

02/04/2013



103654834

U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

Form PTO-1594 (Rev. 12-11)  
OMB Collection 0651-0027 (exp. 04/30/12)

### TRADEMARKS ONLY

To the Director of the U. S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

RE 103654026  
7/11/13

#### 1. Name of conveying party(ies):

AVL Michigan Holding Corporation

- Individual(s)
- Partnership
- Corporation- State: Michigan
- Other \_\_\_\_\_
- Association
- Limited Partnership

Citizenship (see guidelines) \_\_\_\_\_

Additional names of conveying parties attached?  Yes  No

#### 3. Nature of conveyance/Execution Date(s) :

Execution Date(s) 06/13/2011

- Assignment
- Security Agreement
- Other Corrective Assignment See attached
- Merger
- Change of Name

#### 2. Name and address of receiving party(ies)

Additional names, addresses, or citizenship attached?  Yes  No

Name: RBS Citizens, N.A., as Agent

Street Address: 27777 Franklin Road

City: Southfield

State: Michigan

Country: U.S.A. Zip: 48034

- Individual(s) Citizenship \_\_\_\_\_
- Association Citizenship \_\_\_\_\_
- Partnership Citizenship \_\_\_\_\_
- Limited Partnership Citizenship \_\_\_\_\_
- Corporation Citizenship \_\_\_\_\_
- Other national banking association Citizenship United States

If assignee is not domiciled in the United States, a domestic representative designation is attached:  Yes  No  
(Designations must be a separate document from assignment)

#### 4. Application number(s) or registration number(s) and Identification or description of the Trademark.

A. Trademark Application No.(s) \_\_\_\_\_ Text \_\_\_\_\_

B. Trademark Registration No.(s)

3031039 BENCHMARK SERIES

Additional sheet(s) attached?  Yes  No

#### C. Identification or Description of Trademark(s) (and Filing Date if Application or Registration Number is unknown):

#### 5. Name & address of party to whom correspondence concerning document should be mailed:

Name: Nora Hudge, Paralegal

Internal Address: Dickinson Wright PLLC

Street Address: 350 South Main Street, Suite 300

City: Ann Arbor

State: Michigan Zip: 48104

Phone Number: (734) 623-1678

Docket Number: \_\_\_\_\_

Email Address: nhudge@dickinsonwright.com

#### 6. Total number of applications and registrations involved:

8

#### 7. Total fee (37 CFR 2.6(b)(6) & 3.41) \$

\$175

- Authorized to be charged to deposit account
- Enclosed #40 previously pd.

#### 8. Payment Information:

02/04/2013 KNGUYEN1 00000004 1856201  
Deposit Account Number \_\_\_\_\_

Authorized User Name \_\_\_\_\_ 175.00 OP

#### 9. Signature:

Nora Hudge  
Signature

2/1/2013

Date

Nora Hudge, Paralegal

Name of Person Signing

Total number of pages including cover sheet, attachments, and document

21

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Branch, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

TRADEMARK  
REEL: 004966 FRAME: 0570

Corrective Assignment to correct the security interest against DIGALOG,  
Registration No. 2876480 previously recorded on Reel 004571 Frame 0149.  
Assignor(s) hereby confirms the security interest was incorrectly filed against  
this registration..

**RECORDATION FORM COVER SHEET  
TRADEMARKS  
(Continuation)**

**Item 1. Name of Conveying Parties:**

AVL Powertrain Engineering, Inc.	Michigan corporation
AVL California Technology Center, Inc.	Michigan corporation
AVL Test Systems, Inc.	Delaware corporation
AVL Properties, Inc.	Michigan corporation
AVL TSI Equipment, LLC	Michigan limited liability company
AVL PEI Equipment, LLC	Michigan limited liability company
AVL Strategic Analytic Services, Inc.	Michigan corporation

