PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5001409

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKESHI KORENAGA	08/18/2015
HISAJI TAKEUCHI	08/18/2015
RYOTA HIURA	08/18/2015
TOMOHIRO MURATA	08/18/2015
TAKESHI NAGATA	08/18/2015
HIROMICHI NAKAMOTO	08/18/2015
SEIKI KATO	08/18/2015

RECEIVING PARTY DATA

Name:	MITSUBISHI HEAVY INDUSTRIES, LTD.
Street Address:	16-5, KONAN 2-CHOME, MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	108-8215

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16004465

CORRESPONDENCE DATA

Fax Number: (703)518-5499

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: 703-684-1111

Email: bjhgroup@ipfirm.com HAUPTMAN HAM, LLP Correspondent Name:

Address Line 1: 2318 MILL ROAD Address Line 2: **SUITE 1400**

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER: 5470-024B BENJAMIN J. HAUPTMAN NAME OF SUBMITTER: SIGNATURE: /Benjamin J. Hauptman/

DATE SIGNED: 06/11/2018

Total Attachments: 8 source=F-Assignment#page1.tif source=F-Assignment#page3.tif source=F-Assignment#page4.tif source=F-Assignment#page5.tif source=F-Assignment#page6.tif source=F-Assignment#page7.tif source=F-Assignment#page8.tif

COMBINED DECLARATION & ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION

As a below-named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention (Design, if applicable) entitled:

ON-BOARD UNIT AND ELECTRIC VEHICLE MANAGEMENT SYSTEM ication of which (check one):
is attached hereto. was filed on as U.S. Patent Application No was filed on <u>February 25, 2014</u> as International Application (PCT) No. <u>PCT/JP2014/054456</u> , and was amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information that is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56. I hereby claim foreign priority benefits under Title 35, United States Code § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which the priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Number	COUNTRY	DAY/MONTH/YEAR FILED	PRIORITY CLAIMED
2013-036242	Japan	26/2/2013	⊠ Yes □ No
			□ Yes □ No

I hereby claim the benefit under Title 35, United States Code, § 120 and/or §119(e) of any United States application(s) or PCT international application(s) designating The United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information that is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

APPLICATION NUMBER (INCLUDING PROVISIONALS)	FILING DATE	STATUS(Patented, Pending or Abandoned)
PCT/JP2014/054456	25/2/2014	Pending

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Send

CUSTOMER NO. 22429 correspondence to: LOWE HAUPTMAN & HAM, LLP

+1 (703) 684-1111

Email: docketing@ipfirm.com

Note-A person may not execute an oath or declaration for an application unless that person has reviewed and understands the contents of the application, and is aware of the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 C.F.R. §1.56.

Note-Whenever an individual making an oath or declaration cannot understand English, the oath or declaration must be in a language that such individual can understand and shall state that such individual understands the content of any documents to which the oath or declaration relates.

> **PATENT** REEL: 046049 FRAME: 0740

TELEPHONE CALLS TO:

AIA Compliance

As the below named inventor, I hereby further declare, to comply with the provisions of the AIA, that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than (5) years, or both.

ASSIGNMENT (US ONLY)

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned inventor(s) who has made a certain new and useful invention, hereby sells, assigns and transfers unto MITSUBISHI HEAVY INDUSTRIES, LTD. having a place of business at 16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan, its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention, and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

Full name of sole or first inventor: Takeshi KORENAGA	· · · · ·		
Inventor's signature: To Kech; Koronaza	Date: 18	AUG	2015
Residence: Tokyo, Japan			
Citizenship: Japanese			
Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,			
16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan			

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Full name of sole or second inventor: Hisaji TAKEUCHI

Inventor's signature: Date:

Residence: Tokyo, Japan

Citizenship: Japanese

Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,

16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan

Full name of sole or third inventor: Ryota HIURA

Inventor's signature: Pyota HWA

Residence: Tokyo, Japan

Citizenship: Japanese

Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,
16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan

Full name of sole or fourth inventor: Tomohiro MURATA

Inventor's signature: Jomohiro Murato

Residence: Tokyo, Japan

Citizenship: Japanese

Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,

16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan

Full name of sole or fifth inventor: Takeshi NAGATA

Inventor's signature: Jakeshi Magata Date: 18 AUG 2015

Residence: Tokyo, Japan

Citizenship: Japanese

Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,

16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan

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_	ON-BOARD UNIT AND	ELECTRIC VEHICLE MANAGEMENT SYSTEM
the specif	ication of which (check one):	
_		
	is attached hereto.	
	was filed on	as U.S. Patent Application No
X	l was filed on <u>February 25, 2</u>	014 as International Application (PCT) No. <u>PCT/JP2014/054456</u> ,
	and was amended on	(if applicable).

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			□ Yes □ No

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APPLICATION NUMBER (INCLUDING PROVISIONALS)	Filing Date	STATUS(Patented, Pending or Abandoned)
PCT/JP2014/054456	25/2/2014	Pending

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both, under *Section 1001 of Title 18 of the United States Code*, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Send CUSTOMER NO. 22429 TELEPHONE CALLS TO: correspondence to: LOWE HAUPTMAN & HAM, LLP +1 (703) 684-1111

Email: docketing@ipfirm.com

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I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than (5) years, or both.

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AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

Full name of sole or first inventor: Takeshi KORENAGA	
Inventor's signature:	Date:
Residence: Tokyo, Japan	
Citizenship: Japanese	
Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,	
16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan	

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Page 3 of 4

Full name of sole or second inventor: Hisaji TAKEUCHI	
Inventor's signature: Hisaji Takenchi	Date: 1, 8, AUG, 2015
Residence: Tokyo, Japan	
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Full name of sole or third inventor: Prota HIJP A	

Full name of sole or third inventor: Ryota HIURA		
Inventor's signature:	Date:	
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Citizenship: Japanese		
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Full name of sole or fourth inventor: Tomohiro MURATA	- Colonia - Colo
Inventor's signature:	Date:
Residence: Tokyo, Japan	
Citizenship: Japanese	
Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,	
16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Ja	apan

Full name of sole or fifth inventor: Takeshi NAGATA	Real Property of the Control of the
Inventor's signature:	Date:
Residence: Tokyo, Japan	
Citizenship: Japanese	
Post Office Address: c/o MITSUBISHI HEAVY INDUSTRIES, LTD.,	
16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan	

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Page 4 of 4

Full name of sole or sixth inventor: Hiromichi NAKAMOTO	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Inventor's signature:	Date:
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Full name of sole or seventh inventor: Seiki KATO	
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Residence: Tokyo, Japan	
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16-5, Konan 2-chome, Minato-ku, Tokyo 1088215 Japan	

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PATENT REEL: 046049 FRAME: 0747

RECORDED: 06/11/2018