

TEST EQUIPMENT RENTAL

“YOUR ONE-STOP SOUND & VIBRATION SHOP”

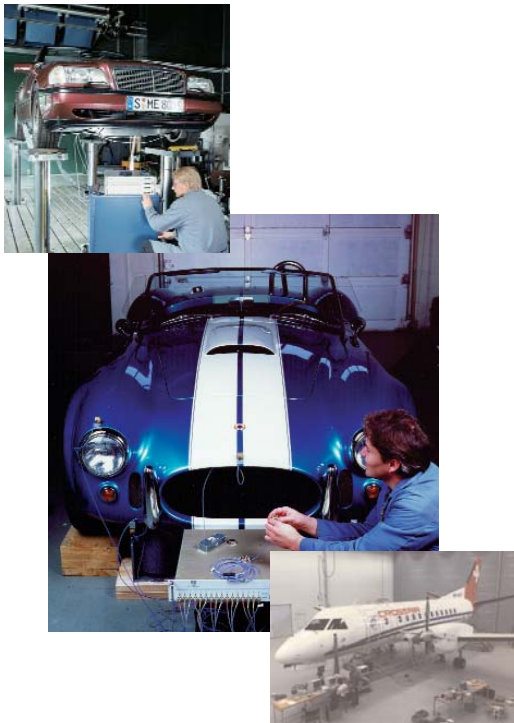
Accelerometers - PCB ICP®, Charge, Uniax, Triax, Piezoresistive, DC

Sound Level Meters - LD Type 1 & 2 SLM's, Octave and Spectral Analyzers, Dosimeters, Environmental Kits

Microphones - PCB, LD, and GRAS, Prepolarized and Traditional, Array, Condenser and Intensity

Data Acquisition & Software - VXI, LMS Pimento, NI, OROS, m+p, Vibrant

Test Accessories - Shaker Systems, Signal Conditioning, Cables, Test Supports



Helping you improve the performance of your products and processes is our driving force. Drawing from a large array of resources and experience, The Modal Shop has cooperative arrangements with most of the major dynamic test hardware and software vendors.

Members of our application team bring together a broad range of experience, including acoustic monitoring, large scale vibration testing, rotating machinery analysis, industrial machinery monitoring, and product quality inspection. As a growing company, we are always adding new capabilities in both equipment and personnel! Please don't hesitate to call or email us with any requests or suggestions.

All rental products are backed by PCB Group's "no-risk" policy that guarantees satisfaction or your money refunded.

Why Rent?

Expands your existing equipment channel count on an as-needed basis.

Finances equipment acquisition without impacting capital budgets or your balance sheet.

Perfect for short-term or one-time applications.

Lets you "try before you buy".



The Modal Shop provides test engineers, acousticians, process engineers and technicians with a single source for varied (and often hard to procure) dynamic test equipment, sensing systems and application expertise.

Sensors and Hardware



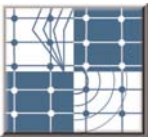
Accelerometers

Supplement your existing inventory or rent a multi-channel turn-key sensor system. Choose from hundreds of **modal** accelerometers, **triaxial** and **DC** sensors, or select specialty transducers to fit your test needs. Many other popular PCB® products including **impact hammers** and **signal conditioning** can also be rented.



Microphones

Traditional and ICP® pressure, freefield and random incidence **precision microphones** are available, as well as the popular series 130 ICP® **array microphone** and microphone power supplies for any channel count microphone power supplies. Specialty products also available include intensity systems, high temperature, and audiometry equipment.



Modal / Structural Test

A wide range of The Modal Shop **modal accessories** including air ride supports, coordinate digitizers, shaker stands and large channel series 440 **signal conditioning** are rentable. So are miscellaneous items you may need, including tachometers, shakers and shaker amplifiers, signal sources, force sensors, impedance heads, and even calibration systems. Everything you'd expect from your "**original one-stop rental shop**". If you need additional help for your test or want hands-on application support for your rental, **rent a person!** Our Application Engineering Services (AES) Team is available for on-site project support or for training of rental and purchased equipment, including systems integration and setup.

Data Acquisition and Analysis



OROS OR24 and **OR25** systems provide a complete rental solution

with signal conditioning built in, and data recording with offline analysis also standard. Both feature DSP powered DC to 20kHz with NVH, Vibrations, Acoustics and the Diagnostics/Machine Monitoring application packages.



Whether you just need a few extra **4472 PXI**

cards for a large test, or need an entire 4472B - based system, we can help. LabView based **S&V** and **Order Analysis** toolsets are also available for you to customize your own setup. You can also rent the new rugged **CompactRIO** control and acquisition system.



The **Pimento** offers 4 to 24 channels in a compact,

rugged design - perfect for structural testing, acoustics, rotating equipment or general purpose data acquisition. Signal conditioning is built in, with 24-bit ADC, firewire interface, 40kHz bandwidth AC, DC, or battery powered all in a fanless package. **LMS PolyMAX** modal parameter estimation, and preconfigured ISO / ANSI test procedures are also included.



Supplement your existing **VXI** Technology (formerly Agilent/HP)

VXI or hardware, or rent a turn-key acquisition system. Each **VXI E1432** card provides 16 channels of 0-25.6 kHz input. **VXI** mainframes, source modules, and FireWire PC link are also available. Couple with **m+p hardware** to provide a complete **vibration control system**. **HP3565** cards are also still available.

Sound and Vibration Meters



Choose from **LD sound level meter** rental kits, from simple point and shoot devices to precision

meters that offer logging, FFT, RT-60 measurements and spectral analysis. Outdoor kits and meters are available for unattended measurements. Rental of *Spark™* series **noise dosimeters** come complete with the powerful *Blaze™* analysis software. See the **IHVM100** for **human vibration** measurements, and the 2900 dual channel analyzer for standalone FFT and **intensity** measurements.

Analysis and Control Software



SmartOffice offers perfect software tools for noise and vibration measurements,

sophisticated data import/export, data analysis and reporting, including multichannel dynamic signal analysis (DSA), impact testing, structural, rotating machinery to acoustic and vibration control analysis. **VibRunner** offers a complete **vibration control** system solution, with many packages available.



Vibrant Technology's **ME'Scope VES™** makes it easy to observe and

analyze vibration, acoustic, and strength of material problems in machines and structures. The Windows™-based software displays dynamic behavior of a structure through time and frequency domain animation and operating deflection shapes.



LMS software provides large scale acoustic and vibration testing. Turnkey

rental systems include transducers, cabling, and acquisition hardware for MIMO analysis.

Why The Modal Shop?

- Rent only the equipment needed. If an accelerometer is required, rent it.
- Stock items are available for overnight delivery in many cases.
- If unsure about sensors or systems for a specific application, experienced TMS application engineers can help with technical consultation and selection of the best equipment for a test.
- We are the original sound and vibration equipment "one stop shop". Our rental program is backed by PCB Group's commitment to Total Customer Satisfaction.

Frequently asked questions...

...concerning the rental program are answered at the end of our **rental pricelist**, available on the web at **www.modalshop.com** under the rental section. Or contact an **application engineer** directly at 800.860.4867 or 513.351.9919.

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