# **ObserVIEW**®

# NEXT GENERATION DYNAMIC SIGNAL ANALYSIS



THE INNOVATOR IN SOUND & VIBRATION TECHNOLOGY



### RELIABILITY LOOKS GOOD ON YOU.

Your confidence should never be shaken. When you are testing a product for dependability, durability, and consumer satisfaction, you are also testing us. Your customer expects you to pass that test every time and we will help you succeed.

You can rely on us when your set-up is not a walk in the park, your customer requires something out of the ordinary, or your system is not communicating properly. We listen when our customers have feedback or make requests because our priority is to manufacture technology that is easier, more intuitive, and quicker to operate. Our USA-based support team is ready to meet your needs – not outsource them – because we understand that your time is valuable. 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 MADE IN THE 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.



### ObserVIEW VIEW, EDIT, ANALYZE.

View, edit, and analyze waveforms from recorded or live data. This powerful and efficient software includes specialized modules for data analysis and test generation.

#### **DATA ACQUISITION**

Analyze recorded data and compare it to test specifications to determine if a product is over or under tested. Use the field data to generate an accurate representation of the operational environment.

#### **VR MOBILE**

Collect data with the press of a button using the battery-powered ObserVR1000 hardware and the VR Mobile application. With NFC, instantly connect your mobile device to the ObserVR1000 via WiFi. Stream up to 16 channels to the hardware's SD card (up to 128kHz).



#### DATA EDITING AND EXPORTING

Quickly focus on areas of interest in any data file, then crop, copy, cut, and paste sections, as well as append together multiple compatible files. Export edited time waveform for use in shaker replication.



#### PC AND WINDOWS INTEGRATION

Seamlessly integrate a VR system with your PC and Windows operating system. Connect and load ObserVIEW, and you are ready to analyze. We recommend Microsoft<sup>®</sup> Word and Excel for reporting.



#### DRAG AND DROP

Quickly transfer data and images into Microsoft Word or Excel.

#### L VIBRATION CONTROL

Use any VR hardware for closed-loop control with any electrodynamic or servo-hydraulic shaker.

### WIDELY APPLICABLE FEATURES.

#### **ULTRA-FAST PROCESSING**

Fast optimization maximizes speed and efficiency when opening recordings or performing computations. Import a 2-second transient event, an hours-long multi-channel recording, or anything in-between.

#### FLEXIBLE FILE COMPATIBILITY

ObserVIEW can import .txt, .csv, .uff, .wav, .rpc, and .mat files in addition to its recording files (.vfw). Record data with any hardware.

#### **COMPREHENSIVE DESIGN**

Vibration Research aims to make it as easy as possible for new users to get started. Access a comprehensive help guide in the software or connect with the in-house support team.

#### **BUILT WITH FEEDBACK**

VR works hard to add new software features and provide more innovative and effective solutions to customers' problems. The team welcomes requests and collaborations for future development.

#### INTUITIVE MODAL TESTING

The modal project dialog walks you through the setup and capture process. Define the locations, axis directions, and trigger levels, and the software will prompt data collection. Activate a free modal testing trial license and try the setup for yourself.

#### **AUDIO ANALYSIS**

Analyze sound data, measure decibel levels, and find the overall RMS values for each channel. The post-process and live analysis work seamlessly with all plot options, and you can export a report in one click. Meets IEC 61672 and many other audio testing requirements.







#### Explore our products at vibrationresearch.com/software/obserview

# APPLICABLE TO YOUR INDUSTRY



VR serves many industries worldwide, and our customers include engineers and technicians with varying expertise.

Aerospace Automotive Consumer Goods Electronics Medical Military & Defense Packaging Seismic Testing Labs Universities

#### Explore our connections at vibrationresearch.com/industries



#### **AUTOMOTIVE HIGHLIGHTS**

#### **MULTIMEDIA SYNC**

Play media files in sync with a waveform recording. Video, audio, and GPS files give context to a recorded event; complete the analysis by extracting images and data for reporting.

#### **OCTAVE ANALYSIS**

Identify overall sound levels and individual component noise in different vehicle environments to ensure compliance with audio test specifications. ObserVIEW generates octave bands with an 8<sup>th</sup> order filter to meet IEC 61260-1 Class 1 filter specifications. A, C, and Z frequency weighting options are also available to meet the IEC 61672-1 requirement.

