

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3670927

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	PATENT SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
MRH METERS LLC	12/21/2015
RECEIVING PARTY DATA	
Name:	CERBERUS BUSINESS FINANCE, LLC, AS AGENT
Street Address:	875 THIRD AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10022
PROPERTY NUMBERS Total: 79	
Property Type	Number
Application Number:	10858823
Application Number:	11893170
Application Number:	12345702
Application Number:	13071748
Application Number:	12614100
Application Number:	12893038
Application Number:	13288019
Application Number:	12986397
Application Number:	13029460
Application Number:	13192001
Application Number:	13047596
Application Number:	13105273
Application Number:	13093474
Application Number:	13005826
Application Number:	12984260
Application Number:	12948986
Application Number:	13074399
Application Number:	13194246
Application Number:	13197117
Application Number:	13297612

PATENT

Property Type	Number
Application Number:	13367202
Application Number:	13014742
Application Number:	13229038
Application Number:	13212818
Application Number:	13115145
Application Number:	13210499
Application Number:	13191391
Application Number:	13253199
Application Number:	13356290
Application Number:	13231825
Application Number:	13224208
Application Number:	13275121
Application Number:	13277846
Application Number:	14103287
Application Number:	13227199
Application Number:	13345335
Application Number:	13228924
Application Number:	13228968
Application Number:	13670285
Application Number:	13670280
Application Number:	13230409
Application Number:	13230007
Application Number:	13232196
Application Number:	13253531
Application Number:	13232224
Application Number:	14690500
Application Number:	13419865
Application Number:	13267711
Application Number:	14675231
Application Number:	13370880
Application Number:	13328742
Application Number:	13327006
Application Number:	13327033
Application Number:	13326977
Application Number:	13711046
Application Number:	13436821
Application Number:	13296188
Application Number:	13841697

Property Type	Number
Application Number:	14152167
Application Number:	13898290
Application Number:	14139157
Application Number:	14175833
Application Number:	14454861
Application Number:	14447053
Application Number:	14600413
Application Number:	08564543
Application Number:	08872035
Application Number:	08564971
Application Number:	08857322
Application Number:	09168370
Application Number:	09606270
Application Number:	09606769
Application Number:	09606881
Application Number:	09682144
Application Number:	09826792
Application Number:	10913100
Application Number:	11499961
PCT Number:	US1510747
PCT Number:	US1469302

CORRESPONDENCE DATA

Fax Number: (212)593-5955

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: 212-756-2132

Email: scott.kareff@srz.com

Correspondent Name: S. KAREFF C/O SCHULTE ROTH & ZABEL LLP

Address Line 1: 919 THIRD AVENUE

Address Line 2: 25TH FLOOR

Address Line 4: NEW YORK, NEW YORK 10022

ATTORNEY DOCKET NUMBER:	014951-1438
NAME OF SUBMITTER:	SCOTT KAREFF (014951-1438)
SIGNATURE:	/kc for sk/
DATE SIGNED:	12/22/2015

Total Attachments: 29

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PATENT SECURITY AGREEMENT

This Patent Security Agreement (this “**Assignment**”) is made as of this 21st day of December, 2015, by the Assignors listed on the signature pages hereof (each an “**Assignor**” and collectively, jointly and severally, the “**Assignors**”), in favor of **CERBERUS BUSINESS FINANCE, LLC**, in its capacity as agent for the Lenders (together with its successors and assigns in such capacity, “**Agent**”).

WHEREAS, pursuant to that certain Term Loan and Security Agreement dated as of March 28, 2014 (as amended, restated, supplemented or otherwise modified from time to time, including all exhibits and schedules thereto, the “**Loan Agreement**”) among **METER READINGS HOLDING, LLC**, a Delaware limited liability company (“**Parent Holdco**”), **ACLARA TECHNOLOGIES LLC**, an Ohio limited liability company (“**Aclara**”), **ACLARA INTERNATIONAL LLC**, a Missouri limited liability company (“**Aclara International**” and, together with each Person from time to time joined as a party thereto as a “**Borrower**” in accordance with the terms thereof, and all of their respective permitted successors and assigns, “**Borrowers**” and each a “**Borrower**”), the lenders from time to time party thereto (the “**Lenders**”), and Agent, the Lenders agreed to make certain financial accommodations available to Borrowers from time to time pursuant to the terms and conditions thereof;

WHEREAS, pursuant to the Loan Agreement, the Assignors are required to execute and deliver to Agent, for the benefit of the Lenders, this Assignment.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Assignor hereby agrees as follows:

