with significant legacies of success.

Cardiac Science, Inc.
With an award-winning technology portfolio backed by the strength of its intellectual property, Cardiac Science has steadily grown to become a leading brand name in developing life-saving automated external defibrillators (AEDs) for both the medical and non-medical markets.

Cardiac Science has been a publicly traded company since its 1991 spin-off to the shareholders of Medstone International, Inc. In 1999, the company launched its initial commercial product, Powerheart®, the first fully automatic hospital bedside monitor-defibrillator. Powerheart® monitors a patient's heart activity, accurately identifies life-threatening arrhythmias, and immediately administers defibrillation shock(s) without human intervention.

The company strategically expanded its business and product portfolio in late 2001 by acquiring Survivalink Corporation, a privately-held developer and manufacturer of AEDs and one of the world's first developers of AED technology. The Powerheart® AED was the first product resulting from the merger combining Survivalink's biphasic waveform technology and AED expertise with Cardiac Science's advanced cardiac arrhythmia detection software.

In 2001, the company expanded its international distribution capability by acquiring Copenhagen-based Artema Medical AB, a manufacturer of bedside multi-parameter patient monitors and traditional external defibrillators. The 2003 acquisition of Compliant Corporation, the largest provider of workplace AED and CPR training and program management, further strengthened the company's position as the leading supplier of AEDs to corporate America. Over 125,000 Cardiac Science AEDs are currently deployed in over 50 countries around the world.

Quinton Cardiology Systems, Inc.
With over a half-century of history and experience in delivering high-quality cardiology products and services, Quinton is one of the most respected and recognized cardiac monitoring device companies in the world, and is currently the market leader in both cardiac stress testing and cardiac rehabilitation telemetry.

Founder Wayne Quinton's collaboration with Dr. Robert Bruce of the University of Washington in the early 1950's led to the groundbreaking invention of the world's first treadmill system for use in cardiac stress testing, which is still one of the most widely used diagnostic cardiology procedures to evaluate and manage heart disease. Originally founded in 1953, Quinton's presence in the medical devices market was significantly strengthened in the late 1990s as a dynamic new management team refocused its product portfolio and increased R&D investments. Quinton later became one of only seven medical technology companies to complete a successful IPO in 2002.

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As a result of Quinton's acquisition of Burdick Inc. in 2003, the company nearly doubled in size and demonstrated management's ability to successfully combine a substantial business into its existing operations while continuing to deliver strong financial performance and sustained market growth.

Burdick's more than 50 year track record of producing advanced diagnostic cardiology products provided a natural complement to Quinton's existing technology portfolio and significantly expanded distribution channels for the combined company. Over 75,000 systems are currently installed under the Quinton and Burdick brand names, representing one of the largest installed system bases around the world.

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State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
CRH60352	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR

*209125944 949-797-3867
Cardiac Science Corporation
1900 Main Street #700
Irvine, CA 92614-7328

SHIP TO

HEALTH AND HUMAN RESOURCES
BPH - COMMUNITY & RURAL HEALTH

350 CAPITOL STREET, ROOM 515
CHARLESTON, WV
25301-3716 304-558-4109

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/11/2006				

BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

REQUEST FOR QUOTATION

THE WEST VIRGINIA DIVISION OF PURCHASING IS SOLICITING BIDS FOR THE OFFICE OR EMERGENCY MEDICAL SERVICES TO PROVIDE AUTOMATIC EXTERNAL DEFIBRILLATORS (AED) AND AUTOMATIC EXTERNAL DEFIBRILLATOR (AED) TRAINERS.

PLEASE NOTE THE ROLLOWING ATTACHMENTS:
1) CRH60352 AED BID SPECIFICATIONS 2006.
2) AFFIDAVIT

0001	90	EA		964-26	$995.00	$89,550.00

AUTOMATIC EXTERNAL DEFIBRILLATORS (AED) UNITS

ZOLL AED PLUS, PS SERIES - OR EQUAL
MANUFACTURER MUST SUPPLY SPECIFICATIONS FOR COMPARISON AND COPIES OF TECHNICAL MANUALS; IF BIDDING OTHER THAN ZOLL.
ALL UNITS MUST BE NEW, NOT RE-MANUFACTURED, MEET FDA APPROVAL, AND HAVE NO CURRENT FDA RECALL.

ALL BIDS FOR AED'S MUST INCLUDE BATTERIES AND PADS FOR EACH UNIT.

/

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.

2. The State may accept or reject in part, or in whole, any bid.

3. All quotations are governed by the ***West Virginia Code*** and the ***Legislative Rules*** of the Purchasing Division.

4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required registration fee. (Effective June 8, 2006, the fee will change from $45.00 to $125.00 pursuant to House Bill 4031.)

5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.

6. Payment may only be made after the delivery and acceptance of goods or services.

7. Interest may be paid for late payment in accordance with the ***West Virginia Code.***

8. Vendor preference will be granted upon written request in accordance with the ***West Virginia Code.***

9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.

11. The laws of the State of West Virginia and the ***Legislative Rules*** of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.

12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.

13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.

14. **HIPAA Business Associate Addendum** - The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.

2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.

3. Complete all sections of the quotation form.

4. Unit prices shall prevail in cases of discrepancy.

5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.

6. **DUPLICATE BIDS:** All quotations must be delivered by the bidder to the respective offices listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

ORIGINAL SIGNED BID TO:	DUPLICATE BID TO:
Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	State Auditor's Office Bid Observer Building 1 Room W114 1900 Kanawha Boulevard, East Charleston, WV 25305-0230

NOTICE: Beginning June 8, 2006, there is no need to submit a duplicate bid to the State Auditor's Office pursuant to House Bill 4031.

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

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CRH60352	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
BPH - COMMUNITY & RURAL HEALTH

350 CAPITOL STREET, ROOM 515
CHARLESTON, WV
25301-3716 304-558-4109

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/11/2006				

BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0002	90	EA		964-26	$ 245.00	$ 22,050.00

AUTOMATIC EXTERNAL DEFIBRILLATOR (AED) TRAINERS

ZOLL AED PLUS, PS SERIES TRAINERS - OR EQUAL
MANUFACTURER MUST SUPPLY SPECIFICATIONS FOR COMPARISON AND COPIES OF TECHNICAL MANUALS, IF BIDDING OTHER THAN ZOLL.
ALL TRAINERS MUST BE NEW, NOT RE-MANUFACTURED, MEET FDA APPROVAL AND HAVE NO CURRENT FDA RECALL.

ALL BIDS FOR TRAINERS MUST INCLUDE BATTERIES AND PADS FOR EACH UNIT.

THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.

VENDOR PREFERENCE CERTIFICATE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 435-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 60130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
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304-558-0067

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SHIP TO
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350 CAPITOL STREET, ROOM 515
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CERTIFICATION AND APPLICATION* IS HEREBY MADE FOR PREFERENCE IN ACCORDANCE WITH WEST VIRGINIA CODE, 5A-3-37 (DOES NOT APPLY TO CONSTRUCTION CONTRACTS).

A. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:

( ) BIDDER IS AN INDIVIDUAL RESIDENT VENDOR AND HAS RESIDED CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR

( ) BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR 80% OF THE OWNERSHI INTEREST OF BIDDER IS HELD BY ANOTHER INDIVIDUAL, PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR WHO HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR

( ) BIDDER IS A CORPORATION NONRESIDENT VENDOR WHICH HAS AN AFFILIATE OR SUBSIDIARY WHICH EMPLOYS A MINIMUM OR ONE HUNDRED STATE RESIDENTS AND WHICH HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA CONTINUOUSLY FOR THE FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION.

B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

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( ) BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR 80% OF THE OWNERSHI INTEREST OF BIDDER IS HELD BY ANOTHER INDIVIDUAL, PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR WHO HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR

( ) BIDDER IS A CORPORATION NONRESIDENT VENDOR WHICH HAS AN AFFILIATE OR SUBSIDIARY WHICH EMPLOYS A MINIMUM OF ONE HUNDRED STATE RESIDENTS AND WHICH HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA CONTINUOUSLY FOR THE FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION.

B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2317 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
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2019 Washington Street East
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Request for Quotation

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CRH60352	4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
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SHIP TO
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350 CAPITOL STREET, ROOM 515
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BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

( ) BIDDER IS A RESIDENT VENDOR WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES WORKING ON THE PROJECT BEING BID ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID;
OR
( ) BIDDER IS A NONRESIDENT VENDOR EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS OR IS A NONRESIDENT VENDOR WITH AN AFFILIATE OR SUBSIDIARY WHICH MAINTAINS ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES OR BIDDERS' AFFILIATE'S OR SUBSIDIARY'S EMPLOYEES ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID.

BIDDER UNDERSTANDS IF THE SECRETARY OF TAX & REVENUE DETERMINES THAT A BIDDER RECEIVING PREFERENCE HAS FAILED TO CONTINUE TO MEET THE REQUIREMENTS FOR SUCH PREFERENCE, THE SECRETARY MAY ORDER THE DIRECTOR OF PURCHASING TO: (A) RESCIND THE CONTRACT OR PURCHASE ORDER ISSUED; OR (B) ASSESS A PENALTY AGAINST SUCH BIDDER IN AN AMOUNT NOT TO EXCEED 5% OF THE BID AMOUNT AND THAT SUCH PENALTY WILL BE PAID TO THE CONTRACTING AGENCY OR DEDUCTED FROM ANY UNPAID BALANCE ON THE CONTRACT OR PURCHASE ORDER.

BY SUBMISSION OF THIS CERTIFICATE, BIDDER AGREES TO DISCLOSE ANY REASONABLY REQUESTED INFORMATION TO THE PURCHASING DIVISION AND AUTHORIZES THE DEPARTMENT OF TAX AND REVENUE TO DISCLOSE TO THE DIRECTOR OF PURCHASING APPROPRIATE INFORMATION VERIFYING THAT BIDDER HAS PAID THE REQUIRED BUSINESS TAXES, PROVIDED

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396

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ADDRESS CORRESPONDENCE TO ATTENTION OF:
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SHIP TO
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BPH - COMMUNITY & RURAL HEALTH

350 CAPITOL STREET, ROOM 515
CHARLESTON, WV
25301-3716 304-558-4109

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BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

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THAT SUCH INFORMATION DOES NOT CONTAIN THE AMOUNTS OF TAXES PAID NOR ANY OTHER INFORMATION DEEMED BY THE TAX COMMISSIONER TO BE CONFIDENTIAL.

UNDER PENALTY OF LAW FOR FALSE SWEARING (WEST VIRGINIA CODE 61-5-3), BIDDER HEREBY CERTIFIES THAT THIS CERTIFICATE IS TRUE AND ACCURATE IN ALL RESPECTS; AND THAT IF A CONTRACT IS ISSUED TO BIDDER AND IF ANYTHING CONTAINED WITHIN THIS CERTIFICATE CHANGES DURING THE TERM OF THE CONTRACT, BIDDER WILL NOTIFY THE PURCHASING DIVISION IN WRITING IMMEDIATELY.

BIDDER: Cardiac Science Corp

DATE: 6/13/06

SIGNED: N/A

TITLE:

* CHECK ANY COMBINATION OF PREFERENCE CONSIDERATION(S) IN EITHER "A" OR "B", OR BOTH "A" AND "B" WHICH YOU ARE ENTITLED TO RECEIVE. YOU MAY REQUEST UP TO THE MAXIMUM 5% PREFERENCE FOR BOTH "A" AND "B".
(REV. 12/00)

NOTICE

AN ORIGINAL, SIGNED BID MUST BE SUBMITTED ALONG WITH A CONVENIENCE COPY TO:

DEPARTMENT OF ADMINISTRATION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

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DATE: 6/13/06

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SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

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CRH60352	6

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
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SHIP TO
HEALTH AND HUMAN RESOURCES
BPH - COMMUNITY & RURAL HEALTH

350 CAPITOL STREET, ROOM 515
CHARLESTON, WV
25301-3716 304-558-4109

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/11/2006				

BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

PURCHASING DIVISION
BUILDING 15
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25305-0130

AN EXACT DUPLICATE MUST BE SUBMITTED TO:

STATE AUDITOR'S OFFICE
BID OBSERVER
BUILDING 1, ROOM W114
1900 KANAWHA BOULEVARD, EAST
CHARLESTON, WV 25305-0230

BOTH BIDS MUST CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPES OR THE BIDS MAY NOT BE CONSIDERED:

SEALED BID

BUYER: 22

RFQ. NO.: CRH60352

BID OPENING DATE: 06/14/2006

BID OPENING TIME: 1:30 PM

PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:

(425) 402-2005

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396

ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
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2019 Washington Street East
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Request for Quotation

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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

CONTACT PERSON (PLEASE PRINT CLEARLY):
Jeanne Thompson (415) 402-2321

WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON MAY 24, 2006. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER, OR EMAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO:
ROBERTA WAGNER
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25311
FAX: 304-558-4115
EMAIL: RWAGNER@WVADMIN.GOV

****** THIS IS THE END OF RFQ CRH60352 ****** TOTAL: $111,600.00

Post $ 1500 (25%)

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 415-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396

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DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25311
FAX: 304-558-4115
EMAIL: RWAGNER@WVADMIN.GOV

****** THIS IS THE END OF RFQ CRH60352 ****** TOTAL: $111,600.00

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Contracts FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

AED Bid Specifications 2006

All units must be new, not re-manufactured, meet FDA approval and have no current FDA recall.

90 - Zoll AED Plus, PS Series, or equivalent - Manufacturer must supply specifications for comparison and copies of technical manuals, if bidding other than Zoll brand.

90 - Zoll AED Plus, PS Series Trainers, or equivalent - **Manufacturer must supply specifications for comparison and copies of technical manuals, if bidding other than Zoll brand.**

Both the AEDs and Trainers must include batteries and pads for each unit.

Mandatory Specifications for evaluation are grouped as follows:

Energy:

Biphasic waveform with impedance compensation.

Device shall be capable of delivering a shock of 120-Joules or greater in Standard operating mode, with a charge time of less than 10 seconds.

Programmable: Device shall be delivered with customer's preferred energy sequence, and shall be programmable in set-up mode by the customer in the field.

Battery:

Battery power shall be a combined total of 11 volts or greater, of either sulfuryl chloride or manganese dioxide lithium type.

Shall have a shelf life of 4 years.

Unit shall have some type of low battery indicator (either visual or auditory).

Defibrillation Criteria:

The device shall identify ventricular tachycardia based in part on the following criteria:

minimum heart rate of 120 beats per minute.

Storage:

Storage: Device shall have the capability of storing at least 20 minutes of continuous patient ECG and scene audio in internal memory (i.e., without the use of external storage media)

Retrieval: Device shall permit patient information to be downloaded, stored, reviewed and printed. Supporting software shall allow for simultaneous replay of continuous ECG.

Physical Criteria:

Display: Must have LCD Screen for visual text or symbol instructions.

Environment:

Shall have operating temperature of: 32 to 122 degrees F°

Shall have shock: MIL-STD 810

Self-testing:

Device shall run a daily self-test, classify any faults into major or minor, and alert the operator if services is required. Results of tests shall be made available with all printed reports.

Device shall test the capacity of the battery and defibrillator charging system bi-weekly for a non-chargeable lithium battery.

User testing: Devices shall be capable of executing a user-initiated test without the use of a rhythm simulator. Results of tests shall be made available with all printed reports.

Other Specifications:

Size: Portable - Unit should be approximately 7 in. x 12 in. x 12 in. (HxWxD) or equivalent cubic inch footprint.

Weight: Should be approximately 4 to 7 pounds (including battery).

RFQ No. CRH60352

AFFIDAVIT

West Virginia Code §5A-3-10a states:
No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions.

"Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION:
The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING:
The vendor must be licensed in accordance with any and all state requirements to do business with the state of West Virginia.

CONFIDENTIALITY:
The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit **www.state.wv.us/admin/purchase/privacy** for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: Cardiac Science Corp.

Authorized Signature: [signature] Date: 4/13/06

No Debt Affidavit
Revised 02/08/06

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
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Request for Quotation

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ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
Jeanne Thompson
3303 Monte Villa Parkway
Bothell, WA 98021

SHIP TO
HEALTH AND HUMAN RESOURCES
BPH - COMMUNITY & RURAL HEALTH
350 CAPITOL STREET, ROOM 515
CHARLESTON, WV
25301-3716 304-558-4109

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/30/2006				

BID OPENING DATE: 06/14/2006 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

**********ADDENDUM NO. 1**********

1. THIS ADDENDUM IS TO RESPOND TO VENDOR QUESTIONS PER THE ATTACHED.
2. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.

PLEASE NOTE THE FOLLOWING ATTACHMENTS:
1. Q&A'S FOR CRH60352
2. ADDENDUM ACKNOWLEDGEMENT

**********END OF ADDENDUM NO. 1**********

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 425-402-2319 DATE 6/13/06

TITLE VP Corporate Controller FEIN 94-3300396 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required registration fee. (Effective June 8, 2006, the fee will change from $45.00 to $125.00 pursuant to House Bill 4031.)
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code.*
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code.*
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum** - The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **DUPLICATE BIDS:** All quotations must be delivered by the bidder to the respective offices listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

ORIGINAL SIGNED BID TO:

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

DUPLICATE BID TO:

State Auditor's Office
Bid Observer
Building 1 Room W114
1900 Kanawha Boulevard, East
Charleston, WV 25305-0230

NOTICE: Beginning June 8, 2006, there is no need to submit a duplicate bid to the State Auditor's Office pursuant to House Bill 4031.

Questions from vendors:

1) Q – The RFQ states that the State of WV is looking for "90 Automatic External Defibrillators to be Zoll AED or Equal." Will you in fact consider an award a contract to a vendor/manufacturer who is not offering a Zoll AED Plus?

Answer: We follow all State Purchasing Requirements. If the specific Automatic External Defibrillator meets all of the specifications of the Zoll AED Plus, it will be considered.

2) Q – Is this funded by the Federal Rural Grant Program?

Answer: Yes.

3) Q - As we have a couple of new Powerheart AED G3 devices out that are configured with the new AHA protocols, are you looking for that type of product for this bid.

Answer: We did not specify new AHA protocols for this bid. If an AED meets all specifications set forth in the bid it will be considered during review.

4) Q - Is there any value to the State of WV or preference going to be given for a device that has a longer warranty on the AED and on the battery system. (Cost of ownership may be significantly lower than some devices due to longer, more inclusive warranties surrounding their products)

Answer: If an AED meet all specifications set forth in the bid it will be considered during review.

5) Q - Is there any value to the State of WV or preference going to be given for a device that performs an automatic, daily self-test of all three critical AED components (i.e. battery, functionality of electrodes, and internal circuitry)

Answer: If an AED meet all specifications set forth in the bid it will be considered during review.

6) Q - Is there any value to the State of WV or preference going to be given for a device that would offer non-polarized electrodes? This allows the rescuer to place either electrode pad in either position on the person's chest enabling a quicker response.

Answer: If an AED meets all specifications set forth in the bid it will be considered during review.

7) Q - The Zoll device requires a simulator to run the AED Plus through some self-testing yet I do not see your request for simulators on the bid. How are you handling that issue.

