

sensor & calibration tips



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Your one-stop sound & vibration shop

Greetings,

Welcome to issue #41-

Welcome to our final Dynamic Sensing and Calibration Newsletter of the year. We appreciate your patronage and want to share that this has been an exceptional year for both The Modal Shop and all the companies of PCB Group. With PCB Group adding almost 200 new employees around the world this year, we are happy to be doing our part to help fuel the return of economic stability. We hope your business is also thriving. During this Holiday season please accept our wishes to you for Peace, Health and Prosperity in the New Year...

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Tip of the Month

Run and record the results from a known, controlled verification sensor each time you use your calibration system. Plotting the result in a control chart will allow you to watch for drifting bias anomalies like inexperienced operators (incorrect/inconsistent mounting torque), environmental control bounds or reference drift, as well as high deviation special causes, like ground loops or other drastic measurement errors.

Quick Links

[NCSL](#)
[IMEKO](#)
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Can I Supply My Own DVM?

As a purveyor of the broadest range of accelerometer calibration systems, we support customers with everything from simple hand-held 1G exciter check devices,



compact all-in-one portable systems, desktop automated accelerometer calibration workstations, to the lowest uncertainty laser based accelerometer primary calibration systems. Routinely, customers on a quest to save a little money ask us if they can supply their own Digital Volt Meter (DVM) as part of the system... and being a customer focused company, we always consider the viability of the request. Like most things in life, the answer often is a conditional *MAYBE*...

[Click here to read more](#)

<http://www.modalshop.com/calibration.asp?ID=372>

10 Best Laboratory Practices

Top 10

The following article does a very nice job of highlighting the skills, competencies and controls needed to achieve continued excellence in test and calibration. Don't be dissuaded as the article starts with the framework of a chemistry lab. The 10 best practices are universal in their application across

any proficiency testing such as round robin tests with other capable and reputable laboratories. While apprentice training and starting capability are

[NIST](#)
[ISO TC 108](#) - Mechanical vibration, shock and condition monitoring
[ISO TC 108/SC 3](#) - Use and calibration of vibration and shock measuring instruments

[IMAC](#) - Jacksonville, FL (January 31 - February 3)

[SAVIAC](#)
[Vibration Institute](#)

Previous Newsletter

[sensor & cal tips #40](#) - Aircraft/engine monitoring accelerometer calibration and control charts/measurement errors

Select Newsletter Articles by Topic

[Function and Structure of Accelerometers](#)

[Similarities Between Charge and ICP Operation](#)

[Selecting Accelerometers for Mechanical Shock](#)

[Master List of Topics \(T.O.C.\)](#)

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important, only proficiency testing ensure that practitioners maintain their instruments, skills and procedures to demonstrate capability over time.

[Click here to read the rest of the Top 10 Practices...](#)

<http://www.modalshop.com/calibration.asp?ID=371>

Blast from the Past...

For those who may be new to our newsletter, we wanted to highlight an article from a previous *sensor & calibration tips* - [Common calibration system options...](#)

Frequency response function (FRF) and single point reference frequency amplitude sensitivity are the most common forms of accelerometer calibration. However, laboratories are becoming more interested in supplemental test capabilities to ensure both the health and performance of their users' accelerometers...



[Click here to read more](#)

<http://www.modalshop.com/calibration.asp?ID=340>

As The Modal Shop wraps up a year of celebrating our 20th Anniversary, we continue to innovate! We invite you to visit our [Facebook page](#) and become a fan or [follow us on Twitter](#). We've been adding both our tradeshow schedule and information about recent events around The Modal Shop. Come and see how we live some of our core values of "Total Customer Satisfaction, Innovation and Community"!

Sincerely,

A handwritten signature in black ink that reads "Michael J. Lally".

Michael J. Lally
The Modal Shop
A PCB Group Company
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[Forward email](#)