#### **PSD ANALYSIS AND GENERATION**

Generate relevant PSD profiles from recorded data using powerful and easy-to-use PSD plots. The PSD determines the power in a band of frequencies; create a peak hold PSD to estimate the maximum energy input in a particular frequency band. Many trace settings can be user-defined, including overlap percentage, analysis lines and frames, and degrees of freedom.



#### **AEROSPACE HIGHLIGHTS**

#### **MODAL TESTING**

Identify a structure's response to excitation with modal analysis. The Modal Testing software records responses, calculates averages, and generates a smooth transfer function. From there, export the data as a UFF file to a modal analysis software.

#### **OCTAVE ANALYSIS**

Evaluate the various environments of aircraft for acoustic qualification. ObserVIEW generates octave bands with an 8<sup>th</sup> order filter to meet IEC 61260-1 Class 1 filter specifications. It performs filter-based analysis and can apply A and C frequency weighting, linear and exponential averaging, and peak hold.











### Rethinking Random Test Selection SINE TRACKING, ANALYSIS AND GENERATION (STAG<sup>®</sup>)

Random testing is a standard option for replicating a device under test's (DUT) operational environment. However, the random test is not a one-size-fits-all solution. Complex environments require a more exact profile for the test to be accurate. STAG is a better option for developing a more specific test profile for DUTs with rotational and harmonic components.







#### HOW IT WORKS

STAG performs order analysis and uses the fatigue damage spectrum (FDS) software to ensure the test profile accurately represents the operational environment.

#### **ORDER EXTRACTION AND ANALYSIS**

ObserVIEW extracts the orders of interest from a recording and separates the rotational content from the random background.

- Automatically detect or manually select top orders
- Analyze the frequency ranges of dominant sine tones
- Minimize the low-amplitude content or concentrate on a peak

#### SINE TONE PROFILE ACCELERATION

The STAG feature generates one or multiple accelerated sine tone profiles using the extracted orders and user-defined parameters.

#### SOR TEST GENERATION

STAG then exports the data file to VibrationVIEW with the order content removed (optional). The FDS software generates an accelerated random profile, and STAG combines it with the sine profile(s) generated in ObserVIEW.

- Automatically copy acceleration parameters to VibrationVIEW
- Generate a random breakpoint table
- Add Kurtosion to ensure accurate peak accelerations and distribution

The processing time [for standard SoR test development] took up to 30+ hours to create a test profile. This method was computationally expensive and caused a long run time. Many times, there were input errors to the band tracking filters and the wrong order was extracted, or the same order was extracted twice requiring another processing run.

With the STAG tool, our team was able to develop sine tone profiles for the sinusoidal components and then export the random content to VibrationVIEW to employ FDS. The other commercially available package was expensive and time-consuming while STAG processed the data in a fraction of the time and with greater accuracy.

# Review Data During Recording

View and analyze data in real-time with Live Analyzer. Observe a live stream of data from any VR hardware and note potential events of interest as they occur. Pause live data playback to analyze an event; the data will continue to stream in the background without loss.

#### **NO NEED TO WAIT**

With Live Analyzer, there is no need to wait until post-process to begin data analysis. Pause the live stream to select, analyze, and export a section of the time waveform. Then, resume the data feed without losing any of the streamed data.

#### WAVEFORM ANALYSIS

All ObserVIEW analysis tools are accessible during a Live Analyzer session. Simply pause the incoming data to perform a more in-depth analysis. Analysis controls include:

#### **Frequency Domain**

• FFT, PSD, transfer function, and more

#### **Trace Settings**

 lines, frames, averaging degrees-of-freedom, and window functions

#### **Edit Data**

select, cut, copy, append, and transition waveforms

Data is buffered like a DVR, and the length is configurable. Filter through data and pause/resume live data without losing any samples.







#### **VR MOBILE**

The Live Analyzer feature offers additional customization to data recording. It is available for use in both ObserVIEW and VR Mobile when connected to any VR hardware. VR Mobile can be displayed in the side pane of a Live Analyzer session.







#### **OBSERVIEW**



#### **GRAPHS** (Free)

ObserVIEW has an easy-to-use graphing system with auto-scaling and zooming capabilities. Copy graphs and raw data to any word processor or spreadsheet. Highlight sections of data by adding various cursor types (standard, harmonic, delta, slope, min, max, mean, dual, RMS).