**Item 4. B. Trademark Registration Nos.**

1856201	HYPERCELL
1680200	CELLMATE
1787874	DIGALOG
1357859	D
1363062	CELLMATE
1285870	D
1285869	DIGALOG

## PATENT AND TRADEMARK SECURITY AGREEMENT

This Patent and Trademark Security Agreement (this "Agreement") is entered into as of June 13, 2011 by and among AVL Michigan Holding Corporation, a Michigan corporation ("Borrower"), AVL Powertrain Engineering, Inc., a Michigan corporation ("AVL Powertrain"), AVL California Technology Center, Inc., a Michigan corporation ("AVL California"), AVL Test Systems, Inc., a Delaware corporation ("AVL Test Systems"), AVL Strategic Analytic Services, Inc., a Michigan corporation ("AVL Strategic"), AVL Properties, Inc. a Michigan corporation ("AVL Properties"), AVL TSI Equipment, LLC, a Michigan limited liability company ("AVL TSI Equipment"), and AVL PEI Equipment, LLC, a Michigan limited liability company ("AVL PEI Equipment") (the Borrower, AVL Powertrain, AVL California, AVL Test Systems, AVL Strategic, AVL Properties, AVL TSI Equipment and AVL PEI Equipment are hereinafter referred to collectively as the "Grantors" and individually as a "Grantor"), in favor of RBS Citizens, N.A., a national banking association ("RBS"), acting as agent hereunder for the Secured Creditors referred to below (RBS acting as such agent and any successor or successors to RBS acting in such capacity being hereinafter referred to as the "Agent"), pursuant to the Credit Agreement referred to below.

### Recitals

A. The Borrower and RBS, as Agent, entered into a Credit Agreement dated as of the date hereof (as amended, supplemented, restated or otherwise modified from time to time, including any agreement entered into in replacement thereof, the "Credit Agreement"), pursuant to which RBS and the other banks, financial institutions and letter of credit issuer(s) from time to time party to the Credit Agreement (RBS, in its individual capacity, and such other banks and financial institutions being hereinafter referred to collectively as the "Lenders" and each is individually a "Lender" and such letter of credit issuer(s) being hereinafter referred to collectively as the "L/C Issuers" and individually as a "L/C Issuer") have agreed, subject to certain terms and conditions, to extend credit and make certain other financial accommodations available to the Borrower (the Agent, the L/C Issuers and the Lenders, together with any Affiliates of the Lenders party to any Hedging Agreements and / or Funds Transfer and Deposit Account Agreements referred to below, being hereinafter referred to collectively as the "Secured Creditors" and individually as a "Secured Creditor").

B. In connection with the Credit Agreement, the Grantors and the Agent entered into a Security Agreement dated as of the date hereof (as amended, supplemented, restated or otherwise modified from time to time, including any agreement entered into in replacement thereof, the "Security Agreement"), pursuant to which the Grantors have granted to the Agent, for the benefit of the Secured Creditors, a security interest in each Grantor's assets to secure all present and future Secured Obligations.

C. Pursuant to the terms of the Security Agreement, the Grantors pledged, assigned and granted to the Lender a security interest in, among other assets, all patents and patent applications and all trademarks and trademark applications of each Grantor.

### Agreement

In consideration of the recitals set forth above and the mutual agreements contained herein and in the Credit Agreement and the other Loan Documents, the Grantors hereby grant to the Agent, for the benefit of the Secured Creditors, to secure the Secured Obligations, a continuing security interest in all of each Grantor's right, title and interest in, to and under the following, whether now owned by or owing to, or hereafter acquired by or arising in favor of any Grantor (including as identified by any trade name or any derivations thereof):

- (1) each unregistered patent, patent registration and patent application, including, without limitation, each patent and patent application referred to in Schedule 1 attached hereto, together with any renewal thereof;
- (2) each patent license to which any Grantor is a party, including, without limitation, each patent license listed on Schedule 1 attached hereto;
- (3) all products and proceeds of the foregoing, including, without limitation, any and all claims by any Grantor against third parties for past, present or future infringement of any patent, including, without limitation, any patent referred to in Schedule 1 attached hereto, any patent issued pursuant to a patent application referred to in Schedule 1 attached hereto and any patent licensed under any patent license listed on Schedule 1 attached hereto (items 1 through 3 being herein collectively referred to as the "Patent Collateral");
- (4) each unregistered trademark, trademark registration and trademark application, including, without limitation, each trademark and trademark application referred to in Schedule 2 attached hereto, together with any renewal thereof;
- (5) each trademark license to which any Grantor is a party, including, without limitation, each trademark license listed on Schedule 2 attached hereto;
- (6) all products and proceeds of the foregoing, including, without limitation, any and all claims by any Grantor against third parties for past, present or future infringement of any trademark, including, without limitation, any trademark referred to in Schedule 2 attached hereto, any trademark issued pursuant to a trademark application referred to in Schedule 2 attached hereto and any trademark licensed under any trademark license listed on Schedule 2 attached hereto (items 4 through 6 being herein collectively referred to as the "Trademark Collateral");