1. Defined Terms. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Loan Agreement.

2. Grant of Security Interest in Patent Collateral. Each Assignor hereby grants to Agent, for the benefit of the Lenders, a continuing first priority (subject to Permitted Encumbrances) security interest in all of such Assignor’s right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the “**Patent Collateral**”):

(a) all of such Assignor’s patents, patent applications, patentable inventions, trade secrets, equipment formulations, manufacturing procedures, quality control procedures (collectively, “**Patents**”), and licenses for any of the foregoing (“**Licenses**”), including those U.S. patents and U.S. published patent applications referred to on **Schedule I** hereto;

(b) all reissues, continuations, continuations-in-part, substitutes, extensions or renewals of and improvements on the foregoing; and

(c) all products and proceeds of the foregoing, including any claim by such Assignor against third parties for past, present or future infringement or dilution of any Patent or any Patent licensed under any License;

provided however that the term "Patent Collateral" shall be subject in all respects to the provisos set forth at the end of the definition of "Collateral" in the Loan Agreement and shall therefore not include any of the assets, property, agreements, license, interests or rights as set forth therein.

3. Security For Obligations. This Assignment and the security interest created hereby secure the payment and performance of all the Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Assignment secures the payment of all amounts which constitute part of the Obligations and would be owed by Assignors, or any of them, to Agent, the Lenders or any of them, whether or not they are unenforceable or not allowable due to the existence of an insolvency proceeding involving any Assignor.

4. Loan Agreement. The security interests granted pursuant to this Assignment are granted in conjunction with the security interests granted to Agent, for the benefit of the Lenders, pursuant to the Loan Agreement. Each Assignor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Loan Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

5. Authorization to Supplement. If any Assignor shall obtain rights to any new Patents or Licenses for Patents, this Assignment shall automatically apply thereto. Each Assignor shall give prompt notice in writing to Agent with respect to any such new Patent or Licenses for Patents. Without limiting any Assignor's obligations under this Section 5, each Assignor hereby authorizes Agent unilaterally to modify this Assignment by amending **Schedule I** to include any such new U.S. patents (to the extent provided in the Loan Agreement), U.S. published patent applications or Licenses (to the extent provided in the Loan Agreement) for Patents of such Assignor. Notwithstanding the foregoing, no failure to so modify this Assignment or amend **Schedule I** shall in any way affect, invalidate or detract from Agent's continuing security interest in all Collateral, whether or not listed on **Schedule I**.

6. Counterparts. This Assignment may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such separate counterparts shall together constitute but one and the same instrument. In proving this Assignment or any Other Document in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought. Any signatures delivered by a party by facsimile transmission or by e-mail transmission shall be deemed an original signature hereto.

7. Construction. Unless the context of this Assignment or any Other Document clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or." The words "hereof," "herein," "hereby," "hereunder," and similar terms in this Assignment or

any Other Document refer to this Assignment or such Other Document, as the case may be, as a whole and not to any particular provision of this Assignment or such Other Document, as the case may be. Section, subsection, clause, schedule, and exhibit references herein are to this Assignment unless otherwise specified. Any reference in this Assignment or in any Other Document to any agreement, instrument, or document shall include all alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements, thereto and thereof, as applicable (subject to any restrictions on such alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements set forth herein). Any reference herein or in any Other Document to the satisfaction or repayment in full of the Obligations shall mean the repayment in full in cash (or cash collateralization in accordance with the terms of the Loan Agreement) of all Obligations other than unasserted contingent indemnification Obligations. Any reference herein to any Person shall be construed to include such Person's successors and assigns.

[Remainder of page intentionally left blank; signature pages follow.]

IN WITNESS WHEREOF, the Assignor has caused this Assignment to be duly executed by its officer thereunto duly authorized as of the date first set forth above.

