

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5128230

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MASAHIRO YONEMOTO	08/28/2018
KEI SAKABE	09/03/2018
RYOHHEI NAKAO	09/03/2018
KEIICHIRO OHKAWA	08/27/2018
DAIKI KOMATSU	08/30/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HITACHI AUTOMOTIVE SYSTEMS, LTD.
<b>Street Address:</b>	2520, TAKABA
<b>City:</b>	HITACHINAKA-SHI, IBARAKI
<b>State/Country:</b>	JAPAN
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16082805
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)628-8844
<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>	202-624-2500
<b>Email:</b>	asaguros@crowell.com, edocket@crowell.com
<b>Correspondent Name:</b>	CROWELL & MORING LLP
<b>Address Line 1:</b>	P.O. BOX 14300
<b>Address Line 4:</b>	WASHINGTON, D.C. 20044-4300
<b>ATTORNEY DOCKET NUMBER:</b>	114617.PB526US
<b>NAME OF SUBMITTER:</b>	MICHAEL H. JACOBS
<b>SIGNATURE:</b>	/Michael H. Jacobs/
<b>DATE SIGNED:</b>	09/06/2018
<b>Total Attachments: 5</b>	
source=PB526US_Assignment#page1.tif	
source=PB526US_Assignment#page2.tif	
source=PB526US_Assignment#page3.tif	

source=PB526US\_Assignment#page4.tif

source=PB526US\_Assignment#page5.tif

ASSIGNMENT

(譲渡証)

A. a below named inventor, I hereby declare that:

II CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI AUTOMOTIVE SYSTEMS, LTD., a corporation organized under the laws of Japan, located at 2-20, Takaba, Hitachinaka-shi, Ibaraki, JAPAN receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

BATTERY MANAGEMENT SYSTEM, BATTERY SYSTEM AND HYBRID VEHICLE CONTROL SYSTEM

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI AUTOMOTIVE SYSTEMS, LTD.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)  
(発明者フルネームサイン)

DATE SIGNED  
(署名日)

1)	<u>Masahiro Yonemoto</u> Masahiro YONEMOTO	<u>8/28/2018</u>
2)	_____ Kei SAKABE	_____
3)	_____ Ryohei NAKAO	_____
4)	_____ Keiichi OHKAWA	_____
5)	_____ Daiki KOMATSU	_____
6)	_____	_____
7)	_____	_____
8)	_____	_____

ASSIGNMENT  
(讓渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI AUTOMOTIVE SYSTEMS, LTD., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, JAPAN receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

BATTERY MANAGEMENT SYSTEM, BATTERY SYSTEM AND HYBRID VEHICLE CONTROL SYSTEM

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI AUTOMOTIVE SYSTEMS, LTD.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)	DATE SIGNED (署名日)
1) _____ Masahiro YONEMOTO	_____
2) <u>Kei Sakabe</u> _____ Kei SAKABE	<u>Sep. 3, 2018</u>
3) _____ Ryohei NAKAO	_____
4) _____ Keiichi OHKAWA	_____
5) _____ Daiki KOMATSU	_____
6) _____	_____
7) _____	_____
8) _____	_____

ASSIGNMENT  
(讓渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI AUTOMOTIVE SYSTEMS, LTD., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, JAPAN receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

BATTERY MANAGEMENT SYSTEM, BATTERY SYSTEM AND HYBRID VEHICLE CONTROL SYSTEM

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI AUTOMOTIVE SYSTEMS, LTD.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)	DATE SIGNED (署名日)
1) _____ Masahiro YONEMOTO	_____
2) _____ Kei SAKABE	_____
3) <i>Ryohhei Nakao</i> _____ Ryohhei NAKAO	<i>9/3/2018</i> _____
4) _____ Keiichiro OHKAWA	_____
5) _____ Daiki KOMATSU	_____
6) _____	_____
7) _____	_____
8) _____	_____

ASSIGNMENT  
(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI AUTOMOTIVE SYSTEMS, LTD., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, JAPAN receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

BATTERY MANAGEMENT SYSTEM, BATTERY SYSTEM AND HYBRID VEHICLE CONTROL SYSTEM

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI AUTOMOTIVE SYSTEMS, LTD.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)	DATE SIGNED (署名日)
1) _____ Masahiro YONEMOTO _____	_____
2) _____ Kei SAKABE _____	_____
3) _____ Ryohei NAKAO _____	_____
4) <u>Keiichiro OHKAWA</u> Keiichiro OHKAWA _____	<u>8/27/2018</u>
5) _____ Daiki KOMATSU _____	_____
6) _____	_____
7) _____	_____
8) _____	_____

**ASSIGNMENT**  
(讓渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI AUTOMOTIVE SYSTEMS, LTD., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, JAPAN receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

**BATTERY MANAGEMENT SYSTEM, BATTERY SYSTEM AND HYBRID VEHICLE CONTROL SYSTEM**

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI AUTOMOTIVE SYSTEMS, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI AUTOMOTIVE SYSTEMS, LTD.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)	DATE SIGNED (署名日)
1) _____ Masahiro YONEMOTO	_____
2) _____ Kei SAKABE	_____
3) _____ Ryohhei NAKAO	_____
4) _____ Keiichiro OHKAWA	_____
5) <u>Daiki KOMATSU</u> _____ Daiki KOMATSU	<u>8/30/2018</u> _____
6) _____	_____
7) _____	_____
8) _____	_____