505196887 11/19/2018 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5243656

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GERALD G. LINDNER	05/23/2011
WILLIAM C. PHILLIPS	05/23/2011
DOMINIQUE PIGUET	05/25/2011
DANIEL T. PYNE	05/31/2011
MICAH A. LITOW	06/02/2011
JAMES STROM	06/30/2011
MARK G. WOSMEK	06/30/2011

RECEIVING PARTY DATA

Name:	MEDTRONIC, INC.
Street Address:	710 MEDTRONIC PARKWAY N.E.
City:	MINNEAPOLIS
State/Country:	MINNESOTA
Postal Code:	55432-5604

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15217998	

CORRESPONDENCE DATA

Fax Number:

(770)643-8913

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	7706438912
Email:	jeramie@witherskeys.com
Correspondent Name:	MEDTRONIC-WK
Address Line 1:	P.O. BOX 71355
Address Line 4:	MARIETTA, GEORGIA 30007-1355

ATTORNEY DOCKET NUMBER:	P0031587.USC3
NAME OF SUBMITTER:	JERAMIE J. KEYS
SIGNATURE:	/Jeramie J. Keys/
DATE SIGNED:	11/19/2018

Total Attachments: 19

source=P0031587_02assignment#page1.tif source=P0031587 02assignment#page2.tif source=P0031587_02assignment#page3.tif source=P0031587_02assignment#page4.tif source=P0031587_02assignment#page5.tif source=P0031587_02assignment#page6.tif source=P0031587_02assignment#page7.tif source=P0031587_02assignment#page8.tif source=P0031587 02assignment#page9.tif source=P0031587_02assignment#page10.tif source=P0031587_02assignment#page11.tif source=P0031587_02assignment#page12.tif source=P0031587_02assignment#page13.tif source=P0031587 02assignment#page14.tif source=P0031587_02assignment#page15.tif source=P0031587_02assignment#page16.tif source=P0031587 02assignment#page17.tif source=P0031587 02assignment#page18.tif source=P0031587 02assignment#page19.tif

WHEREAS, WE,

- (1)Gerald G. Lindner, residing at 7413 Peltier Lake Drive, Lino Lakes, MN 55038:
- (2) William C. Phillips, residing at 8906 Telford Crossing, Brooklyn Park, MN 55443;
- (3) Dominique Piguet, residing at Ch. due Chaugand 47, Epalinges, CH 1066;
- Daniel T. Pyne, residing at 500 North Roosevelt Avenue, #20, Chandler, AZ 85226; and (4)
- (5) Micah A. Litow, residing at 1501 Maple Avenue, #704, Evanston, IL 60201,

have made an invention relating to MEDICAL DEVICE INCLUDING FLEXIBLE CIRCUIT BODIES WITH EXPOSED PORTIONS OF CIRCUIT TRACES ATTACHED TO ELECTRICAL CONTACTS OF COMPONENTS, for which we have executed an application for Letters Patent of United States of America,

on even date herewith; and

 \mathbf{X} was filed on March 22, 2011, as United States Application No. 13/069,019, and Provisional Application No. 61/319,861 filed March 31, 2010; and

WHEREAS we hereby authorize and request the assignee, Medtronic, Inc., to insert the filing date and application number of said application when known; 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 NE, Minneapolis, Minnesota 55432-5604, 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 the above-identified invention and applications and the entire right, title and interest in and to any and all Letters Patent of the United States (including, without limitation, every patent application identified above) 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-inpart or reissues that may be filed with respect to the above-identified invention and applications and of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and benefit and use and benefit 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 each of us 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 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 my 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.