Answer: A simulator is not required to complete a self-test. The self test is conducted by holding the on/off switch down to initiate the self test.

8) Q - Is there any preference for a device that has a backlit text screen that would offer a disabled (hard of hearing) person the ability to be involved as a rescuer. Some AEDs do not have a text screen and can therefore be seen as discriminatory to a hard-of-hearing person's desire to be included as an otherwise capable rescuer

Answer: I am unsure what a backlit text screen has to do with assisting someone who is hard-of-hearing in using the AED. If an AED meets all specifications set forth in the bid, it will be considered during review.

9) Q - Is there any value to the State of WV or preference going to be given for a device that would utilize the same escalating energy protocol as used in most hospitals. (i.e. escalating energy up to a full 360 joules).

Answer: If an AED meet all specifications set forth in the bid it will be considered during review.

10) Q - Is there any preference or benefit to the State of WV to do business with a vendor who can offer credits as a Female Minority Owned Business.

Answer: The only preference we currently allow is one for resident vendors.

11) Q - We are trying to determine if you need an infant child key. This adjusts the system to respond to an infant or child. Also do you require a case for the unit? I do not have specifics from Zoll and want to be sure you are quoted the correct unit for your application.

Answer: We did not request any infant child key. It is not part of the specifications. The Zoll AED Plus unit is a hard case, it does not require an additional case.

WV-39a STATE OF WEST VIRGINIA PURCHASING CONTINUATION SHEET	Buyer:	Page	Req. or P. O. No.:
	Spending Unit:		
Vendor:			

Requisition No.: CRH60352

ADDENDUM ACKNOWLEDGEMENT

I hereby acknowledge receipt of the following checked addendum(s) and have made the necessary revisions to my proposal, plans and/or specifications, etc.

Addendum No.'s:

No. 1 X

No. 2 _____

No. 3 _____

No. 4 _____

No. 5 _____

I understand that failure to confirm the receipt of the addendum(s) is cause for rejection of bids.

Daphne Lyons
Signature

Cardiac Science Corp.
Company

6/13/06
Date

Exhibit 10
Rev. 11/98

CARDIAC SCIENCE

POWERHEART®

PURCHASE AGREEMENT

Sales Rep: Ms. Sue Adams

Date: June 12, 2006

CUSTOMER BILLING INFORMATION

Company: State of West VA/Health and Human Resou
Address 1: BPH - Community & Rural Health
Address 2: 350 Capitol Street, Room 515
City: Charleston
State: WV Zip: 25301-3716
COUNTY:
Invoice to: ◉ Corporate Billing Address ○ Individual Locations (provide details)
Payment Term: Payment due upon receipt (Specify Payment Terms here if Other)
Payment: Check
Mrkt Segment: Fire/Police/EMS Lead Source: Other

Contact Name:
Title:
Phone:
Fax:
E-mail:
Email Restriction: Restriction Type:
Tax exemption #
P.O. #
Class ID: End User

CUSTOMER SHIPPING INFORMATION

Company: State of West VA/Health and Human Resou
Address 1: 2320 South Salnave Road
Address 2: 350 Capitol Street, Room 515
City: Charleston
State: WV Zip: 25301-3716
COUNTY:
F.O.B.: DESTINATION

Contact Name:
Title:
Phone:
Fax:
E-mail:
Shipping Method: FedEx - GROUND
Freight Collect Account: NO CHARGE

EQUIPMENT AND ACCESSORIES

AED Product Description	SKU	List Price	Quantity	Price	Subtotal
Powerheart AED G3, AHA-aligned Automatic	9300A-501P	$ 2,495.00	90	$ 995.00	$ 89,550.00
AED					$ -
AED					$ -
IntelliSense Lithium Battery (yellow): for Powerheart AED G	9146-002	$399.00	90		$ -
Adult Defibrillation Pads - two-year shelf life	9131-001	$43.95	180		$ -
Additional Quick Start Tool Kit for 9300E/C/A series AED G	180-0037-001	$99.95	90		$ -
Ready Kit for 9300 series AED G3: includes nitrile gloves,	5550-003	$59.95	90		$ -
Carrying case for 9300 series AED G3	168-0000-001	$ 99.95	90		$ -
Full size AED Trainer, dual mode AED/Automatic, with Mar	180-4020-001	$495.00	90	$245.00	$ 22,050.00
					$ -
					$ -
					$ -
Response Program Management		Champion Name:			
		Champion Phone:			
		Champion Email:			
					$ -
					$ -
					$ -
					$ -
					$ -

COMMENTS/CONTRACT NOTES:
Total quoted is inclusive of the followin items: (1) Defibrillator (Auto or Semi-Auto), (1) IntelliSense lithium battery, (2) sets of Adult Electrodes, (1) Quick Start Tool Kit: includes Quick Start Guide, CD-ROM with AED Manual, Training Video, RescueLink and MDLink (Manual Config), (1) Carry Case, and (1) Ready Kit: includes nitrile gloves, razor, scissors, towel, 4" gauze, antiseptic wipes, one-way filter mask, Carbiner attachment. Thank you for this opportunity!

Subtotal:	$ 111,600.00
Sales Tax:	EXEMPT
Shipping:	No Charge
TOTAL	$ 111,600.00

BY SIGNING THIS AGREEMENT, CUSTOMER REPRESENTS THAT THEY ARE AUTHORIZED TO PURCHASE AND AGREES TO CARDIAC SCIENCE TERMS & CONDITIONS.

AEDs are intended for use by or on order of a physician or persons licensed by state law.

Authorized Signature:	Print Name:	Title	Date:

for PAYMENTS Mail to:
Cardiac Science Corporation
Dept. 0587
PO Box 120587
Dallas, TX 75312-0587

FAX TO: 425.402.2005 Cardiac Science Order Entry
FAX TO: Sales Representative

www.cardiacscience.com
E-mail: CustomerService@cardiacscience.com
Nasdaq: CSCX

Cardiac Science Corporation
3303 Monte Villa Parkway
Bothell, WA 98021
Tel: +1.800.991.5465

CARDIAC SCIENCE PATENTED TECHNOLOGY

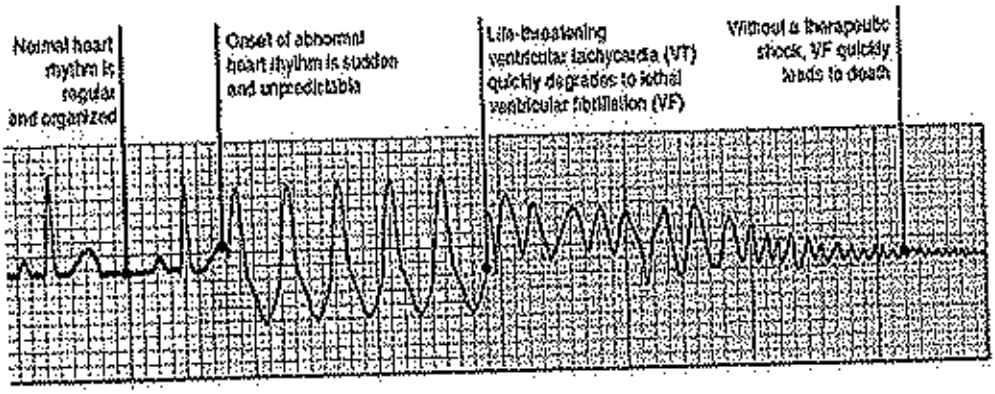
RescueReady Technology - Ensuring Reliable AED Operation

One of the most important features of Cardiac Science AED's is its high degree of reliability. Performing the most comprehensive self-testing in the industry ensures Cardiac Science AED's are "RescueReady" when you need it. When the green RescueReady indicator is lit, Cardiac Science AED's can be counted on to perform during a rescue.

- Proprietary RescueReady Technology tests battery, system components, and verifies that the pre-connected disposable electrodes can properly deliver a shock.
- Daily, weekly, monthly testing of battery, electronics, and pre-connected electrodes occurs automatically.
- Once a month, the AED performs an automatic full charge test of the high voltage circuitry, to confirm the AED's ability to deliver a shock when needed.
- RescueReady status indicator on the AED handle changes from green/red and emits an audible alert if service is required. (Powerheart AED G3 only)
- Pre-connected electrodes are always stored inside the device, eliminating confusion and possible errors during a rescue.
- Patented RescueReady technology confirms the electrodes are in the AED and ready for use.

CARDIAC SCIENCE PATENTED TECHNOLOGY

RHYTHMx Technology - Makes Hard Decisions Fast



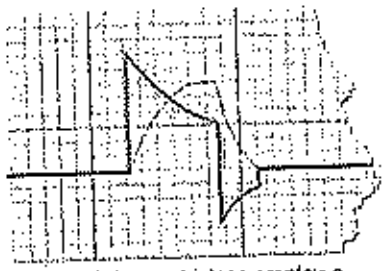
The RHYTHMx technology offers the most advanced, smartest software analysis algorithm in the industry. The RHYTHMx technology is the intelligence behind the Cardiac Science's Powerheart hospital and public access defibrillation products, and is designed to continuously monitor, detect, and advise defibrillation therapy to treat cardiac arrhythmias.

- Specificity and Sensitivity - clinical results with the RHYTHMx technology demonstrated 100% sensitivity (correct identification of shockable rhythms) and 99.4% specificity (correct identification of non-shockable rhythms).
- RHYTHMx technology differentiates between shockable life-threatening cardiac rhythms such as ventricular arrhythmias (VT/VF) and supraventricular tachyarrhythmias (SVT), plus distinguishes non-shockable cardiac arrhythmia events.
- Non-committed device - If the RHYTHMx technology detects a shockable rhythm and charges, but recognizes a rhythm change, the Cardiac Science device automatically disarms, informs the user that that the rhythm has changed, and reanalyzes the patient's heart rhythm.
- Post-resuscitation monitoring - RHYTHMx technology continues to monitor the patient's heart rhythm post resuscitation, to instantly detect the reoccurrence of a life-threatening arrhythmia. If cardiac arrest recurs, the Cardiac Science device will charge automatically and advise the operator to deliver a defibrillation shock.
- Synchronized shock - RHYTHMx technology automatically synchronizes shock delivery whenever possible to the patient's electrocardiogram R-wave. If unable to synchronize it will deliver an unsynchronized shock. Synchronization of a defibrillation shock has been shown to be more effective in converting patients out of life threatening arrhythmias.
- RHYTHMx Technology that allows a medical director or physician to pre-program detection rates for shockable cardiac arrhythmias such as VF, VT and SVT.

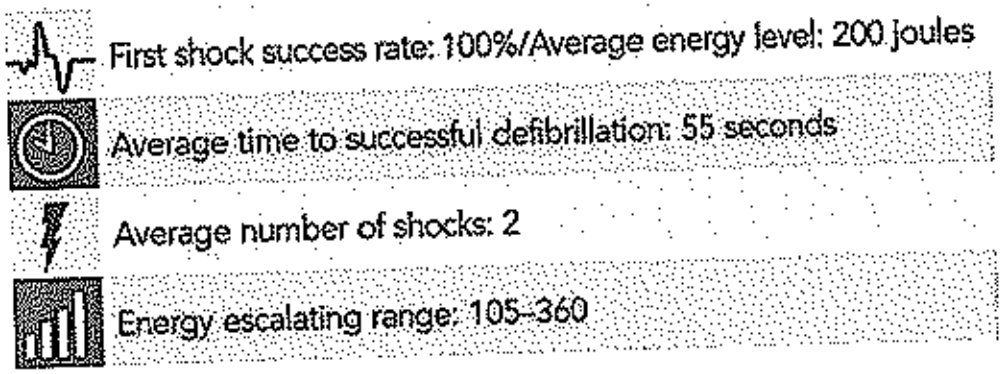
CARDIAC SCIENCE PATENTED TECHNOLOGY

STAR® Biphasic Waveform Technology

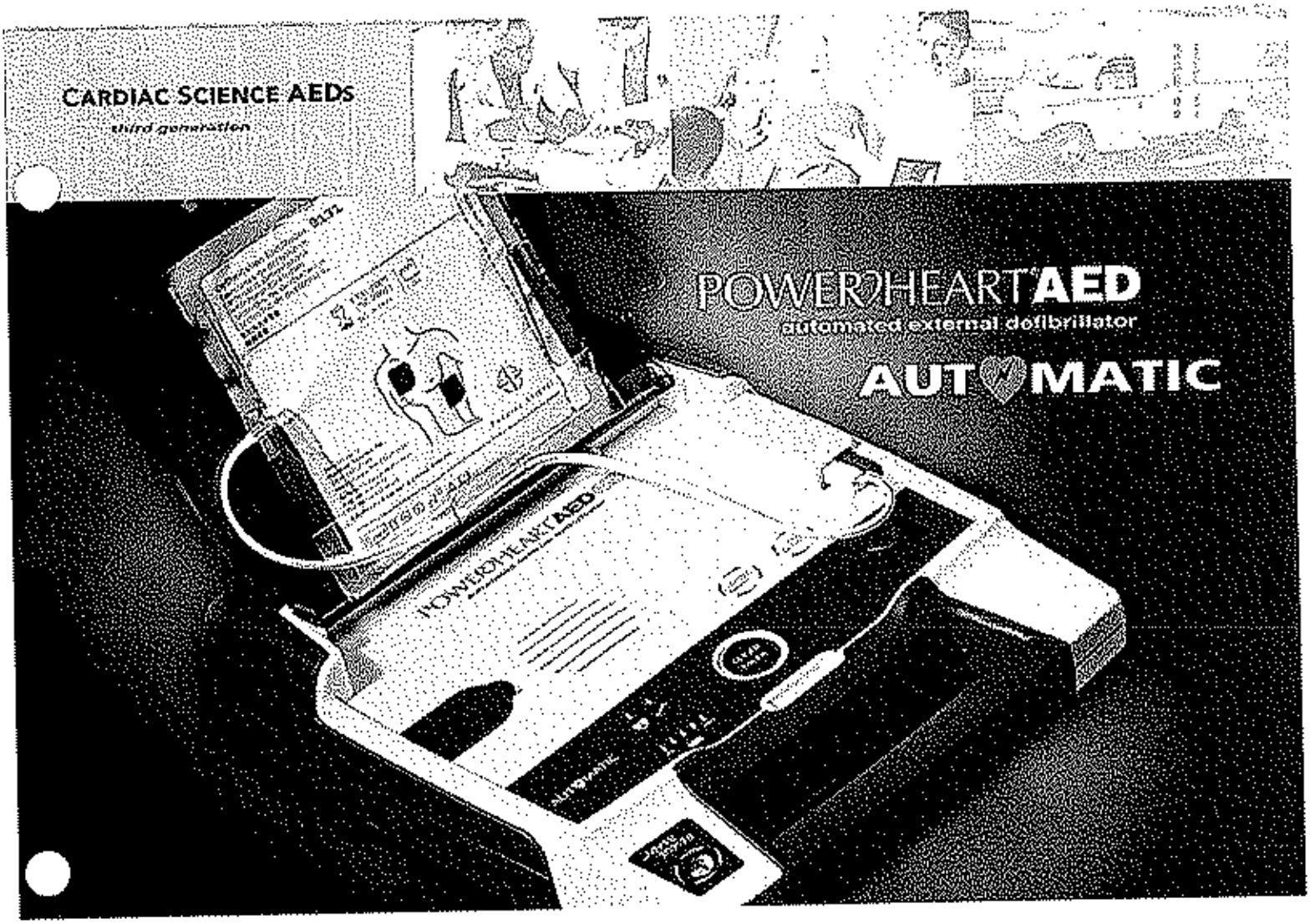
There are a number of ways an AED can deliver a defibrillation shock. Some AED's provide the same level of energy each time a shock is delivered. Other AED's deliver higher levels of energy with each shock, but still administer the same energy level for every patient. Cardiac Science believes no two patients are alike. That's why Cardiac Science's introduced the proprietary STAR Biphasic technology, providing escalating biphasic energy and customized, variable energy.



Cardiac Science devices employ a clinically proven, patented biphasic waveform that customizes defibrillation therapy for each patient.



- STAR Biphasic technology measures a patient's impedance (the body's opposition to the flow of electrical current), adjusts defibrillation parameters, and delivers an energy level customized to the needs of that patient.
- STAR Biphasic escalates energy over a range of impedances. This proven method of escalating energy is consistent with American Heart Association guidelines and is well established in the defibrillation industry.
- STAR Biphasic Waveform has the highest reported effectiveness in hospital and pre-hospital data.
- In clinical trials, STAR Biphasic was 100% effective at defibrillating patients in ventricular fibrillation-the most common arrythmia of sudden cardiac arrest on the first shock.
- Pre-hospital data for STAR Biphasic has shown defibrillation success rates of 89 percent with an average number of 2.3 shocks per patient.
- If using MDLink Software with the Powerheart AED G3, a medical director can customize parameters to follow a desired defibrillation rescue protocol. Adjustable parameters include 5 defibrillation energy protocols such as ultra low, standard and non-escalating variable energy options.



FEATURES

- AHA/ERC 2005 Guidelines Protocols
- No shock button to push. Automatically detects, analyzes, and delivers life-saving defibrillation shock(s) to a cardiac arrest victim
- Patented RescueReady® technology performs daily self-tests (battery, electronic systems and defibrillation pads)
- Configurable STAR® biphasic energy protocols
- RHYTHMx® analysis software
- Industry's first four-year full replacement battery warranty

THE BEST AED JUST GOT EASIER

The revolutionary Powerheart AED G3 Automatic has arrived. The new patented Powerheart AED G3 Automatic delivers life-saving defibrillation therapy without the need to push a shock button. Once the defibrillation pads are attached to the patient, the device detects the patient's heart rhythm, analyzes the rhythm using patented RHYTHMx analysis software, and, if a life-threatening rhythm is detected, instructs the user to stand clear and automatically delivers a defibrillation shock.

The new Powerheart AED G3 Automatic also features our industry leading RescueReady technology which includes our patented daily, weekly, monthly self-testing, virtually guaranteeing first time, every time rescue performance. The Powerheart AED G3 Automatic also incorporates our advanced technology features such as RHYTHMx analysis software and STAR biphasic defibrillation energy waveform.

To learn more about the best choice in AEDs, visit our website www.cardiacscience.com.

