502638006 01/16/2014

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2684614

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOHN E BURNES	07/26/2002
YONG K CHO	07/24/2002
DAVID IGEL	07/26/2002
LUC R MONGEON	07/25/2002
JOHN C RUETER	07/24/2002
HARRY STONE	08/05/2002
JODI ZILINSKI	08/06/2002

RECEIVING PARTY DATA

Name:	Medtronic, Inc.
Street Address:	710 Medtronic Parkway
Internal Address:	Mail Stop LC340
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55432

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13400381

CORRESPONDENCE DATA

Fax Number: (763)505-2530 **Phone**: (763) 526-1564

Email: susan.m.nienaber@medtronic.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: REED A. DUTHLER

Address Line 1: 710 MEDTRONIC PARKWAY

Address Line 2: MAIL STOP LC340

Address Line 4: MINNEAPOLIS, MINNESOTA 55432

502638006 PATENT REEL: 031981 FRAME: 0696

ATTORNEY DOCKET NUMBER:	P0009806.USV8
NAME OF SUBMITTER:	SUSAN M NIENABER
Signature:	/Susan M. Nienaber/
Date:	01/16/2014
Total Attachments: 8 source=executed assignment#page1.tif source=executed assignment#page2.tif source=executed assignment#page3.tif source=executed assignment#page4.tif source=executed assignment#page5.tif source=executed assignment#page6.tif source=executed assignment#page7.tif source=executed assignment#page8.tif	

PATENT REEL: 031981 FRAME: 0697 ATTORNEY DOCKET: P-9806

<u>ASSIGNMENT</u>

WHEREAS, WE, John E. Burnes, Yong K. Cho, David Igel, Luc R. Mongeon, John C. Rueter, Harry Stone and Jodi Zilinski, are the inventors of ALGORITHM FOR THE AUTOMATIC DETERMINATION OF OPTIMAL AV AND VV INTERVALS for which we have executed an application for filing in the United States Patent and Trademark Office preparatory to obtaining Letters Patent of the United States on July 24, 2002, therefor; and

WHEREAS, MEDTRONIC, INC. a corporation organized and existing under the laws of the State of Minnesota and having a principal place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-5640, hereinafter referred to as "Corporation," is desirous of acquiring the entire right, title and interest in and to said invention for the United States and for all foreign countries and in and to any and all foreign and domestic Letters Patent which may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Corporation, its successors and assigns, the entire right, title and interest in and to said invention and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor including our rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and behoof and use and behoof of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made:

AND, for the consideration aforesaid, we materially represent to Corporation, its successors and assigns, that at the time of the execution and delivery of these presents, we are the sole lawful owners of the entire right, title and interest in and to the invention, application and Letters Patent above mentioned, and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

AND, for the consideration aforesaid, we hereby individually covenant and agree to and with Corporation, its successors and assigns, that whenever its counsel or the counsel of its successors or assigns, learned in the law, shall advise that an amendment or division of, or continuation or any continuation-in-part thereof, or any other proceeding in connection with the filing or prosecution of said domestic or foreign patent applications, including interference proceedings, is lawful and desirable, or that a reissue of extension of said Letters Patent is lawful and desirable, we, or our executors, administrators or assigns will sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue or extension of the same, without charge to Corporation, its successors or assigns, but at Corporation's expense.

ASSIGNMENT Page 1 of 8

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.
in WITNESS WHEREOF, I have hereunto set my hand on this day of, 2002.
John E. Burnes
On this, 2002, before me personally appeared John E. Burnes, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.
Sugar M. McGy Notary Public

ASSIGNMENT Page 2 of 8

I hereby request the Honorable Commissione Patent to Corporation in accordance with this instrume	er of Patents and Trademarks to issue the Letters nt.
IN WITNESS WHEREOF, I have hereunto	o set my hand on this day of
	Yong K. Che
<i>16</i> ~	
On this 244h day of	, 2002, before me personally appeared ed in and who executed the foregoing instrument /her free act and deed.
IN WITNESS WHEREOF, I have hereunto affithe day and year above written.	ixed my official signature with the seal of my office,
MOLLY CHLEBECK NOTARY PUBLIC-MINNESOTA NOTARY PUBLIC-M	Notary Public

ASSIGNMENT Page 3 of 8

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.
IN WITNESS WHEREOF, I have hereunto set my hand on this
On this 26th day of 3002, before me personally appeared David Igel, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.
WENDY A.F. FRENERO Notary Public Notary Nota

ASSIGNMENT Page 4 of 8

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.
IN WITNESS WHEREOF, I have hereunto set my hand on this
Lug R. Mongeon
.14.
On this 25th day of, 2002, before me personally appeared Luc R. Mongeon, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.
MOLLY CHLEBECK NOTARY PUBLIC-MINNESOTA Way Comm. Expires Jan. 31, 2008

ASSIGNMENT Page 5 of 8

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.
IN WITNESS WHEREOF, I have hereunto set my hand on this 24 day of 2002.
John C. Rueter
On this
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.
Susan M. Mc Wy Notary Public

I hereby request the Honorable Commissioner of Patent to Corporation in accordance with this instrument.	Patents and Trademarks to issue the Letters
IN WITNESS WHEREOF, I have hereunto se	ot my hand on this day of
	Harry Stone
On this day of	
IN WITNESS WHEREOF, I have hereunto affixed the day and year above written.	my official signature with the seal of my office,
	Susan M. McGy Notary Public

ASSIGNMENT Page 7 of 8

I hereby request the Honorable Commissione Patent to Corporation in accordance with this instrume	er of Patents and Trademarks to issue the Letters nt.
IN WITNESS WHEREOF, I have hereunto	set my hand on this day of
	Jodi Zilinski Julia
On thisday of	
IN WITNESS WHEREOF, I have hereunto affithe day and year above written.	xed my official signature with the seal of my office,
STATE OF THE CHARGE COLUMN THE STATE OF THE	Susan M. May

ASSIGNMENT Page 8 of 8

PATENT REEL: 031981 FRAME: 0705

RECORDED: 01/16/2014