We 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/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle initial) :	Family	Name or Surr	name (last n	iame):
Gerald G.	Lindne	r		
Inventor's Signature		Date:	Mary	2011
City and State:		Country:	Galland	Citizenship:
Lino Lakes, MN		USA		US
STATE OF MINNESOTA)) ss.				
COUNTY OF ANOKA) On this 23 day of what , 201	1, before	me personall	y appeared	the above-named
Gerald G. Lindner, and who executed the deed, on the day and year aforesaid.	foregoing	g instrument,	as said pers	on's free act and
(Seal) Notary Public-Minnesota		<u>Muls</u> Notary Publ		

REEL: 047538 FRAME: 0305

Page 2 of 4

Given Name (first and middle initial):	Family Name or Surname	(last name):
William C.	Phillips	:
Inventor's Signature:	Date:	
LANCA	23 ml	n, 20/1
Residence (City and State):	Country:	Citizenship:
Brooklyn Park, MN	USA	US
STATE OF MINNESOTA)		
) ss.		
COUNTY OF ANOKA)		
On this <u>23rd</u> day of <u>may</u> , 2	011, before me personally a	ppeared the
above-named William C. Phillips, and wh	o executed the foregoing in	strument, as said
person's free act and deed, on the day and	year aforesaid.	
(Seal) THERESA C. TO Notary Public-Minnesota My Commission Express Jan 31, 2015	<u>Huusa C.</u> Notary Public	3 0

Given Name (first and middle initial): Dominique	Family Name or Surname Piguet	(last name):
Inventor's Signature:	Date:	
Residence (City and State): Epalinges	Country: CH	Citizenship: CH
£	······································	
Witness Signature	Witness Signature	

Given Name (first and middle initial): Daniel T.	Family N Pyne	lame or Surname	(last name):
Inventor's Signature:		Date:	
Residence (City and State): Chandler, AZ		Country: USA	Citizenship: US
STATE OF ARIZONA)) ss. COUNTY OF) On this day of, 20 Daniel T. Pyne, and who executed the for deed, on the day and year aforesaid.			· •
(Seal)		Notary Public	

Given Name (first and middle initial): Micah A.	: Family Name or Surname (last name): Litow	
Inventor's Signature:	Date:	
Residence (City and State): Evanston, IL	Country: USA	Citizenship: US
STATE OF ILLINOIS)) ss. COUNTY OF) On this day of, 2 Micah A. Litow, and who executed the for deed, on the day and year aforesaid.	011, before me personally ap oregoing instrument, as said	
	Notary Public	

Page 4 of 4

PATENT REEL: 047538 FRAME: 0308

ASSIGNMENT

WHEREAS, WE,

- (1) Gerald G. Lindner, residing at 7413 Peltier Lake Drive, Lino Lakes, MN 55038;
- (2) <u>William C. Phillips</u>, residing at 8906 Telford Crossing, Brooklyn Park, MN 55443;
- (3) <u>Dominique Piguet</u>, residing at Ch. due Chaugand 47, Epalinges, CH 1066;
- (4) Daniel T. Pyne, residing at 500 North Roosevelt Avenue, #20, Chandler, AZ 85226; and
- (5) <u>Micah A. Litow</u>, residing at 1501 Maple Avenue, #704, Evanston, IL 60201,

have made an invention relating to <u>MEDICAL DEVICE INCLUDING FLEXIBLE</u> <u>CIRCUIT BODIES WITH EXPOSED PORTIONS OF CIRCUIT TRACES ATTACHED TO</u> <u>ELECTRICAL CONTACTS OF COMPONENTS</u>, for which we have executed an application for Letters Patent of United States of America,

on even date herewith; and

was filed on <u>March 22, 2011</u>, as United States Application No. <u>13/069,019</u>, and Provisional Application No. <u>61/319,861</u> filed March 31, 2010; and

WHEREAS we hereby authorize and request the assignee, Medtronic, Inc., to insert the filing date and application number of said application when known; 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 NE, Minneapolis, Minnesota 55432-5604, 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 the above-identified invention and applications and the entire right, title and interest in and to any and all Letters Patent of the United States (including, without limitation, every patent application identified above) 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 that may be filed with respect to the above-identified invention and applications and of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and benefit and use and benefit 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 each of us 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 lawful

Page 1 of 4

REEL: 047538 FRAME: 0309

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 my 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.