The security interest granted to the Agent herein is granted in furtherance, and not in limitation of, the security interests granted to the Agent pursuant to the Security Agreement and nothing in this Agreement shall limit or otherwise modify the security interests granted in the Security Agreement. Each Grantor acknowledges and affirms that the rights and remedies of the Agent with respect to the security interest in the Patent Collateral and the Trademark Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the

Security Agreement shall govern. All capitalized terms used but not defined herein shall have the respective meanings ascribed thereto in the Security Agreement.

*[Signature pages follow]*

IN WITNESS WHEREOF, the Grantors have executed this Agreement as of the date first set forth above.

**AVL MICHIGAN HOLDING CORPORATION**

By: [Signature]  
Name: Chester S. Ricker  
Title: Vice President and Chief Financial Officer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Vice President and Chief Financial Officer of AVL Michigan Holding Corporation, a Michigan corporation, on behalf of the corporation.

Susan F. Snyder  
Notary Public  
(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting in Oakland County, Michigan  
My Commission Expires on 07-05-2015

**AVL POWERTRAIN ENGINEERING, INC.**

By: [Signature]  
Name: Chester S. Ricker  
Title: Vice President and Chief Financial Officer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Vice President and Chief Financial Officer of AVL Powertrain Engineering, Inc., a Michigan corporation, on behalf of the corporation.

Susan F. Snyder  
Notary Public  
(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting in Oakland County, Michigan  
My Commission Expires on 07-05-2015

AVL CALIFORNIA TECHNOLOGY  
CENTER, INC.

By: [Signature]  
Name: Chester S. Ricker  
Title: Vice President and Chief Financial Officer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Vice President and Chief Financial Officer of AVL California Technology Center, Inc., a Michigan corporation, on behalf of the corporation.

Susan F. Snyder  
Notary Public  
(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting In Oakland County, Michigan  
My Commission Expires on 07-05-2015

AVL TEST SYSTEMS, INC.

By: [Signature]  
Name: Chester S. Ricker  
Title: Vice President and Chief Financial Officer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Vice President and Chief Financial Officer of AVL Test Systems, Inc., a Delaware corporation, on behalf of the corporation.

Susan F. Snyder  
Notary Public  
(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Susan F. Snyder  
Notary Public, Oakland County  
Acting In Oakland County, Michigan  
My Commission Expires on 07-05-2015



**AVL STRATEGIC ANALYTIC SERVICES, INC.**

By: [Signature]  
Name: Chester S. Ricker  
Title: Vice President and Chief Financial Officer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Calhoun )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Vice President and Chief Financial Officer of AVL Strategic Analytic Services, Inc., a Michigan corporation, on behalf of the corporation.

[Signature]  
Notary Public

**Susan F. Snyder** (SEAL)  
Notary Public, Oakland County, MI Printed Name: \_\_\_\_\_  
Acting In Calhoun County, Michigan My Commission Expires: \_\_\_\_\_  
My Commission Expires on 07-05-2015

**AVL PROPERTIES, INC.**

By: [Signature]  
Name: Chester S. Ricker  
Title: Secretary and Treasurer

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Calhoun )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Chester S. Ricker, the Secretary and Treasurer of AVL Properties, Inc., a Michigan corporation, on behalf of the corporation.

[Signature]  
Notary Public

**Susan F. Snyder** (SEAL)  
Notary Public, Oakland County, MI Printed Name: \_\_\_\_\_  
Acting In Calhoun County, Michigan My Commission Expires: \_\_\_\_\_  
My Commission Expires on 07-05-2015

AVL TSI EQUIPMENT, LLC

By: [Signature]  
Name: Chester S. Ricker  
Title: Manager

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 3<sup>rd</sup> day of June, 2011, by Chester S. Ricker, the Manager of AVL TSI Equipment, LLC, a Michigan limited liability company, on behalf of the company.

[Signature]  
Notary Public

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting in Oakland County, Michigan  
My Commission Expires on 07-05-2015

(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

AVL PEI EQUIPMENT, LLC

By: [Signature]  
Name: Chester S. Ricker  
Title: Manager

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 3<sup>rd</sup> day of June, 2011, by Chester S. Ricker, the Manager of AVL PEI Equipment, LLC, a Michigan limited liability company, on behalf of the company.