#### TIME WAVEFORM EDITOR (Free)

Quickly focus on areas of interest in any data file, then crop, copy, cut, and paste sections, as well as append together multiple compatible files.



#### FAST FOURIER TRANSFORM (FFT) ANALYSIS (Free)

Transform time-domain data into the frequency domain.

Perform efficient data analysis on live data or an imported file with the fast Fourier transform. View changes in frequency and amplitude in a waveform, highlight harmonic excitation in a broad frequency range, and more.



#### **VIEW GPS**

Use GPS data alongside a waveform recording to add context to an analysis or adjust the waveform positioning post-process. The GPS is powered by the ObserVR1000 hardware and includes position updates and GPS time base synchronization.



#### FDS

Calculate the relative damage a product experiences in a defined period. Then, create a random test profile that is the damage equivalent to the recorded environment. In Live FDS, perform the analysis in real-time and identify how long it takes to reach fatigue levels.

SRS

Add an SRS trace to a graph to analyze complex transient shocks.

#### **OBSERVIEW**



#### **MULTIMEDIA SYNC**

Play media files alongside a waveform recording.

Multimedia Sync plays media files in sync with the associated waveform recording. View video, audio, or GPS files with the waveform recording to better understand events during recording. Then, extract images and data for reporting.



#### **ADVANCED ANALYSIS**

Employ an advanced analysis of one or multiple waveforms with features such as resampling, filtering, advanced data analysis (PSD, transfer function, etc.), and Multimedia Sync.



#### SINE DATA REDUCTION

The Math Traces feature includes expressions for post-process analysis that simplify sine sweep data by breaking down the frequency and amplitude components of time-domain signals. This method provides clearer insights than traditional graphs like the fast Fourier transform (FFT) or transmissibility.

Plot the analysis of sine reduction data and other Sine test data with the new scatter plot graphing function.



#### **MODAL TESTING**

In design validation, modal analysis helps to identify a structure's response to an input. A complex response is divided into a set of simple mode shapes, each with individual parameters that describe the structure's output to a transient event. The overall structural response helps engineers to determine the natural vibration frequencies and validate the structure's design.



#### **OCTAVE ANALYSIS**

Generate octave bands with an 8th order filter to meet IEC 61260-1 Class 1 filter specifications. It performs filter-based analysis and can apply A and C frequency weighting, linear and exponential averaging, and peak hold.

### **OBSERVIEW LICENSES**

		FREE	INCLUDES BASIC	REQUIRES ADVANCED	REQUIRES ADVANCED	REQUIRES ADVANCED	REQUIRES ADVANCED
		BASIC	ADVANCED	ORDER ANALYSIS	FDS	SRS	MODAL TESTING
APHS	Time	$\checkmark$					
	FFT	$\checkmark$					
	PSD		$\checkmark$				
	Cross Spectrum		$\checkmark$				
	Coherence		$\checkmark$				
	Transmissibility		$\checkmark$				
	Transfer Function		$\checkmark$				
a c	Time vs Frequency Spectrogram		$\checkmark$				
U	Octave Band Analysis		$\checkmark$				
	Nyquist		$\checkmark$				
	Tach vs Frequency Spectrogram			$\checkmark$			
	Fatigue Damage Spectrum (FDS)				$\checkmark$		
	Shock Response Spectrum (SRS)					$\checkmark$	
	Edit recordings & Overlay recordings	$\checkmark$					
FEATURES	Comprehensive data cursors	$\checkmark$					
	View any graph in 3D	$\checkmark$					
	View GPS	$\checkmark$					
	Live Analyzer	$\checkmark$					
	Record from Live Analyzer to PC	√*					
	Resample waveforms		$\checkmark$				
	Filtering (High Pass, Low Pass, FIR)		$\checkmark$				
	Peak Hold (FFT, PSD, Octave)		√				
	Video Sync		$\checkmark$				
	Listen to channel data		√				
	Convert to velocity or displacement		$\checkmark$				
	Math Traces		√				
	Time statistics cursors		$\checkmark$				
	FFT Average		$\checkmark$				
	Sine Data Reduction		$\checkmark$				
	Modal Testing						$\checkmark$
	Auto find top orders			$\checkmark$			
	Sine Tracking, Analysis & Generation (STAG)			√**	<b>√</b> **		