We 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/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle initial) : Gerald G.	Family Name or Surname Lindner	(last name):
Inventor's Signature:	Date:	
City and State: Lino Lakes, MN	Country: USA	Citizenship: US
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On thisday of, 201 Gerald G. Lindner, and who executed the deed, on the day and year aforesaid.	1, before me personally app foregoing instrument, as sa	
(Seal)	Notary Public	
	Page 2 of 4	PATENT

PATENT REEL: 047538 FRAME: 0310

William C. Inventor's Signature: Residence (City and State): Brooklyn Park, MN STATE OF MINNESOTA) STATE OF MINNESOTA) STATE OF MINNESOTA) On this day of 2	Phillips Date: Country: USA	Citizenship US
Residence (City and State): Brooklyn Park, MN STATE OF MINNESOTA)) ss. COUNTY OF ANOKA)	Country:	
Brooklyn Park, MN STATE OF MINNESOTA)) ss. COUNTY OF ANOKA)		
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA)	USA	US
) ss. COUNTY OF ANOKA)		•
COUNTY OF ANOKA)		
Un unis dav or , 2	2011, before me personally	appeared the
bove-named William C. Phillips, and wh	no executed the foregoing	
person's free act and deed, on the day and	l year aforesaid.	
Seal)		
	Notary Public	
Given Name (first and middle initial): Dominique	Family Name or Surnam Piguet	e (last name):
nventor's Signature:	Date:	MAU 3
Residence (City and State):	Country:	· 17A7 - 2011 Citizenship
Spalinges	Country. CH	CHIZENSIIP
14	<i></i> .	
AT-	1//mo	5
Vitness Signature	Witness Signatur	e
FAVRE SEbastian	Musimon .	E. C
Vitness Printed Name	<u> YUNER</u> Witness Printed	Name

Page 3 of 4

8

Given Name (first and middle initial): Daniel T.	Family Name or Surname (last name): Pyne			
Inventor's Signature:	Date:			
Residence (City and State): Chandler, AZ	Country: USA	Citizenship: US		
STATE OF ARIZONA)) ss. COUNTY OF) On this day of, 2011, before me personally appeared the above-named Daniel T. Pyne, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.				
(Seal)	Notary Public			

Given Name (first and middle initial):	itial): Family Name or Surname (last name):		
Micah A.	Litow		
Inventor's Signature:	Date:		
Residence (City and State):	Country:	Citizenship:	
Evanston, IL	USA	US	
STATE OF ILLINOIS)) ss. COUNTY OF) On thisday of, 20 Micah A. Litow, and who executed the fo deed, on the day and year aforesaid.		÷	

(Seal)

Notary Public

PATENT REEL: 047538 FRAME: 0311

Page 4 of 4

WHEREAS, WE,

- (1) Gerald G. Lindner, residing at 7413 Peltier Lake Drive, Lino Lakes, MN 55038;
- (2) <u>William C. Phillips</u>, residing at 8906 Telford Crossing, Brooklyn Park, MN 55443;
- (3) <u>Dominique Piguet</u>, residing at Ch. due Chaugand 47, Epalinges, CH 1066;
- (4) Daniel T. Pyne, residing at 500 North Roosevelt Avenue, #20, Chandler, AZ 85226; and
- (5) Micah A. Litow, residing at 1501 Maple Avenue, #704, Evanston, IL 60201,

have made an invention relating to <u>MEDICAL DEVICE INCLUDING FLEXIBLE</u> CIRCUIT BODIES WITH EXPOSED PORTIONS OF CIRCUIT TRACES ATTACHED TO <u>ELECTRICAL CONTACTS OF COMPONENTS</u>, for which we have executed an application for Letters Patent of United States of America,

on even date herewith; and

was filed on <u>March 22, 2011</u>, as United States Application No. <u>13/069,019</u>, and Provisional Application No. <u>61/319,861</u> filed March 31, 2010; and

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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 NE, Minneapolis, Minnesota 55432-5604, 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 the above-identified invention and applications and the entire right, title and interest in and to any and all Letters Patent of the United States (including, without limitation, every patent application identified above) 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 that may be filed with respect to the above-identified invention and applications and of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and benefit and use and benefit 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 each of us 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 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 my 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.

