

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

| SUBMISSION TYPE:                                                                                                                                                                                                                                                                                                                           | NEW ASSIGNMENT           |               |                   |                     |                   |                 |            |                |                          |              |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------|-------------------|---------------------|-------------------|-----------------|------------|----------------|--------------------------|--------------|-------|
| NATURE OF CONVEYANCE:                                                                                                                                                                                                                                                                                                                      | ASSIGNMENT               |               |                   |                     |                   |                 |            |                |                          |              |       |
| CONVEYING PARTY DATA                                                                                                                                                                                                                                                                                                                       |                          |               |                   |                     |                   |                 |            |                |                          |              |       |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Michael FEY</td> <td>07/10/2013</td> </tr> <tr> <td>Juergen SCHWARZ</td> <td>07/11/2013</td> </tr> </tbody> </table>                                                                                                                 |                          | Name          | Execution Date    | Michael FEY         | 07/10/2013        | Juergen SCHWARZ | 07/11/2013 |                |                          |              |       |
| Name                                                                                                                                                                                                                                                                                                                                       | Execution Date           |               |                   |                     |                   |                 |            |                |                          |              |       |
| Michael FEY                                                                                                                                                                                                                                                                                                                                | 07/10/2013               |               |                   |                     |                   |                 |            |                |                          |              |       |
| Juergen SCHWARZ                                                                                                                                                                                                                                                                                                                            | 07/11/2013               |               |                   |                     |                   |                 |            |                |                          |              |       |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                                                       |                          |               |                   |                     |                   |                 |            |                |                          |              |       |
| <table border="1"> <tr> <td>Name:</td> <td>Robert Bosch GmbH</td> </tr> <tr> <td>Street Address:</td> <td>Postfach 30 02 20</td> </tr> <tr> <td>City:</td> <td>Stuttgart</td> </tr> <tr> <td>State/Country:</td> <td>FEDERAL REPUBLIC GERMANY</td> </tr> <tr> <td>Postal Code:</td> <td>70442</td> </tr> </table>                          |                          | Name:         | Robert Bosch GmbH | Street Address:     | Postfach 30 02 20 | City:           | Stuttgart  | State/Country: | FEDERAL REPUBLIC GERMANY | Postal Code: | 70442 |
| Name:                                                                                                                                                                                                                                                                                                                                      | Robert Bosch GmbH        |               |                   |                     |                   |                 |            |                |                          |              |       |
| Street Address:                                                                                                                                                                                                                                                                                                                            | Postfach 30 02 20        |               |                   |                     |                   |                 |            |                |                          |              |       |
| City:                                                                                                                                                                                                                                                                                                                                      | Stuttgart                |               |                   |                     |                   |                 |            |                |                          |              |       |
| State/Country:                                                                                                                                                                                                                                                                                                                             | FEDERAL REPUBLIC GERMANY |               |                   |                     |                   |                 |            |                |                          |              |       |
| Postal Code:                                                                                                                                                                                                                                                                                                                               | 70442                    |               |                   |                     |                   |                 |            |                |                          |              |       |
| PROPERTY NUMBERS Total: 1                                                                                                                                                                                                                                                                                                                  |                          |               |                   |                     |                   |                 |            |                |                          |              |       |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13932647</td> </tr> </tbody> </table>                                                                                                                                                                  |                          | Property Type | Number            | Application Number: | 13932647          |                 |            |                |                          |              |       |
| Property Type                                                                                                                                                                                                                                                                                                                              | Number                   |               |                   |                     |                   |                 |            |                |                          |              |       |
| Application Number:                                                                                                                                                                                                                                                                                                                        | 13932647                 |               |                   |                     |                   |                 |            |                |                          |              |       |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                                                        |                          |               |                   |                     |                   |                 |            |                |                          |              |       |
| <p>Fax Number: 2124255288<br/> <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 212-425-7200<br/>       Email: rhannan@kenyon.com<br/>       Correspondent Name: KENYON &amp; KENYON LLP<br/>       Address Line 1: ONE BROADWAY<br/>       Address Line 4: NEW YORK, NEW YORK 10004</p> |                          |               |                   |                     |                   |                 |            |                |                          |              |       |
| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                                                    | 10191/8190               |               |                   |                     |                   |                 |            |                |                          |              |       |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                                                         | Gerard A. Messina        |               |                   |                     |                   |                 |            |                |                          |              |       |
| Signature:                                                                                                                                                                                                                                                                                                                                 | /Gerard A. Messina/      |               |                   |                     |                   |                 |            |                |                          |              |       |
| Date:                                                                                                                                                                                                                                                                                                                                      | 09/30/2013               |               |                   |                     |                   |                 |            |                |                          |              |       |

OP \$40.00 13932647

Total Attachments: 4  
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ASSIGNMENT

WHEREAS, we,

**Michael FEY**  
**Auf Der Kohlplatte 49**  
**DE-75446 Wiernsheim**  
**Federal Republic of Germany**  
**Citizenship: Federal Republic of Germany**

**Juergen SCHWARZ**  
**Stiegelstr. 80**  
**DE- 71701 Schwieberdingen**  
**Federal Republic of Germany**  
**Citizenship: Federal Republic of Germany**

have made inventions and discoveries **METHOD AND DEVICE FOR DETERMINING A LAMBDA AIR RATIO USING A GAS SENSOR**, for which an application for Letters Patent was filed at the United States Patent and Trademark Office under **U.S. Serial No. 13/932,647** on **July 1, 2013**, and

WHEREAS **ROBERT BOSCH GmbH**, having a place of business at **Postfach 30 02 20, 70442 Stuttgart, Federal Republic of Germany**, and who, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited,

NOW, THEREFORE, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservations:

1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in any and all countries, including all divisional, renewal, substitute, continuation, and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications, and said Letters Patent.
2. Authorize Assignee to file patent applications in any or all countries for any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under an International Convention or otherwise.
3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.

4. Warrant that we have not conveyed to others any right, title, or interest in said inventions, discoveries, applications, or patents or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; that we have good right to assign the same to Assignee without encumbrance; and that we are aware of no claim to the contrary.

5. Bind our heirs, legal representatives, and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in our control or in the control of our heirs, legal representatives, or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, arbitration, or litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 10 day  
of July, 2013.

  
\_\_\_\_\_  
Michael FEY

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 11 day  
of July, 2013.

  
Juergen SCHWARZ