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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 10-K**

**(MARK ONE)**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED OCTOBER 2, 2011**

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_**

**COMMISSION FILE NUMBER 0-20225**

**ZOLL MEDICAL CORPORATION**

(Exact name of registrant as specified in its charter)

**MASSACHUSETTS**  
(State or other jurisdiction of  
incorporation or organization)

**04-2711626**  
(I.R.S. Employer  
Identification No.)

**269 MILL ROAD, CHELMSFORD,  
MASSACHUSETTS**

(Address of principal executive offices)

**01824**  
(Zip Code)

**Registrant's telephone number, including area code (978) 421-9655**

**Securities registered pursuant to Section 12(b) of the Act:**

Title of each class

Name of each exchange on which registered

**Common Stock, \$0.01 Par Value  
Stock Purchase Rights**

**The NASDAQ Stock Market LLC**

**Securities registered pursuant to Section 12(g) of the Act:**

**None**  
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of the voting stock held by non-affiliates of the registrant as of April 3, 2011 was \$968,067,620 based on a closing sales price of \$44.57 (the closing price on April 1, 2011) per share as reported on the NASDAQ Global Select Market (for this computation, the registrant has excluded the market value of all shares of Common Stock reported as beneficially owned by directors and executive officers of the registrant, but includes certain shares beneficially owned by persons known to the registrant to beneficially own more than 10% of the registrant's Common Stock.)

The number of shares of the registrant's single class of common stock outstanding as of November 8, 2011 was 22,146,937.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the Registrant's 2012 Annual Meeting of Shareholders that the Registrant intends to file with the Securities and Exchange Commission within 120 days of the Registrant's fiscal year ended October 2, 2011 are incorporated by reference into Part III of this Annual Report on Form 10-K.

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**ZOLL MEDICAL CORPORATION**  
**Annual Report on Form 10-K**  
**For the Year Ended October 2, 2011**

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## PART I

Certain statements contained herein constitute “forward-looking statements” as that term is defined under the Private Securities Litigation Reform Act of 1995 (the “Act”) and releases issued by the SEC and within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words “anticipates,” “believes,” “expects,” “intends,” “sees,” “future,” “may,” “will,” “would,” “can,” “could,” “estimates,” “plans,” “target,” “goal,” “project” and other expressions which are predictions of or indicate future events and trends and which do not relate to historical matters identify forward-looking statements. Particularly, the Company’s expectations regarding its business, operational results, future operational liquidity, contractual obligations and other commercial commitments, and capital requirements are forward-looking statements. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements of the Company to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. Factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements include, but are not limited to, the actions of competitors, the acceptance of our products in their respective markets, adverse economic conditions, and those other risks and uncertainties contained in this Annual Report on Form 10-K, including in Item 1A of Part I entitled “Risk Factors”.

### Item 1. Business.

#### Overview

ZOLL Medical Corporation (ZOLL, the Company, we or us) develops, manufactures, and markets resuscitation devices, related data management and software solutions, and temperature management technology. ZOLL is continuing its expansion from its founding focus on external pacemakers and defibrillators for the treatment of cardiac arrest to a much broader focus on a range of resuscitation devices and temperature management solutions for critical care and surgical patients. This expanded focus involves not only initial care but prevention of sudden cardiac death in patients with a known risk, as well as care after an event, where initial resuscitation success can be enhanced with specific strategies for improving recovery and reducing morbidity. As the science of resuscitation continues to expand, so does our business opportunity and the potential for revenue growth. We believe there is a substantially greater opportunity to improve operating profitability and achieve significant recurring revenues as we provide products and services to a much larger resuscitation and critical care market.

Historically, ZOLL grew primarily from its core defibrillation and pacing technologies used to treat victims of sudden cardiac arrest (SCA) and other heart arrhythmias. This primarily involved the sale of capital equipment to the hospital and emergency medical services (EMS) markets. With a strong product differentiation strategy, ZOLL has been successful at driving long-term revenue growth by increasing its market share through significant investments in research and development and building direct sales and distribution channels.

