

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT5395319

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
THORATEC LLC	11/12/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TC1 LLC
<b>Street Address:</b>	6035 STONERIDGE DRIVE
<b>City:</b>	PLEASANTON
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94588
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14910506
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(314)612-2307
<i>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.</i>	
<b>Phone:</b>	314-621-5070
<b>Email:</b>	uspatents@armstrongteasdale.com
<b>Correspondent Name:</b>	ARMSTRONG TEASDALE LLP - THOR THOR-ARMS
<b>Address Line 1:</b>	7700 FORSYTH BLVD.
<b>Address Line 4:</b>	ST. LOUIS, MISSOURI 63105
<b>ATTORNEY DOCKET NUMBER:</b>	CD-1185 (P01134)USO2
<b>NAME OF SUBMITTER:</b>	ALESIA MARRA
<b>SIGNATURE:</b>	/Alesia Marra/
<b>DATE SIGNED:</b>	02/27/2019
<b>Total Attachments: 8</b>	
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## CONFIRMATORY ASSIGNMENT

WHEREAS, Thoratec Corporation was converted to Thoratec LLC pursuant to the Articles of Organization – Conversion, filed on November 12, 2015.

WHEREAS, Thoratec LLC, a Limited Liability Company of California, having its principal place of business at 6035 Stoneridge Drive, Pleasanton, California 94588 (“Assignor”), has heretofore sold, transferred, and/or conveyed to TC1 LLC, a Limited Liability Company having a principal place of business at 6035 Stoneridge Drive, Pleasanton, California 94588 (“Assignee”), all of its right, title, and interest, in and to certain inventions, patents, and patent applications as set forth in Exhibit A attached hereto, as part of an assignment agreement dated November 16, 2015.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, Assignor hereby confirms that Assignor did sell, transfer, and convey unto Assignee all right, title, and interest in and to the following:

- (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the below-referenced patent applications in Exhibit A, implicitly or explicitly;
- (b) the below-referenced patent applications in Exhibit A, the right to claim priority to the below-referenced patent applications in Exhibit A, all applications based in whole or in part upon the below-referenced patent applications in Exhibit A, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent applications or application for other rights based in whole or in part on the below-referenced patent applications in Exhibit A;
- (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee’s own use.

Assignor hereby authorizes and requests the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in this Confirmatory Assignment.

Assignor hereby agrees to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee’s expense, perform any other acts that

CONFIRMATORY ASSIGNMENT

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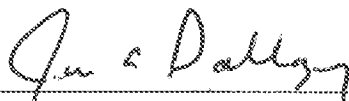
are necessary in connection with prosecution of patent application(s) or intellectual property described in this Confirmatory Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.

Assignor hereby agrees that the terms, covenants, and conditions of this Confirmatory Assignment shall be binding upon and inure to the benefit of the Assignee, its successors, assigns and other legal representative.

Assignor hereby promises and affirms that Assignor has not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Confirmatory Assignment.

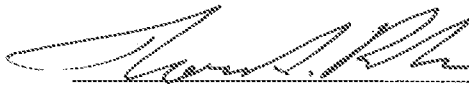
In Witness Whereof, Assignor and Assignee have executed this Confirmatory Assignment on the dates indicated below.

Dated: 12/12/2017



Jeffrey A. Dallager  
Title: Vice President and Assistant Treasurer  
TCI LLC, Assignee