MRH METERS LLC

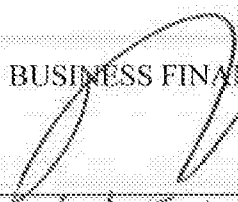
By: 

Name: Allan J. Connolly

Title: Chief Executive Officer and President

AGENT:

CERBERUS BUSINESS FINANCE, LLC

By: 

Name:

Title:

Daniel E. Wolf
President

Assignment for Security - Patents

PATENT

REEL: 037362 FRAME: 0611

SCHEDULE I

TO

PATENT SECURITY AGREEMENT

Patents

Object	Filing Suffix	Filing Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
55361	1	S	858823	10/6/2004	265532	7/9/2007	4/2027	9	--	NA
55361	1	H	2005-000273	1-6/1/2005	-2005-000273	1-8/27/2010	1/2025	6	--	NA
20392	2	S	893170	11/8/14/2007	693670	7/4/2010	6/2028	6/30/2029	--	NA
20392	2	N	0810145982.8	208/14/2008	00810145982.8	21/0/10/2012	1/4/2028	8	--	NA
20392	2	P	161952.0	088/6/2008					DE, GB, CH	NA
34611	2	S	345702	12/1/2/30/2008	143879 B2	8/27/2012	2/30/2028	1	--	NA
34611	2	N	0911000154.6	201/2/30/2009					--	-4NOV15 Request for Reexamination (agent has been instructed to file)
34611	2	P	178807.5	091/2/1/1/2009					states not yet designated	
34611	2	P	09-296943	201/2/28/2009	675091	5/9/2015	2/28/2029	1	--	NA

Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
37094		S	071748	13/03/25/2011	818742	26/2014	25/2031	1/12/2032	--	NA
37094		N	1210093492.4	03/23/2012			23/2032		--	-Office Action response due 8NOV15 (instructions sent to agent)
37094		P	161113.1	03/23/2012			23/2032		states not yet designated	NA
37094		N	1/DEL/2012	03/12/2012					--	NA
37094		R	20120029231	03/22/2012					--	NA
41483		S	614100	01/16/2009	800890	21/2010	1/6/2029		--	NA
41825		S	893038	09/12/29/2010	331082	21/1/2012	29/2030		--	NA
41825		U	11226800	09/21/2011	011226800	21/2/2013	21/2031		--	NA
41825		R	104461-6	09/12/2011			12/2031		--	NA
41825		A	52340	09/15/2011					--	NA
41825		P	11-210066	09/27/2011	039227	13/2012	27/2031		--	NA
41825		Z	5320	09/21/2011	95320	30/2013	21/2031		--	NA
41825				05/20		07	05		--	NA

Assignment for Security - Patents

Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
42106		P	11-106764	/12/2011	778979	/17/2015	/12/2031			
42106		U	11202161	/10/2011			/10/2031		--	4JUN16 -office action due
42106		R	102305-8	/6/2011			/6/2031		--	NA
42106		A	39195	/5/2011			/5/2031		--	NA
42106		P	166233.4	/16/2011			/16/2031		states not yet designated	NA
42106		Z	2756	/10/2011	92756	/22/2013	/10/2031		--	NA
43731		S	288019	/1/2/2011			/1/2/2031		--	NA
44572		S	986397	/7/2011	839101	/16/2014	/7/2031	/10/2032	--	NA
44785		S	029460	/1/7/2011	348148	/8/2013	/1/7/2031		--	NA
44785		U	12200681	/6/2012	012200681	/9/2014	/6/2032		--	renewal fee due 6FEB16
44785		R	2012003530-8	/16/2012					--	NA
44785		A	67678	/9/2012	767678	/25/2014	/9/2032		--	9FEB16 maintenance fee due
44785		P	153976.1	/6/2012	489985	/25/2013	/6/2032		AT, CH, DE, ES, FR, GB, IT, NL,	NA

Assignment for Security - Patents

Object	Filing Suffix	Filing Country Code	Application Number	Application Date	Patent Number	Inventor Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
									PL	
44785	2	P	12-030024 ²⁰	/15/2012 ²					--	NA
44785	2	Z	8043 ⁵⁹	/6/2012 ²	98043 ⁵	2/3/2013 ¹	/6/2032 ²		--	renewal fee due 7FEB16
44785	2	T	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	NA
44785	2	E	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	B	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	H	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	S	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	L	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	L	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	R	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
44785	2	T	153976.1 ¹²	/6/2012 ²	489985 ²	/25/2013 ⁹	/6/2032 ²		--	next annuity due 6FEB16
45304	2	U	12200188 ²⁰	/12/2012 ¹					--	12JAN16 next annuity due