[Signature]  
Notary Public

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting in Oakland County, Michigan  
My Commission Expires on 07-05-2015

(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Acknowledged and Agreed:

RBS CITIZENS, N.A.  
By: [Signature]

Name: Charles Harris  
Title: Vice President - Michigan Corporate  
Banking

STATE OF MICHIGAN )  
 )SS  
COUNTY OF Oakland )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of June, 2011, by Charles Harris, the Vice President - Michigan Corporate Banking of RBS Citizens, N.A., a national banking association, on behalf of the association.

Susan F. Snyder  
Notary Public, Oakland County, MI  
Acting In Oakland County, Michigan  
My Commission Expires on 07-05-2015

[Signature]  
Notary Public  
(SEAL)  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**SCHEDULE 1**  
to  
**PATENT AND TRADEMARK SECURITY AGREEMENT**

See attached.

ISSUED PATENTS			
	PATENT NO.	ISSUE DATE	COMPANY
Flat Truck Chassis Dynamometer	US 7,213,449	05/08/2007	AVL North America, Inc. and AVL Zoetbner GmbH
Particulate Deposit Avoidance and Probe Positioning	US 7,181,871	03/20/2007	AVL North America, Inc.
Active Filter Temperature Control	US 7,141,080	11/28/2006	AVL North America, Inc.
Exhaust Volume Measurement Device	US 7,055,364	08/08/2006	AVL North America, Inc.
Marine Detection Using Acoustic Sensors	US 7,021,128	04/04/2006	AVL North America, Inc.
Exhaust Volume Measurement Device	US 7,000,448	02/27/2006	AVL North America, Inc.
Exhaust Volume Measurement Device	US 6,973,818	12/13/2005	AVL North America, Inc.
Diesel Particulate Filter Monitoring Using Acoustic Sensing	US 6,954,894	11/15/2006	AVL North America, Inc.
Heated Stainless Steel Emissions Canister	US 6,862,080	11/08/2005	AVL North America, Inc.
Particulate Sampling Probe and Dilution Tunnel	US 6,857,327	02/22/2005	AVL North America, Inc.
Active Purification Concentration Device for Diesel Particulate Sampling Systems	US 6,823,748	11/30/2004	AVL North America, Inc.
Engine Exhaust Emissions Measurement Correction	US 6,823,268	11/23/2004	AVL North America, Inc.
Particulate Sampling Probe and Dilution Tunnel	US 6,742,407	08/10/2004	AVL North America, Inc.
Particulate Sampling Probe and Dilution Tunnel	US 6,481,258	11/18/2002	AVL North America, Inc.
Suspended Single Roll Dynamometer	US 5,522,267	08/04/1998	AVL North America, Inc.
Internal Combustion Engine with Low Viscosity Fuel System	US 6,169,517	02/20/2001	AVL Powertrain Engineering, Inc.
Fuel Injection System for Clean Low Viscosity Fuels	US 6,119,864	08/19/2000	AVL Powertrain Engineering, Inc.
Fuel Injection System for Clean Low Viscosity Fuels	US 5,818,228	10/08/1998	AVL Powertrain Engineering, Inc.
Diesel Aircraft Engine	US 7,191,742	03/20/2007	Schrick, Inc.
Fuel Delivery Measurement System with Automatic Pump Matching	US 6,708,201	01/13/1998	Pierburg Instruments, Inc./AVL North America, Inc.

Active Pulsation Cancellation Device for Diesel Particulate Sampling Systems	EP 1248885	AVL North America, Inc.
Active Pulsation Cancellation Device for Diesel Particulate Sampling Systems	JP 3737778	AVL North America, Inc.
Engine Exhaust Emissions Measurement Correction	EP 1333270	AVL North America, Inc.