Dated: 12/12/2017



Thomas A. Rendos  
Title: Division Counsel  
Thoratec LLC, Assignor

Exhibit A

<u>Thoratec Ref. No.</u>	<u>Country</u>	<u>Title</u>	<u>Application /Patent No.</u>	<u>Filing/Issue Date</u>
CD-1165US (P01095)	U.S.	Resonant Power Transmission Coils and Systems	61/676,656	July 27, 2012
CD-1165US2 (P01095)	U.S.	Magnetic Power Transmission Utilizing Phased Transmitter Coil Arrays and Phased Receiver Coil Arrays	61/676,723	July 27, 2012
CD-1165US3 (P01095)	U.S.	Magnetic Power Transmission Utilizing Phased Transmitter Coil Arrays and Phased Receiver Coil Arrays	61/790,795	March 15, 2013
CD-1165US4 (P01095)	U.S.	Magnetic Power Transmission Utilizing Phased Transmitter Coil Arrays and Phased Receiver Coil Arrays	13/953,629	July 29, 2013
CD-1165US5	U.S.	Magnetic Power Transmission Utilizing Phased Transmitter Coil Arrays and Phased Receiver Coil Arrays	15/717,271	September 27, 2017
CD-1165WO (P01095)	PCT	Magnetic Power Transmission Utilizing Phased Transmitter Coil Arrays and Phased Receiver Coil Arrays	PCT/US13/ 52555	July 29, 2013
CD-1166US (P01098)	U.S.	Self-Tuning Resonant Power Transfer Systems	61/676,637	July 27, 2012
CD-1166US2 (P01098)	U.S.	Resonant Power Transfer Systems Having Synchronous Rectification	61/676,674	July 27, 2012
CD-1166US3 (P01098)	U.S.	Self-Tuning Resonant Power Transfer Systems	61/790,682	March 15, 2013
CD-1166US4 (P01098)	U.S.	Self-Tuning Resonant Power Transfer Systems	9,287,040	March 15, 2016
CD-1166US5 (P01098)	U.S.	Self-Tuning Resonant Power Transfer Systems	15/016,840	February 5, 2016
CD-1166WO (P01098)	PCT	Self-Tuning Resonant Power Transfer Systems	PCT/US13/ 52527	July 29, 2013
CD-1167EP (P01099)	EP	Wireless Battery Charging	13823354.9	January 16, 2015

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CD-1167US (P01099)	U.S.	Wireless Battery Charging	61/676,629	July 27, 2012
CD-1167US2 (P01099)	U.S.	Wireless Battery Charging	14/414,708	January 14, 2015
CD-1167WO (P01099)	PCT	Wireless Battery Charging	PCT/US13/ 52522	July 29, 2013
CD-1168US (P01100)	U.S.	Variable Capacitor for Resonant Power Transfer Systems	61/676,667	July 27, 2012
CD-1168US2 (P01100)	U.S.	Variable Capacitor for Resonant Power Transfer Systems	14/414,820	January 14, 2015
CD-1168WO (P01100)	PCT	Variable Capacitor for Resonant Power Transfer Systems	PCT/US13/ 52530	July 29, 2013
CD-1169US (P01101)	U.S.	Thermal Management for Implantable Wireless Power Transfer Systems	61/676,626	July 27, 2012
CD-1169US2 (P01101)	U.S.	Thermal Management for Implantable Wireless Power Transfer Systems	61/790,556	March 15, 2013
CD-1169US3 (P01101)	U.S.	Thermal Management for Implantable Wireless Power Transfer Systems	9,592,397	March 14, 2017
CD-1169US4 (P01101)	U.S.	Thermal Management for Implantable Wireless Power Transfer Systems	15/417,720	January 27, 2017
CD-1169WO (P01101)	PCT	Thermal Management for Implantable Wireless Power Transfer Systems	PCT/US13/ 52518	July 29, 2013
CD-1169EP (P01101)	EP	Thermal Management for Implantable Wireless Power Transfer Systems	13823496.8	January 16, 2015
CD-1170US (P01102)	U.S.	Stagger Tuned Resonant Power Transfer Systems	61/676,650	July 27, 2012
CD-1171US (P01103)	U.S.	Resonant Power Transfer System and Feedback Control	61/676,681	July 27, 2012
CD-1172US (P01104)	U.S.	Resonant Power Transfer Systems with Protective Algorithm	61/676,699	July 27, 2012
CD-1172US2 (P01104)	U.S.	Resonant Power Transfer Systems with Protective Algorithm	9,825,471	November 21, 2017
CD-1172WO (P01104)	PCT	Resonant Power Transfer Systems with Protective Algorithm	PCT/US13/ 52542	July 29, 2013
CD-1173US (P01105)	U.S.	Computer Modeling for Resonant Power Transfer	61/676,706	July 27, 2012