✓ Available with this license

\* Record requires RecorderVIEW license

\*\* STAG requires both Order Analysis and FDS licenses

### SOFTWARE Packages

ObserVIEW can be configured for as many or as few packages as you need (à la carte). You may add more at any time. Packages are also available to rent for short-term use and are easily activated via electronic key. Explore our software at **vibrationresearch.com/products/obserview** 





**BASIC** (FREE) View stored data Review data with Live Analyzer Edit and export waveform data Perform basic data analysis (FFT) View associated GPS data

#### ADVANCED

Resampling and filtering Advanced data analysis (PSD, transfer function, etc.) Multimedia sync Math Traces Includes all Basic features

THE PACKAGES BELOW INCLUDE ALL BASIC FEATURES AND REQUIRE THE ADVANCED LICENSE

#### FDS

Graph fatigue damage spectrum, FDS test spectrum, and SRS Generate accelerated random tests Validate and compare accelerated tests Perform Sine Tracking, Analysis and Generation (STAG)\*\*

#### SRS

Analyze complex transient shocks Determine theoretical response

#### **ORDER ANALYSIS**

Order analysis and extraction Generate accelerated Sine-on-Random tests Perform Sine Tracking, Analysis and Generation (STAG)\*\*

#### **MODAL TESTING**

Perform modal capture Average multiple data recordings Export organized frequency response data

*The 3D graph is WOW! It is the easiest, most interactive 3D graph that I have ever seen.* 