CARDIAC SCIENCE

CREATING HEARTSAFE ENVIRONMENTS

POWERHEART**AED**
automated external defibrillator

AUTOMATIC

SPECIFICATIONS

DEFIBRILLATOR

Operation	Automatic
Waveform	Biphasic truncated exponential
Energy (J) range available	Escalating Variable Energy (VE) 105J to 360J
Protocols	5 energy protocols available
Factory default (Nominal)	200VE, 300CE, 300VE
Voice prompts	Comprehensive voice instructions guide user through rescue process
Text screen	Displays written instructions to guide user through rescue process
Visible indicators	Rescue-Ready Status Indicator, SmartGauge Battery Status Indicator, Service Indicator, Pad Indicator, Text Display
Audible alerts	Voice Prompts, System Alert
Synchronized shock	Built-in automatic synchronization feature
Pacemaker pulse detection	Yes
Programmable	Yes, via MDLink®
Pediatric capability	Yes

PADS

Minimum combined surface area	228cm²
Extended length of lead wire	1.3m
Supplied	Self-checking, pre-connected to the AED
Type	Adult, pre-gelled, self-adhesive, disposable, non-polarized (identical pads can be placed in either position) defibrillation pads
Shelf life	2 years

BATTERY

Type	IntelliSense® lithium battery
Warranty	4 year, full operational replacement

AUTOMATED SELF-TESTS

Daily	Battery, pads (presence and function), internal electronics, no energy charge, and software
Weekly	Battery, pads (presence and function), internal electronics, partial energy charge, and software
Monthly	Battery, pads (presence and function), internal electronics, full energy charge cycle, and software

EVENT DOCUMENTATION

Type	Internal memory
Internal memory	60 minutes ECG data with event annotation
ECG Playback	Viewable via RescueLink® software via PC
Communications	Serial port or USB (via adapter) for PC with Windows
Clock synchronization	Rescue event time stamp of event data

PHYSICAL DIMENSIONS

Height	8 cm (3.3 in)
Width	27 cm (10.6 in)
Depth	31 cm (12.4 in)
Weight	3.10 kg (6.6 lb)

ORDER INFORMATION

MODEL	DESCRIPTION
9300A-501	Powerhead AED G3 Automatic with 2005 AHA/ERC Guidelines Protocols

Each AED package includes: (1) defibrillator, (1) IntelliSense battery (9146), (1) pair of defibrillation pads, and (1) Quick Start Tool Kit. Includes Quick Start Guide, CD-ROM with AED Manual, Training Video, RescueLink and MDLink, and serial communication cable.

CARDIAC SCIENCE

For more information contact Cardiac Science at:

Corporate Headquarters
3303 Monte Villa Parkway
Bothell, WA 98021 USA
Phone: +1.425.402.2000
Toll Free US: +1.800.426.0337

Manufacturing Operations
500 Burdick Parkway
Deerfield, WI 53531, USA
Phone: +1.608.764.1919
Toll Free: +1.800.777.1777

Customer Service/Order Entry
Phone: +1.425.402.2690
Toll Free: +1.800.991.5465
Fax: +1.425.402.2010
Email: customerservice@cardiacscience.com

Technical Support
Phone: +1.425.402.2490
Toll Free: +1.800.991.5465
Fax: +1.425.402.2001
Email: techsupport@cardiacscience.com

Nasdaq: CSCX

1.800.426.0337
WWW.CARDIACSCIENCE.COM

P/N 110-0136-001 Rev. H

Powerheart G3® AED Automatic (9300A) External Defibrillator

With Biphasic Waveform

Bid Specifications

1. Operation and Use:
   - 1.1 AED shall not require an operator to push any buttons during a rescue.
   - 1.2 AED shall deliver a shock (if required) without requiring the operator to push a button.
   - 1.3 Electrodes shall always be installed and ready to use in AED prior to rescue.
   - 1.4 Electrodes shall be non-polarized and interchangeable allowing the user to place either electrode in the proper body position.
   - 1.5 AED shall have voice, visual and text prompts to guide the user through the rescue process in a simple step-by-step manner based on the 2005 AHA/ERC Guidelines for CPR.
   - 1.6 AED shall have a backlit LCD text display, which features elapsed rescue time, number of shocks administered, and a CPR countdown.
   - 1.7 AED shall have pediatric capability with the use of pediatric electrodes.
   - 1.8 AED shall have 0.08mV Asystole threshold

2. Waveform/Algorithm:
   - 2.1 AED shall utilize a single-shock sequence of "variable" escalating energy.
   - 2.2 AED waveform shall deliver variable energy levels for a broad range of patient impedances (105J – 360J).
   - 2.3 AED shall offer multiple programmable energy settings, with choice of ultra-low (105J - 190J), standard (140J - 360J) and non-escalating variable energy options.
   - 2.4 Waveform shall be Biphasic Truncated Exponential.
   - 2.5 Waveform shall actively compensate for a patient's impedance level.
   - 2.6 Waveform shall actively respond to patient's Cellular Response Curve.
   - 2.7 AED shall not shock patient inadvertently if the patient does not require a shock.
   - 2.8 AED shall automatically synchronize delivery of a defibrillation shock with the patient's electrocardiogram R-wave. If AED is unable to synchronize, it will deliver an unsynchronized shock if necessary.
   - 2.9 AED shall automatically disarm if the victim converts to a non-shockable heart rhythm after a shock decision is made (device is charged). AED shall inform the rescuer that the heart rhythm has changed and enter the CPR mode
   - 2.10 AED shall automatically detect noise (artifact) with the ECG rhythm, and alert the rescuer of the condition via a voice prompt.

Powerheart G3® AED Automatic (9300A) External Defibrillator
With Biphasic Waveform
Bid Specifications

3. Automated Self Tests:
   - 3.1 AED shall perform a daily automated self-test to confirm presence and function of electrodes and cable, and test the battery, electrical circuitry and waveform delivery system.
   - 3.2 AED shall perform a weekly automated self-test to test battery, electrical circuitry and waveform delivery system.
   - 3.3 AED shall perform a monthly full load capacitor charge and discharge test to ensure device readiness for full-scale rescue attempts.
   - 3.4 AED shall warn user with audible alert at 110dB and visual signals if the system fails any of the automated self-tests and is not ready for use.
   - 3.5 The audible warning tone will continue to sound every 30 seconds for up to one year on a fully charged battery until the lid is opened.
   - 3.6 AED shall perform a user initiated self-test when the lid of the device is opened.

4. Electrodes:
   - 4.1 One pair of electrodes shall be included with each AED.
   - 4.2 Electrodes shall be supplied in a ready-to-use, sealed package that contains one pair of self-adhesive electrodes with attached cables and a connector.
   - 4.3 Electrodes shall be disposable.
   - 4.4 Electrodes shall be shipped to the customer with a minimum shelf life of two years.
   - 4.5 Electrodes shall be labeled as non-polarized and be interchangeable
   - 4.6 A diagram to assist in proper electrode placement shall be available on the electrode package, on each individual electrode, and on the AED device.
   - 4.7 Electrodes shall have a minimum surface area of 114 cm^2.
   - 4.8 Electrode cable shall have a minimum length of 1.3 m.
   - 4.9 Electrodes shall be compatible when using Cardiac Science manufactured adapters, with Quik-Combo™, Fast-Patch™ and Zoll Stat-Padz™ systems allowing electrodes to be used with ALS defibrillators.

5. Battery:
   - 5.1 AED shall use one, non-rechargeable extended life lithium battery for operation (called Cardiac Science Extended Life Intellisense® Lithium Battery).
   - 5.2 Typical capacity of a new battery shall be at least 290 discharges at 20°C.
   - 5.3 Expected shelf life of a new battery shall be five years from the date of manufacture.
   - 5.4 AED shall incorporate a visible fuel gauge notifying the end user of battery capacity during use in quarter life increments.
   - 5.5 Battery shall incorporate a memory chip giving complete history of battery use (installation date, shocks provided daily diagnostics completed, etc.).

5.6 Battery shall be "operationally" warranted for four (4) years from date of installation into a Powerheart G3 AED.

6. ECG Recording and Information Documentation:
   - 6.1 AED shall provide 60 minutes of internal event documentation.
   - 6.2 AED shall provide multiple rescue functionality.
   - 6.3 AED shall permit ECG and event information to be downloaded via a serial cable to a Windows® based PC after a rescue.
   - 6.4 AED clock shall be able to be synchronized to PC clock through direct connection to a PC.
   - 6.5 Optional supporting software shall allow medical directors or their designees to program devices to meet their protocols for AED use. Adjustable parameters shall include detection rates for VF/VT & SVT, Variable energy protocol options, 2nd shock energy level, energy level after conversion, etc.
   - 6.6 Data transfer, review and management software and required cables shall be included with each AED.

7. Physical and Environmental:
   - 7.1 AED weight shall not exceed 6.6 lbs. (includes AED, battery and electrodes).
   - 7.2 AED shall be water and foreign object resistant to a minimum of IEC 529 IPX4 (IP24) certification levels.
   - 7.3 AED shall have a molded handle formed in the case for easy portability.
   - 7.4 Dimensions of AED shall not exceed 3.3 in. (8.4 cm) in height, 10.6 in. (26.9 cm) in width and 12.4 in. (31.5 cm) in length.
   - 7.5 AED shall be capable of operating and stand-by in temperatures ranging from 0°C to +50°C (32°F to +122°F), and relative humidity ranging from 5%-95% (non-condensing).
   - 7.6 AED without battery and electrodes shall be able to withstand storage at -30°C to +65°C (-22°F to +149°F).
   - 7.7 AED shall meet or exceed IEC 55011/CISPR 11, Group 1, Class B specifications for EM (radiated).
   - 7.8 AED shall meet or exceed ANSI/AAMI DF39, <0.5mT on surface, except within 5cm of the lid magnet and the speaker.
   - 7.9 AED shall meet or exceed IEC 61000-4-3, Level X, (20V/m); IEC 60601-2-4, Section 36.202.3 (20-V/m); AAMI DF39, Section 3.3.21.2.1 immunity tests (E-M)
   - 7.10 AED shall meet or exceed IEC 61000-4-8; IEC 60601-2-4, Section 36.202.8; AAMI DF39, Section 3.3.21.2.3 80A/m, 47.5Hz-1.320Hz immunity tests (magnetic)
   - 7.11 AED shall meet or exceed IEC 61000-4-2, Level 3; IEC 60601-2-4, Section 36.202.2; 6KV contact discharge, 8KV air gap discharge for immunity tests (ESD)
   - 7.12 AED shall meet or exceed IEC 60068-2-32 one meter free fall drop test

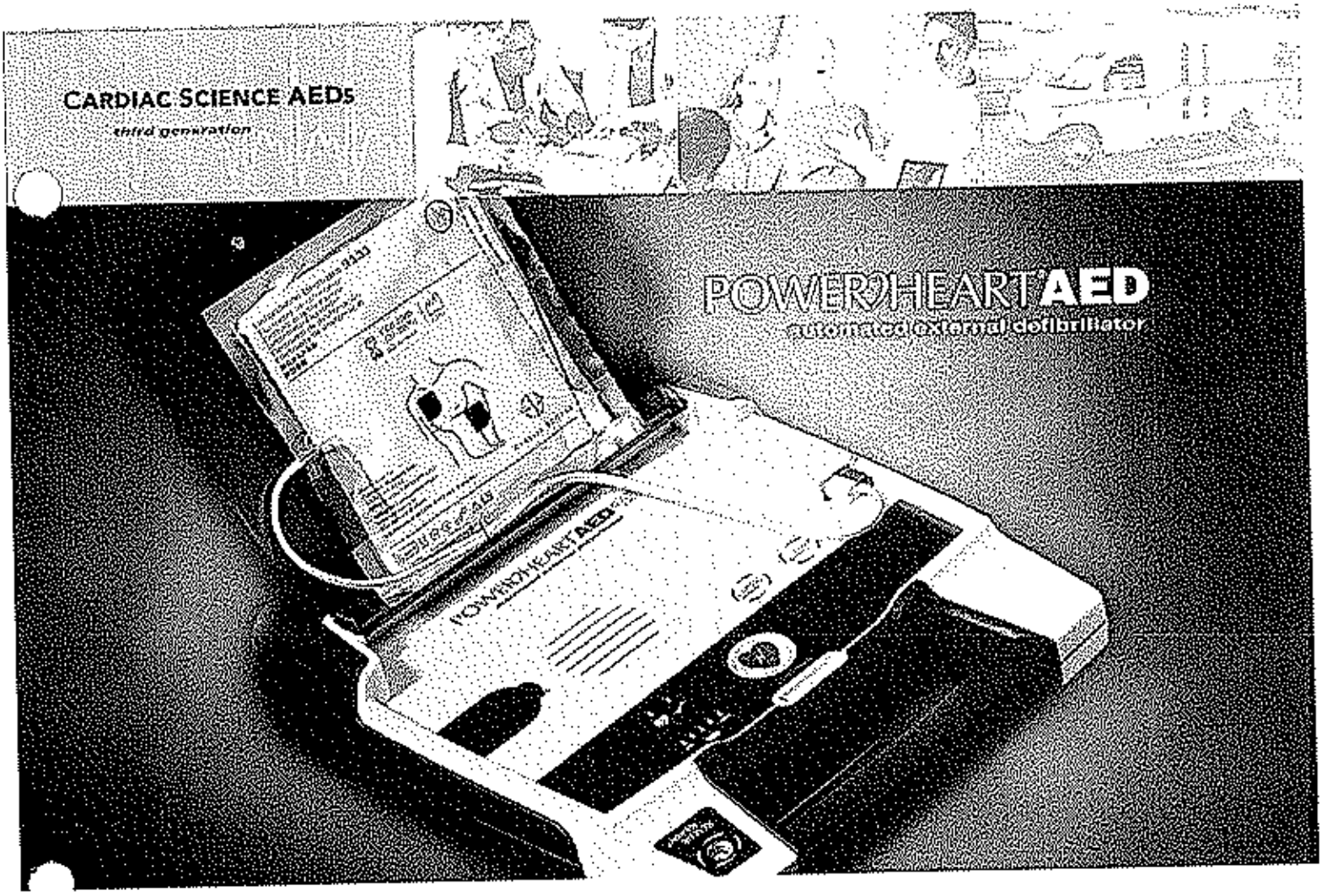
7.13 AED shall meet or exceed IEC 60068-2-29 bump test, 40g and 6000 bumps.
7.14 AED shall meet or exceed IEC 60068-2-64 vibration (random) test, 10Hz-2KHz, 0.005-0.0012 g²/Hz
7.15 AED shall meet or exceed IEC 60068-2-6 vibration (sine) test, 10Hz-60Hz, 0.15 mm and 60Hz-150Hz, 2g.

8. Program Implementation

8.1 Program will provide Medical Direction / Medical Prescription as required by State Laws
8.2 CPR / AED training shall be provided by trainers employed by the AED manufacturer
8.3 Training will consist of 4 hours of American Heart Association Heartsaver CPR / AED instruction
8.4 All training materials (books, certification cards and mannequins) to be provided by the AED manufacturer
8.5 CPR / AED certification will be for 2 years
8.6 Instructors will consist of Paramedics, EMTs or Nurses
8.7 Student to CPR / AED practice mannequin shall be a 1-1 ratio
8.8 Program will track AEDs by location and serial number
8.9 Program will provide tracking of training roster, certification dates & recertification
8.10 Program shall provide e-mail reminder notices to site contact regarding recertification scheduling, check / order battery, and re-order pads prior to expiration
8.11 Program will train up to 10 students per class per location

9. Technical Service/Warranty

9.1 AED shall require no yearly planned service or calibration regardless of frequency of use.
9.2 AED and battery shall have a minimum 7-year warranty on defects in materials and workmanship.
9.3 IntelliSense lithium battery shall have a full replacement operating warranty for four (4) years from date of installation.
9.4 Technical service shall be available 24 hours per day, 7 days a week by the manufacturer.



FEATURES

- AHA/ERC 2005 Guidelines Protocols
- Simple, easy to use, one-button operation
- RescueReady® technology includes partial energy test with weekly self-tests
- More instructive voice prompts guide user through rescue
- Outstanding voice prompt quality and clarity
- Lightweight in a new user-friendly form factor
- Industry's first four-year full replacement operating battery guarantee

THE BEST JUST GOT BETTER

The next generation Powerheart AED has arrived. Our flagship, feature rich Powerheart AED G3 offers customers many new and exciting user-friendly features.

The new Powerheart AED G3 continues to feature our industry leading one-button operation and RescueReady technology featuring our patented daily, weekly, and monthly self-testing, virtually guaranteeing first time, every time rescue performance. The Powerheart AED G3 also incorporates our advanced technology features such as patented and programmable RHYTHMx™ analysis software and STAR™ biphasic defibrillation energy waveform.

Patented RescueReady daily self-test system tests for vital functionality and connection to the AED.

Industry leading technology and added performance features in a new user-friendly form factor leads the way for the next generation of Cardiac Science AEDs.

To learn more about the best choice in AEDs, visit our website www.cardiacscience.com.

CARDIAC SCIENCE

AT THE HEART OF SAVING LIVES

POWERHEART AED
automated external defibrillator

SPECIFICATIONS

DEFIBRILLATOR

Operation	Semi-automatic
Waveform	Biphasic truncated exponential
Energy (J) range available	Escalating Variable Energy (VE) 195J to 360J
Protocols	5 energy protocols available
Factory default (Nominal)	200VE, 300VE, 300VE
Controls	One-button operation
Voice prompts	Comprehensive voice instructions guide user through rescue process
Text screen	Displays written instructions to guide user through rescue process
Visible indicators	RescueReady Status Indicator, SmartGauge Battery Status Indicator, Service Indicator, Pad Indicator, Text Display
Audible alerts	Voice Prompt, System Alert
Synchronized shock	Built in automatic synchronization feature
Pacemaker pulse detection	Yes
Programmable	Yes, via MDLink®
Pediatric capability	Yes

PADS

Minimum combined surface area	228cm²
Extended length of lead wire	1.3m
Supplied	Self-checking, pre-connected to the AED
Type	Adult, pre-gelled, self-adhesive, disposable, non-polarized identical pads can be placed in either position defibrillation pads
Shelf life	2 years

BATTERY

Type	IntelliSense® lithium battery
Warranty	4 year, full operational replacement

AUTOMATED SELF-TESTS

Daily	Battery, pads (presence and function), internal electronics, no energy charge, SHOCK/CONTINUE button, and software
Weekly	Battery, pads (presence and function), internal electronics, partial energy charge, SHOCK/CONTINUE button, and software
Monthly	Battery, pads (presence and function), internal electronics, full energy charge cycle, SHOCK/CONTINUE button, and software

EVENT DOCUMENTATION

Type	Internal memory
Internal memory	60 minutes ECG data with event annotation, multiple rescue functionality
ECG Playback	Viewable via RescueLink® software via PC
Communications	Serial port or USB (via adapter) for PC with Windows
Clock synchronization	Rescue event time stamp of event data

PHYSICAL DIMENSIONS

Height	8 cm (3.3 in)
Width	27 cm (10.6 in)
Depth	31 cm (12.4 in)
Weight	3.10 kg (6.6 lb)

ORDER INFORMATION

MODEL	DESCRIPTION
9300E-501	Powerheart AED G3 with 2005 AHA/ERC Guidelines Protocols

Each AED package includes: (1) defibrillator, (1) IntelliSense battery (9146), (1) pair of defibrillation pads, and (1) Quick Start Tool Kit: includes Quick Start Guide, CD-ROM with AED Manual, Training Video, RescueLink and MDLink, and serial communication cable.