PATENT APPLICATIONS

DESCRIPTION	PUBLICATION NO.	APPLICATION NO.	DATE FILED	COMPANY
Exhaust Volume Measurement Device	20080275482	117447480	08/08/2008	AVL North America, Inc.
Particulate Sampler	20080216828	117388911	03/22/2008	AVL North America, Inc.
System Flow Calibration		117548048		AVL North America, Inc.
Particulate Sampler and Dilution Gas Flow Device Arrangement for an Exhaust Sampling System		607645271		AVL North America, Inc.
CVS System Sample Wiper Vapor Management		117887325		Schrick, Inc.
Diesel Aircraft Engine Transmission Headstock for Test Stands		117498804		AVL North America, Inc.
Diesel Aircraft Engine	Docuast Number			Schrick, Inc.
Diesel Aircraft Engine	67023-307 PAT			Schrick, Inc.
Diesel Aircraft Engine	67023-307 PBR			Schrick, Inc.
Diesel Aircraft Engine	67023-307 PCA			Schrick, Inc.
Diesel Aircraft Engine	67023-307 PCN			Schrick, Inc.
Diesel Aircraft Engine	67023-307 POE			Schrick, Inc.
Diesel Aircraft Engine	67023-307 PGB			Schrick, Inc.
Air Turbine Driven EGR Pump for Diesel Engines	127785071		05/21/2010	AVL Powertrain Engineering, Inc.
Hybrid Powerplant with Waste Heat Recovery System	PCT/US10/02878		08/13/2010	AVL Powertrain Engineering, Inc.
Ejector Type EGR Mixer	PCT/US2010/020732		01/12/2010	AVL Powertrain Engineering, Inc.
Sliding Vanne Rotary Expander for Waste Heat Recovery System	PCT/US2010/020736		01/12/2010	AVL Powertrain Engineering, Inc.
Exhaust Power Turbine Driven EGR Pump for Diesel Engines	127785086		06/24/2010	AVL Powertrain Engineering, Inc.
Particulate Measurement System	67023-048 PCT	10446533	08/08/2010	AVL North America, Inc.

**SCHEDULE 2**  
**to**  
**PATENT AND TRADEMARK SECURITY AGREEMENT**

See attached.

DETROIT 37390-34 1206767v3

**TRADEMARK**  
**REEL: 004966 FRAME: 0585**



FEDERALLY REGISTERED TRADEMARKS		
MARK	REG. NO.	COMPANY
BENCHMARK SERIES	3031038	DIGALOG, AN AVL COMPANY
DIGALOG	2878480	DIGALOG, AN AVL COMPANY
HYPERCELL	1858201	DIGALOG, AN AVL COMPANY
CELLIMATE	1880200	DIGALOG, AN AVL COMPANY
DIGALOG	1787874	DIGALOG, AN AVL COMPANY
D	1357658	DIGALOG, AN AVL COMPANY
CELLIMATE	1383082	DIGALOG, AN AVL COMPANY
D	1285870	DIGALOG, AN AVL COMPANY
DIGALOG	1285889	DIGALOG, AN AVL COMPANY



**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

January 30, 2013

PTAS

NORA HUDGE, PARALEGAL  
DICKINSON WRIGHT PLLC  
350 SOUTH MAIN STREET, SUITE 300  
ANN ARBOR, MICHIGAN 48104

**103654026**

United States Patent and Trademark Office  
Notice of Non-Recordation of an Assignment Document

The enclosed document has been examined and found non-recordable by the Assignment Recordation Branch of the U.S. Patent and Trademark Office. The reason(s) for non-recordation are stated below:

1. The previously recorded cover sheet is required. Also, this corrective is incorrect it has to be recorded as it was before, but removing the incorrect registration number. Please contact Tonya Lee at 703-756-1257 before resubmitting this document.

Documents being resubmitted for recordation must reflect the corrected information to be recorded, the Document ID number referenced above and all pages from this submitted document. The original date of filing of this assignment document will be maintained if resubmitted with the appropriate correction(s) within 30 days from the date of this notice as outlined under 37 CFR 3.51. The resubmitted document must include a stamp with the official date of receipt under 37 CFR 3. Applicants may use the certified procedures under 37 CFR 1.8 or 1.10 for resubmission of the returned papers if they desire to have the benefit of the date of deposit in the United States Postal Service.

Send documents to: U.S. Patent and Trademark Office, Mail Stop: Assignment Recordation Branch, P.O. BOX 1450, Alexandria, VA 22313. If you have any questions regarding this notice, you may contact the Assignment Recordation Branch at 571-272-3350.

TONYA LEE  
ASSIGNMENT RECORDATION BRANCH  
PUBLIC RECORDS DIVISION