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		Systems		
CD-1173US2 (P01105)	U.S.	Computer Modeling for Resonant Power Transfer Systems	14/414,840	January 14, 2015
CD-1173WO (P01105)	PCT	Computer Modeling for Resonant Power Transfer Systems	PCT/US13/ 52545	July 29, 2013
CD-1174US (P01106)	U.S.	Resonant Power Transfer Systems with Separate Coil	61/676,713	July 27, 2012
CD-1175US (P01107)	U.S.	Resonant Power Transmission Coils and Systems	61/676,718	July 27, 2012
CD-1175US2 (P01107)	U.S.	Resonant Power Transmission Coils and Systems	14/414,842	January 14, 2015
CD-1175WO (P01107)	PCT	Resonant Power Transmission Coils and Systems	PCT/US13/ 52551	July 29, 2013
CD-1175EP (P01107)	EP	Resonant Power Transmission Coils and Systems	13823751.6	January 16, 2015
CD-1176US (P01108)	U.S.	Resonant Power Transfer System and Method of Estimating System State	61/676,690	July 27, 2012
CD-1176US2 (P01108)	U.S.	Resonant Power Transfer System and Method of Estimating System State	14/414,823	January 14, 2015
CD-1176WO (P01108)	PCT	Resonant Power Transfer System and Method of Estimating System State	PCT/US13/ 52532	July 29, 2013
CD-1177US (P01110)	U.S.	Implanted Connector With No Exposed Metal Parts	61/676,727	July 27, 2012
CD-1178US (P01123)	U.S.	Malleable TETS Coil with Improved Anatomical Fit	61/794,045	March 15, 2013
CD-1178US2 (P01123)	U.S.	Malleable TETS Coil with Improved Anatomical Fit	14/217,085	March 17, 2014
CD-1178WO (P01123)	PCT	Malleable TETS Coil with Improved Anatomical Fit	PCT/US14/ 30741	March 17, 2014
CD-1178EP (P01123)	EP	Malleable TETS Coil with Improved Anatomical Fit	14762245.0	October 13, 2015
CD-1179US (P01124)	U.S.	Integrated Implantable TETS Housing Including	61/794,258	March 15, 2013

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		Fins and Coil Loops		
CD-1179US2 (P01124)	U.S.	Integrated Implantable TETS Housing Including Fins and Coil Loops	9,680,310	June 13, 2017
CD-1179US3 (P01124)	U.S.	Integrated Implantable TETS Housing Including Fins and Coil Loops	15/593,855	May 12, 2017
CD-1179WO (P01124)	PCT	Integrated Implantable TETS Housing Including Fins and Coil Loops	PCT/US14/ 30468	March 17, 2014
CD-1180US (P01128)	U.S.	Resonant Power Transfer Systems with Communications	61/902,692	November 11, 2013
CD-1180US2 (P01128)	U.S.	Resonant Power Transfer Systems with Communications	15/032,290	April 26, 2016
CD-1180WO (P01128)	PCT	Resonant Power Transfer Systems with Communications	PCT/US14/ 064951	November 11, 2014
CD-1180EP (P01128)	EP	Resonant Power Transfer Systems with Communications	14860269.1	May 3, 2016
CD-1180JP (P01128)	JP	Resonant Power Transfer Systems with Communications	2016- 553263	May 10, 2016
CD-1181US (P01129)	U.S.	External Curved Constrained and Semi- Flexible Transcutaneous Energy Transfer Coil	61/902,694	November 11, 2013
CD-1181US2 (P01129)	U.S.	External Curved Constrained and Semi- Flexible Transcutaneous Energy Transfer Coil	15/032,293	April 26, 2016
CD-1181WO (P01129)	PCT	External Curved Constrained and Semi- Flexible Transcutaneous Energy Transfer Coil	PCT/US14/ 64959	November 11, 2014
CD-1181EP (P01129)	EP	Hinged Resonant Power Transfer Coil	14859599.4	May 5, 2016
CD-1181JP (P01129)	JP	Hinged Resonant Power Transfer Coil	2016- 553264	May 10, 2016
CD-1182US (P01130)	U.S.	Resonant Power Transfer Systems with Communications	61/902,699	November 11, 2013
CD-1182US2 (P01130)	U.S.	Resonant Power Transfer Systems with Communications	15/032,299	April 26, 2016
CD-1182WO	PCT	Resonant Power Transfer	PCT/US14/	November 11,