-Vibration Research Customer

VR9700	VR10500	OBSERVR1000
Up to 128 simultaneous channels for control or monitor usage.	Up to 512 simultaneous channels for control or monitor usage.	Up to 128 available channels for control or as an analyzer & autonomous DAQ.
Each 4-channel I/O unit can run independently on separate shakers or together in a single stack (up to 128 channels). The VR9700 also functions as a DAQ device. This economical solution allows for data acquisition, analysis, and vibration control and creates substantial cost savings for our customers.	Each 16-channel I/O unit can run independently on separate shakers or together in a single stack (up to 512 channels). The VR10500 also functions as a DAQ device. This economical solution allows for data acquisition, analysis, and vibration control and creates substantial cost savings for our customers.	Each 16-channel I/O unit is a portable DAQ device and analyzer (up to 128 channels). The ObserVR1000 also functions as control hardware and can run independently on separate shakers or together in a single stack. This economical solution allows for data acquisition, analysis, and vibration control and creates flexible options for our customers.
HARDWARE WARRANTY		
The VR9700 controller hardware includes a three- year hardware warranty that can be extended to a lifetime warranty with continual renewal (no lapse) of a VR upgrades & support agreement. VR warrants the controller hardware to be free of defects in material and workmanship.	The VR10500 controller hardware includes a three- year hardware warranty that can be extended to a lifetime warranty with continual renewal (no lapse) of a VR upgrades & support agreement. VR warrants the controller hardware to be free of defects in material and workmanship.	The ObserVR1000 hardware includes a one- year hardware warranty. VR warrants the ObserVR1000 hardware to be free of defects in material and workmanship.
GENERAL SPECIFICATIONS		
Up to 128 channels, 4-channel units (mix-n-match) Control sine/random/shock vibration to 50,000Hz 104,000 lines of resolution Total harmonic distortion < -100dB THD+N Remote inputs/outputs including Tachometer Emergency stop Gigabit Ethernet	Up to 512 channels, 16-channel units (mix-n-match) Control sine/random/shock vibration to 50,000Hz 104,000 lines of resolution Total harmonic distortion < -100dB THD+N Remote inputs/outputs including Tachometer Emergency stop Gigabit Ethernet	Up to 128 channels; 16-channel units (mix-n-match) Control sine/random/shock vibration to 20,000Hz 26,000 lines of resolution Total harmonic distortion < -100dB THD+N Digital inputs/outputs including Tachometer Emergency stop Gigabit Ethernet WiFi connection 802.11 b/g/n GPS (optional)
<b>POWER</b> 100VAC to 240VAC, 50/60Hz 1.4A maximum Class II, double-isolated chassis	<b>POWER</b> 100VAC to 250VAC, 50/60Hz 2A maximum	<b>POWER</b> AC adapter included: 90VAC to 264VAC, 50/60Hz 18VDC @ 2.5A Internal Lithium-Ion battery
<b>OPERATING TEMPERATURE RANGE</b> 35° to 122° Fahrenheit 2° to 50° Celsius	<b>OPERATING TEMPERATURE RANGE</b> 35° to 122° Fahrenheit 2° to 50° Celsius	<b>OPERATING TEMPERATURE RANGE</b> -4° to 131° Fahrenheit -20° to 55° Celsius
INPUT CHANNELS		
Single-ended with 100kΩ impedance Custom units can be defined for other sensor types Switchable isolation	Single-ended with 100k $\Omega$ impedance Custom units can be defined for other sensor types	Single-ended with 100k $\Omega$ impedance Custom units can be defined for other sensor types
<b>SOFTWARE SET-UP ALLOWS FOR:</b> Per channel selection of transducer sensitivity Coupling (AC or DC) Accelerometer constant current supply: 4mA IEPE TEDS transducer interface A unique DC offset removal that allows measurement to true DC with constant current type accelerometers with full 10V range	<b>SOFTWARE SET-UP ALLOWS FOR:</b> Per channel selection of transducer sensitivity Coupling (AC or DC) Accelerometer constant current supply: 4mA IEPE TEDS transducer interface A unique DC offset removal that allows measurement to true DC with constant current type accelerometers with full 10V range	<b>SOFTWARE SET-UP ALLOWS FOR:</b> Per channel selection of transducer sensitivity Coupling (AC or DC) Accelerometer constant current supply: 2.1mA IEPE TEDS transducer interface A unique DC offset removal that allows measurement to true DC with constant current type accelerometers with full 10V range
<b>PROTECTED</b> 200V tolerant inputs protect device from transients	<b>PROTECTED</b> 200V tolerant inputs protect device from transients	<b>PROTECTED</b> 40V tolerant inputs protect device from transients
SAMPLE RATE 256kHz simultaneous sample rate	<b>SAMPLE RATE</b> 256kHz simultaneous sample rate	SAMPLE RATE 128kHz simultaneous sample rate
<b>VOLTAGE RANCE</b> $\pm$ 1V and $\pm$ 10V: 100k $\Omega$ input impedance $\pm$ 0.5V and $\pm$ 5V: 10M $\Omega$ input impedance	<b>VOLTAGE RANGE</b> ±1V, ±10V: 100kΩ input impedance ±0.5V, ±5V: 10MΩ input impedance	<b>VOLTAGE RANGE</b> ±1V, ±10V: 100kΩ input impedance ±0.25V, ±2.5V: 22MΩ input impedance
RESOLUTION 24-bit	RESOLUTION 24-bit	RESOLUTION 24-bit
<b>DYNAMIC RANGE</b> >110dB dynamic range >130dB with tracking filters	DYNAMIC RANCE >110dB dynamic range >130dB with tracking filters	<b>DYNAMIC RANGE</b> >110dB dynamic range >130dB with tracking filters
NOISE FLOOR <65nV/√Hz	NOISE FLOOR <50nV/√Hz	NOISE FLOOR <90nV/√Hz
FILTERING Analog multiple pole anti-aliasing filter and digital anti-aliasing filter with >105dB attenuation	FILTERING Analog multiple pole anti-aliasing filter and digital anti-aliasing filter with >105dB attenuation	FILTERING Analog multiple pole anti-aliasing filter and digital anti-aliasing filter with >95dB attenuation

# **DARE TO COMPARE**

Skeptical that we cannot meet your standards? Put us to the test. The ObserVIEW software package runs on all our hardware platforms. Whether you need a brand-new system or a replacement controller, we will let you try our hardware and software **fully enabled for up to 30 days**. Once you use them, we think you will be hooked.

VR9700<sup>™</sup> Vibration Controller Up to 128 channels Lifetime warranty Up to 256kHz sample rate



VR10500<sup>™</sup> Vibration Controller Up to 512 channels Lifetime warranty Up to 256kHz sample rate



ObserVR1000<sup>®</sup> Vibration Controller and Portable Dynamic Signal Analyzer

> Up to 128 channels 1-year warranty Up to 128kHz sample rate 6+ hour battery life

