PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Noriaki Okada	09/13/2011
Arinobu Kimura	09/18/2011
Hiroki Okada	09/18/2011
Hiroko Murakami	09/18/2011

RECEIVING PARTY DATA

Name:	DENSO CORPORATION
Street Address:	1-1, Showa-cho
City:	Kariya-city, Aichi-pref.
State/Country:	JAPAN
Postal Code:	448-8661

Name:	Toyota Jidosha Kabushiki Kaisha
Street Address:	1, Toyota-cho
City:	Toyota-city, Aichi-pref.
State/Country:	JAPAN
Postal Code:	471-8571

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13199897

CORRESPONDENCE DATA

 Fax Number:
 (248)641-0270

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 248-641-1600

 Email:
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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Harness, Dickey & Pierce, P.L.C.

PATENT

REEL: 027050 FRAME: 0323

13499897

Address Line 1: P.O. Box 828 Address Line 4: Bloomfield Hills, MICHIGAN 48303 ATTORNEY DOCKET NUMBER: 4041J-001851/US NAME OF SUBMITTER: H. Keith Miller Total Attachments: 2 source=Assignment 4041J-001851#page1.tif

source=Assignment 4041J-001851#page2.tif

PATENT REEL: 027050 FRAME: 0324

ASSIGNMENT BY INVENTORS

Sole or Joint

WHEREAS, the undersigned, hereinafter referred to as Assignor(s), have invented

IN-VEHICLE APPARATUS				
for which the undersigned executed an application	on for Letters Patent of th	e United States of America:		
(A) × even date herewith				
(B) on		anning and the second s		
(C) X in U.S. Appln. No. 13/	199,897 filed <u>09</u> ,	/12/2011		
ANDMUEDEAG				
AND WHEREAS,				
DENSO CORPORATION,1-1, Showa-ch	no, Kariya-city, Aichi-pre	ef., 448-8661 Japan		
TOYOTA JIDOSHA KABUSHIKI KAISHA,1, To	yota-cho, Toyota-city, A	ichi-pref., 471-8571 Japan		
hereinafter referred to as Assignee, is desirous of	acquiring an interest there	ein;		
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, Assignors by these presents do sell, assign and transfer unto Assignee, its successors in interest, the full and exclusive right in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States and the Paris Convention, to the said invention as described in the specification executed by Assignors of even date preparatory to filing a United States application for patent therefor, said invention and all United States applications for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignors had this assignment and sale not been made; and Assignors hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of United States application for patent and all foreign countries on, for litigation regarding, or for the purpose of protecting title to the said invention, the United States application for patent, or Letters Patent therefor for the benefit of Assignee without further or other compensation than that above set forth; and Assignors hereby request the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee(s).				
Novaki Okador	September 13,2011	Touliro-kn		
Inventor 1: Noriaki Okada	Date	Witness		
	×			
Inventor 2: Arinobu Kimura	Date	Witness		
Amora Amura	Date	VVIIIIESS		
Inventor 3: Hiroki Okada	Date	Witness		

Date

Inventor 4:

Hiroko Murakami

PATENT REEL: 027050 FRAME: 0325

Witness

ASSIGNMENT BY INVENTORS

Sole or Joint

WHEREAS, the undersigned, hereinafter referred to as Assignor(s), have invented

IN-VEHIC	LE APPARATUS	
for which the undersigned executed an applica	ation for Letters Patent of th	e United States of America:
(A) × even date herewith		
(B) on (C) in U.S. Appln. No	13/199,897 filed 09	
	mod	<u> </u>
AND WHEREAS,		
DENSO CORPORATION,1-1, Showa-	cho, Kariya-city, Aichi-pre	ef., 448-8661 Japan
TOYOTA JIDOSHA KABUSHIKI KAISHA,1, 1	loyota-cho, Toyota-city, A	ichi-pref., 471-8571 Japan
hereinafter referred to as Assignee, is desirous of	of acquiring an interest there	ein:
NOW, THEREFORE, for good and wacknowledged, Assignors by these presents do interest, the full and exclusive right in the United right to claim priority under the laws of the United as described in the specification executed by States application for patent therefor, said inventetters Patent therefor to be held and enjoyed Letters Patent are granted and any extensions the held by Assignors had this assignment and sal agree to execute all instruments or documents of United States application for patent and all foreign of protecting title to the said invention, the Unite for the benefit of Assignee without further or other hereby request the Commissioner of Patents and States of America to Assignee(s).	sell, assign and transfer un States of America and all for ded States and the Paris Corn Assignors of even date pro- tion and all United States and by Assignee to the full en- nereof as fully and entirely and enot been made; and Assigned for the in countries on, for litigation of States application for pate for compensation than that and ded Trademarks to issue said	to Assignee, its successors in preign countries, including the evention, to the said invention reparatory to filing a United applications for patent and all and of the term for which said as the same would have been signors hereby covenant and he making and prosecution of regarding, or for the purpose ent, or Letters Patent therefor above set forth; and Assignors di Letters Patent of the United
Inventor 1: Noriaki Okada	Date	Witness
Urinabu Kimura Inventor 2: Arinobu Kimura	<u>September 18, 2011</u> Date	Tun Hiski Witness
Hiroki Okada Inventor 3: Hiroki Okada	September 18, 2011	Jun Hioki Witness
Idoroko Murakami	September 18,2011	Jun Hioki
Inventor 4: Hiroko Murakami	Date	Witness

PATENT REEL: 027050 FRAME: 0326

RECORDED: 10/12/2011