In the late 1990’s, ZOLL entered the data management software business, seeking to gain leverage in the pre-hospital market. Although these software solutions offer higher profitability, with margins significantly greater than the capital equipment products, and recurring revenues, the revenues generated by this business are relatively modest in comparison to defibrillator revenue. The addition of automatic external defibrillators (AEDs) in 2002 to our product portfolio, targeting the public access portion of the defibrillator market, again provided new opportunities to drive revenue growth through market expansion. We built market share with our introduction of cardiopulmonary resuscitation (CPR) feedback technology, although operating profitability was constrained by the highly fragmented nature of this new, highly competitive part of the market.

Also in the early 2000’s, we recognized the growth opportunity associated with improving SCA outcomes beyond defibrillation and expanded our strategy to focus on the broader resuscitation opportunity. Expanding product offerings to address each of the links in the American Heart Association’s (AHA’s) Chain of Survival

(COS) was a key element of our strategy. In fiscal 2005, ZOLL acquired the AutoPulse® Non-Invasive Cardiac Support Pump to offer enhanced circulatory support and chest compression capability, and also acquired the Power Infuser® fluid resuscitation product, which is used primarily in military applications. In 2006, ZOLL completed a long-term plan to acquire the LifeVest® wearable defibrillator business, which provides proactive protection for patients at risk of SCA. In 2007 and 2009, ZOLL acquired therapeutic hypothermia technology and products that are used to provide therapeutic management of patients' core body temperatures, including as part of post-resuscitation care. Throughout this period, ZOLL's data management offerings were also expanded.

We believe ZOLL's focus on the much larger resuscitation market has opened up significant new, long-term market opportunities beyond our core business of defibrillation and pacing. The current defibrillation/pacing market is estimated to be approximately \$1.5 billion annually. The annual U.S. market for the LifeVest, which achieved \$105.8 million of revenue in 2011, has a long-term potential of growing to approximately \$1.9 billion annually. In Germany, where we have begun sales of the LifeVest, the market opportunity is more than \$500 million. Similar, if not larger, market opportunities for the LifeVest exist in other countries like Japan. While our AutoPulse and temperature management products compete in markets of modest annual size currently, the potential worldwide markets for these products long-term are estimated at \$600 million and \$2.5 billion, respectively. These new markets are expected to develop over a number of years, accelerating as they expand from the initial indication and early adopters; clinical research will drive further use, offering increased growth opportunities.

Equally important, we believe there is a significant opportunity to increase ZOLL's profitability well above our historical levels due to the business models associated with these new markets. In particular, the LifeVest has been built as a service business relying on new and recurring physician prescriptions. The AutoPulse leverages our existing capital equipment distribution channels. Our temperature management solutions offer both a capital equipment product and a steady stream of recurring revenue from single-use, proprietary, disposable catheters used for each treated patient. These opportunities offer the potential of higher levels of profitability when compared to our historical levels. Finally, we expect that our broader focus on resuscitation will give rise to opportunities to develop or acquire additional resuscitation products to further leverage existing infrastructure.

As ZOLL continues its expansion and its mix of businesses changes, we expect to realize greater opportunities for revenue growth. In addition, we believe there is significantly greater opportunity to improve our rate of operating profitability.

## **The Clinical Need and Opportunity**

### ***Sudden Cardiac Arrest and Resuscitation***

An estimated 450,000 people die from SCA annually in the United States. Approximately 1,000 people die of SCA every day outside of the hospital, and similar unexpected deaths occur in hospitalized patients at a rate of nearly 100,000 per year. Estimates of worldwide deaths exceed 1 million each year, making SCA one of the largest public health problems in the world.

Resuscitation in this context refers to the restoration of normal physiological function in a patient who has had an episode of SCA. An individual's chances of surviving SCA in the United States can fluctuate dramatically, depending on where he lives, and international results are similar. According to the AHA, the median survival-to-discharge rate after SCA is 6.4% in the United States. Medical interventions can treat the underlying disease, but many tens of thousands of lives could be saved with better quality resuscitation care.

For SCA victims, time is the most critical element to survival. For every minute of delay in the restoration of effective cardiac function provided by defibrillation—the process of delivering electrical current to the heart to stop the fibrillation and permit the return of coordinated cardiac contractions—survival decreases by as much as 10%. According to the AHA, about 95% of SCA victims in the United States die, in many cases because lifesaving defibrillators arrive too late, if at all.

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