Substitute Form PTO-1595 Attorney Docket No.: 04644-086003

### RECORDATION FORM COVER SHEET **PATENTS ONLY**

Commissioner for Patents: Please record the attached original document(s) or copy(ies).				
Name of conveying party(ies):	Name and address of receiving party(ies):			
ZMD Corporation	ZOLL Medical Corporation			
3411 Silverside Road	269 Mill Road Chelmsford, MA 01824-4105			
Wilmington, DE 19810	Chemistord, MA 01624-4100			
Additional name(s) attached? ☐ Yes 图 No	1			
3. Nature of conveyance:				
<ul> <li>☐ Assignment</li> <li>☐ Ownership and Merger</li> <li>☐ Security Agreement</li> <li>☐ Change of Name</li> <li>☐ Other:</li> </ul>				
Execution Date: November 20, 2003	Additional names/addresses attached? ☐ Yes 뎔 No			
4. Application number(s) or patent number(s):				
If this document is being filed with a new application, the execution	date of the application is:			
A. Patent Application No(s).:	B: Patent No(s).:			
11/429,299				
	tached? □ Yes 図 No			
Name/address of party to whom correspondence concerning document should be mailed:	6. Total number of applications/patents involved: 1			
G. ROGER LEE	7. Total fee (37 CFR §3.41): \$40			
Fish & Richardson P.C.	□ Enclosed			
225 Franklin Street	☑ Authorized to charge Deposit Account.			
Boston, MA 02110	8. Deposit Account No.: 06-1050			
	Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.			
DO NOT US	THIS SPACE			
	·			
	and correct and			
9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct and				
any attached copy is a true copy of the original document.				
Λ				
G, Roger Lee	May 22, 2006			
Reg. No. 28,963	10 06 6 Date			
Name of Person Signing . Signature 19.49	Δ7, V6 ·			
Total number of pages including coversheet, attachments and document: 12				

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#### CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

5/22/06

Signature Maureen Christiano
Typed Name of Person Signing Certificate
PATENT

# Delaware

PAGE 1

## The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"ZMD CORPORATION", A DELAWARE CORPORATION,

WITH AND INTO "ZOLL MEDICAL CORPORATION" UNDER THE NAME OF
"ZOLL MEDICAL CORPORATION", A CORPORATION ORGANIZED AND EXISTING
UNDER THE LAWS OF THE STATE OF MASSACHUSETTS, AS RECEIVED AND
FILED IN THIS OFFICE THE TWENTIETH DAY OF NOVEMBER, A.D. 2003,
AT 5:31 O'CLOCK P.M.

Darriet Smith Windson, Secretary of State
AUTHENTICATION: 4488187

DATEPATENT

REEL: 017664 FRAME: 0593

2202245 8100M 060090163

Stat. ... 488 P. 4
Secretary of State
Division of Corporations
Delivered 05:20 PM 11/20/2003
FILED 05:31 PM 11/20/2003
SRV 030749003 - 2202245 FILE

#### OWNERSHIP AND MERGER

OF

## ZMD CORPORATION, a Delaware corporation

Into

#### ZOLL MEDICAL CORPORATION,

a Massachusetts corporation

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of Delaware (the "DGCL"), DOES HEREBY CERTIFY:

FIRST:

That the name and state of each of the constituent corporations of the merger is as follows:

Name

State of Incorporation

ZMD Corporation

Delaware

ZOLL Medical Corporation

Massachusetts

SECOND:

That ZOLL Medical Corporation owns all of the issued and outstanding shares of

each class of stock of ZMD Corporation.

THIRD:

That ZOLL Medical Corporation is organized under the laws of the

Commonwealth of Massachusetts and the Massachusetts Business Corporation Law permits the merger of a corporation organized under the laws of another state

with a corporation organized under the laws of Massachusetts.