Assignment for Security - Patents

ocket	iling Suffix	iting Country Code	Ap lication Number	A plication Date	P atent Number	I ssue Date	E xpiration Date	A djusted Expiration Date	Design ated States (if applicable)	Pending actions in next 120 days
45304	2	R	BR 10201200074 60	1 /12/2012					--	12JAN16 next annuity due
45304	2	A	63885	27 1 /11/2012					--	11JAN16 next maintenance fee due
45304	2	P	12-002932	20 1 /11/2012					--	27JAN16 office action due
45304	2	Z	7568	59 1 /12/2012	97568	5 0/30/2013	1 /12/2032		--	12JAN16 next annuity due
46189	2	S	192001	13/ 7 /27/2011	667261	8 3 /4/2014			--	NA
46189	2	U	12207024	20 7 /25/2012					--	NA
46189	2	A	83434	27 7 /19/2012					--	NA
46189	2	Z	1461	60 7 /25/2012	01461	6 5 /1/2014			--	12JAN16 -next renewal due
46491	2	S	047596	13/ 3 /14/2011	880365	8 1 /4/2014	3 /14/2031	6 /4/2031	--	NA
46491	2	N	1210078532. 8	20 3 /13/2012			3 /13/2032		--	NA
46491	2	P	158928.7	12 3 /9/2012			3 /9/2032		not yet designated states	NA
46491	2	N	0/DEL/2012	56 2 /29/2012					--	NA

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Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
46491		P	12-051108	8/2012					--	NA
46513		S	105273	1/1/2011	812979	1/9/2014	1/1/2031	1/2033	--	NA
46513		P	167386.7	9/2012			9/2032		states not yet designated	NA
46513		P	12-108084	1/10/2012					--	NA
46532		S	093474	2/25/2011	783464	2/22/2014	2/25/2031	7/2032	--	NA
46532		P	164825.7	1/9/2012			1/9/2032		states not yet designated	15JAN16 -Rule 71(3) due
46532		P	12-095189	1/9/2012					--	NA
46671		S	005826	1/13/2011	057626	1/6/2015	1/13/2031	2/24/2032	--	NA
46671		U	12200231	1/13/2012					--	13JAN16 next annuity due
46671		R	12000747.9	1/12/2012					--	12JAN15 next annuity due
46671		A	63878	1/12/2012					--	next maintenance fee due 12JAN16
46671		P	150844.4	1/11/2012			1/11/2032		states not yet designated	11JAN16 next annuity due

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46671		P	12-002934	1/1/2012					--	NA
46671		Z	7588	1/13/2012	97588	0/30/2013	1/13/2032		--	next renewal due 13JAN16
47108		S	984260	1/4/2011	635036	1/21/2014	1/4/2031	1/16/2032	--	NA
47108		U	12200060	1/4/2012					--	next renewal fee due 4JAN16
47108		R	20120000598	1/3/2012			1/3/2032		--	NA
47108		A	62769	1/2/29/2011					--	next maintenance fee due 29DEC15
47108		P	195343.6	1/2/22/2011			1/2/22/2031		states not yet designated	next annuity due 22DEC15
47108		P	11-285345	1/2/27/2011					--	office action due 20JAN16
47108		Z	7431	1/4/2012	97431	1/0/30/2013	1/4/2032		--	next renewal due 14JAN16
47351		S	948986	1/1/18/2010	688407	1/1/2014	1/1/18/2030	1/1/28/2031	--	NA
47351		U	11250808	1/1/16/2011					--	next renewal due 16NOV15
47351		R	1048310	1/1/16/2011					--	next annuity due 16NOV15
47351		A	57886	1/1/10/2011					--	next maintenance fee due 10NOV15

Assignment for Security - Patents

Patent Number	Patent Suffix	Patent Country Code	Patent Application Number	Patent Application Date	Patent Inventor Number	Patent Issue Date	Patent Expiration Date	Patent Status (if applicable)	Patent Designated States (if applicable)	Patent Pending actions in next 120 days
47351		P	189260.0	1/15/2011				not yet designated	states	next maintenance fee due 10NOV15
47351		P	11-248143	1/14/2011				--	--	office action due 6JAN16
47351		Z	64/75	1/16/2011	96475	3/2013	1/16/2031	--	--	16NOV15 next renewal fee due
47935		S	07/4399	13/29/2011	587290	1/19/2013	1/29/2031	13/2032	--	NA
47935		U	12201828	2028/2012			28/2032	--	--	NA
47935		R	10201200693	7-728/2012			28/2032	--	--	NA
47935		A	72331	2722/2012				--	--	NA
47935		P	161900.1	1228/2012	505967	226/2014	28/2032	ES, FR, GB, PL	DE,	NA
47935		P	12-072832	2028/2012			28/2032	--	--	NA
47935		Z	9079	5928/2012	99079	128/2014	28/2032	--	--	NA
47935		E	161900.1	1228/2012	505967	226/2014	28/2032	--	--	NA
47935		B	161900.1	1228/2012	505967	226/2014	28/2032	--	--	NA