CARDIAC SCIENCE

Nasdaq: CSCX

1.800.426.0337
WWW.CARDIACSCIENCE.COM

For more information contact Cardiac Science at:

Corporate Headquarters
3303 Monte Villa Parkway
Bothell, WA 98021 USA
Phone: +1.425.402.2000
Toll Free US: +1.800.426.0337

Manufacturing Operations
500 Burdick Parkway
Deerfield, WI 53531, USA
Phone: +1.608.764.1919
Toll Free: +1.800.777.4777

Customer Service/Order Entry
Phone: +1.425.402.2650
Toll Free: +1.800.991.5465
Fax: +1.425.402.2040
Email: customerservice@cardiacscience.com

Technical Support
Phone: +1.425.402.2690
Toll Free: +1.800.991.5465
Fax: +1.425.402.2001
Email: techsupportbothell@cardiacscience.com

mkt 11000779402 Rev A

Powerheart G3® AED Semi-Automatic (9300E) External Defibrillator

With Biphasic Waveform

Bid Specifications

1. Operation and Use:
   - 1.1 AED shall require an operator to push no more than one button during a rescue
   - 1.2 Electrodes shall always be installed and ready to use in AED prior to rescue.
   - 1.3 Electrodes shall be non-polarized and interchangeable allowing the user to place either electrode in the proper body position.
   - 1.4 AED shall have voice, visual and text prompts to guide the user through the rescue process in a simple step-by-step manner. These voice and text prompts will be based on the 2005 AHA/ERC Guidelines for CPR.
   - 1.5 AED shall have a backlit LCD text display, which features elapsed rescue time, number of shocks administered, and a CPR countdown.
   - 1.6 AED shall have pediatric capability with the use of pediatric electrodes.
   - 1.7 AED shall have pacemaker pulse detection capability
   - 1.8 AED shall have 0.08mV Asystole threshold

2. Waveform/Algorithm:
   - 2.1 AED shall utilize a single-shock sequence of "variable" escalating energy.
   - 2.2 AED waveform shall deliver variable energy levels for a broad range of patient impedances (105J – 360J).
   - 2.3 AED shall offer multiple programmable energy settings, with choice of ultra-low (105J - 190J), standard (140J - 360J) and non-escalating variable energy options.
   - 2.4 Waveform shall be Biphasic Truncated Exponential.
   - 2.5 Waveform shall actively compensate for a patient's impedance level.
   - 2.6 Waveform shall actively respond to patient's Cellular Response Curve.
   - 2.7 AED shall not shock patient inadvertently if the patient does not require a shock.
   - 2.8 AED shall automatically synchronize delivery of a defibrillation shock with the patient's electrocardiogram R-wave. If AED is unable to synchronize, it will deliver an unsynchronized shock if necessary.
   - 2.9 AED shall automatically disarm if the victim converts to a non-shockable heart rhythm after a shock decision is made (device is charged). AED shall inform the rescuer that the heart rhythm has changed and enter the CPR mode
   - 2.10 AED shall automatically detect noise (artifact) with the ECG rhythm, and alert the rescuer of the condition via a voice prompt.

Powerheart G3® AED Semi-Automatic (9300E) External Defibrillator

With Biphasic Waveform

Bid Specifications

3. Automated Self Tests:
   - 3.1 AED shall perform a daily automated self-test to confirm presence and function of electrodes and cable, and test the battery, electrical circuitry and waveform delivery system.
   - 3.2 AED shall perform a weekly automated self-test to test battery, electrical circuitry and waveform delivery system.
   - 3.3 AED shall perform a monthly full load capacitor charge and discharge test to ensure device readiness for full-scale rescue attempts.
   - 3.4 AED shall warn user with audible alert at 110dB and visual signals if the system fails any of the automated self-tests and is not ready for use.
   - 3.5 The audible warning tone will continue to sound every 30 seconds for up to one year on a fully charged battery until the lid is opened.
   - 3.6 AED shall perform a user initiated self-test when the lid of the device is opened.

4. Electrodes:
   - 4.1 One pair of electrodes shall be included with each AED.
   - 4.2 Electrodes shall be supplied in a ready-to-use, sealed package that contains one pair of self-adhesive electrodes with attached cables and a connector.
   - 4.3 Electrodes shall be disposable.
   - 4.4 Electrodes shall be shipped to the customer with a minimum shelf life of two years.
   - 4.5 Electrodes shall be labeled as non-polarized and be interchangeable
   - 4.6 A diagram to assist in proper electrode placement shall be available on the electrode package, on each individual electrode, and on the AED device.
   - 4.7 Electrodes shall have a minimum surface area of 114 cm^2.
   - 4.8 Electrode cable shall have a minimum length of 1.3 m.
   - 4.9 Electrodes shall be compatible when using Cardiac Science manufactured adapters, with Quik-Combo™, Fast-Patch™ and Zoll Stat-Padz™ systems allowing electrodes to be used with ALS defibrillators.

5. Battery:
   - 5.1 AED shall use one, non-rechargeable extended life lithium battery for operation (called Cardiac Science Extended Life Intellisense® Lithium Battery).
   - 5.2 Typical capacity of a new battery shall be at least 290 discharges at 20°C.
   - 5.3 Expected shelf life of a new battery shall be five years from the date of manufacture.
   - 5.4 AED shall incorporate a visible fuel gauge notifying the end user of battery capacity during use in quarter life increments.
   - 5.5 Battery shall incorporate a memory chip giving complete history of battery use (installation date, shocks provided daily diagnostics completed, etc.).

5.6 Battery shall be "operationally" warranted for four (4) years from date of installation into a Powerheart G3 AED.

6. ECG Recording and Information Documentation:
   - 6.1 AED shall provide 60 minutes of internal event documentation.
   - 6.2 AED shall provide multiple rescue functionality
   - 6.3 AED shall permit ECG and event information to be downloaded via a serial cable to a Windows® based PC after a rescue.
   - 6.4 AED clock shall be able to be synchronized to PC clock through direct connection to a PC.
   - 6.5 Optional supporting software shall allow medical directors or their designees to program devices to meet their protocols for AED use. Adjustable parameters shall include detection rates for VF/VT & SVT, Variable energy protocol options, 2nd shock energy level, energy level after conversion, etc.
   - 6.6 Data transfer, review and management software and required cables shall be included with each AED.

7. Physical and Environmental:
   - 7.1 AED weight shall not exceed 6.6 lbs. (includes AED, battery and electrodes).
   - 7.2 AED shall be water and foreign object resistant to a minimum of IEC 529 IPX4 (IP24) certification levels.
   - 7.3 AED shall have a molded handle formed in the case for easy portability.
   - 7.4 Dimensions of AED shall not exceed 3.3 in. (8.4 cm) in height, 10.6 in. (26.9 cm) in width and 12.4 in. (31.5 cm) in length.
   - 7.5 AED shall be capable of operating and stand-by in temperatures ranging from 0°C to +50°C (32°F to +122°F), and relative humidity ranging from 5%-95% (non-condensing).
   - 7.6 AED without battery and electrodes shall be able to withstand storage at -30°C to +65°C (-22°F to +149°F).
   - 7.7 AED shall meet or exceed IEC 55011/CISPR 11, Group 1, Class B specifications for EM (radiated).
   - 7.8 AED shall meet or exceed ANSI/AAMI DF39, <0.5mT on surface, except within 5cm of the lid magnet and the speaker.
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   - 7.10 AED shall meet or exceed IEC 61000-4-8; IEC 60601-2-4, Section 36.202.8; AAMI DF39, Section 3.3.21.2.3 80A/m, 47.5Hz-1.320Hz immunity tests (magnetic)
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7.13 AED shall meet or exceed IEC 60068-2-29 bump test, 40g and 6000 bumps.
7.14 AED shall meet or exceed IEC 60068-2-64 vibration (random) test, 10Hz-2KHz, 0.005-0.0012 g²/Hz
7.15 AED shall meet or exceed IEC 60068-2-6 vibration (sine) test, 10Hz-60Hz, 0.15 mm and 60Hz-150Hz, 2g.

8. Program Implementation

8.1 Program will provide Medical Direction / Medical Prescription as required by State Laws
8.2 CPR / AED training shall be provided by trainers employed by the AED manufacturer
8.3 Training will consist of 4 hours of American Heart Association Heartsaver CPR / AED instruction
8.4 All training materials (books, certification cards and mannequins) to be provided by the AED manufacturer
8.5 CPR / AED certification will be for 2 years
8.6 Instructors will consist of Paramedics, EMTs or Nurses
8.7 Student to CPR / AED practice mannequin shall be a 1-1 ratio
8.8 Program will track AEDs by location and serial number
8.9 Program will provide tracking of training roster, certification dates & recertification
8.10 Program shall provide e-mail reminder notices to site contact regarding recertification scheduling, check / order battery, and re-order pads prior to expiration
8.11 Program will train up to 10 students per class per location

9. Technical Service/Warranty

9.1 AED shall require no yearly planned service or calibration regardless of frequency of use.
9.2 AED and battery shall have a minimum 7-year warranty on defects in materials and workmanship.
9.3 IntelliSense lithium battery shall have a full replacement operating warranty for four (4) years from date of installation.
9.4 Technical service shall be available 24 hours per day, 7 days a week by the manufacturer.

CARDIAC SCIENCE AEDs

G3 third generation

Cardiac Science AED G3 Accessories – The Complete Heartsafe Environment Package.

Introducing a line of AED accessories that includes valuable safety resources, which combine to offer a complete solution for a Heartsafe Environment. Our accessories give users effective storage and placement options, insure that their AED equipment is clearly visible and easily accessible, and provide them with essential rescue tools that will facilitate responses to cardiac and CPR-related emergencies.

Cardiac Science wall mounts and wire racks are the perfect AED placement solutions for busy facilities. Both provide AED visibility and convenient accessibility. Additionally, each placement option clearly displays expiration dates and the RescueReady® indicator, which insures that the AED is easily accessible for a rescue.

Cardiac Science's Total Response Rescue Cases and Backpacks offer storage options to the mobile user. The portable accessories make transportation easy, and allow the user to respond to emergencies with all equipment in a timely manner.

In addition to the storage and placement solutions, Cardiac Science also offers accessories that facilitate the actual rescue. The Rescue Kit, Total Response Rescue Kit, ResQPOD, adult and pediatric defibrillation pads, and O_2 supplies are additional accessories that help complete the total Heartsafe Environment package.

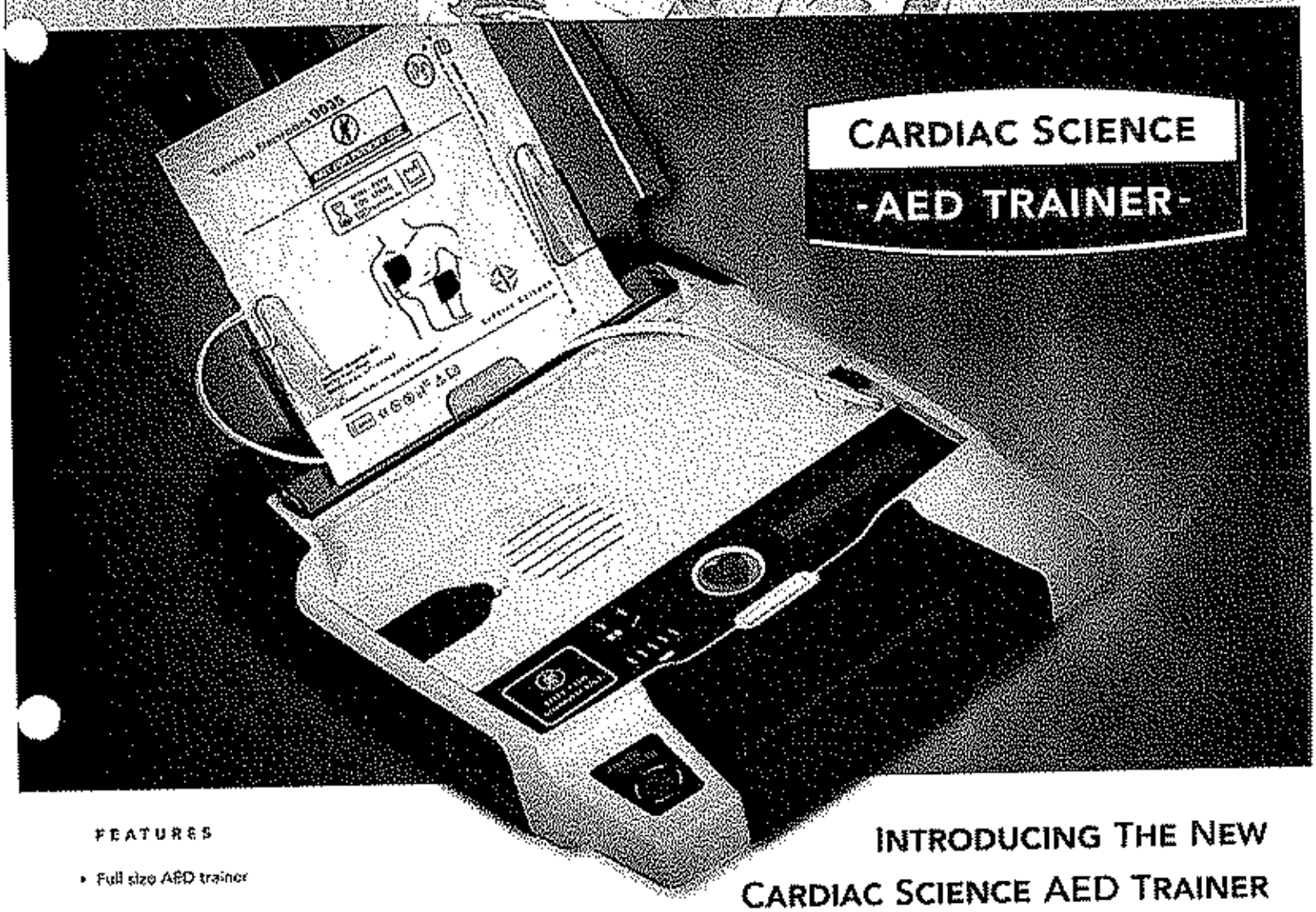
All accessories are compatible with the Powerheart AED G3. To learn more about the best choice in AED accessories, visit our website www.cardiacscience.com, or email info@cardiacscience.com, or call 1.866.289.5649 (USA and Canada only).

CARDIAC SCIENCE

CREATING HEARTSAFE ENVIRONMENTS

CARDIAC SCIENCE AEDs

G3 third generation



FEATURES

- Full size AED trainer
- Dual mode simulates semi-automatic AND fully automatic training
- Multiple language configurations

Rescue stages and scenarios are advanced through an infrared, wireless remote control.

INTRODUCING THE NEW CARDIAC SCIENCE AED TRAINER

The best trainer just got better.

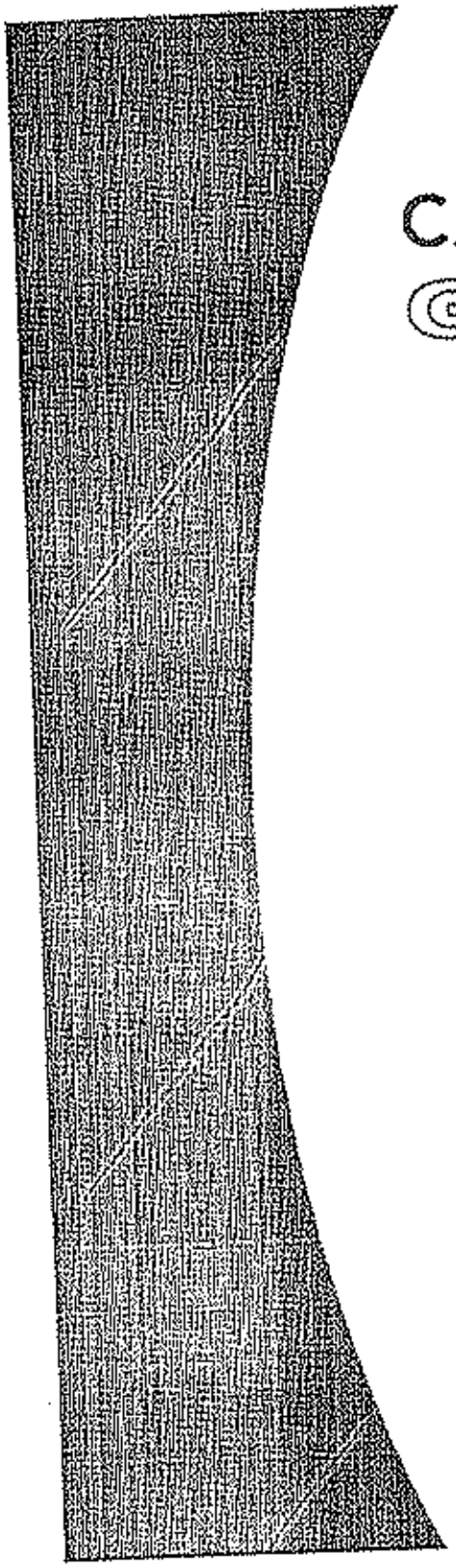
The next generation of Cardiac Science AED G3 trainers have arrived. These new trainers offer customers a realistic AED training experience with more instructive and intuitive voice prompts, improved voice quality and clarity in a new full-size, user-friendly form factor. And, the trainer is dual mode - semi-automatic and fully-automatic and can be easily configured for maximum flexibility.

Now, training users on the Cardiac Science AED is smarter and easier than ever. Compact and lightweight, the new Cardiac Science AED Trainer incorporates the AEDs easy-to-use features to facilitate rapid rescue skill development and confidently assist victims of sudden cardiac arrest (SCA).

To learn more about Cardiac Science AEDs, visit our website www.cardiacscience.com, or email info@cardiacscience.com, or call 1.866.289.5649 (USA and Canada only).

CARDIAC SCIENCE

CREATING HEARTSAFE ENVIRONMENTS



CARDIAC SCIENCE AEDs

G3 *third generation*

Operation and Service Manual

POWERHEART® AED G3
automated external defibrillator | 9300E

POWERHEART® AED G3
automated external defibrillator | 9300A
AUTOMATIC

FIRSTSAVE® AED G3
automated external defibrillator | 9300C

CARDIAC SCIENCE

Limited Warranty

Cardiac Science, Inc. ("Cardiac Science") warrants to the original purchaser that its AEDs and pulse battery operating life will be free of any defect in material and workmanship according to the terms and conditions of this Limited Warranty ("Limited Warranty"). For purposes of this Limited Warranty, the original purchaser is deemed to be the original end user of the product purchased. This Limited Warranty is NONTRANSFERABLE and UNASSIGNABLE.

For How Long?

Seven (7) years from the date of the original shipment to the original purchaser for Powerheart AED G3 automated external defibrillators and G3 AED battery P/N (9146). Disposable defibrillation pads shall be warranted until the expiration date. Lithium batteries P/N (9146) have a one operational replacement warranty of four (4) years from the date of installation into a Powerheart AED G3. One (1) year from the date of original shipment to the original purchaser for Cardiac Science AED accessories. The terms of the Limited Warranty in effect as of the date of original purchase will apply to any warranty claims.

What You Must Do

Please complete and submit the Warranty Validation Form within 30 days of original shipment located at http://www.cardiacscience.com/productsfaed_warranty.cfm. If the purchaser does not have internet access, call (888) 466-8686 or +45.4436.0339.