FOURTH:

That ZOLL Medical Corporation (the "Company"), by the following votes of its Board of Directors, at a meeting held on April 16, 2003, determined to merge

ZMD Corporation into ZOLL Medical Corporation:

VOTED:

To declare advisable, approve and adopt the merger of ZMD Corporation with and into the Company (the 'Merger'); and that the Chief Executive Officer and President, the Chief Financial Officer, the Treasurer and Clerk (each an "Authorized Officer"), be, and each of them acting singly, is, authorized, empowered and directed in the name and on behalf of the Company, to prepare, with the assistance of counsel, execute, acknowledge, and file or cause to be filed (i) with the Secretary of State of the State of Delaware, a Certificate of Ownership as required by Section 253 of the Delaware General

Corporation Law ("DGCL") and (ii) with the Secretary of State of the

**PATENT** 

FIFTH:

SIXTH:

Commonwealth of Massachusetts, Articles of Merger as required by Section 82 of the Massachusetts Business Corporation Law; and to execute and deliver any and all additional documents and information required to be filed therewith and to incur any expenses as they or any of them deem necessary or desirable.

VOTED: That the Company hereby agrees that it may be served with process in Delaware and irrevocably appoints the Secretary of State of the State of Delaware as its agent for service of process as provided in Section 252(d) of the DGCL.

<u>VOTED</u>: That the Board of Directors has determined, in its judgment, that entering into and consummating the Merger and the transactions contemplated thereby is in the best interests of the Company and its stockholders.

VOTED: That the Merger shall become effective upon the filing of the Articles of Merger with the Secretary of State of the Commonwealth of Massachusetts; and that prior to the effective time of the Merger, either the board of directors of ZMD Corporation or the board of directors of the Company may abandon or terminate the Merger.

That the proposed Merger has been adopted, approved, certified, executed and acknowledged by ZOLL Medical Corporation in accordance with the laws of The Commonwealth of Massachusetts.

ZOLL Medical Corporation agrees that it may be served with process in Delaware in any proceeding for enforcement of any obligation of ZMD Corporation, as well as for enforcement of any obligation of ZOLL Medical Corporation arising from the Merger, and ZOLL Medical Corporation has interocably appointed the Secretary of State of the State of Delaware as its agent to accept service of process in any such suit or proceeding and that the Secretary of State may forward copies of such service of process to ZOLL Medical Corporation at its offices at 269 Mill Road, Chelmsford, Massachusetts, 01824-4103.

SEVENTH: That this Certificate of Ownership shall be affective upon the filing of the Articles of Merger with the Secretary of State of The Commonwealth of Massachusetts.

[SIGNATURE PAGE FOLLOWS]

I, John P. Bergeron, the Vice President and Treasurer of the Company, do make this Certificate on this 35 day of October, 2003, under penalties of perjury, and hereby acknowledge that this Certificate is the act and deed of ZOLL Medical Corporation and that the facts stated herein are true.

ZOLL MEDICAL CORPORATION

Name: John P. Bergeron

Title: Vice President and Treasurer

3

LIBC/1701655.1



## The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HERREY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF RENEWAL OF "XMD CORPORATION", FILED IN THIS OFFICE ON THE TWENTIETH DAY OF NOVEMBER, A.D. 2003, AT 5:30 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS REEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

2202245 8100

030748981

AUTHENTICATION: 2770439

DATE: 11-25-03

**PATENT** 

Scate of Delaware

Secretary of State

Division of Corporations

Delivered 05:20-FH 11/20/2003

PRIZE 05:30 PH 11/20/2003

SEV 030748981 - 2202245 FILE

#### ZIAD Corporation

## CENTIFICATE FOR RENEWAL AND REVIVAL OF CENTIFICATE OF INCORPORATION

ZMD Corporation a corporation organized under the laws of Delevara, the Cartificate of Incorporation of Which thus filed in the office of the Secretary of State on the 14th day of July, 1958 and thereafter voided for non-payment of taxes, new danking to procure a ravival of its Cartificate of Secretary, hereby cartifies as follows:

1. The name borns by the corporation at the time its Certificans of Incorporation became word is ZMO Corporation.

2. Its registered office in the State of Debreure is located at Corporation Trust Center, 1208:Grange Street, City of Wilmington, County of New Castle and the mane of its registered equal at such endress is The Corporation Treat Company.

