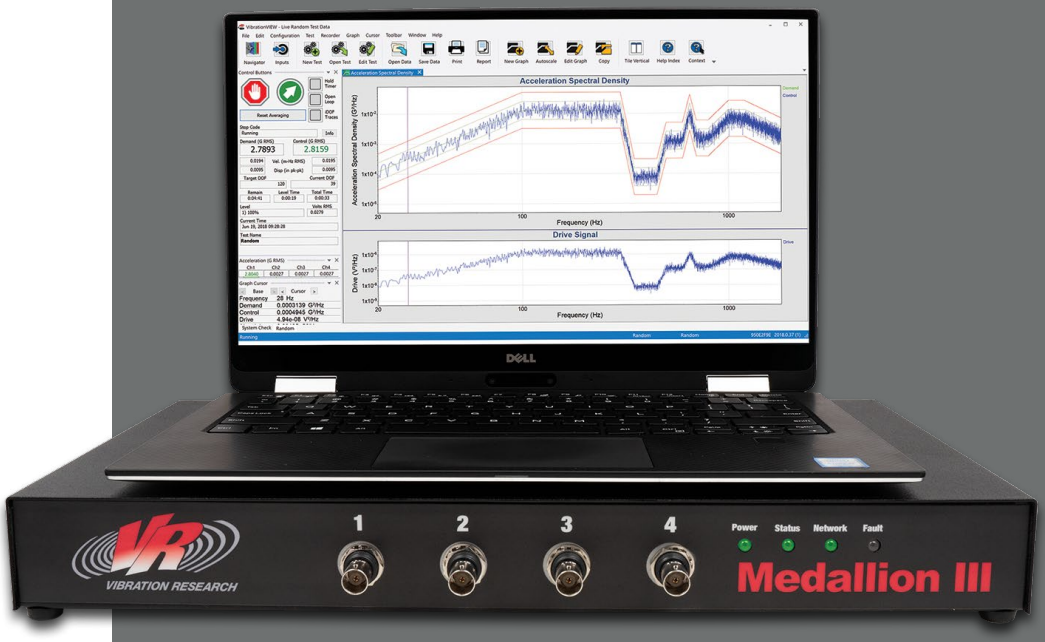
Medallion III

VIBRATION CONTROL SYSTEM



VIBRATION RESEARCH

RELIABILITY MEETS INNOVATION

VIBRATION RESEARCH



Vibration Research is the innovator in vibration control and data acquisition, developing its product line in Michigan, USA since 1995. Its applications help to solve troublesome industry issues such as test equivalency, end-use environment comparisons, and test acceleration. It is the premier choice of vibration testing labs around the globe.

VR recognizes that providing exceptional support significantly contributes to its customers' long-term success. That support is part of a recipe that combines versatile software with dependable hardware. Committed to advancements in technology and continued education, the company strives to innovate at the foundation of everything it does so that its customers can be their best.

Contents

Welcome to Vibration Research 1

Hardware 2

Calibration Options 3

Software 4

Contact Us 6

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Vibration Control | Dynamic Signal Analysis | Electrodynamic Shakers

At Vibration Research, we believe ongoing support is just as important as the initial installation.

VIBRATION CONTROLLER

Medallion III



An economical solution that is great for basic vibration control, designed with an easy-to-use platform and still provides all the capability an end-user might need to perform a broad range of testing requirements at an affordable price.

Superior Performance

Low noise design with a dedicated high-speed RISC processor for signal processing. 24-bit resolution and a 120dB dynamic range make this control system a perfect solution for almost any vibration test.

Easy to Use

Medallion software is easy to use and intuitive for the new user. The Help section of the software is context sensitive and answers questions that are basic or complex. An unlimited number of windows are available to display all your data.

Dependable

The control system hardware is run through a complete set of diagnostic testing prior to shipment. The Medallion III control system has been designed to operate in lab conditions ranging from very hot and humid to very cold and dry. You can rely on this system to be there when you need it. All systems come with a one-year factory warranty against manufacturing defect.

Ethernet Connection

- Eliminates the 50Hz/60Hz noise common with USB connection
- Allows for easy placement of the controller up to 100 meters away from the PC
- Eliminates the need for long accelerometer and drive cables

Specifications

- Front BNC connectors
- 13.000 lines of resolution
- >120dB dynamic range
- Up to 108.000Hz sample frequency
- Automated calibration check

Compatible With Any Shaker

- Electrodynamic Shaker
- Servo-Hydraulic Shaker



4 CHANNELS

SINE • SRTD • RANDOM • SHOCK • NOTCHING • MULTI-CHANNEL CONTROL

- 1 output channel DRIVE
- 1 output channel COLA
- 4 input channel
- 4+2 standard software modules
- Report generator

CALIBRATION OPTIONS

Calibration assures that your measurements are accurate within the specification limits. Every new Medallion III arrives freshly calibrated with a certificate of traceable calibration to the SI. Annual calibration verification is your prescription for your device's continued health and performance.