To obtain warranty service for your product, call us toll free at (888) 466-8686 or +45.4436.0339 seven days a week, 24 hours a day. Our customer service representative will try to resolve your issue over the phone. If necessary, and at our sole discretion, we will arrange for service or a replacement of our product.

What We Will Do

If your Cardiac Science product is returned within 30 days of the date it was purchased, at the direction of a customer service representative, we will replace it with a new product of equal value at no charge to you, provided the warranty applies.

If your Cardiac Science product is returned, at the direction of a customer service representative, after 30 days but within the warranty period, Cardiac Science, at its sole discretion, will repair your product or replace it. The repaired or replacement product will be warranted subject to the terms and conditions of this Limited Warranty for either (a) 90 days or (b) the remainder of the original warranty period, whichever is longer, provided the warranty applies and the warranty period has not expired.

Obligations and Warranty Limits

Limited Warranty Obligation: Exclusive Remedy

THE FOREGOING LIMITED WARRANTY IS IN LIEU OF AND SPECIFICALLY EXCLUDES AND REPLACES ALL OTHER EXPRESSED OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

NO PERSON (INCLUDING ANY AGENT, DEALER, OR REPRESENTATIVE OF CARDIAC SCIENCE) IS AUTHORIZED TO MAKE ANY REPRESENTATION OR WARRANTY CONCERNING CARDIAC SCIENCE PRODUCTS, EXCEPT TO REFER PURCHASERS TO THIS LIMITED WARRANTY.

YOUR EXCLUSIVE REMEDY WITH RESPECT TO ANY AND ALL LOSSES OR DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER SHALL BE AS SPECIFIED ABOVE. CARDIAC SCIENCE SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, EXEMPLARY DAMAGES, COMMERCIAL LOSS FROM ANY CAUSE, BUSINESS INTERRUPTION OF ANY NATURE, LOSS OF PROFITS OR PERSONAL INJURY, EVEN IF CARDIAC SCIENCE HAS BEEN ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES, HOWEVER OCCASIONED, WHETHER BY NEGLIGENCE OR OTHERWISE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

What This Warranty Does Not Cover

This Limited Warranty does not cover defects or damages of any sort resulting from, but not limited to, accidents, damage while in transit to our service location, alterations, unauthorized service, unauthorized product case opening, failure to follow instructions, improper use, abuse, neglect, fire, flood, war or acts of God. Cardiac Science makes no warranty claim as to the compatibility with Cardiac Science products with non-Cardiac Science products.

This Limited Warranty is Void if...

- Any Cardiac Science product is serviced or repaired by any person or entity other than Cardiac Science unless specifically authorized by Cardiac Science.
- Any Cardiac Science product case is opened by unauthorized personnel or if a product is used for an unauthorized purpose.
- Any Cardiac Science product is used in conjunction with incompatible parts or accessories, including but not limited to batteries. Parts and accessories are not compatible if they are not Cardiac Science products or the functional equivalent.

If The Warranty Period has Expired...

If your Cardiac Science product is not covered by our Limited Warranty, call us toll free at (888) 466-8686 or +45.4436.0339 for service as to whether we can repair your Cardiac Science product, and for other repair information, including charges. Charges for non-warranty repairs will be assessed and are your responsibility. Upon completion of the repair, the terms and conditions of this Limited Warranty shall apply to such repair or replacement product for a period of 90 days.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Effective on AED products shipped after April 12, 2004.

CARDIAC SCIENCE

TECHNICAL SUPPORT

If technical assistance is necessary, our service technicians will attempt to resolve your issue via toll free phone. If necessary, we will arrange for an on site service visit or replacement of our product.

**Please have serial and model numbers available when phoning. These numbers are found on the underside of the AED unit.*

- Service Technicians are available 24 hours a day, 7 days a week.

  Phone: 1-800-426-0337 or 888-466-8686
  Fax: 425-402-2022
  Email: techsupport@cardiacscience.com

- Repairs, when necessary, will be made at our Deerfield, Wisconsin facility:

  Cardiac Science Corporation
  500 Burdick Parkway
  Deerfield, WI 53531

  RETURN INSTRUCTIONS: *Please obtain a valid Return Maintenance Authorization (RMA) prior to returning your equipment for repair. The RMA number will need to be noted on the outside of your box and sent to the attention of Technical Support.

  Upon receipt of your equipment, you can expect a 2-week turn-a-round time for repair. If and when the equipment is not covered by our 7 year industry leading warranty, customer shall incur a $195.00 evaluation fee plus the cost of parts.

- Loaner units will be provided at no charge (at the customer's request) within 24 hours.

PREVENTATIVE MAINTENANCE

All devices come with the industry's only seven (7)-year parts & labor warranty. Our patented proprietary RescueReady feature performs daily, weekly, and monthly self-checks. An audio and visual alarm will alert the user if the AED is not ready for use in a rescue situation. Self- tests automatically check the battery, pads (presence and function), internal electronics, energy

charge cycle, SHOCK/CONTINUE button, and software. This information can be found in the operations & service manual.

CARDIAC SCIENCE

CUSTOMER SERVICE

Cardiac Science Corporation's Customer Service Representatives are available Monday through Friday 5:00 AM until 4:30 PM Pacific Standard Time.

Order Address: 3303 Monte Villa Parkway
Bothell, WA 98021-8969

Phone Toll-Free: 1-888-274-3342
1-800-426-0337

PAYMENT

Remit To Address: Cardiac Science Corporation
Dept. 0587
P O Box 125087
Dallas, TX 75312-0587

Bank Reference: Silicon Valley Bank
3003 Tasman Drive
Santa Clara, CA 95054
Account Number: 3300497513
ABA Routing Number: 121140399

Terms: Net 30 unless otherwise stated

Point of Contact: Kathi McMurtrey
Credit Manager
P: 425-402-2681
F: 425-402-2012

NORMAL DELIVERY

Products are shipped from Cardiac Science Corporation's Manufacturing facility in Wisconsin within 14 days after receipt of order (ARO). Typically, 99% of orders are shipped within two days ARO. Products will be shipped via Federal Express (FEDEX) Ground. **Shipping and handling charges will be included.**

CARDIAC SCIENCE AEDs

G3 *third generation*

Operation and Service Manual

POWERHEART® AED G3
automated external defibrillator | 9300E

POWERHEART® AED G3
automated external defibrillator | 9300A

AUTOMATIC

CARDIAC SCIENCE

Limited Warranty

Cardiac Science Corp. ("Cardiac Science") warrants to the original purchaser that its AEDs and stated battery operating life will be free of any defect in material and workmanship according to the terms and conditions of this Limited Warranty ("Limited Warranty"). For purposes of this Limited Warranty, the original purchaser is deemed to be the original end user of the product purchased. This Limited Warranty is NONTRANSFERABLE and UNASSIGNABLE.

For How Long?

Seven (7) years from the date of the original shipment to the original purchaser for Powerheart AED G3 automated external defibrillators and G3 AED battery P/N (9146). Disposable defibrillation pads shall be warranted until the expiration date. Lithium batteries P/N (9146) have a full operational replacement warranty of four (4) years from the date of installation into a Powerheart AED G3. One (1) year from the date of original shipment to the original purchaser for Cardiac Science AED accessories. The terms of the Limited Warranty in effect as of the date of original purchase will apply to any warranty claims.

What You Must Do

Please complete and submit the Warranty Validation Form within 30 days of original shipment located at http://www.cardiacscience.com/productsfaed_warranty.cfm. If the purchaser does not have internet access, call (888) 466-8686.

To obtain warranty service for your product, call us toll free at (888) 466-8686 seven days a week, 24 hours a day. Our customer service representative will try to resolve your issue over the phone. If necessary, and at our sole discretion, we will arrange for service or a replacement of our product.

What We Will Do

If your Cardiac Science product is returned within 30 days of the date it was purchased, at the direction of a customer service representative, we will replace it with a new product of equal value at no charge to you, provided the warranty applies.

If your Cardiac Science product is returned, at the direction of a customer service representative, after 30 days but within the warranty period, Cardiac Science, at its sole discretion, will repair your product or replace it. The repaired or replacement product will be warranted subject to the terms and conditions of this Limited Warranty for either (a) 90 days or (b) the remainder of the original warranty period, whichever is longer, provided the warranty applies and the warranty period has not expired.

Obligations and Warranty Limits

Limited Warranty Obligation: Exclusive Remedy

THE FOREGOING LIMITED WARRANTY IS IN LIEU OF AND SPECIFICALLY EXCLUDES AND REPLACES ALL OTHER EXPRESSED OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

NO PERSON (INCLUDING ANY AGENT, DEALER, OR REPRESENTATIVE OF CARDIAC SCIENCE) IS AUTHORIZED TO MAKE ANY REPRESENTATION OR WARRANTY CONCERNING CARDIAC SCIENCE PRODUCTS, EXCEPT TO REFER PURCHASERS TO THIS LIMITED WARRANTY.

YOUR EXCLUSIVE REMEDY WITH RESPECT TO ANY AND ALL LOSSES OR DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER SHALL BE AS SPECIFIED ABOVE. CARDIAC SCIENCE SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, EXEMPLARY DAMAGES, COMMERCIAL LOSS FROM ANY CAUSE, BUSINESS INTERRUPTION OF ANY NATURE, LOSS OF PROFITS OR PERSONAL INJURY, EVEN IF CARDIAC SCIENCE HAS BEEN ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES, HOWEVER OCCASIONED, WHETHER BY NEGLIGENCE OR OTHERWISE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

What This Warranty Does Not Cover

This Limited Warranty does not cover defects or damages of any sort resulting from, but not limited to, accidents, damage while in transit to our service location, alterations, unauthorized service, unauthorized product case opening, failure to follow instructions, improper use, abuse, neglect, fire, flood, war or acts of God. Cardiac Science makes no warranty claim as to the compatibility with Cardiac Science products with non Cardiac Science products.

This Limited Warranty is Void If...

- Any Cardiac Science product is serviced or repaired by any person or entity other than Cardiac Science unless specifically authorized by Cardiac Science.
- Any Cardiac Science product case is opened by unauthorized personnel or if a product is used for an unauthorized purpose.
- Any Cardiac Science product is used in conjunction with incompatible parts or accessories, including but not limited to batteries. Parts and accessories are not compatible if they are not Cardiac Science products or the functional equivalent.

If The Warranty Period has Expired...

If your Cardiac Science product is not covered by our Limited Warranty, call us toll free at (888) 466-8686 for advice as to whether we can repair your Cardiac Science product, and for other repair information, including charges. Charges for non-warranty repairs will be assessed and are your responsibility. Upon completion of the repair, the terms and conditions of this Limited Warranty shall apply to such repair or replacement product for a period of 90 days.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

CAUTION

Federal law restricts this device to be sold by or on the order of a physician or practitioner licensed by state law in which he/she practices to use or order the use of the device.

IMPORTANT

Read this Operation and Service Manual carefully. It contains information about your safety and the safety of others. Become familiar with the controls and how to use the AED properly before operating the product.

Cardiac Science AEDs are manufactured by:
Corporate Headquarters:
Cardiac Science Corporation
Bothell, WA 98021 U.S.A.

Web site: www.cardiacscience.com
E-mail: customerservice@cardiacscience.com

Authorized European Representative:
MDSS
Burckhardtstrasse 1
D-30163 Hannover
Germany

TRADEMARK INFORMATION

PATENTS

This device is covered by the following U.S. and foreign patents:
5,792,190, 5,999,493, 5,402,884, 5,579,919, 5,749,902, 5,645,571, 6,029,085, 5,984,102, 5,919,212, 5,891,172, 5,674,266, 5,700,281, 5,891,173, 5,968,080, 6,263,239, 5,797,969, D402,758, D405,754, 5,909,138, 6,173,203, 6,088,616, 5,897,576, 5,955,956, 6,083,246, 6,064,909, 6,038,473, 5,868,794, 6,115,638, 6,306,809, 5,474,574, 6,246,907, 6,289,243, 6,411,846, 6,480,734, 6,658,290, EP0756878
Other U.S. and foreign patents pending.

LIMITED WARRANTY

The Cardiac Science AED Operation and Service Manual and any and all information contained herein do not constitute any warranty as to the Powerheart AED G3, Powerheart AED G3 Automatic or any related products in any manner whatsoever. The "Limited Warranty" is shipped with the AED and serves as the sole and exclusive warranty provided by Cardiac Science regarding Cardiac Science AED products.

ORDER ENTRY

To order additional Cardiac Science AEDs or accessories:

Worldwide
Toll Free: 800.991.5465
Telephone: 425.402.2000
Fax: 425.402.2001
Email: customerservice@cardiacscience.com

TECHNICAL SUPPORT

To receive 24-hour customer support:

US/INTERNATIONAL
Toll Free: +1.888.466.8686
Or: +1.425.402.2691
Email: techsupport@cardiacscience.com
www.cardiacscience.com

There is no charge to the customer for a customer support call. Please have the serial and model numbers available when contacting Customer Service. (The serial and model numbers are located on the underside of the Cardiac Science AED.)

NOTICE OF RIGHTS

DEFIBRILLATOR TRACKING

Defibrillator manufacturers and distributors are required, under the Safe Medical Devices Act of 1990, to track the location of defibrillators they sell. Please notify Cardiac Science Customer Service in the event that your defibrillator is sold, donated, lost, stolen, exported, destroyed or if it was not purchased directly from Cardiac Science Corp.

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SECTION 4 - INSTRUCTIONS FOR USE

SECTION 5 - DATA MANAGEMENT

SECTION 6 - MAINTENANCE & TROUBLESHOOTING

SECTION 7 - TECHNICAL DATA

SECTION 1 – SAFETY

OVERVIEW

This section presents safety information to guard against injury to persons and damage to the Cardiac Science AED G3.

SAFETY TERMS AND DEFINITIONS

BEFORE OPERATING THE CARDIAC SCIENCE AED G3

Become familiar with the various safety alerts in this section.

Safety alerts identify potential hazards using symbols and words to explain what could potentially harm you, the patient, or the Cardiac Science AED G3.

SAFETY TERMS AND DEFINITIONS

The triangle attention symbol shown below, left, identifies the potential hazard categories. The definition of each category is as follows:

⚠ ***DANGER:*** This alert identifies hazards that will cause serious personal injury or death.

⚠ ***WARNING:*** This alert identifies hazards that may cause serious personal injury or death.

⚠ ***CAUTION:*** This alert identifies hazards that may cause minor personal injury, product damage, or property damage.

PRODUCT MODELS

This manual is for Cardiac Science AED models 9300E and 9300A. They share a basic set of features and differences are noted throughout the manual.

PRODUCT REFERENCES

For purposes of retaining simple, clear instructions in this manual, note the product references used. Features, specifications, operating instructions and maintenance common to product models will be referred to as:

"Powerheart AED", "AED" or "device"	Refers to Cardiac Science AED G3 models 9300E and 9300A

SAFETY ALERT DESCRIPTIONS

The following is a list of Cardiac Science AED safety alerts that appear in this section and throughout this manual. You must read, understand, and heed these safety alerts before attempting to operate the AED.

⚠ ***DANGER:*** Fire and Explosion Hazard
Exercise caution when operating the AED close to flammable gases (including concentrated oxygen) to avoid possible explosion or fire hazard.

⚠ ***WARNING:*** Shock Hazard
Defibrillation shock current flowing through unwanted pathways is potentially a serious electrical shock hazard. To avoid this hazard during defibrillation abide by all of the following:

- Do not touch the patient, unless performance of CPR is indicated
- Do not touch metal objects in contact with the patient
- Keep defibrillation pads clear of other pads or metal parts in contact with patient
- Disconnect all non-defibrillator proof equipment from the patient before defibrillation

⚠ ***WARNING:*** Shock and Possible Equipment Damage
Disconnect all non-defibrillator proof equipment from the patient before defibrillation to prevent electrical shock and potential damage to the equipment.

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WARNING: Electric Shock and Fire Hazard
Do not connect any telephones or unauthorized connectors to the socket on this equipment.

WARNING: Battery is Not Rechargeable
Do not attempt to recharge the battery. Any attempt to recharge the battery may result in an explosion or fire hazard.

WARNING: Shock Hazard
Do not disassemble the AED! Failure to observe this warning can result in personal injury or death. Refer maintenance issues to Cardiac Science authorized service personnel.

CAUTION: Temperature Extremes
Exposing the AED to extreme environmental conditions outside of its operating parameters may compromise the ability of the AED to function properly. The RescueReady® daily self-test verifies the impact of extreme environmental conditions on the AED. If the daily self-test determines environmental conditions outside of the AED's operating parameters, a "Service Required" alert will be issued to prompt the user to move the AED to environmental conditions within the acceptable operating parameters at once. See Section 7 – Technical Data, Parameters, Operation and Standby Conditions.

CAUTION: Lithium Sulfur Dioxide Battery
Pressurized contents: never recharge, short circuit, puncture, deform, or expose to temperatures above 85°C (149°F). Remove the battery when discharged.

CAUTION: Battery Disposal
Recycle or dispose of the lithium battery in accordance with all federal, state and local laws. To avoid fire and explosion hazard, do not burn or incinerate the battery.

CAUTION: Use only Cardiac Science Approved Equipment
Using batteries, pads, cables, or optional equipment other than those approved by Cardiac Science may cause the AED to function improperly during a rescue.

CAUTION: Possible Improper AED Performance
Using pads that are damaged or expired may result in improper AED performance.

CAUTION: Serial Communication Cable
The AED will not function during a rescue when the serial communication cable is connected to its serial port. When the serial communication cable is connected to the AED during a rescue, the prompt *"Remove Cable to Continue Rescue"* will be heard until you remove the serial communication cable.

CAUTION: Possible Radio Frequency (RF) Susceptibility
RF susceptibility from cellular phones, CB radios and FM 2-way radio may cause incorrect rhythm recognition and subsequent shock advisory. When attempting a rescue using the AED, do not operate wireless radiotelephones within 1 meter of the AED – turn power OFF to the radiotelephone and other like equipment near the incident.

⚠ ***CAUTION:*** Possible Interference with Implanted Pacemaker
Therapy should not be delayed for patients with implanted pacemakers and a defibrillation attempt should be made if the patient is unconscious and not breathing. The AED has pacemaker detection and rejection, however with some pacemakers the AED may not advise a defibrillation shock.[1]

Placing Pads:
- Do not place the pads directly over an implanted device.
- Place the pad at least one inch from any implanted device.

⚠ ***CAUTION:*** Moving the Patient During a Rescue
During a rescue attempt, excessive jostling or moving of the patient may cause AEDs to improperly analyze the patient's cardiac rhythm. Stop all motion or vibration before attempting a rescue.

⚠ ***CAUTION:*** Serial Communication Cable
The serial communication cable is only for use with the AED; it is not to be used with a telephone.

⚠ ***CAUTION:*** Systems Statement
Equipment connected to the analog and digital interfaces must be certified to the respective IEC standards (i.e. IEC 950 for data processing equipment and IEC 601-1 for medical equipment). Furthermore, all configurations shall comply with the system standard IEC 601-1-1. Anybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 601-1-1.