3. The data when revive of the Cartificate of Incorporation of this corporation is to consenses at 28 'day of February, same being prior to the data the Cartificate of Incorporation became void. Revivel of the Cartificate of Incorporation is to be perpetual.

4. This corporation was daily argument under the terms of Delaware and corried on the functional and incorporation until the Lot day of Earth 2002 are while the Lot day of Earth 2002 are while the Lot Certificate of Incorporation until the Lot day of Earth 2002 are while for Certificate of Incorporation become imperative and void for non-payment of taxes and this Certificate for Certificate of Incorporation become imperative and void for non-payment of taxes and this Certificate for Certificate of the corporation with the laws of Removal and Revival is filed by authority of the duty elected directors of the corporation with the laws of Delaware.

IN WITHESS WHEREOF, said 2000 Corporation in compliance with Session 312 of Title 8 of the Delegare Gode has caused this Cartificate to be signed by John P. Bergerat, its last and acting Vice President and Treasurer, this 20° day of Nevember 2003

By: isi John P. Bargeron John P. Bargeron Vice President and Treasurer

LLEG/1944475-1

## **ZOLL Medical Corporation**

Our Reference	Client Reference Title	Status Inventors/Applicants	Filed Serial No.	issue Patent No.
04644-008001	METHOD AND APPARATUS FOR TRANSCUTANEOUS ELECTRICAL CARDIACPACING	ISSUED  Gary A. Freeman	6/12/1990 07/536,968	3/16/1993 5,193,537
04644-009001	METHOD AND APPARATUS FOR TRANSCUTANEOUS ELECTRICAL CARDIAC	ISSUED	6/12/1990 07/537,069	4/27/1993 5,205,284
	PACING WITH BACKGROUND STIMULATION	Gary A. Freeman		
04644-009002	METHOD AND APPARATUS FOR	ISŞUED	1/9/1992 07/819,344	2/1/1994 5,282,843
	TRANSCUTANEOUS ELECTRICAL CARDIAC	Gary A. Freeman		
04644-016001	04644-016001 DEFIBRILLATION DISCHARGE CIRCUIT TEST	ISSUED	2/21/1992 07/839,954	10/5/1993 5,249,573
		Randall W. Fincke		
04644-017001	7001  ELECTRICAL CONNECTION BETWEEN TRANSCUTANEOUS PACING	ISSUED	2/21/1992 07/839,796	2/8/1994 5,284,135
	Notice of Asia	Michael L. Lopin		
04644-018001 DEFIBRILLATION DISCHARGE CU SENSOR	DEFIBRILLATION DISCHARGE CURRENT	ISSUED	2/21/1992 07/839,375	7/6/1993 5,225,769
	SENSOR	Randall W. Fincke et, al.		
04644-019001  DEFIBRILLATION ELECTRODE SWITCH CONDITION SENSING		ISSUED	2/21/1992 07/839,785	1/4/1994 5,275,158
	CONDITION SENSING	Michael L. Lopin		
04644-020001	COMBINED DEFIBRILLATION AND PACING	ISSUED	5/1/1992 07/877,838	7/19/1994 5,330,526
ELECTRO	ELECTRODE	Randall W. Fincke		
04644-028001	METHOD AND APPARATUS FOR TRANSCUTANEOUS ELECTRICAL CARDIAC	ISSUED	7/19/1993 08/093,817	7/11/1995 5,431,688
	PACING	Gary A. Freeman		

