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Sensors' Service Open

As of May 11th, we are back on line, in our buildings. This includes our Service team in the U.S. - we are open and responding to all customer emails and calls. We offer telephone and WebEx support, for customers who have a challenging installation, or need assistance with a data issue. For more urgent support or repairs, our service centers around the world; Saline, Michigan,



our service centers around the world; Saline, Michigan, Erkrath, Germany and Shenzhen, China are open and operating during the pandemic. If you are experiencing an issue and need assistance, please email us at service@sensors-inc.com or call our office at 734-429-2100 ext. 222. Incoming calls are forwarded to one of our technicians, if for any reason they cannot the answer the call, the voicemail is automatically transcribed and emailed to the service department.

We would also invite you to contact us now if you will be sending a system in for maintenance or repair. It will help us to prepare for receiving the system and returning it as promptly as possible.

Thank you for your patience and understanding while we work with you through this challenging time.

Tips for a Successful In-Use Test



Picture: Bosch

Tips on Installation and Operation

Our applications group would like to share a few tips on setting up and running successful in-use tests, drawing on their extensive experience with a wide variety of applications. They have developed procedures and methods over the past twenty years that have led to the development of the most innovative and advanced PEMS, drawing on their experience with hundreds of tests for certification as well as research purposes. This will be a series of articles covering installation and operation, RDE Testing, Post-Processing, among others.

After calibration of the system, there are a number of key steps to follow, to ensure a successful test. Many of these will serve as simple reminders to experienced users.

- Ensure the PEMS and its accessories are properly mounted on the vehicle, away from sharp or rotating elements, sources of fire or heated components.
- Check that all analyzer exhaust hoses are properly drained outside vehicle.
- Confirm battery is fully charged before starting of the test
- Use shore power to warm up and calibrate the equipment. Switch to battery power just before driving begins.
- Vehicle should be soaked at the same temperature as the ambient temperature in order to minimize equipment drift due to drastic ambient temperature change.
- If FID is employed, be sure FID bottle has enough fuel for the duration of the test. Set the pressure to three bars.
- Synchronize system time with laptop or GPS time. Be sure the correct local time zone is selected.
- Leak check all analyzers according to Sensors' recommendations.
- Continue following Sensors' recommendations when time aligning the analyzers.
- The system's Periodic Zero should be disabled (or properly configured).
- Begin calibrating the analyzers according to manufacturer's recommended procedure.
- The FID analyzer range should NOT be changed throughout the test.
- Select appropriate Trip Composition.
- Designate appropriate vehicle fuel type.
- Configure VI before recording is started (have key ON if possible) in



Picture: Bosch

order to minimize VI header mismatch.

- Sensors, Inc. recommends changing filters every eight hours of operation if vehicle under test is equipped with an SCR after-treatment device.
- · Make sure the following is recorded:
 - Pretest ZERO
 - Pretest SPANS
 - In order to mark the start of the Road test, push the CAB Module Function button just before starting engine and ready to drive.
 - To mark the end of the RDE Road Test, press the CAB Module Function button once again.
 - Post Test ZERO
 - Post Test SPANS
- Use Sensors recommended post processor to process the recording between the two markers.

Following these steps will help to ensure a successful test.



Picture: Bosch

New Software Features

Over the past few months Sensors, Inc. has distributed a number of software updates for the SEMTECH® DS+ platform. The company continues to add features and benefits to the DS+ platform which enhance its utility and ease of use. These recent releases have included several highlights.

- IO Datataker supports up to 16 channels for analog input.
- The user may edit minimum and maximum range settings.
- NO2 span calibration time is now configurable.
- · Module by module recording files are now available.
- The user may create a data logger for all DS+ activities.
- GPS signal smoothing allows for RPA to be displayed real-time.

Contact your SEMTECH® support team for further guidance.

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Sensors believes that part of its mission is to provide information useful to meeting the needs of its audience.

This includes information regarding regulatory standards such as Delphi's annually published <u>2020-2021 Worldwide Emissions Standards Booklet</u>. The pocket-sized reference booklet provides global emission standards for passenger cars, motorcycles and light-duty vehicles. The booklet is published in both English and Chinese.

New to this year's booklet are world-wide regulations for electric vehicles, along with highlights of Brazil's upcoming PROCONVE L-7 and L-8 light-duty emissions standards.

Delphi also produces a heavy-duty and off-highway vehicle version every two years. The most recent 2018 -2019 version is available for download here.

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Sensors COVID-19 Support

Sensors, Inc. is proud to print and donate face shield headbands to help fight COVID-19.



For information on how you can help please visit <u>protect-mi.org</u>.



Sensors, Inc. is one of many local companies to participate in and support **Protect-Ml.org** and their platform for Operation Face Shield to assist with the coordination of volunteers in making and distributing thousands of face shields to those in immediate need. Over 14,000 have been delivered and counting!

In addition, a group of Sensors' employees are sewing over 400 homemade face masks. These masks will be provided to Sensors' employees worldwide.

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From our CEO/President:

In these strange and difficult times, we thought it might be good to mention - we are still here. Though we are not doctors nor nurses nor orderlies; we are not grocers nor restauranteurs nor cooks; and we are not on the real front lines of this pandemic, but we so value those that have been and those that continue to be. Thank you to all, especially any that are your friends or family. We cannot change much of the world but we will do our part. We will do our best to keep our team healthy. We will do all we can to keep you healthy. We will wear masks, we will practice and hold others to account to social distancing in our work space, we will reduce the # of touches, and we will clean, from our "home and away" inspection processes to added cleaning measures. And we will let you know when the last time we touched it.



Of course, we regret the loss of our mobility and our routine in our day and in our communities; but we are proud of our team and the many ways they have volunteered in time and in effort: in working from home or learning from home, in volunteering to help make PPE or supporting those in essential functions across so many of our vendors' and customers' companies. We look forward to the day when we can celebrate the full return to work and some level of new normal, together.

We imagine that day will come soon and that many of you may be in a rush to get going again. If so, we invite you to consider your return to work and the challenges you will face: How can we help? Will you need a quick calibration? A repair? A possible rental? Maybe a loaner? Or possibly even a test run for you? Then give me a call or an email - and we will do our best to be ready for you. My cell phone is 734-725-8660 and my email is jmorrill@sensors-inc.com

My team knows that if I get a call or an email, they will too.

Until we can all be working together again soon, please keep yourself and your family safe,

Joe Morrill

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Recent Events







Sensors, Inc. at the 2020 SAE Clean Snowmobile Challenge March 9th - 14th, 2020





Fall 2019



SEMTECH® User Conference (SUN) 2019 November 13th, 2019 - Shenzhen, China

Upcoming Events



August 23 - 26, 2020 Hyatt Regency Mission Bay San Diego



10th Annual International PEMS Conference August 27 - 28, 2020

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Sensors, Inc. | +1 734-429-2100 Sensors Europe GmbH | +49 (0) 2104-14188-0

sales@sensors-inc.com | www.sensors-inc.com