⚠ ***CAUTION:*** Case Cleaning Solutions
When disinfecting the case, use a non-oxidizing disinfectant, such as ammonium salts or a glutaraldehyde based cleaning solution, to avoid damage to the metal connectors.

[1] *Cummins, R., ed., Advanced Cardiac Life Support; AHA (1994): Ch. 4.*

SYMBOL DESCRIPTIONS

The following symbols may appear in this manual, on the AED, or on its optional components. Some of the symbols represent standards and compliances associated with the AED and its use.

Dangerous Voltage: The defibrillator output has high voltage and can present a shock hazard. Please read and understand all safety alerts in this manual before attempting to operate the AED.

Attention!: Identifies important information in this manual, on the AED, or on its component parts regarding the safe and proper use of the AED.

Defibrillator Proof Type BF Equipment: The AED, when connected to the patient's chest by the pads, can withstand the effects of an externally applied defibrillation shock.

CE Mark: This equipment conforms to essential requirements of the Medical Device Directive 93/42/EEC.

IP24 The AED is protected against the effects of splashing water in accordance with IEC 60529.

Classified by ETL Semko with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1, CAN/CSA C22.2 No.601.1-M90, EN60601-1 and EN60601-2-4. Conforms to UL Standard UL60601-1. Certified to CAN/CSA Standard C22.2 No. 601.1-M90.

International symbol for ON. Open the lid to turn on the AED.

Open the lid to turn ON the AED.

Indicates the AED battery status. The illuminated areas indicate the remaining battery capacity.

Check pads. The pads are missing, not connected or have compromised functionality.

Indicates AED requires maintenance by authorized service personnel.

When the **SHOCK** indicator is lit, push this button to deliver a defibrillation shock.

When the **CONTINUE** indicator is lit, push this button to clear the internal memory to allow storage of new rescue data in the AED. (Only for models not equipped with Multiple Rescue software)

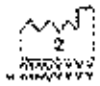
SYMBOL DESCRIPTIONS (CONT.)

A red indicator with a BLACK X means the AED requires operator attention or maintenance, and is not RescueReady.

A green indicator without a BLACK X means the AED is RescueReady.

Use pads by this date.

Date of manufacture, year and month.



Date of factory recertification (R).

Latex free.

Disposable. Single patient use only.

Tear here to open.

Do not recharge battery.

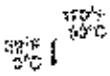
Position of pads on the chest of patient.

For use by or on the order of a Physician, or persons licensed by state law.

Dispose of properly in accordance with all state, province, and country regulations.

Do not incinerate or expose to open flame.

Explosion hazard: Do not use in the presence of a flammable gas, including concentrated oxygen.

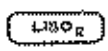


Upper and lower temperature limits.

Device model number, battery model number.

Lot number

Option number



Lithium sulfur dioxide


Serial communication port


Additional information is provided in the AED Operation and Service Manual.


Points to important information regarding the use of the AED.


Lift here


Manufacturer

Authorized European Representative


Symbol for the marking of electrical and electronic equipment that must be recycled.

SECTION 2 – INTRODUCTION

OVERVIEW

This section presents information about the AED, its use, and the training requirements for operation.

AED DESCRIPTION

The AED is a self-testing, battery-operated automated external defibrillator (AED). After applying the AED's electrodes (pads) to the patient's chest, the AED automatically analyzes the patient's electrocardiogram (ECG) and advises the operator to push the button and deliver a shock if needed. For the Powerheart AED G3 Automatic, the AED automatically delivers a shock if needed. The AED guides the operator through the rescue using a combination of voice prompts, audible alerts, and visible indicators.

INDICATIONS FOR USE

The AED with STAR Biphasic Waveform is intended to be used by personnel who have been trained in its operation. The operator should be qualified by training in basic life support, CPR/AED or other physician-authorized emergency medical response. The device is indicated for emergency treatment of victims exhibiting symptoms of sudden cardiac arrest who are unresponsive and not breathing. If the victim is breathing post-resuscitation, the AED should be left attached to allow for acquisition and detection of the ECG rhythm. If a shockable ventricular tachyarrhythmia recurs, the device will charge automatically and advise the operator to deliver therapy, or for the Powerheart AED G3 Automatic, automatically deliver a shock if needed.

When the patient is a child under 8 years of age or weighs less than 55 lbs (25kg), the AED should be used with the Model 9730 Pediatric Attenuated Defibrillation Pads. Therapy should not be delayed to determine the patient's exact age or weight.

RHYTHMx® AED ECG ANALYSIS ALGORITHM

The RHYTHMx AED ECG analysis algorithm provides ECG detection capabilities. The features available with the AED include the following:

- Detection Rate
- Asystole Threshold
- Noise Detection
- Non-Committed Shock
- Synchronized Shock
- Pacemaker Pulse Rejection
- SVT Discriminators
- SupraVentricular Tachycardia (SVT) Rate

DETECTION RATE

All ventricular fibrillation (VF) and ventricular tachycardia (VT) rhythms at or above this rate will be classified as shockable. All rhythms below this rate will be classified as non-shockable. This rate is programmable between 120 bpm (beats per minute) and 240 bpm via MDLink Software by the Medical Director. The default Detection Rate is 160 bpm.

ASYSTOLE THRESHOLD

The asystole peak-to-peak threshold is set at 0.08 mV. ECG rhythms at or below 0.08 mV will be classified as asystole and will not be shockable.

NOISE DETECTION

The AED will detect noise artifact in the ECG. Noise could be introduced by excessive moving of the patient or electronic noise from external sources like cellular and radiotelephones. When noise is detected, the AED will issue the prompt *"Analysis Interrupted. Stop Patient Motion"* to warn the operator. The AED will then proceed to reanalyze the rhythm and continue with the rescue.

NON-COMMITTED SHOCK

After the AED advises a shock, it continues to monitor the patient ECG rhythm. If the patient's rhythm changes to a non-shockable rhythm before the actual shock is delivered, the AED will advise that the rhythm has changed and issue the prompt *"Rhythm Changed. Shock Cancelled."* The AED will override the charge and initiate CPR.

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SYNCHRONIZED SHOCK

The AED is designed to automatically attempt to synchronize shock delivery on the R-wave if one is present. If delivery cannot be synchronized within one second, a non-synchronized shock will be delivered.

PACEMAKER PULSE DETECTION

The AED contains pacemaker pulse detection circuitry to detect pulses from an implanted pacemaker.

SVT DISCRIMINATORS

The AED is supplied with the SVT Discriminator enabled and with the default setting "NO THERAPY FOR SVT". With the factory default setting of "NO THERAPY FOR SVT", the AED will not shock an SVT rhythm.

SVT Discriminators are sophisticated filters that analyze the morphology of the ECG waveforms and distinguish VF/VT from SVT and Normal Sinus Rhythms (NSR). The SVT Discriminator will only be applied to rhythms that fall between the Detection Rate and the SVT Rate. The factory default setting for this feature is "NO THERAPY FOR SVT", however the Medical Director can enable this feature using MDLink.

SVT RATE

All rhythms with rates between the Detection Rate and SVT Rate will be screened through a number of SVT Discriminators to classify them into VF/VT or SVT. Rhythms classified as SVT between the two set rates are not shockable. All SVT rhythms above the rates will be classified as shockable. The SVT Rate must be greater than the Detection Rate and is selectable between 160 and 300 bpm or, "NO THERAPY FOR SVT" can be selected via MDLink Software by the Medical Director.

RESCUE PROTOCOL

The AED rescue protocol is consistent with the guidelines recommended by the American Heart Association (AHA)[1] and the International Liaison Committee on Resuscitation (ILCOR).

Upon detecting a shockable cardiac rhythm, the AED advises the operator to press the SHOCK button to deliver a shock and then advises the operator to start CPR.

For the Powerheart AED G3 Automatic, upon detecting a shockable rhythm, the AED will automatically deliver a shock and then advise the operator to start CPR.

Note: The standard CPR protocol of 120 seconds can be modified from 60 to 180 seconds in iQLink.

STAR BIPHASIC WAVEFORM

STAR BIPHASIC

The STAR Biphasic Waveform is designed to measure the patient's impedance and deliver a customized shock. This allows the delivery of an optimized energy level to each patient. The energy levels for the Powerheart AED are available in three different defibrillation shock[2] configurations. See table on next page and Section 7 for additional information.

STAR BIPHASIC ENERGY PROTOCOLS FOR POWERHEART AED

Cardiac Science's patented STAR® Biphasic defibrillation waveform will deliver variable escalating energy that is customized to each patient's needs based upon a patient's thoracic impedance. This customization adjusts for the unique physical differences between patients. The range of impedance over which the device will deliver a shock is 25-180 Ohms. The Powerheart AED comes equipped with five different FDA cleared biphasic energy protocols.

The operator, with guidance, direction and implementation from his/her designated AED program Medical Director, may select from one of these five protocols when placing the Powerheart AED into service. The Powerheart AEDs factory default energy protocol is 200-300-300 Joule (J) escalating Variable Energy (VE). The first shock is delivered within the range of 140J-250J (200J nominal). Subsequent shocks are delivered within a range of 190J-360J (300J nominal). See next page.

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[1] *"Guidelines 2005 for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care" American Heart Association; Circulation Vol 112, Issue 24 Suppl. Dec 13, 2005*

[2] *The ultra-low current, low current and high current shocks are variable energy. The actual energy is determined by the patient's impedance.*

These protocols are selected by using our MDLink software program. The five biphasic energy protocols available are as follows:

Energy Protocols	Shock Sequence*	Energy Level	Energy Range (J)
Factory Default	1.	200VE	140J-250J
	2.	300VE	190J-360J
	3.	300VE	190J-360J
Protocol #2	1.	200VE	140J-250J
	2.	200VE	140J-250J
	3.	300VE	190J-360J
Protocol #3	1.	150VE	105J-195J
	2.	200VE	140J-250J
	3.	200VE	140J-250J
Protocol #4	1.	150VE	105J-195J
	2.	150VE	105J-195J
	3.	200VE	140J-250J
Protocol #5	1.	200VE	140J-250J
	2.	200VE	140J-250J
	3.	200VE	140J-250J

*The ultra-low current, low current and high current shocks are variable energy. The actual energy is determined by the patient's impedance.

OPERATOR TRAINING REQUIREMENTS

Persons authorized to operate the AED must have all of the following minimum training.

- Defibrillation training and other training as required by state, province, or country regulations.
- Training on operation and use of the AED.
- Additional training as required by the physician or Medical Director.
- A thorough understanding of the procedures in this manual.

Notes: Keep valid certificates of training and certification as required by state, province, or country regulations.

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SECTION 3 – GETTING STARTED

OVERVIEW

This section presents information on unpacking and setting up the AED

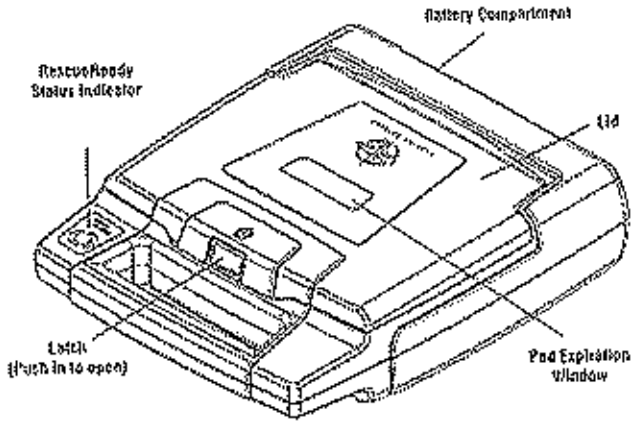
UNPACKING AND INSPECTING

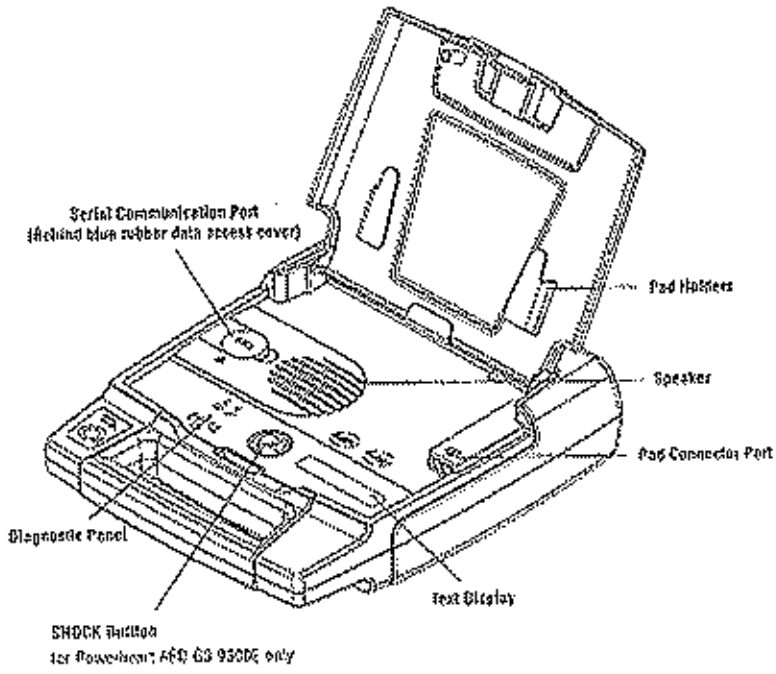
Every attempt is made to ensure your order is accurate and complete. However, to be sure that your order is correct, verify the contents of the box against your packing slip.

If you have any questions about your order, contact Customer Service. See page 4.

AED PARTS

The following drawings show the AED parts and their locations.





AED MODES

Operating Mode: Defined as having the battery installed and the lid open. This is the mode the AED would be in during an actual rescue situation.

Standby Mode: When the battery is installed, but the lid is closed. In this mode the AED is not being used in a rescue. The device will conduct its routine self-tests to ensure proper operation.

Storage Mode: When the battery is removed, such as during shipping or transport. With the battery removed, the AED is unable to perform self-tests or rescues.

ENVIRONMENTAL OPERATING AND STANDBY CONDITIONS

See Section 7 – Technical Data, Parameters, Environmental Operation and Standby Conditions.

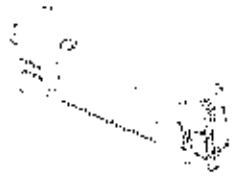
⚠ ***CAUTION:*** Temperature Extremes
Exposing the AED to extreme environmental conditions outside of its operating parameters may compromise the ability of the AED to function properly. The RescueReady® daily self-test verifies the impact of extreme environmental conditions on the AED. If the daily self-test determines environmental conditions outside of the AED's operating parameters, a "Service Required" alert will be issued to prompt the user to move the AED to environmental conditions within the acceptable operating parameters at once.

SHIPPING AND TRANSPORT CONDITIONS

(For up to 1 week)
See Section 7 – Technical Data, Safety and Performance Standards/Shipping and Transportation Conditions.

INTELLISENSE BATTERY

The Cardiac Science IntelliSense battery technology offers you the most advanced battery capabilities available for defibrillators. Cardiac Science IntelliSense batteries contain an integrated memory chip that automatically stores important usage information, enabling the battery to maintain a complete history of its operating life. The actual battery history can be reviewed using the RescueLink software.
This history includes:



- Battery Identification
- Battery Type
- Original Date of Installation in an AED
- Number of Charges completed
- Time in Operation (hours:minutes)
- Days of Standby Operation
- Battery Capacity Remaining

BATTERY OPERATING LIFE

The battery operating life depends on the type of battery, actual usage and environmental factors.

The following table represents the expected life of the Powerheart AED when used in Standby Mode.

Model	Estimated Shelf Life (from date of manufacture)	Full Operational Replacement Guarantee (from date of installation)	Typical Shocks
9146 Lithium	5 Years	4 Years	up to 290 shocks

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BATTERY SHELF LIFE

The Cardiac Science AED batteries have a shelf life of five years. Shelf life is defined as the length of time a battery can be stored, prior to installation into AED, without degrading its performance.

Note: Storing the battery outside its specific range (0-50°C) will decrease battery life.

BATTERY INSTALLATION

1. With the label on the battery facing the AED battery compartment, insert the battery as shown in the drawing.

2. Push the latched end of the battery firmly into the AED, as shown in the drawing, until the battery snaps into place. The exposed side of the battery should be flush with the outside of the AED case.

3. Open the lid for 5 seconds to initiate a self-test. If the battery is installed properly, the SMARTGAUGE battery indicator LEDs will illuminate and the STATUS INDICATOR will turn GREEN. If service is required, then the SERVICE indicator will illuminate; call for service.

WARNING: Battery is Not Rechargeable
Do not attempt to recharge the battery. Any attempt to recharge the battery may result in an explosion or fire hazard.

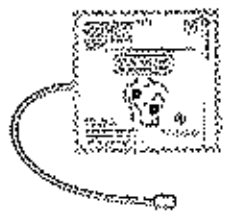
CAUTION: Lithium Sulfur Dioxide Battery
Pressurized contents: never recharge, short circuit, puncture, deform, or expose to temperatures above 65°C (149°F). Remove the battery when discharged.

CAUTION: Battery Disposal
Recycle or dispose of the lithium battery in accordance with all federal, state and local laws. To avoid fire and explosion hazard, do not burn or incinerate the battery.

CAUTION: Use only Cardiac Science Approved Equipment
Using batteries, pads, cables, or optional equipment other than those approved by Cardiac Science may cause the AED to function improperly during a rescue.

CAUTION: Possible Improper AED Performance
Using pads that are damaged or expired may result in improper AED performance.

PADS



The defibrillation pads come in a ready-to-use, sealed package containing one pair of self-adhesive pads with an attached cable and connector. The pads are disposable and should be discarded after each rescue.

The pads have a limited shelf life and should not be used beyond the expiration date. Keep a fresh, unopened pair of pads plugged into the AED at all times. Refer to the pad package label for operation temperatures.

An audible and visual alert will indicate after the self-test if the pads are missing, unplugged or damaged.

PAD INSTALLATION

1. Open the lid of the AED.
2. Place the pad package into the lid so that the expiration label is visible through the clear window on the lid. The expiration date of the pads will then be readable without opening the lid of the AED.
3. Match the color of the connectors (red to red), then plug the pad connector into the AED case as shown in the drawing. Once the pad connector is plugged into AED, the PAD indicator should extinguish.
4. Tuck the excess cable length in the bottom holder as shown in the drawing. With the pad package completely secured to the AED lid, close the lid.
5. Make sure the expiration date is visible through the clear window of the lid and check to make sure that the **STATUS INDICATOR** is **GREEN**. If the pads are not installed properly, the **STATUS INDICATOR** will be **RED**; call Customer Service for assistance.

⚠ ***CAUTION:*** Use only Cardiac Science Approved Equipment
Using batteries, pads, cables, or optional equipment other than those approved by Cardiac Science may cause the AED to function improperly during a rescue.

⚠ ***CAUTION:*** Possible Improper AED Performance
Using pads that are damaged or expired may result in improper AED performance.