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(P01130)		Systems with Communications	64963	2014
CD-1182EP (01130)	EP	Resonant Power Transfer Systems with Communications	14859790.9	April 29, 2016
CD-1182JP (P01130)	JP	Resonant Power Transfer Systems with Communications	2016-553267	May 10, 2016
CD-1185US (P01134)	U.S.	Electrical Connectors for Implantable Devices	61/949,068	March 6, 2014
CD-1185US2 (P01134)	U.S.	Electrical Connectors for Implantable Devices	14/910,506	February 5, 2016
CD-1185WO (P01134)	PCT	Electrical Connectors for Implantable Devices	PCT/US15/19174	March 6, 2015
CD-1186US (P01146)	U.S.	Substrate-Supported, Gapped, Folded Dipole with Parasitic Resonators (FILVAS Antenna)	62/053,663	September 22, 2014
CD-1186US2 (P01146)	U.S.	Substrate-Supported, Gapped, Folded Dipole with Parasitic Resonators (FILVAS Antenna)	14/861,977	September 22, 2015
CD-1186WO (P01146)	PCT	Antenna Designs for Communication Between a Wirelessly Powered Implant to an External Device Outside the Body	PCT/US15/051474	September 22, 2015
CD-1186EP (P01146)	EP	Antenna Designs for Communication Between a Wirelessly Powered Implant to an External Device Outside the Body	15843159.3	March 17, 2017
CD-1186JP (P01146)	JP	Antenna Designs for Communication Between a Wirelessly Powered Implant to an External Device Outside the Body	2017-515765	March 21, 2017
CD-1187US (P01147)	U.S.	Wireless Energy Transfer System and Wearables	62/043,316	August 28, 2014
CD-1188US (P01147)	U.S.	Wireless Energy Transfer System and Wearables	62/212,351	August 31, 2015
CD-1188US2 (P01147)	U.S.	Wireless Energy Transfer System and Wearables	15/252,981	August 31, 2016
CD-1189US (P01148)	U.S.	Multiaxial Connector for Implantable Devices	62/060,435	October 6, 2014
CD-1189US2 (P01148)	U.S.	Multiaxial Connector for Implantable Devices	9,583,874	February 28, 2017
CD-1189US3 (P01148)	U.S.	Multiaxial Connector for Implantable Devices	15/408,545	January 18, 2017

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CD-1189WO (P01148)	PCT	Multiaxial Connector for Implantable Devices	PCT/US15/ 054258	October 6, 2015
CD-1189EP (P01148)	EP	Multiaxial Connector for Implantable Devices	15848830.4	March 29, 2017
CD-1190US (P01162)	U.S.	Resonant Power Transfer System, Efficiency Optimization Based On Receiver Impedance	62/238,586	October 7, 2015
CD-1190US2 (P01162)	U.S.	Resonant Power Transfer System, Efficiency Optimization Based On Receiver Impedance	15/286,930	October 6, 2016
CD-1190WO (P01162)	PCT	Resonant Power Transfer System, Efficiency Optimization Based On Receiver Impedance	PCT/US16/ 55648	October 6, 2016