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In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle initial) : Gerald G.	: Family Name or Surname (last name): Lindner		
Inventor's Signature:			
City and State: Lino Lakes, MN	Country: USA	Citizenship: US	
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On thisday of, 20 Gerald G. Lindner, and who executed the deed, on the day and year aforesaid. (Seal)			

Page 2 of 4

Atty Docket No.: P0031587.02

Given Name (first and middle initial): William C.	Family Name or Surname Phillips	(last name):
Inventor's Signature:	Date:	
Residence (City and State): Brooklyn Park, MN	Country: USA	Citizenship: US
STATE OF MINNESOTA))ss.COUNTY OF ANOKA)		
On this, aday of, aday of, aday of, and william C. Phillips, and will person's free act and deed, on the day and	ho executed the foregoing in	* *
(Seal)	Notary Public	

Given Name (first and middle initial): Dominique	Family Name or Surname (last name): Piguet	
Inventor's Signature:	Date:	
Residence (City and State): Epalinges	Country: CH	Citizenship: CH
Witness Signature	Witness Signature	
Witness Printed Name	Witness Printed 1	Name

Given Name (first and middle in Daniel T.	itial): Fam Pyne	ly Name or Surname	(last name):
Inventor's Signature: Date: 31-MAX,2		UAY,2011	
Residence (City and State): Chandler, AZ		Country: USA	Citizenship: US
STATE OF ARIZONA)) ss. COUNTY OF <u>Maricepa</u>) On this <u>31^{pt}</u> day of <u>Mari</u> Daniel T. Pyne, and who executed deed, on the day and year aforest (Seal) SHEILA MAR NOTARY PUBLIC MARICOPA CO My Commission Maximber 30	ed the foregoing aid.	fore me personally ap instrument, as said p yeela Notary Public	peared the above-named person's free act and
Given Name (first and middle in Micah A.	itial): Fami Litov	ly Name or Surname) (last name):
Inventor's Signature:	······	Date:	
Residence (City and State): Evanston, IL		Country:	Citizenship:
A		USA	US
STATE OF ILLINOIS) STATE OF ILLINOIS) COUNTY OF) On this day of Micah A. Litow, and who execut deed, on the day and year aforesa (Seal)	ed the foregoin	ore me personally ap	peared the above-named

Page 4 of 4

WHEREAS, WE,

- (1) Gerald G. Lindner, residing at 7413 Peltier Lake Drive, Lino Lakes, MN 55038;
- (2) William C. Phillips, residing at 8906 Telford Crossing, Brooklyn Park, MN 55443;
- (3) Dominique Piguet, residing at Ch. due Chaugand 47, Epalinges, CH 1066;
- (4) Daniel T. Pyne, residing at 500 North Roosevelt Avenue, #20, Chandler, AZ 85226; and
- (5) Micah A. Litow, residing at 1501 Maple Avenue, #704, Evanston, IL 60201,

have made an invention relating to <u>MEDICAL DEVICE INCLUDING FLEXIBLE</u> <u>CIRCUIT BODIES WITH EXPOSED PORTIONS OF CIRCUIT TRACES ATTACHED TO</u> <u>ELECTRICAL CONTACTS OF COMPONENTS</u>, for which we have executed an application for Letters Patent of United States of America,

on even date herewith; and

was filed on <u>March 22, 2011</u>, as United States Application No. <u>13/069,019</u>, and Provisional Application No. <u>61/319,861</u> filed March 31, 2010; and

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We hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

Given Name (first and middle initial) : Gerald G.	Family Name or Surname (last name): Lindner	
Inventor's Signature:	Date:	
City and State: Lino Lakes, MN	Country: USA	Citizenship: US
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this day of, 20 Gerald G. Lindner, and who executed the deed, on the day and year aforesaid.		
(Seal)	Notary Public	······

In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.