DIRECTIONS FOR USE:

1. Do NOT open until ready to use, short term use only.
2. Ensure the skin site is clean and dry.
3. Separate one pad from liner.
4. Place one pad on skin in either location.
5. Peel and place remaining pad.

AED INDICATORS

The following indicators are located on the AED.

RESCUEREADY STATUS INDICATOR

The **STATUS INDICATOR** is located on the Powerheart AED handle.

When this indicator is **GREEN**, the AED is RescueReady. This means the AED self-tests have verified the following:

- Battery has an adequate charge.
- Pads are properly connected to the AED.
- Integrity of the internal circuitry is good.

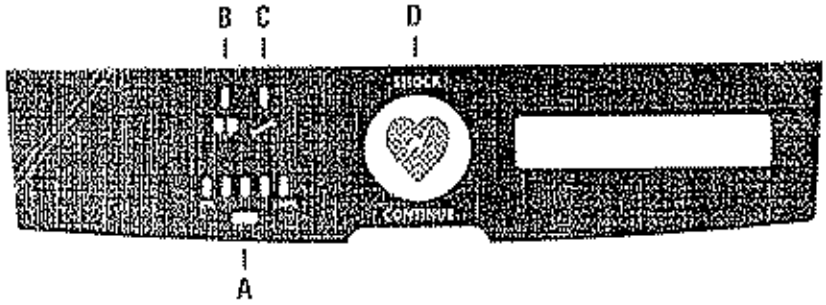
When the **STATUS INDICATOR** is **RED**, maintenance is required.

AUDIBLE MAINTENANCE INDICATOR

When the daily, weekly or monthly self-test determines service is required, an audible beep is sounded every 30 seconds until the lid is opened or the battery power is depleted. Opening and closing the lid may deactivate the beep. If the error is not corrected by the next automatic self-test, the beep will be reactivated.

DIAGNOSTIC PANEL

A SMARTGAUGE BATTERY Indicator
B PADS Indicator
C SERVICE Indicator
D SHOCK Button (9300E only)



SMARTGAUGE BATTERY STATUS INDICATOR

The SMARTGAUGE Battery Status Indicator has five (5) LEDs, four (4) green and one (1) red. The right four green LEDs display the remaining capacity of the battery much like a fuel gauge. With use, the green LEDs gradually go out, from right to left, as battery capacity decreases. When the green LEDs go out and the red LED lights up, replace the battery.

Note: When the red LED initially lights up – upon lid opening or at any time during a rescue – a *"Battery Low"* prompt will be issued at once. However, the AED is capable of delivering at least 9 more defibrillation shocks after the first *"Battery Low"* prompt is issued.

When the AED battery cannot deliver any more shocks, the AED display will show "BATTERY LOW", the STATUS INDICATOR will be RED, and the device will "beep" every 30 seconds. To continue the rescue, leave the lid open, remove the battery, and replace with a fresh battery. If battery replacement takes longer than 60 seconds, the first rescue will be terminated and a second rescue will begin upon new battery insertion.

PADS INDICATOR

The PADS LED lights up when the pads are:

- Not properly connected to the AED.
- Not within operational specifications (cold, dried, damaged).
- Disconnected from the patient during a rescue.

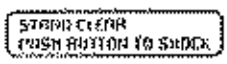
SERVICE INDICATOR

The SERVICE LED lights up when the AED requires maintenance that can only be performed by qualified service personnel.

SHOCK INDICATOR

For model 9300E only. The AED has one button called the SHOCK button. The word SHOCK and the shock button indicator LED will illuminate red when the AED is ready to deliver a defibrillation shock to the patient.

TEXT DISPLAY



The text display has 2 lines of text. The text display provides the operator with information regarding system initialization, text prompts and data during a rescue, and diagnostics.

System initialization occurs when the lid is first opened. The text display shows the operator the identifiers for the internal code, voice prompts and text prompts versions. The text display also shows the current date and time.

During a rescue, the text display shows the number of shocks delivered and the elapsed time from the beginning of the rescue (when the lid was first opened). During CPR, a countdown timer will be displayed. The text version of the voice prompts will also be displayed.

Note: There is a 3 second delay between the time the AED lid is opened and the start of the rescue. This 3 second delay is not included in the elapsed rescue time.

SETTING THE AED INTERNAL CLOCK

The internal clock is preset at Central Standard Time and should be reset to the correct date and local time. If applicable, the AED will automatically adjust itself for Daylight Savings Time. This feature can be turned off using the MDLink software. To set the clock, you will need a Windows 98 or newer PC, RescueLink software installed, and the AED serial cable connected to the PC.

To set the clock settings:

- Ensure that the PC is set at the correct local time and date.
- Open the lid of the AED and run the RescueLink software on the PC.
- Connect the cable to the serial port on the AED.
- Verify that the voice prompt states *"Communications Mode"*.
- Click **COMMUNICATIONS** on the main menu. Select **AED DATE AND TIME**.
- Click on the **GET** button to review the current time in the AED.
- If the time and date is incorrect, click **SET** to set new time and date. The AED date and time will automatically be updated to the PC's time and date.

VOICE PROMPTS AND TEXT DISPLAY

The voice prompts activate when the AED lid is opened and help guide the operator through the rescue. The AED text display provides a visual display of most of the audible voice prompts.

The following table lists the voice and text prompts and a description of when the prompts are issued.

VOICE PROMPT	TEXT DISPLAY	SITUATION
"Tear Open Package and Remove Pads."	*TEAR OPEN PACKAGE REMOVE PADS*	When the lid is opened, this phrase is repeats twice to initiate the rescue sequence.
"Peel One Pad from Plastic Liner."	*PEEL ONE PAD FROM PLASTIC LINER*	Repeats until one pad is peeled off of the liner.
"Place One Pad on Bare Upper Chest."	*PLACE ONE PAD ON BARE UPPER CHEST*	Repeat twice while one pad is placed.
"Peel Second Pad and Place on Bare Lower Chest as Shown."	*PEEL SECOND PAD PLACE ON LOWER CHEST*	Repeats until both pads are placed on the patient.
"Do Not Touch Patient! Analyzing Rhythm."	*DO NOT TOUCH PATIENT ANALYZING RHYTHM*	When the AED is analyzing the cardiac rhythm of the patient.
"Shock Advised."	*SHOCK ADVISED*	When the AED is preparing to deliver a defibrillation shock.
"Charging."	*CHARGING*	Repeats while AED is charging.

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VOICE PROMPT	TEXT DISPLAY	SITUATION
"Stand Clear! Push Flashing Button to Deliver Shock."	*STAND CLEAR PUSH BUTTON TO SHOCK*	After the AED is fully charged and ready to deliver the defibrillation shock, the (RED) **SHOCK** indicator flashes and the phrase repeats for 30 seconds or until the **SHOCK** button is pushed.
Shock Delivered.	*SHOCK DELIVERED*	After the AED delivers a defibrillation shock.
"It is now safe to touch the patient."	*IT IS NOW SAFE TO TOUCH THE PATIENT.*	Advises the rescuer when it is safe to touch the patient.
Start CPR	*START CPR*	After the AED delivers a defibrillation shock. After the AED detects a non-shockable rhythm.
Give 30 compressions Then Give Two Breaths	*30 COMPRESSIONS 2 BREATHS*	Perform CPR for 2 minutes.
"Check Pads"	*CHECK PADS*	Occurs when patient impedance is too low or too high.
"Battery Low"	*BATTERY LOW*	Occurs once when the battery voltage becomes low, although a rescue can continue for approximately 9 more shocks. When the battery is too low to do a rescue, the following will occur: 1) "BATTERY LOW" will show on the LCD 2) STATUS INDICATOR will turn RED 3) AED will BEEP once every 30 seconds You must replace the battery before continuing with the rescue. If completely depleted, all AED activity will terminate.
(none)	*REMOVE BATTERY COPLETELY*	The AED will show "REMOVE BATTERY COMPLETELY" when the battery is partially removed. But when the battery is at the replace level (showing BATTERY LOW), the REMOVE BATTERY COMPLETELY will not be shown, only the BATTERY LOW.
"Analysis Interrupted. Stop Patient Motion."	*ANALYSIS INTERRUPTED STOP PATIENT MOTION*	When the AED detects ECG noise artifact, stop moving or touching the patient. Remove other electronic devices within a 5 meter radius.
"Open Lid to Continue Rescue"	*OPEN LID TO CONTINUE RESCUE*	When the lid is inadvertently closed during a rescue, this prompt will repeat for 15 seconds.
"Rhythm Changed. Shock Cancelled."	*RHYTHM CHANGED. SHOCK CANCELLED*	When the device is prepared to shock then detects a change in rhythm and therefore cancels the shock.

VOICE PROMPT	TEXT DISPLAY	SITUATION
"Continue CPR"	*CONTINUE CPR*	During CPR mode when enabled, or when a rescue is resumed in CPR mode after being interrupted by the lid closing.
"Remove Cable to Continue Rescue."	*REMOVE CABLE*	When a serial communication cable is connected to the AED during a rescue, the phrase repeats until the cable is disconnected.
"Communications Mode"	*COMMUNICATIONS MODE*	When the lid is open and the serial communication cable is plugged into the AED.
(Beep)		One "Beep" occurs in 30-second intervals during CPR when enabled by the MDI ink software program. "Beep" occurs when the AED requires maintenance.
"Service Required"	*SERVICE REQUIRED*	Occurs after the self-tests determine that the AED is not functioning properly. The prompt *"Service Required"* will be heard when the lid is opened. The red **SERVICE** indicator will illuminate and *"Service Required"* will repeat until you close the lid. After closing the lid, an alarm beep will be heard until the battery is removed or becomes completely depleted.

For the Powerheart AED G3 Automatic only:

"Stand Clear! Shock will be Delivered in"	*STAND CLEAR. SHOCK IN*	After the AED is fully charged and ready to deliver the defibrillation shock. The Shock will automatically be administered three seconds after the end of the voice prompt.
"Three, two, one"	*THREE* *TWO* *ONE*	Counts down seconds until a shock is automatically delivered.
"Shock delivered."	*SHOCK DELIVERED*	After a shock is automatically delivered.
"It is now safe to touch the patient."	*IT IS NOW SAFE TO TOUCH THE PATIENT.*	Advises the rescuer when it is safe to touch the patient.

SECTION 4 – INSTRUCTIONS FOR USE

OVERVIEW

This section presents information about how to use the AED to perform a rescue.

STEP 1: ASSESSMENT AND PAD PLACEMENT

PREPARATION

Determine that the patient is over 8 years of age or weighs more than 55 pounds (25 kg) and exhibits the following:

The patient is unresponsive, and
the patient is not breathing.

Remove clothing from the patient's chest. Ensure the skin site is clean and dry. Dry the patient's chest and shave excessive hair if necessary.

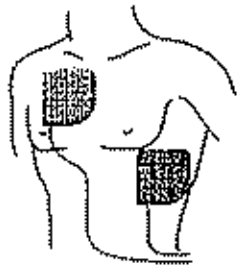
Open the AED lid and wait until the LEDs are lit.

Note: When the patient is a child under 8 years of age or weighs less than 55 lbs (25kg), the AED should be used with the Model 9730 Pediatric Attenuated Defibrillation Pads. Therapy should not be delayed to determine the patient's exact age or weight. See the directions for use accompanying pediatric pads for procedure on changing adult pads to pediatric.

PLACE PADS

The AED will issue the prompt *"Tear Open Package and Remove Pads."* Keep the pads connected to the AED, tear the pad package along the dotted line and remove the pads from the package. Leave the package attached to the pad wires.

After the prompt *"Peel One Pad From Plastic Liner,"* with a firm, steady pull, carefully peel one pad away from the plastic liner.



Then, after the prompt *"Place One Pad on Bare Upper Chest,"* place the pad with the sticky side of on the patient's skin on the upper right chest, placing the top of the pad on the collarbone. Avoid placing the pad directly over the sternum.

Finally, after the prompt *"Peel Second Pad and Place on Bare Lower Chest As Shown,"* pull the second pad from the plastic liner and place it on lower left chest, below and left of the breast.

Note: Cardiac Science's defibrillation pads are non-polarized and can be placed in either position as shown on the pad package.

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When the pads are placed, the voice prompt will say *"Do not touch patient. Analyzing Rhythm."* If the pads are not properly placed or become disconnected at any time during the rescue, the voice prompt *"Check Pads"* will be heard. When this occurs, ensure that:

Pads are firmly placed on clean, dry skin
Pad cable is securely plugged into the AED

STEP 2: ECG ANALYSIS

As soon as the AED detects proper pad placement, the voice prompt *"Do Not Touch Patient. Analyzing Rhythm"* will be heard. The AED will begin to analyze the cardiac rhythm of the patient.

If a shock is advised, the voice prompt will say, *"Shock Advised. Charging."*

For the Powerheart AED G3 Automatic:
The voice prompt, *"Stand Clear! Shock will be delivered in 3, 2, 1."* will be heard.

When the AED is charged, it continues to analyze the patient's heart rhythm. If the rhythm changes and a shock is no longer needed, the AED will issue the prompt *"Rhythm Changed. Shock Cancelled,"* disarm and initiate CPR.

If no shock is advised, the AED will prompt to start CPR.

If noise is detected during analysis, the AED will warn you with the prompt *"Analysis Interrupted. Stop Patient Motion"* and restart the analysis. This usually occurs if the patient is excessively jostled or there is a strong electromagnetic emitting electronic device nearby (within 5 meters). Remove the electronic device or stop the excessive motion when you hear this prompt.

STEP 3: SHOCK DELIVERY AND CPR MODE

When the AED is ready to deliver a defibrillation shock, the **SHOCK** button will flash and the prompt *"Stand Clear. Push Flashing Button to Deliver Shock"* will be heard.

Make sure no one is touching the patient and push the **SHOCK** button to deliver a defibrillation shock. If you do not push the **SHOCK** button within 30 seconds of hearing the prompt, the AED will prompt "It is safe to touch the patient". The AED will then prompt you to start CPR.

For the Powerheart AED G3 Automatic ONLY:
When the AED is ready to deliver a shock, the voice prompt, *"Stand Clear! Shock will be delivered in 3, 2, 1."* will be heard then the AED will deliver a shock.

After the AED delivers a defibrillation shock, the voice prompt will say "*Shock Delivered.*" The AED will then prompt you to start CPR.

Note: During a rescue, the text screen displays voice prompts, elapsed time of rescue and number of shocks delivered.

CPR MODE

After shock delivery or detection of a non-shockable rhythm, the AED automatically enters CPR mode. The voice prompt will say, *"It is now safe to touch the patient. Start CPR."*

During the CPR time-out period, the AED will not interrupt the CPR mode if the patient's condition changes and the AED detects a shockable rhythm. After the CPR time-out period has expired, the voice prompt *"Do Not Touch Patient. Analyzing Rhythm."* will be heard.

Note: During CPR mode, the text screen displays a countdown timer.

If the patient is conscious and breathing normally, leave the pads on the patient's chest connected to the AED. Make the patient as comfortable as possible and wait for Advanced Life Support (ALS) personnel to arrive. Continue to follow the voice prompts until the ALS personnel arrive, or proceed as recommended by the Medical Director.

STEP 4: POST RESCUE

After transferring the patient to ALS personnel, prepare the AED for the next rescue:

1. Retrieve the rescue data stored in the internal memory of the AED by using RescueLink software installed on a PC (see detailed procedure in the Data Management section).
2. Connect a new pair of pads to the AED.
3. Close the lid.
4. Verify that the **STATUS INDICATOR** on the handle is GREEN.

WARNINGS

The following cautions must be observed to prevent problems during the rescue.

DANGER: Fire and Explosion Hazard
Exercise caution when operating the AED close to flammable gases (including concentrated oxygen) to avoid possible explosion or fire hazard.

WARNING: Shock Hazard
Defibrillation shock current flowing through unwanted pathways is potentially a serious electrical shock hazard. To avoid this hazard during defibrillation abide by all of the following:

- Do not touch the patient, unless performance of CPR is indicated
- Do not touch metal objects in contact with the patient
- Keep defibrillation pads clear of other pads or metal parts in contact with patient
- Disconnect all non-defibrillator proof equipment from the patient before defibrillation

WARNING: Shock and Possible Equipment Damage
Disconnect all non-defibrillator proof equipment from the patient before defibrillation to prevent electrical shock and potential damage to the equipment.

WARNING: Electric Shock and Fire Hazard
Do not connect any telephones or unauthorized connectors to the socket on this equipment.

CAUTION: Use only Cardiac Science Approved Equipment
Using batteries, pads, cables, or optional equipment other than those approved by Cardiac Science may cause the AED to function improperly during a rescue.

CAUTION: Possible Improper AED Performance
Using pads that are damaged or expired may result in improper AED performance.

CAUTION: Serial Communication Cable
The AED will not function during a rescue when the serial communication cable is connected to its serial port. When the serial communication cable is connected to the AED during a rescue, the prompt *"Remove cable to continue rescue"* will be heard until you remove the serial communication cable from the AED.

CAUTION: Possible Radio Frequency (RF) Susceptibility
RF susceptibility from cellular phones, CB radios and FM 2-way radio may cause incorrect rhythm recognition and subsequent shock advisory. When attempting a rescue using the AED, do not operate wireless radiotelephones within 1 meter of the AED – turn power OFF to the radiotelephone and other like equipment near the incident.

CAUTION: Possible Interference with Implanted Pacemaker
Therapy should not be delayed for patients with implanted pacemakers and a defibrillation attempt should be made if the patient is unconscious and not breathing. The AED has pacemaker detection and rejection, however with some pacemakers the AED may not advise a defibrillation shock.[1]

Placing Pads:
- Do not place the pads directly over an implanted device.
- Place the pad at least an inch from any implanted device.

CAUTION: Moving the Patient During a Rescue
During a rescue attempt, excessive jostling or moving of the patient may cause AEDs to improperly analyze the patient's cardiac rhythm. Stop all motion or vibration before attempting a rescue.

[1] *Cummins, R., ed., Advanced Cardiac Life Support; AHA (1994): Ch. 4.*

SECTION 5 – DATA MANAGEMENT

OVERVIEW

The AED is designed for ease of data management and review. The data stored in internal memory can be displayed on the PC screen using the RescueLink software.

RECORDING RESCUE DATA

RECORDING DATA IN INTERNAL MEMORY

The AED automatically stores up to 60 minutes of rescue data.

REVIEWING RESCUE DATA

RETRIEVING DATA FROM MEMORY

1. Open the AED lid.
2. Connect the serial cable to the PC and to the AED's serial port under the blue rubber data access cover. The voice prompt will say *"Communications Mode."*
3. Run the RescueLink software program.
4. Select COMMUNICATIONS, GET RESCUE DATA. On the RescueLink software program.
5. Select INTERNAL MEMORY OF AED then select OK.
6. Select a rescue by clicking on the date and press OK.

⚠ ***WARNING:*** Electric Shock and Fire Hazard
Do not connect any telephones or unauthorized connectors to the socket on this equipment.

⚠ ***CAUTION:*** Serial Communication Cable
The serial communication cable is only for use with the AED; it is not to be used with a telephone.