VR9700		VR10500	OBSERVR1000			
OUTPUT CH	ANNELS					
FREQUENCY RANCE 50,000Hz 256,000 samples per second		FREQUENCY RANGE 50,000Hz 216,000 samples per second	FREQUENCY RANGE 20,000Hz 128,000 samples per second			
FILTERING Analog multiple pole reconstruction filters		FILTERING Analog multiple pole reconstruction filters	FILTERING Analog multiple pole reconstruction filters			
<b>OUTPUT CHANNELS</b> Two (2) analog, two (2) digital 1 analog output (drive) standard; COLA output is standard with the Sine testing module		<b>OUTPUT CHANNELS</b> Four (4) analog, two (2) digital 1 analog output (drive) standard; COLA output is standard with the Sine testing module	OUTPUT CHANNELS One (1) analog			
VOLTAGE RANGE ±10V		<b>VOLTAGE RANGE</b> ±10V	VOLTAGE RANGE ±10V			
RESOLUTION 32-bit		RESOLUTION 32-bit	RESOLUTION 24-bit			
<b>OTHER</b> Safety relay prevents shaker, amplifier, and product damage from transients Optionally drive a differential input device		<b>OTHER</b> Safety relay prevents shaker, amplifier, and product damage from transients Optionally drive a differential input device 4 independent or phase-controlled outputs to drive multiple shakers	<b>OTHER</b> Safety relay prevents shaker, amplifier, and product damage from transients			
DIMENSION	S	· 	· 			
Width: Depth: Height: Weight:	12.3in 313mm 8.7in 220mm 1.75in 44.5mm 5.4lbs 2.5kg	Width: 17in 432mm Depth: 11in 279mm Height: 1.75in 45mm Weight: 9.25lbs 4.1kg	Width: 6.33in 161mm Depth/Length: 9.82in 250mm Height: 2.18in 55mm Weight: 3.3lbs 1.5kg			

### **BECOME THE GO-TO VIBRATION EXPERT**

Vibration testing is a unique industry. Whether examining basic theory or advanced techniques, a collective resource for vibration test engineers can be valuable. VR is committed to providing content that is useful to engineers in all stages of product development.

#### MONTHLY WEBINARS

#### vibrationresearch.com/webinar

Our no-cost webinars are typically hosted once a month with a range of topics from basic to advanced. They are presented by a mix of industry experts and sales engineers. Connection is easy with GoTo Webinar, a third-party app, on a device with a web connection.

#### **VR UNIVERSITY**

#### vru.vibrationresearch.com

VRU was founded with the goal of disseminating vibration testing theory, insights, and practices within the industry. All courses are free, and additional features such as quizzes are available with an account.

- Enroll in courses, track progress, and get certified
- Access a glossary of terms related to vibration testing

#### **VR LIBRARY**

#### vibrationresearch.com/library

- Articles
- Archived webinars
- Calculators and tools
- Experiments and papers
- Quick tip videos
- Technical notes



### WE DO NOT STOP AFTER INSTALLATION

Our support continues over the lifetime of your product anytime you need us. We recognize that providing customers with high-quality support contributes significantly to their long-term success.

#### UPGRADES AND SUPPORT AGREEMENT

A 1-year agreement is included with your purchase, and renewals are available on an annual basis. Agreements include:

#### **Software Releases**

Most software enhancements derive from customer requests and ideas as a result of project collaboration. New software versions are released annually, and VR aims for minor enhancements quarterly.

#### **Unlimited Technical Support**

Available via phone, email, webinar, and more.



#### Hardware Warranty

VR warrants the controller hardware to be free of defects in materials and workmanship for the duration listed below. This warranty covers hardware failure under normal conditions and does not cover damage due to customer neglect or mistreatment.

- VR9700 / VR10500 ships with a 3-year hardware warranty that can be extended for the lifetime of the product through the continual renewal of an upgrades and support agreement.
- ObserVR1000 ships with a 1-year hardware warranty.



#### Calibration Software

Every new VR hardware unit arrives freshly calibrated with a certificate of traceable calibration to SI. The VR support agreement provides an Automated Calibration Verification software license and a 50% discount on standard factory calibrations or A2LA-accredited calibrations.





#### FACING A CHALLENGE? TELL US MORE.

Ninety percent of our improvements originate directly from customer suggestions. We are interested in hearing more if you face a challenge that requires new software or hardware development. All information is strictly confidential.

#### Learn more at vibrationresearch.com/upgrades-support-agreement

### ALWAYS HERE. Always Listening. Always Ready.

VR designs and assembles products at our headquarters located in Michigan, USA. We invite you to contact a representative in your area to request more information. Be sure to ask about a demo version of our ObserVIEW software.



### WE ARE GLOBALLY AT YOUR SERVICE.

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Do what other industry leaders have already done.



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