PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3005764

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KENSUKE OSAMURA	05/14/2014
YOUSUKE OONEDA	05/14/2014
MITSUO HIRATA	06/06/2014
HAYATO SUZUKI	06/06/2014

RECEIVING PARTY DATA

Name:	CALSONIC KANSEI CORPORATION			
Street Address:	1917 NISSHIN-CHO, 2-CHOME,			
Internal Address:	KITA-KU, SAITAMA-SHI			
City:	SAITAMA			
State/Country:	JAPAN			
Postal Code:	3318501			

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14379674

CORRESPONDENCE DATA

Fax Number: (617)204-5150

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: 617 204-5100

Email: crespib@pepperlaw.com
Correspondent Name: PEPPER HAMILTON LLP

Address Line 1: 19TH FLOOR, HIGH STREET TOWER

Address Line 2: 125 HIGH STREET

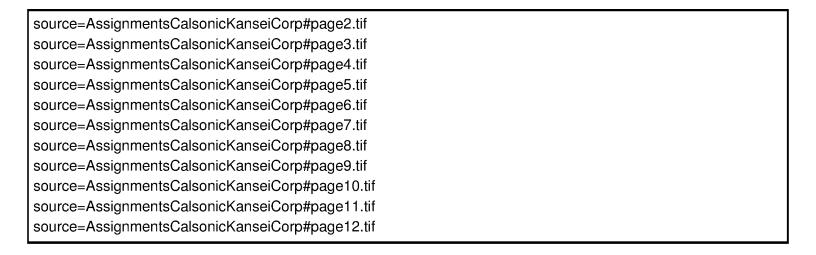
Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER: 140709.03801				
NAME OF SUBMITTER:	THOMAS J. ENGELLENNER			
SIGNATURE:	/Thomas J. Engellenner/			
DATE SIGNED:	09/02/2014			

Total Attachments: 12

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PATENT REEL: 033653 FRAME: 0142



PATENT REEL: 033653 FRAME: 0143

THIS ASSIGNMENT, made by Kensuke Osamura (hereinafter referred to as Assignor), c/o CALSONIC KANSEI CORPORATION, 1917, Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan;

WHEREAS, Assignor has invented certain new and useful improvements entitled ELECTRIC MOTOR CONTROL DEVICE, set forth in a Patent Application for which an International Application was filed on February 4, 2013, PCT/JP2013/000602, designating the United States; and

WHEREAS, CALSONIC KANSEI CORPORATION, having a place of business at 1917 Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by

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AND for the same consideration, Assignor hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

and with Assignee, successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for

PEPPER HAMILTON LLP

All practitioners at Customer Number 21269

WITNESS my hand and seal this	14th	day of	May	, 2014	¹
		Ву:	Kensuke (O Jamura	, in

THIS ASSIGNMENT, made by Yousuke Ooneda (hereinafter referred to as Assignor), c/o CALSONIC KANSEI CORPORATION, 1917, Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan;

WHEREAS, Assignor has invented certain new and useful improvements entitled ELECTRIC MOTOR CONTROL DEVICE, set forth in a Patent Application for which an International Application was filed on February 4, 2013, PCT/JP2013/000602, designating the United States; and

WHEREAS, CALSONIC KANSEI CORPORATION, having a place of business at 1917 Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by

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PATENT REEL: 033653 FRAME: 0147

AND for the same consideration, Assignor hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

and with Assignee, successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for

PEPPER HAMILTON LLP

All practitioners at Customer Number 21269

WITNESS my hand and seal this	_14th	day of	_Мау,	2014
		Ву:	Yousuke O	

THIS ASSIGNMENT, made by Mitsuo Hirata (hereinafter referred to as Assignor), c/o UTSUNOMIYA UNIVERSITY, 1-2, Yoto 7-chome, Utsunomiya-shi, Tochigi, 3218585 Japan;

WHEREAS, Assignor has invented certain new and useful improvements entitled ELECTRIC MOTOR CONTROL DEVICE, set forth in a Patent Application for which an International Application was filed on February 4, 2013, PCT/JP2013/000602, designating the United States; and

WHEREAS, CALSONIC KANSEI CORPORATION, having a place of business at 1917 Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by

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AND for the same consideration, Assignor hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignor hereby covenant and agree to and with Assignee, successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for

PEPPER HAMILTON LLP

All practitioners at Customer Number 21269

WITNESS my hand and seal this	6th day of June	_, 2014
	By: Milsuo Mitsuo H	

THIS ASSIGNMENT, made by Hayato Suzuki (hereinafter referred to as Assignor), c/o UTSUNOMIYA UNIVERSITY, 1-2, Yoto 7-chome, Utsunomiyashi, Tochigi, 3218585 Japan;

WHEREAS, Assignor has invented certain new and useful improvements entitled ELECTRIC MOTOR CONTROL DEVICE, set forth in a Patent Application for which an International Application was filed on February 4, 2013, PCT/JP2013/000602, designating the United States; and

WHEREAS, CALSONIC KANSEI CORPORATION, having a place of business at 1917 Nisshin-cho 2-chome, Kita-ku, Saitama-shi, Saitama 3318501, Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

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PEPPER HAMILTON LLP

All practitioners at Customer Number 21269

WITNESS my	hand and seal	this 6th	day of	June	, 2014	
				24	Lia	h:
			ву:	Havato		<u>LKO</u>