Assignment for Security - Patents

Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
47935	0	R	161900.1	28/2012	505967	26/2014	28/2032		--	NA
47935	1	S	161900.1	28/2012	505967	26/2014	28/2032		--	NA
47935	2	L	161900.1	28/2012	505967	26/2014	28/2032		--	NA
48076		N	1020670612.9	2/20/2010	01020670612.9	10/2011	2/20/2020		--	20DEC15 next annuity due
48101		S	194246	29/2011	744789	3/2014	29/2031	23/2032	--	NA
48101		U	12207000	25/2012	012207000	10/2015			--	NA
48101		B	13376.5	27/2012			27/2032		--	NA
48236		S	197117	3/2011	682604	25/2014	-Aug-31	-Sep-32	--	NA
48236		A	83902	26/2012					--	NA
48236		Z	1460	25/2012	01460	1/2014	5-Jul-32		--	NA
48353		S	297612	1/16/2011	003063	7/2015	1/16/2031	23/2032	--	NA
48804		S	367202	6/2012	670308	1/1/2014	6/2032	5/2032	--	NA
48893		S	014742	27/2011	924168	2/30/2014	27/2031	1/2033	--	NA

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Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
48893		N	1210115705.9	2012/27/2012			2032/27/2032		--	NA
48893		P	152341.9	2012/24/2012			2032/24/2032		states not yet designated	24JAN16 next annuity due
48893		P	12-006634	2012/17/2012					--	NA
49421		S	229038	2011/09/2011	829888	2014/09/2014	2031/09/2031	2032/09/2032	--	NA
49453		S	212818	2011/18/2011	872611	2014/02/28/2014	2031/18/2031	2031/18/2031	--	NA
49453		U	12216261	2012/16/2012					--	NA
49453		R	102012020701-0	2012/17/2012			2032/17/2032		--	NA
49453		A	85396	2012/09/2012					--	NA
49453		P	180314.2	2012/13/2012			2032/13/2032		states not yet designated	NA
49453		P	12-177634	2012/10/2012					--	NA
49453		Z	1886	2012/16/2012	01886	2014/04/2014	2032/16/2032		--	NA
49489		S	115145	2011/25/2011	830083	2014/09/2014	2031/25/2031	2033/20/2033	--	NA

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49489		U	12203142	20/5/22/2012					--	NA
49489		R	10201201174 BR 95	5/5/17/2012			5/5/17/2032		--	NA
49489		A	76612	5/5/10/2012					--	NA
49489		P	168356.9	5/5/16/2012	2/527793	7/30/2015	5/5/16/2032		states not yet designated	EP National Validation due 30DEC15
49489		P	12-117209	5/5/23/2012					--	NA
49489		Z	0147	5/5/22/2012	6/00147	3/21/2014	5/5/22/2032		--	NA
49506		S	210499	8/13/16/2011	8/837101	9/16/2014	8/8/2031	9/8/2032	--	NA
49506		U	12211433	8/20/8/2012					--	NA
49506		R	10201201892 BR 8-3	7/30/2012					--	NA
49506		A	85367	8/27/9/2012					--	NA
49506		P	180017.1	8/12/10/2012			8/10/2032		states not yet designated	NA
49506		P	12-173524	8/20/6/2012					--	NA

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Patent Number	Patent Suffix	Patent Country Code	Application Number	Application Date	Patent Number	Issue Date	Expiration Date	Adjusted Expiration Date	Designated States (if applicable)	Pending actions in next 120 days
49506		Z	1721	60	8	01/21	6	4/2014	8	NA
49833		S	191391	13/	7	694560	8	8/2014	4	NA
49833		A	83290	27	7	19/2012				NA
49833		Z	1462	60	7	01462	6	1/2014	5	NA
49909		S	253199	13/	1	872506	8	0/28/2014	1	NA
50028		S	356290	13/	1			1/23/2032	1	response to non-final rejection due 2JAN16
50387		S	231825	13/	9			1/13/2031	9	NA
50630		S	224208	13/	9	818743	8	1/26/2014	8	NA
50703		S	275121	13/	1	472893	8	1/25/2013	6	NA
51071		S	277846	13/	1	658921	8	1/25/2014	2	NA
51071		S	103287	14/	1	040853	9	1/26/2015	5	NA
51228		S	227199	13/	9	947246	8	1/3/2015	2	NA
51410		S	345335	13/	1			1/6/2032	1	NA