MULTIPLE RESCUE FUNCTIONALITY

The AED can store up to 60 minutes of ECG monitoring time in the AED's internal memory. Multiple rescues can be stored in the internal memory, allowing the rescuer to administer additional rescues without downloading the data to a PC. Should the internal memory become full, the AED will purge rescues as needed, beginning with the oldest rescue.

When downloading data, RescueLink will enable the user to select which rescue to download. See the RescueLink application HELP files for more information.

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SECTION 6 – MAINTENANCE & TROUBLESHOOTING

OVERVIEW

This section presents information about the AED diagnostics self-tests, maintenance, and service indications.

SELF-TESTS

The AED has a comprehensive self-test system that automatically tests the electronics, battery, pads, and high voltage circuitry. Self-tests are also activated every time you open and close the AED lid.

When performing the self-tests, the AED completes the following steps automatically.

- Turns itself ON, and the **STATUS INDICATOR** changes to **RED**.
- Performs the self-test.
- If successful, the **STATUS INDICATOR** reverts to **GREEN**.
- Turns itself OFF if the lid is closed.

There are three types of automatic self-tests. The Daily Self-test checks the battery, pads, and the electronic components. The Weekly Self-test completes a partial charge of the high voltage electronics current in addition to the items tested in the Daily Self-test. During the Monthly Self-test, the high voltage electronics are charged to full energy.

Self-tests will be initiated upon opening the lid and again upon closing the lid. If the self-test detects an error, the **STATUS INDICATOR** will remain **RED**. Upon closing the lid, an audible alert will be issued. The Diagnostic Panel under the lid will indicate the source of the problem according to the Indicator Troubleshooting Guide Table on the next page.

INDICATOR TROUBLESHOOTING TABLE

The following is a troubleshooting table for the AED indicators.

VIEW	SYMPTOM	SOLUTION
	Red SERVICE indicator (LED) is lit.	Maintenance by authorized service personnel is required. Call Cardiac Science Customer Service (see page 4) or your local Cardiac Science distributor.
	Red PADS indicator (LED) is lit.	Connect the pads or replace with a new pad.
	The fast battery indicator (LED) is red.	The battery is low. Replace with a new battery.
	STATUS INDICATOR is RED, and no other indicators on the diagnostic panel are lit.	The battery power is completely depleted. Replace with a new battery. If STATUS INDICATOR remains RED call Cardiac Science Customer Service or your local Cardiac Science distributor.

⚠ ***CAUTION:*** Temperature Extremes

Exposing the AED to extreme environmental conditions outside of its operating parameters may compromise the ability of the AED to function properly. The RescueReady® daily self-test verifies the impact of extreme environmental conditions on the AED. If the daily self-test determines environmental conditions outside of the AED's operating parameters, a "SERVICE REQUIRED" alert will be issued to prompt the user to move the AED to environmental conditions within the acceptable operating parameters at once. See Section 7 – Technical Data, Parameters, Operation and Standby Conditions.

SCHEDULED MAINTENANCE

DAILY MAINTENANCE

Check the STATUS INDICATOR to ensure that it is GREEN. When the indicator is GREEN, the AED is ready for a rescue. If the indicator is RED, refer to the Troubleshooting Table in this chapter.

MONTHLY MAINTENANCE

1. Open the AED lid.
2. Wait for the AED to indicate status:
   Observe the change of the STATUS INDICATOR to RED.
   After approximately 5 seconds, verify that the STATUS INDICATOR returns to GREEN.
3. Check the expiration date on the electrodes.
4. Listen for the voice prompts.
5. Close the lid and confirm that STATUS INDICATOR remains GREEN.

ANNUAL MAINTENANCE

Perform the following tests annually to confirm that the diagnostics are functioning properly and to verify the integrity of the case.

Check the Integrity of the Pads and Circuitry

1. Open the AED lid.
2. Remove the pads.
3. Close the lid.
4. Confirm that the STATUS INDICATOR turns red.
5. Open the lid and confirm that the PAD indicator is lit.
6. Reconnect the pads and close the lid.
7. Make sure the expiration date is visible through the clear window of the lid.
   a. Check to make sure that the STATUS INDICATOR is GREEN. If the pads are not installed properly, the PAD indicator will illuminate; call Customer Service for assistance.
8. Open the lid and confirm that no diagnostic indicators are lit.
9. Check the expiration date of the pads; if expired, replace them.
10. Check the pads packaging integrity.
11. Close the lid.

Check the Integrity of the Service Indicator (LED) and Circuitry

1. Immediately after opening the AED lid, press and hold the SHOCK button and confirm that the SERVICE LED is lit.
2. Release the SHOCK button.
3. Close the lid.
4. Verify that the STATUS INDICATOR remains red.
5. Open the lid and confirm that no diagnostic indicators are lit.
6. Close the lid.
7. Verify that the STATUS INDICATOR turns green.

Check the Integrity of the Case

Examine the molded case of the AED for any visible signs of stress. If the case shows signs of stress, contact Cardiac Science Customer Service (See page 4) or contact your local Cardiac Science distributor.

⚠ ***CAUTION:*** Case Cleaning Solutions
When disinfecting the case, use a non-oxidizing disinfectant, such as ammonium salts or a glutaraldehyde based cleaning solution, to avoid damage to the metal connectors.

AUTHORIZED REPAIR SERVICE

The AED has no user-serviceable internal components. Try to resolve any maintenance issues with the AED by using the Troubleshooting Table presented in this chapter. If you are unable to resolve the problem, contact Cardiac Science Customer Service (See page 4) or contact your local Cardiac Science distributor.

⚠ ***WARNING:*** Shock Hazard
Do not disassemble the AED! Failure to observe this warning can result in personal injury or death. Refer maintenance issues to Cardiac Science authorized service personnel.

Note: The warranty will be void upon unauthorized disassembly or service of the AED.

FREQUENTLY ASKED QUESTIONS

QUESTIONS AND ANSWERS

1. Q: *Can I give CPR while the AED is analyzing?*
   A: No. As with all AEDs, the operator should stop CPR compressions during the analysis phase.

2. Q: *Can I transport the victim while the AED is analyzing?*
   A: No. Vehicle motion may cause noise artifacts that could interfere with proper cardiac rhythm analysis. Stop the vehicle when cardiac rhythm analysis is necessary.

3. Q: *Do I need to prepare the chest prior to pad application?*
   A: Special preparation is not usually necessary. The chest should be as clean, dry, and as oil free as possible. Follow your Medical Director's instruction.

4. Q: *What happens if the battery is low when I begin a rescue?*
   A: When the battery indicator is red, the AED issues a *"Battery Low"* prompt once; however, the AED is still capable of delivering approximately 9 more defibrillation shocks.

   When the AED is not capable of delivering any more shocks, it "beeps" once every 30 seconds. To continue the rescue attempt, leave the lid open and replace the battery. When the battery replacement takes longer than 60 seconds, the first rescue is terminated and the AED will begin to record the events from then on as a separate rescue.

5. Q: *How do I set the AED internal clock?*
   A: Set the clock by using the RescueLink Software Program and a PC. See Setting the AED Internal Clock in Chapter 3.

6. Q: *What happens if I close the lid in the middle of a rescue attempt?*
   A: If you close the lid during a rescue, you must re-open the lid within 15 seconds to continue the rescue. You will hear the prompt, *"Open Lid to Continue Rescue."* If the lid remains closed for more than 15 seconds, a new rescue will initiate when the lid is reopened.

   Note: If the lid is closed during a rescue while the pads are connected to the patient, the **STATUS INDICATOR** may turn **RED**. When the lid is reopened, however, the rescue may be continued even though the **STATUS INDICATOR** remains **RED**.

7. Q: *My AED is sounding an audible alert. Why? How do I stop it?*
   A: The audible alert indicates that the self-test detected a need for maintenance or corrective action. Determine the maintenance required by using the Troubleshooting Table in this chapter. Opening and closing the lid may turn OFF the audible alert until the next self-test. However, the STATUS INDICATOR will remain RED.

8. Q: *The AED did not sound an audible alert when I removed the pads and closed the lid. Why?*
   A: The lid-closed pad self-test only activates the STATUS INDICATOR. The AED allows time for replacement of the pads – as removing pads is a normal procedure after a rescue – or a battery during the post rescue procedure, however, an audible maintenance indicator will be triggered after the next Daily Self-test.

9. Q: *What if I have to perform a rescue in an isolated area and at subzero temperatures?*
   A: When travel to a rescue involves exposing the AED to extremely cold temperatures for an extended period of time, keep the pads and the battery warm.

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SECTION 7 – TECHNICAL DATA

OVERVIEW

This section presents technical data about the AED.

PARAMETERS

OPERATION

Semi-Automatic (shock advisory)
Automatic

AUDIBLE ALERTS

Voice Prompt
Maintenance Alert

VISIBLE INDICATORS

Status Indicator
Battery Status Indicator
Service Indicator
Pads Indicator
Text Display

RESCUE DATA STORAGE

Storage	Capacity
Internal	60 minutes ECG data with event annotation

DIMENSIONS

Measurement	Dimension
Height	8 cm (3.3 in)
Width	27 cm (10.6 in)
Depth	31 cm (12.4 in)

WEIGHT

Model	Weight with Batteries and Pads
9300	3.10 kg (6.6 lb)

ENVIRONMENTAL OPERATION AND STANDBY CONDITIONS

Atmosphere	Condition
Temperature	0°C to 50°C (32°F to 122°F)
Humidity	5% to 95% (non-condensing)
Pressure	57kPa (+15,000ft) to 103kPa (-500ft)

SHIPMENT AND TRANSPORT ENVIRONMENTAL CONDITIONS (for up to 1 week)

Atmosphere	Condition
Temperature	-30°C to 65°C (-22°F to 149°F)
Humidity	5% to 95% (non-condensing)
Pressure	57kPa (+15,000ft) to 103kPa (-500ft)

PADS

- Self-adhesive, disposable defibrillation pads
- Minimum combined surface area: 228cm²
- Extended length of lead wire: 1.3m

LITHIUM BATTERY SPECIFICATIONS

- Output voltage: 12VDC (max)
- Batteries are non-rechargeable
- Lithium contents: 9.2g (max)
- Check local regulations for disposal information

Model	Estimated Shelf Life (from date of manufacture)	Full Operational Replacement Guarantee (from date of installation)	Typical Shocks
9146 Lithium	5 Years	4 Years	up to 290 shocks

The battery operating life depends on the type of battery, actual usage and environmental factors.

BATTERIES AND CAPACITOR CHARGE TIMES

A new battery typically takes 10 seconds to charge the AED to maximum energy.

A battery with reduced capacity causes the red LED light to initially turn ON and typically takes 13 seconds to charge a fully discharged AED to maximum energy.

The maximum time from "Power On" to "Ready to Shock" is 28 seconds for a new rescue.
The maximum time from "Analyze" to "Ready to Shock" is 22 seconds for a new rescue.

AED SELF-TEST SEQUENCE

Frequency of Self-Test	What is Tested?
Daily	Battery, pads, internal electronics, SHOCK button, and software (no charge).
Weekly	Battery, pads, internal electronics, SHOCK button, and software (partial charge).
Monthly (every 26 days)	Battery under load, pads, internal electronics, full-energy charge cycle, SHOCK , and software (full charge).
Open Lid (when lid is opened)	Battery, pads, internal electronics, SHOCK button, and software.
Close Lid (when lid is closed)	Battery, pads, internal electronics, SHOCK button, and software.

SAFETY AND PERFORMANCE STANDARDS

AED MODELS 9300

The AED has been designed and manufactured to conform to the highest standards of safety and performance including electromagnetic compatibility (EMC). The Cardiac Science AED Models 9300 and pads conform to the applicable requirements of the following:

CE 0086

CE
CE Marked by BSI 0086 per the Medical Device Directive 93/42/EEC of European Nations

ETL

ETL
Classified by ETL Semko with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1, CAN/CSA C22.2 No.601.1-M90, EN60601-1 and EN60601-2-4. Conforms to UL Standard UL60601-1. Certified to CAN/CSA Standard C22.2 No. 601.1-M90.

Electrical, Construction, Safety and Performance
IEC 60601-1 (1988), Amendments 1 (1991) & 2 (1995)
IEC 60601-2-4 (2002)
ANSI/AAMI DF-39 (1993)

Electromagnetic Compatibility (EMC)
IEC 60601-1-2 (2001)
IEC 60601-2-4 Section 36
ANSI/AAMI DF-39 (1993) Section 3.3.21

EMISSIONS

Field	Standard or Compliance
E-M	EN 55011/CISPR 11, Group 1, Class B
Magnetic	ANSI/AAMI DF39, <0.5mT on surface, except for within 5cm of the lid magnet and the speaker

IMMUNITY

Field	Standard or Compliance
E-M	IEC 61000-4-3, Level X, (20V/m)
	IEC 60601-2-4, Section 36.202.3 (20V/m)
	AAMI DF39, Section 3.3.21.2.1
Magnetic	IEC 61000-4-8 (2001) IEC 60601-2-4 (2002), Section 36.202.8 AAMI DF39, Section 3.3.21.2.3 80A/m, 47.5Hz – 1.320Hz
ESD	IEC 61000-4-2, Level 3 IEC 60601-2-4 (2002), Section 36.202.2 6KV contact discharge, 8KV air gap discharge

ENVIRONMENTAL CONDITIONS

Condition	Standard or Compliance
Free Fall Drop	IEC 60068-2-32 (1975) AM 2 (1990), 1 meter
Bump	IEC 60068-2-29 (1987), 40g and 6000 bumps
Vibration (Random)	IEC 60068-2-64 (1993): 10Hz – 2KHz, 0.005 – 0.0012 g²/Hz
Vibration (Sine)	IEC 60068-2-6 (1995): 10Hz – 60Hz, 0.15 mm and 60Hz – 150Hz, 2g
Enclosure Protection	IEC 60529 (2001), IP24

SHIPPING AND TRANSPORTATION CONDITIONS

ISTA Procedure 2A

STAR BIPHASIC WAVEFORM

The waveform generated by the Cardiac Science AED is a BIPHASIC TRUNCATED EXPONENTIAL waveform that is compliant with ANSI/AAMI DF2 and IEC39. The following is a graph of the waveform voltage as a function of time when the AED is connected to a 50 Ohm resistive load.

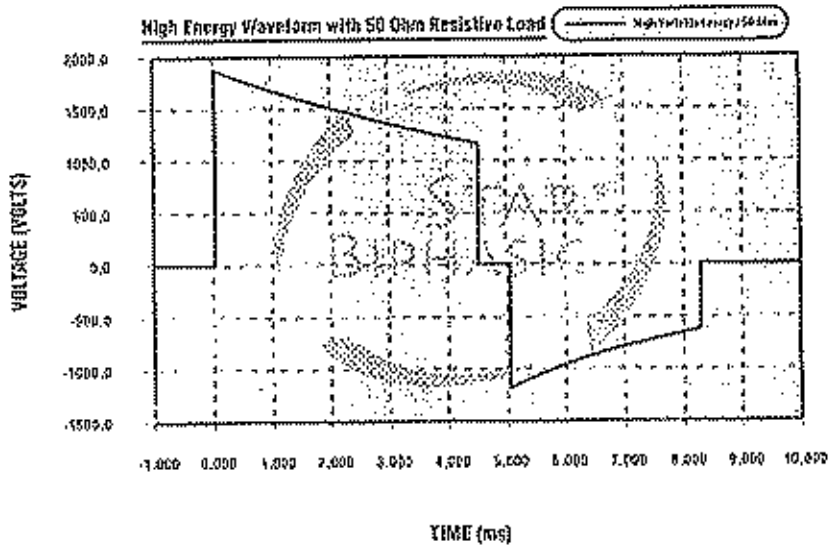

FIGURE A1. STAR BIPHASIC WAVEFORM.

Table A1 - Ultra-low Current Powerheart AED Models 9300 Waveform (all values are typical)

Patient's Impedance (Ohms)	Phase 1		Phase 2		Energy (Joules)
	Voltage (Volts)	Duration (ms)	Voltage (Volts)	Duration (ms)	
25	1380	3.3	730	3.2	145-195
50	1420	4.5	915	3.2	130-175
75	1430	5.8	980	3.2	120-160
100	1435	7.0	1020	3.2	110-150
125	1440	8.3	1040	3.2	105-140

Table A2 - Low Variable Energy Powerheart AED Models 9300 Waveform (all values are typical)

Patient's Impedance (Ohms)	Phase 1		Phase 2		Energy (Joules)
	Voltage (Volts)	Duration (ms)	Voltage (Volts)	Duration (ms)	
25	1570	3.3	825	3.2	200-250
50	1600	4.5	1030	3.2	170-210
75	1610	5.8	1105	3.2	150-190
100	1615	7.0	1150	3.2	150-180
125	1620	8.3	1170	3.2	140-170

Table A3 - High Variable Energy Powerheart AED Models 9300 Waveform (all values are typical)

Patient's Impedance (Ohms)	Phase 1		Phase 2		Energy (Joules)
	Voltage (Volts)	Duration (ms)	Voltage (Volts)	Duration (ms)	
25	1885	3.3	990	3.2	265-330
50	1920	4.5	1240	3.2	235-320
75	1930	5.8	1325	3.2	215-295
100	1940	7.0	1380	3.2	200-270
125	1945	8.3	1405	3.2	190-260

ENERGY LEVELS AND PATIENT IMPEDANCE

The Cardiac Science Biphasic Truncated Exponential (BTE) waveform utilizes variable energy. The actual energy delivered will vary with the patient's impedance and the device will deliver a shock when impedance is between 25-180 Ohms. Energy will be delivered at three different levels referred to as ultra-low variable energy, low variable energy, and high variable energy as shown in the above waveform tables.

RHYTHMx ECG ANALYSIS PERFORMANCE

The AED RHYTHMx ECG Analysis system analyzes the patient's ECG and advises you when the AED detects a shockable or non-shockable rhythm.

This system makes it possible for a person, with no training in the interpretation of ECG rhythms, to offer defibrillation therapy to victims of sudden cardiac arrest.

CARDIAC RHYTHMS USED TO TEST THE RHYTHM RECOGNITION DETECTION SYSTEM FOR CARDIAC SCIENCE AED

Rhythm Class	Specifications
Shockable Rhythm – VF	Meets AAMI DF 39 requirement and AHA recommendation of Sensitivity of >90%
Shockable Rhythm – VT	Meets AAMI DF 39 requirement and AHA recommendation of Sensitivity of >75%
Non-shockable Rhythm – NSR	Meets AAMI DF 39 requirement (>95%) and AHA recommendation (>99%) of Specificity
Non-shockable – Asystole	Meets AAMI DF 39 requirement and AHA recommendation of Specificity of >95%
Non-shockable – all other rhythms	Meets AAMI DF 39 requirement and AHA recommendation of Specificity of >95%

[1] Automatic External Defibrillators for Public Access Defibrillation: Recommendations for Specifying and Reporting Arrhythmia Analysis Algorithm Performance, Incorporating New Waveforms and Enhancing Safety. AHA AED Task Force and approved by the AHA Science Advisory and Coordinating Committee. Circulation. 1997(95), pp 1677-1682

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