04644-036001	REDUCING SKIN DAMAGE IN USE OF MEDIC ELECTRODES	ISSUED FAL Michael R. Dupelle Sheldon s. White	8/26/1998 09/140,817	8/28/2001 6,280,463
04644-036002	REDUCING SKIN DAMAGE IN USE OF MEDIC ELECTRODES	ISSUED AL Michael R. Dupelle Sheldon s. White	10/12/2000 09/689,117	9/17/2002 6,453,205
04644-037001	ELECTRODE PACKAGE	ISSUED Gary A. Freeman et al.	10/28/1993 08/144,665	10/31/1995 5,462,157
04644-041001	SEMIAUTOMATIC DEFIBRILLATOR WITH HEA RATE ALARM DRIVEN BY SHOCK ADVISORY ALGORITHM	•••	2/22/1994 08/200,781	2/21/1995 5,391,187
04 <del>644-0420</del> 01	SEMIAUTOMATIC DEFIBRILLATOR WITH SYNCHRONIZED SHOCK DELIVERY	Gary A. Freeman  SSUED  Gary A. Freeman	2/22/1994 08/200,778	4/16/1996 5,507,778
04644-043001	DETACHABLE POWER SUPPLY FOR SUPPLYING EXTERNAL POWER TO A PORTABLE DEFIBRILLATOR	ISSUED Randall W. Fincke et al.	6/10/1994 08/258,238	11/28/1995 5,470,343
04644-046001	MEDICAL DEVICE POWER SUPPLY WITH AC DISCONNECT ALARM AND METHOD OF SUPPLYING POWER TO A MEDICAL DEVICE	ISSUED  Frederick W. Faller	12/2/1994 08/353,389	11/19/1996 5,575,807
04644-054001	ELECTROTHERAPY CIRCUIT FOR PRODUCING CURRENT WAVEFORM WITH SAWTOOTH RIPPLE	ISSUED G	12/18/1996 08/769,046	8/25/1998 5,797,968
04644-056001	ELECTROTHERAPY CIRCUIT FOR SHAPING CURRENT WAVEFORMS	Michael L. Lopin et al.  1SSUED  Michael L. Lopin et al.	12/18/1996 08/769,778	6/23/1998 5,769,872
04644-057001	ELECTROTHERAPY CIRCUIT HAVING CONTROLLED CURRENT DISCHARGE BASED ON PATIENT-DEPENDENT ELECTRICAL PARAMETER	ISSUED	12/18/1996 08/769,773	8/1/2000 6,096,063
	PARAMETER			

04644-058001	ELECTROTHERAPY CIRCUIT HAVING CONTROLLED PEAK CURRENT	ISSUED Michael L. Lopin et al.	12/18/1996 08/769,777	9/1/1998 5,800,463
04644-059001	ELECTROTHERAPY CIRCUIT FOR PRODUCIN THERAPEUTIC DISCHARGE WAVEFORM BASED ON HIGH-CURRENT SENSING PULSE		12/18/1996 08/769,045	9/1/1998 5,800,462
		Michael L. Lopin et al.		
04644-060001	ELECTOTHERAPY CIRCUIT FOR PRODUCING THERAPEUTIC DISCHARGE WAVEFORM IMMEDIATELY FOLLOWING SENSING PULSE	ISSUED ;	12/18/1996 08/769,776	3/31/1998 5,733,310
		Michael L. Lopin et al.		
04644-062001	PROTECTING MEDICAL ELECTRODES FROM CORROSION	ISSUED	6/18/1998 09/099,256	2/1/2000 6,019,877
	CONTROLL	Michael R. Dupelle Deborah T. Jones Carolyn L. Schmiedeknecht Sheldon s. White		
04644-064001	ELECTROTHERAPY CURRENT WAVEFORM	ISSUED	8/13/1997 08/910,757	5/18/1999 5.904.706
		Shervin Ayatl et al		
04644-068001	ELECTRODE PACKAGE	PENDING	10/31/1997 08/962.271	
		Ward M. Hamilton Gary Freeman	00,002,271	
04644-086001	DEFIBRILLATORS	PUBLISHED	9/14/2001 09/952.834	
DEI ISMIASTI ONG		Ward Hamilton Frederick W. Faller	VO. 002,007	
04644-088001		PUBLISHED	5/1/2001	
	PULSE SENSORS	Michael R. Dupelle Paul F. Prew Sheldon S. White	09/846,673	
04644-097001		PUBLISHED	2/27/2001	
	INTEGRATED RESUSCITATION	Gary A. Freeman	09/794,320	
04644-100001	DEFIBRILLATORS	PUBLISHED	8/23/2001 09/938,021	
		Frederick W. Faller Ward Hamilton		
04644-101001	SKIN-APPLIED ELECTRODE PADS	PUBLISHED	8/23/2001 09/938,063	
	winiten e depart proper a 1170 per 1 1700	Michael R. Dupelle Deborah T. Jones	-3.553,555	