Option 1

Send to VR for Standard Factory Calibration

We offer a factory certified calibration service for all our products. Since calibration is essential over the life of your equipment, service is discounted when purchased with an active upgrades & support agreement or if multiple units are calibrated at one time.



Option 2

Calibrate in Your Own Lab Using VR Software

Perform calibration verification in your own lab using your own calibration instruments and Vibration Research's Automated Calibration Verification (VR95-CALxx) software license, written by Vibration Research to automate the verification process.

Option 3

Calibrate Using Your Own Procedure

Create and run your own custom calibration procedure and documentation. Factory support is available for your custom procedure at our hourly support rate.

ONE-YEAR WARRANTY

Vibration Research warrants the controller hardware to be free of defects in material and craftsmanship for one year. The warranty covers hardware failure under normal conditions.

CONTROL SOFTWARE

Features

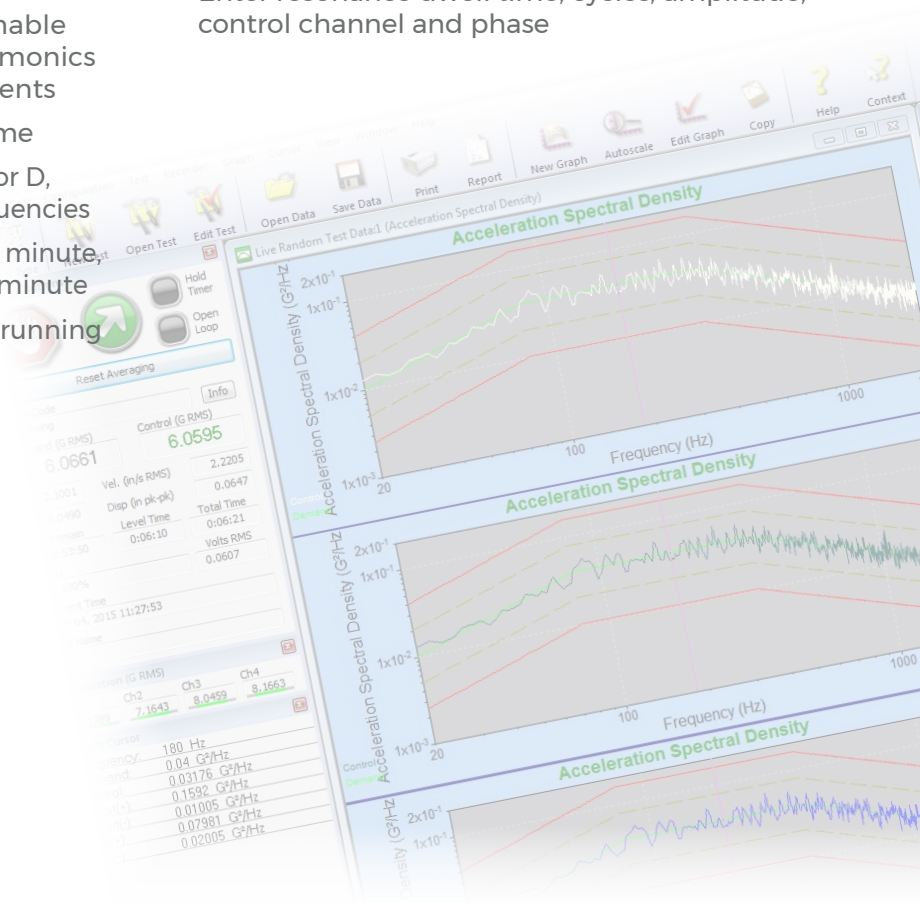
Vibration Research systems are compatible with all brands of electrodynamic and servo-hydraulic shakers. Set up and monitor vibration tests using the Medallion III software. For current versions of VibrationVIEW please contact your sales rep to discuss upgrading your hardware.