Page 2 of 4

Given Name (first and middle initial): William C.): Family Name or Surname (last name): Phillips	
Inventor's Signature:	Date:	
Residence (City and State): Brooklyn Park, MN	Country: USA	Citizenship: US
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On thisday of, above-named William C. Phillips, and w person's free act and deed, on the day and		
(Seal)	Notary Public	

Given Name (first and middle initial): Dominique	Family Name or Surname (last name): Piguet		
Inventor's Signature:	Date:		
Residence (City and State): Epalinges	Country: CH	Citizenship: CH	
Witness Signature	Witness Signature		
Witness Printed Name	Witness Printed 1	Witness Printed Name	
	1. 5%	£+₹* /	
	ALE STATES	19999 March (HATCH)	

Atty Docket No.: P0031587.02

Given Name (first and middle initial): Daniel T.	 Family Name or Surname (last name): Pyne 	
Inventor's Signature:	Date:	
Residence (City and State): Chandler, AZ	Country: USA	Citizenship: US
) ss. COUNTY OF) On this day of, 2 Daniel T. Pyne, and who executed the fo decd, on the day and year aforesaid.		u
(Seal)	Notary Public	
		<u></u>

Given Nar Micah A.	ne (first and middle initial):	Family Name or Surname	e (last name):
Inventor's	Signature:	Date: 6/2/1	11
Residence Evanston,	(City and State): IL	Country: 'USA	Citizenship: US
COUNTY On this Micah A. I	FILLINOIS)) ss. OF <u>COOF</u>) s <u>& ND</u> day of <u>JUNE</u> , 2 Litow, and who executed the f he day and year aforesaid.		
(Seal)	OFFICIAL SEAL PHYLLIS BREIT NOTARY PUBLIC - STATE OF ILLINO MY COMMISSION EXPIRES 01/18/14	Notary Public	Breet

Page 4 of 4

WHEREAS, WE,

James Strom, residing at 3740 McCracken Lane, Arden Hills, MN 55112; and (2) Mark G. Wosmek, residing at 7120 163rd Avenue, Ramsey, MN 55303;

have made an invention relating to <u>MEDICAL DEVICE INCLUDING FLEXIBLE</u> <u>CIRCUIT BODIES WITH EXPOSED PORTIONS OF CIRCUIT TRACES ATTACHED TO</u> <u>ELECTRICAL CONTACTS OF COMPONENTS</u>, for which we have executed an application for Letters Patent of United States of America,

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was filed on March 22, 2011, as United States Application No. $\underline{13/069,019}$, and Provisional Application No. $\underline{61/319,861}$ filed March 31, 2010; and

WHEREAS we hereby authorize and request the assignee, Medtronic, Inc., to insert the filing date and application number of said application when known; 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 NE, Minneapolis, Minnesota 55432-5604, 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 the above-identified invention and applications and the entire right, title and interest in and to any and all Letters Patent of the United States (including, without limitation, every patent application identified above) 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 that may be filed with respect to the above-identified invention and applications and of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and benefit and use and benefit 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 each of us 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 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 my 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.

We 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/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle initial) : Family Name or Surname (last name):				
James / Strom				
Inventor's Signature	\rightarrow Date: $6/30/$	//		
City and State: //	Country:	Citizenship:		
Arden Hills, MN ^{&}	USA	US		
STATE OF MINNESOTA)				
) ss.				
COUNTY OF ANOKA)				
On this 30 th day of <u>June</u> , 2011, before me personally appeared the above-named				
James Strom, and who executed the foregoing instrument, as said person's free act and deed,				
on the day and year aforesaid.				
8********				
A THERESA C. TO	A Š	л.		
(Scale Notary Public-Minnesota	Jhuesa C.	30		
δ Commission Expires Jan 31, 2015 ξ	Notary Public			

Given Name (first and middle initial):	Family Name or Surname (last name):			
Mark G.	Wosmek			
Inventor's Signature:	Date: 6/30/11			
Residence (City and State):	Country:	Citizenship:		
Ramsey, MN	USA	US		
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this <u>30th</u> day of <u>June</u> , 2011, before me personally appeared the above-named Mark G. Wosmek, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.				
(S Commission Expires Jan 31, 2015	<u>Jhrusa C 20</u> Notary Public			

PATENT REEL: 047538 FRAME: 0322

RECORDED: 11/19/2018