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51412		A	39557	28 /16/2014			1 /16/2034		--	NA
51412		P	151479.4	14 /16/2014			1 /16/2034		states not yet designated	-office action due 9NOV15 -next annuity due 16JAN16
51412		P	14-008184	20 /21/2014			1 /21/2034		--	NA
51412		U	14200197	20 /14/2014			1 /14/2034		--	NA
51446		S	228924	13/ /9/2011	8 912807	1 2/16/2014	9 /9/2031	8 /8/2032	--	NA
51446		N	1210328043.	20 /7/2012			9 /7/2032		--	NA
51446		P	183612.6	12 /7/2012					states not yet designated	NA
51446		P	12-192742	20 /3/2012					--	NA
51456		S	228968	13/ /9/2011			9 /9/2031		--	NA
51456		N	1210329021.	20 /7/2012			9 /7/2032		--	NA
51456		P	183613.4	12 /7/2012					states not yet designated	NA
51456		P	12-192741	20 /3/2012					--	NA

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51699		S	670285	1/6/2012			1/6/2032	--	NA
51699		A	31833	1/1/2013			1/1/2033	--	next maintenance fee due 1NOV15
51699		P	190625.7	0/29/2013			0/29/2033	states not yet designated	next annuity due 29OCT15
51699		P	13-229009	1/5/2013			1/5/2033	--	NA
51699		A	13/08282	1/5/2013			1/5/2033	--	NA
51785		S	670280	1/6/2012			1/6/2032	--	-response to non-final rejection due 15DEC15
51785		A	31828	1/1/2013			1/1/2033	--	next maintenance fee due 1NOV15
51785		P	190127.4	0/24/2013			0/24/2033	states not yet designated	NA
51785		A	13/07887	0/22/2013			0/22/2033	--	NA
51785		P	13-229879	1/6/2013			1/6/2033	--	NA
51862		S	230409	1/12/2011	664939	4/2014	1/12/2031	--	NA
52666		S	230007	1/12/2011			1/12/2031	--	NA
52666								--	NA

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52656		U	12216543	/30/2012						
52837		S	232196	13/ 9	799481	8 /5/2014	9 /14/2031	4 /18/2032	--	NA
53108		S	253531	13/ 1	730042	8 /20/2014	1 0/5/2031	7 /19/2032	--	NA
53821		S	232224	13/ 9	015326	9 /21/2015	9 /14/2031	1 0/26/2033	--	NA
53821		S	690500	14/ 4					--	NA
53947		S	419865	13/ 3			3 /14/2032		--	NA
54050		S	267711	13/ 1	996144	8 /31/2015	1 0/6/2031	7 /12/2033	--	NA
54050		U	12232950	20 9			9 /28/2032		--	NA
54050		R	2012025476-0	10 1			1 0/5/2032		--	NA
54050		P	187141.2	12 1			1 0/4/2032		states not yet designated	-response to search report due 3DEC15 -request exam 3DEC15
54050		P	12-220937	20 1			1 0/3/2032		--	NA
54050		S	675231	14/ 3			1 0/6/2031		--	NA
54175		S	370880	13/ 2			2 /10/2032		--	-response to non-final rejection due 10NOV15

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54672		S	328742	2/16/2011			2/16/2031	--	NA
54824		S	327006	2/15/2011	314668	1/20/2012	2/15/2031	--	NA
54826		S	327033	2/15/2011	339223B1	2/25/2012	2/15/2031	--	NA
54845		S	326977	2/15/2011	354903B1	1/15/2013	2/15/2031	--	NA
54845		U	12211434	8/8/2012				--	NA
54845		R	10201202069 5-1	1/17/2012				--	NA
54845		A	85148	9/9/2012				--	NA
54845		P	180734.1	1/6/2012			1/16/2032	states not yet designated	-request examination by 27NOV15 -respond to search report 27NOV15
54845		P	12-180005	1/5/2012				--	NA
54845		Z	1722	8/8/2012	01722	4/4/2014	8/8/2032	--	NA
54845		S	711046	2/11/2012	786386	1/22/2014	2/15/2031	2/15/2031	NA
56084		S	436821	3/30/2012	024621	5/5/2015	3/30/2032	--	NA