Sine

- Large numerical readout
- Tracking filters
- Graph view of profile is updated as test is entered
- Test maximum peak acceleration, peak velocity and peak-to-peak displacement values are calculated and displayed as test is entered
- Each input channel has the ability to enable or disable tracking filters, removing harmonics and out-of-band noise from measurements
- Duration entered as sweeps, cycles or time
- Breakpoints: Up to 50 amplitudes of A, V, or D, constant or slope changes at defined frequencies
- Linear sweep type, from 0 to 6.000Hz per minute, or logarithimic from 0 to 100 octaves per minute
- Sweep rate can be changed when test is running
- Multi channel extremal control
- Includes COLA output

Sine Resonance Track & Dwell (SRTD)

- Automatically create a table of up to ten resonances
- Select resonances from the list to test further
- Hold constant frequency or constant phase
- Enter resonance dwell time, cycles, amplitude, control channel and phase



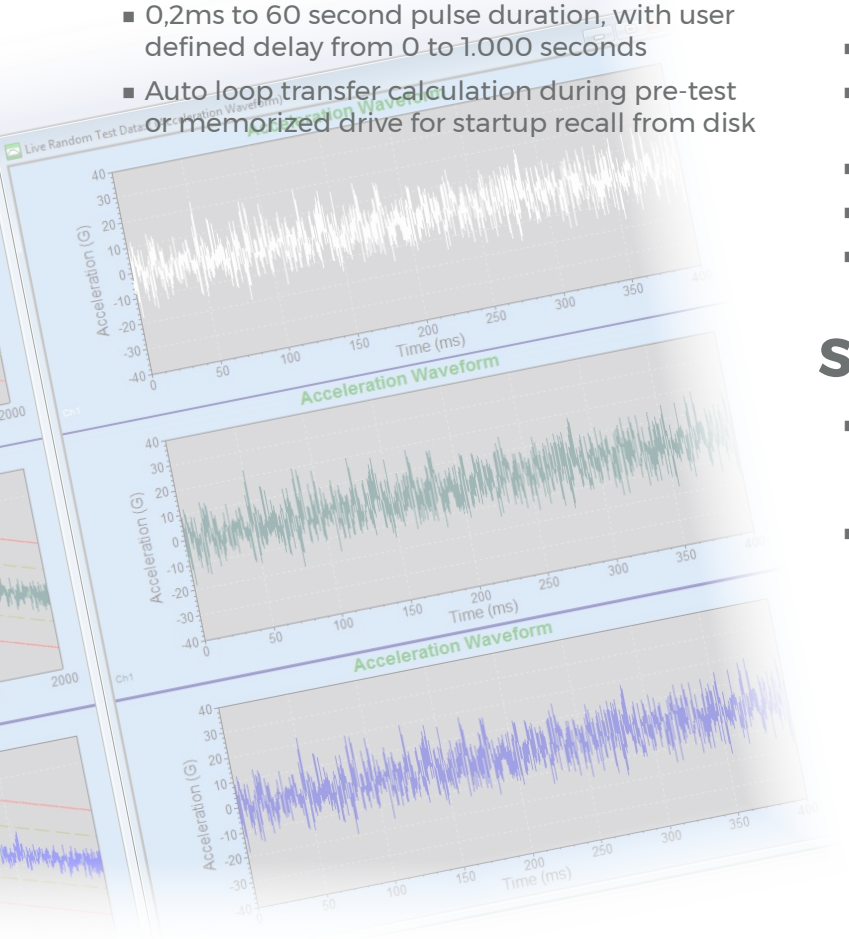
ADDITIONAL SOFTWARE FEATURES

- Test sequencer
- Pasted trace overlays
- Drag-and-drop
- Multi-language
- Cursor functions
- Custom reporting

The Medallion III is a flexible option for setting up and monitoring vibration tests and performing basic reporting with Vibration Research's proprietary software.

Shock

- Adjustable pre-pulse and post-pulse compensation
- Pulse can be easily inverted
- Pulse types include half-sine, haversine, initial and terminal peak sawtooth
- 0,2ms to 60 second pulse duration, with user defined delay from 0 to 1.000 seconds
- Auto loop transfer calculation during pre-test or memorized drive for startup recall from disk



Random

- Multiple input channels may be combined to control using minimum, maximum or average
- Drive clipping at any level between 2 to 10 sigma using digital, analog or silent modes
- Scale entered profile by percentage level, by dB level or to an RMS acceleration level
- Graph view of profile is updated as it is created
- Automatic calculation display of RMS acceleration and displacement values for profile
- 50 to 16.000 lines of resolution
- 120dB typical input dynamic range
- 2 to 1.000 degrees of freedom

System Check

- Provides sine wave drive output, oscilloscope, and spectrum analysis plots of the accelerometer inputs
- Calibrate the system and verify operation of the controller, amplifier, shaker and accelerometers

HELP WITH RECENT TESTS

The 50 most recent tests are stored in the navigator menu. With a simple selection, you can Email or upload the test settings and results - everything required by our customer support for quickly resolving issues with your shaker and controller.

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