0464 <b>4</b> ~102001	DEFIBRILLATION ELECTRODE ASSEMBLY INCLUDING CPR PAD	ALLOWED  Michael R. Dupelle Deborah T. Jones Ward Hamilton	9/14/2001 09/952,837	
04644-109001	STORAGE OF DEFIBRILLATION ELECTRODES	Frederick W. Faller  ISSUED  Frederick W. Faller  Ward Hamilton  Michael R. Dupelle  Wayne A, Reval	9/28/2001 09/967,492	8/26/2003 6,611,709
04644-110001	EXTERNAL DEFIBRILLATÓR	ISSUED Frederick W. Failer Ward Hamilton ANTHONY PANNOZZO GREG KENNY	9/9/2002 29/167,065	1/6/2004 D484,981
04644-121 <b>001</b>	DEFIBRILLATOR ELECTRODE ASSEMBLY	PENDING Frederick W. Faller Ward Hamilton Michael R. Dupelle Deborah T. Jones	9/9/2002 29/167,062	
04644-121002	DEFIBRILLATOR ELECTRODE ASSEMBLY	ALLOWED Frederick W. Faller Ward Hamilton Michael R. Dupelle Deborah T. Jones	4/23/2003 29/180,419	
04644-122001	GRAPHIC INTERFACE FOR AN EXTERNAL DEFIBRILLATOR	ISSUED FREDERICK W. Faller Ward Hamilton ANTHONY PANNOZZO GREG KENNY	9/9/2002 29/167,061	1/13/2004 D485,360
04644-125001	SKIN-APPLIED ELECTRODE PADS	PENDING  DAVID N. CRAIGE III  Michael R. Dupelle Sheldon s. White	6/19/2003 10/465,020	
04644-126001	MEDICAL ELECTRODES WITH LONG STORAG LIFE	PENDING	6/27/2003 10/608,999	
04644-127001	MULTI-CONFIGURATION DEFIBRILLATION CONNECTOR	PENDING  Michael R. Dupelle	6/27/2003 10/608,861	

MAY. 22. 2006 5:03PM (3) FISH & RICHARDSON 6175428906 NO. 0488

04644-128001

CPR SENSITIVE ECG ANALYSIS IN AN

AUTOMATIC EXTERNAL DEFIBRILLATOR

PENDING 2/19/2003 10/370,036

ZIAD ELGHAZZAWI **NEIL AKIYAMA** CIRO DE LA VEGA DONALD R. BOUCHER

04644-128WO1

CPR SENSITIVE ECG ANALYSIS IN AN

AUTOMATIC EXTERNAL DEFIBRILLATOR

**PENDING** 

2/12/2004 US04/04115

ZIAD ELGHAZZAWI NEIL AKIYAMA CIRO DE LA VEGA DONALD R. BOUCHER

04644-132001

PENDING

5/20/2003 10/441,933

PROCESSING PULSE SIGNAL IN

CONJUNCTION WITH ECG SIGNAL TO DETECT PULSE IN EXTERNAL DEFIBRILLATION

ALAN MARCOVECCHIO FREDRICK GEHEB DONALD R. BOUCHER

04644-133001

**RECORDED: 05/22/2006** 

PENDING

6/27/2003 10/609,001

CARDIO-PULMONARY RESUSCITATION DEVICE WITH FEEDBACK FROM MEASUREMENT OF

PULSE AND/OR BLOOD OXYGENATION

DONALD R. BOUCHER FREDERICK GEHEB

**PATENT**