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56200		S	296188	13/ 1/14/2011	1 754634	8 /17/2014	6 1/14/2031	1 /16/2032	5 --	NA
64236		S	841697	13/ /15/2013	3		3 /15/2033	3	--	NA
64236		A	44970	28 /6/2014	3		3 /6/2034	3	--	NA
64236		P	159340.0	14 /13/2014	3		3 /13/2034	3	not yet designated states	NA
64236		P	14-051023	20 /14/2014	3		3 /14/2034	3	--	NA
64236		U	14201312	20 /10/2014	3		3 /10/2034	3	--	NA
66285		S	152167	14/ /10/2014	1		1 /10/2034	1	--	-non final rejection response due 20OCT15 (Final deadline 2JAN16)
66285		O	17US2015/01 0747	PC /9/2015	1				not yet designated states	NA
67456		S	898290	13/ /20/2013	5		5 /20/2033	5	--	NA
67456		A	51003	28 /8/2014	5		5 /8/2034	5	--	NA
67456		P	168347.4	14 /14/2014	5		5 /14/2034	5	not yet designated states	NA
67456		P	14-096423	20 /8/2014	5		5 /8/2034	5	--	NA

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ocket	iling Suffix	iling Country Code	Ap plication Number	A pplication Date	P atent Number	I ssue Date	E xpiration Date	A djusted Expiration Date	Design States (if applicable)	Pending actions in next 120 days
67456		U	14202571	20 /13/2014			5 /13/2034		--	NA
68663		S	139157	14/ 2/23/2013			1 2/23/2033		--	NA
68663		O	PC T/US2014/06 9302	1 2/9/2014					states not yet designated	-response to final action due 1NOV15 -notice of appeal/RCE due 1DEC15
72214		S	175833	14/ 7/7/2014			2 7/7/2034		--	
72214		U	15200482	20 /2/2015			2 /2/2035		--	NA
72214		A	81256	28 /5/2015			2 /5/2035		--	NA
72214		P	154219.8	15 /6/2015			2 /6/2035		states not yet designated	-request exam by 12FEB2016 -respond to search report 12FEB2016
72214		P	15-019820	20 /4/2015			2 /4/2035		--	NA
72214		A	15/00761	20 /2/2015					--	NA
75508		S	454861	14/ 8/2014			8 /8/2034		--	NA
75508		A	98935	28 /30/2015					--	NA
75508		X	MX /A/2015/0102	8 /7/2015					--	NA

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ocket	iling Suffix	iting Country/ Code	Ap plication Number	A pplication Date	P atent Number	I ssue Date	E xpiration Date	A djusted Expiration Date	Design ated States (if applicable)	Pending actions in next 120 days
			82							
75508		R	2015018819- 6	/5/2015					--	NA
75508		N	1510588888. X	/7/2015					--	NA
75508		P	15-154666	/5/2016					--	NA
75508		P	178311.5	/24/2015			/24/2035		not yet designated states	NA
75538		S	447053	/30/2014	081040	/14/2015	/9/2031	/9/2031	--	NA
75538		A		/16/2015			/16/2035		--	NA
75538		X	/A/2015/0102 82	/7/2015					--	NA
75538		R	2015018819- 6	/5/2015					--	NA
75538		N	1510588888. X	/7/2015					--	NA
75538		P	15-145410	/23/2015			/23/2035		--	NA
									not yet states	NA

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75538		P	176636.7	/14/2015			/14/2035	designated	
76122		S	600413	/20/2015			/20/2035	--	NA
1ME376	1	H	013 50	/23/1995	1711 3	/18/1999	/18/2016	--	19JAN16 -next annuity due
1ME413	1	R	605750-5 P19	1/29/1996	196057505 P	/5/2003	1/29/2016	--	30NOV15 -next annuity due
1ME413	1	A	90905 21	1/21/1996	190905 2	/3/2005	1/21/2016	--	22NOV15 -next annuity due
1ME413	1	X	5980 96	1/29/1996	93760 1	0/19/1999	1/29/2016	--	30NOV15 -next annuity due
1ME413	1	H	54899 96-	1/29/1996	654899 9	1/6/2002	1/6/2022	--	6NOV15 -next annuity due
1ME413	1	W	112914 85	0/22/1996	1103403 N	/16/1999	/16/2019	--	NA
1ME413	1	S	564543 08/	1/30/1995	673196 5	/30/1997	1/30/2015	--	NA
1ME413	1	S	872035 08/	/9/1997	978741 5	1/2/1999	/9/2017	--	NA
1ME413	1	R	308666.5 96	1/29/1996	777125 0	/21/2009	1/29/2016	--	29NOV15 -next annuity due

