PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
	Corrective Assignment to correct the THIRD APPLICANT'S ADDRESS previously recorded on Reel 044528 Frame 0772. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
MAN JU OH	11/10/2017
SANG SHIN LEE	11/10/2017
SO LA CHUNG	11/10/2017
JAE WOONG KIM	11/10/2017
SO YOON PARK	11/10/2017
JAE WOO PARK	11/10/2017
DU YOUL CHOI	11/10/2017

RECEIVING PARTY DATA

Name:	HYUNDAI MOTOR COMPANY	
Street Address:	12 HEOLLEUNG-RO, SEOCHO-GU	
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Name:	KIA MOTORS CORPORATION	
Street Address:	12 HEOLLEUNG-RO, SEOCHO-GU	
City:	SEOUL	
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Postal Code:	06797	
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Street Address:	43, YEONAMYULGEUM-RO, EUMBONG-MYEON	
City:	ASAN-SI, CHUNGCHEONGNAM-DO	
State/Country:	KOREA, REPUBLIC OF	
Postal Code:	31413	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15824778

CORRESPONDENCE DATA

PATENT

504806322 REEL: 045506 FRAME: 0123

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ATTORNEY DOCKET NUMBER:	092346-0333
NAME OF SUBMITTER:	DORIS BARNES
SIGNATURE:	/Doris Barnes/
DATE SIGNED:	03/06/2018

Total Attachments: 5

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
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CONVEYING PARTY DATA

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JAE WOO PARK	11/10/2017
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RECEIVING PARTY DATA

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State/Country:	KOREA, REPUBLIC OF	

Postal Code:	06797			
Name:	DOOWON	DOOWON CLIMATE CONTROL CO., LTD.		
Street Address:	43, YEONAMYULGEUM-RO, EUMBONG-MYEON			
City:	ASAN-SI,	ASAN-SI, CHUNGEHENGNAM-DO		
State/Country:	KOREA, F	REPUBLIC OF		
Postal Code:	21413			
PROPERTY NUM	BERS Tota	al: 1		
Property T	ype	Number		
Application Num	ber:	15824778		
provided; if that is unsued Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOC NUMBER:	202- ipdo ent to the e-mai cessful, it will be THI 500 WA	DERMOTT WILL & EMERY LLP E MCDERMOTT BUILDING NORTH CAPITOL STREET, N.W. SHINGTON, D.C. 20001 092346-0333		
NAME OF SUBM				
Signature:	/Doris Barnes/			
Date:	11/28/2017			
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Attorney Docket No. 092346-0333

COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

I believe I am the original or an original joint inventor of a claimed invention in the application for which a patent is sought on the invention entitled:

COOLING WATER HEATING APPARATUS FOR ELECTRIC VEHICLES

which application is:	
\boxtimes	attached, or
	United States application number or PCT international application number filed on
The a	bove-identified application was made or authorized to be made by me.
reque Custo	e event that the filing date and/or application number are not entered above at the time I ate this document, and if such information is deemed necessary, I hereby authorize and st the registered practitioners of McDermott Will & Emery LLP, associated with the order Number 20277, to insert above the filing date and/or application number of the cation.
	by acknowledge that any willful false statement made in this declaration is punishable 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both

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Attorney Docket No. 092346-0333

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby assign to

HYUNDAI MOTOR COMPANY

having an address at 12, Heolleung-ro, Seocho-gu, Seoul, REPUBLIC OF KOREA.

KIA MOTORS CORPORATION

having an address at 12, Heolleung-ro, Seocho-gu, Seoul, REPUBLIC OF KOREA, and

DOOWON CLIMATE CONTROL CO..LTD

having an address at 43, Yeonamyulgeum-ro, Eumbong-myeon, Asan-si, Chungcheongnam-do 31413, Republic of Korea

(hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in this document.

I hereby confirm any prior assignment to Assignee, and to the extent that I have not already done so, agree to assign, and hereby do, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by the undersigned had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

I hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

I hereby covenant that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

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Attorney Docket No. 092346-0333

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nventor's signature	
	Date
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LEC Joing 3/1/1	1 2011 11/10
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inventor's signature	Date
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nventor's signature	Date
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CHOI, Du Youl	
nventor's signature	Date
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egal name of eighth inventor	
나는 사람들은 얼마를 가는 그들은 그들은 그 살아 있다.	
nyentor's signature	Date
nventor's signature	Date

Page 3 of 3

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