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1ME413 X	8	E	308666.5 ⁹⁶	1/29/1996 ¹	9637822.1 ⁶	/21/2009 ¹	1/29/2016 ¹		--	29NOV15 -next annuity due
1ME413 X	9	B	308666.5 ⁹⁶	1/29/1996 ¹	777125 ⁰	/21/2009 ¹	1/29/2016 ¹		--	29NOV15 -next annuity due
1ME413 X	0	S	308666.5 ⁹⁶	1/29/1996 ¹	777125 ⁰	/21/2009 ¹	1/29/2016 ¹		--	29NOV15 -next annuity due
1ME413 X	1	H	308666.5 ⁹⁶	1/29/1996 ¹	777125 ⁰	/21/2009 ¹	1/29/2016 ¹		--	29NOV15 -next annuity due
1ME426		S	564971 ^{08/}	1/30/1995 ¹	715390 ⁵	/3/1998 ²	1/30/2015 ¹		--	NA
1ME433		S	857322 ^{08/}	1/6/1997 ⁵	611772 ⁶	/26/2003 ⁸	1/6/2017 ⁵		--	NA
1ME433		N	800655.3 ⁹⁸	1/1/1998 ⁵	155632C ¹	/30/2004 ⁶	1/1/2018 ⁵		--	NA
1ME433		X	PA/Na/1999/00066 ¹	1/5/1999 ¹	28416 ²	/10/2005 ⁶	1/1/2018 ⁵		--	NA
1ME433		K	3/98 ⁴⁷	1/4/1998 ⁵	36246 ¹	0/13/1999 ¹	1/6/2017 ⁵		--	NA
1ME441		S	168,370 ^{09/}	0/7/1998 ¹	304231 ⁶	0/16/2001 ¹	0/7/2018 ¹		--	NA

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1ME459	1	S	606270 09/	6/29/2000	564159 6	/13/2003 5	/13/2023 5		--	NA
1ME459	1	A	40731 23	6/29/2000	340731 2	/5/2010 1	/29/2020 6		--	NA
1ME459	1	N	0/PCT/2001 15	6/29/2000	17461 2	/26/2008 3	/29/2020 6		--	NA
1ME459	1	K	9/2001 11	2/9/2001	37699 1	/7/2003 1	/9/2021 2		--	next annuity due 9FEB16
1ME472	1	S	606769 09/	6/29/2000	778920 6	/17/2004 8	/29/2020 6		--	NA
1ME472	1	R	006867-5 P10	6/29/2000	10006867-5 P	/25/2014 2	/25/2024 2		--	NA
1ME472	1	A	40886 23	6/29/2000	340886 2	/10/2011 5	/29/2020 6		--	NA
1ME472	1	N	8/DEL/2001 10	6/29/2000	46017 2	/9/2011 2	/29/2020 6		--	NA
1ME490	1	S	606881 09/	6/29/2000	459258 6	0/1/2002 1	0/1/2022 1		--	NA
1ME490	1	R	006930-2 P10	6/29/2000					--	NA

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1ME490		A	40730	23/06/2000	340730	2/1/17/2009	29/06/2020	--	NA
1ME490		K	2001	89/02/01/2001	37676	1/2/30/2002	21/01/2021	--	-next annuity due 1FEB16
1ME490	1	R	946918.0	00/06/29/2000	108217	6/3/2009	29/06/2020	--	NA
1ME490	1	E	946918.0	00/06/29/2000	0042309.3	6/3/2009	29/06/2020	--	NA
1ME491	1	A	54312	23/07/27/2001	354312	7/12/2011	27/07/2021	--	NA
1ME491	1	S	682144	09/07/26/2001	823273	1/1/23/2004	24/01/2024	--	-next maintenance fee due 24NOV15
D23018	F	H	253	50/04/1995	0253	3/5/2001	3/05/2018	--	NA
D25755	F	A	79802	22/08/16/1999	279802	2/9/2010	8/06/2019	--	NA
D25755	F	S	826792	09/04/15/2001	816360	1/1/9/2004	8/14/2018	4/15/2020	next maintenance fee due 9NOV15

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D25/755	1	S	10/	8	548223	7	1/6/2009	6	1/4/2018	8	1/21/2020	1	--	NA
D25/755	2	S	11/	8	652526	7	1/26/2010	1	1/10/2018	8	1/12/2020	4	--	NA

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PATENT

REEL: 037362 FRAME: 0635

RECORDED: 12/22/2015