Lansmont

Product Portfolio
Measurement & Test Systems

Products

Lansmont designs, builds and supports comprehensive test and measurement solutions for drop, shock, vibration, and compression. Our proven Field-to-Lab™ methodology – which begins with high-fidelity measurement of real-world environmental dynamics, followed by simulation testing of those dynamics in a laboratory environment, and subsequent monitoring of the environment – allows customers to achieve better test and measurement results with our products.

Field Data Recorders

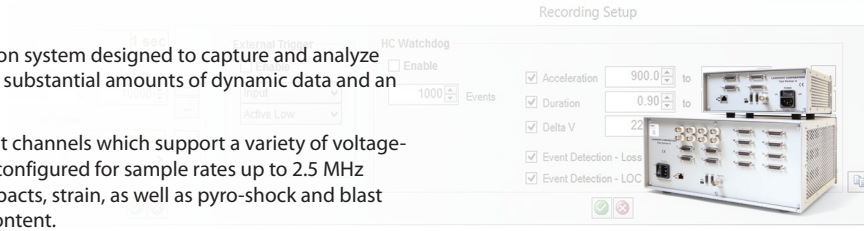
Portable SAVER™ Field Instruments can autonomously measure and record tens of thousands of targeted events, such as shock, vibration, temperature, humidity, atmospheric pressure, GPS location, orientation, and light. The collected data allows for assessment and characterization of both the dynamic and atmospheric hazards present within measured transport and in-use environments.

	GPS Logger	SAVER AM	3D15	3X90	9X30
					
Application	Monitoring	Monitoring	Measuring	Measuring	Measuring
Continuous Record Time	30 Days	30 Days	15 Days	90 Days	30 Days
Memory	Up to 18,000 Events	400 Largest Events	Up to Ten's of Thousands of Events	Up to Ten's of Thousands of Events	Up to Ten's of Thousands of Events
Accel Range	NA	100 or 200 g	50 g	200 g	200 g

Data Acquisition

Test Partner 4 (TP4) is Lansmont's latest generation data acquisition system designed to capture and analyze dynamic events. TP4 incorporates a processing engine to capture substantial amounts of dynamic data and an intuitive interface to quickly analyze data parameters.

TP4 provides data acquisition through analog and/or bridge input channels which support a variety of voltage-based and Wheatstone bridge-type sensors. All channels can be configured for sample rates up to 2.5 MHz providing versatility to acquire data attributed to drop, shock, impacts, strain, as well as pyro-shock and blast impact events where captured data is rich with high frequency content.



- Valid bandwidth up to 200 kHz for analog channels; 100 kHz for bridge/strain channels
- 20 MHz over-sampling with 24-bit Sigma-Delta ADC per channel
- User configurable output data sample rates up to 2.5 MHz
- High channel count capability
- Link multiple systems for higher channel count configurations
- Up to 40 dynamic analog or 20 dynamic bridge/strain channels per standalone system
- Analog channels support IEPE sensors; Bridge/Strain channels support 1/4, 1/2 and Full-Bridge configurations for active DC sensors and strain gauges
- User configurable analog channels for acceleration or event detection acquisition
- External arm or trigger capability
- Efficiently manage large data files
- Fast re-arm & re-trigger functionality - "rapid fire" mode
- Gigabit Ethernet interface
- Local or remote system management

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Shock Test Systems

Do you need to perform a complete Damage Boundary Product Fragility Assessment, an industry / mil standard shock pulse, or a company-specific test specification?

Lansmont has the right system to get the job done.

We recommend the most suitable system for every testing application based on two important criteria. 1. The size and mass of your largest test item. 2. Shock Performance.

The two most important shock performance criteria are velocity change and acceleration level. It's also important to know the shock pulse waveforms – half sine, sawtooth, or trapezoidal.

Max payloads range from 40 lbs. (18 kg) to 2,500 lbs. (1,134 kg).

Max acceleration ratings range from 400 g to 10,000 g.

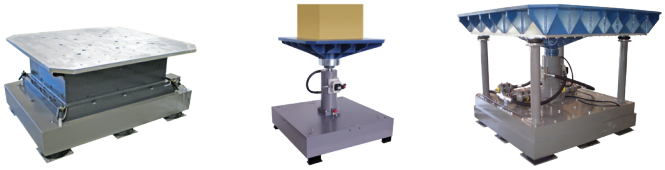
Table sizes range from 6 in. (15.2 cm) square to 60 in. (152 cm) square.

Vibration Test Systems

Whether you are testing bare products, individual packages, full pallet loads, or much larger crated systems, Lansmont has a vibration system model that is perfect for your testing applications.

We recommend the most suitable system for every testing application based on two important criteria. 1. The size and mass of your largest test item. 2. Vibration Performance.

The two most important vibration performance criteria are frequency range and acceleration level. It is also important to know the type of vibration – sinusoidal or random.



Stroke range from 2.5 in. (6.4 cm) to 6.0 in. (15.2 cm)

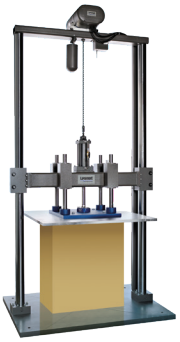
Frequency range 1 to 500 Hz.

Max Payload from 50 lbs. (23 kg) to 8000 lbs. (3628 kg)

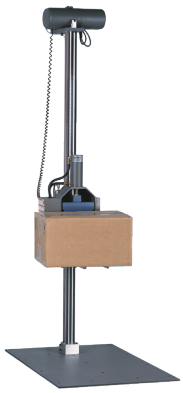
Table sizes from 15.7 in. (40 cm) square to 83 x 98 in. (210 x 250 cm).

Compression Test Systems

Lansmont offers a full range of Compression Test Systems to determine the performance of unit loads, individual packages, components, and materials under compressive loads.



	Horizontal Clamping Tester	Squeezer	122-15	152-30	152-50
Platen Size	48 in. (122 cm) square	30 in. (76 cm)	48 in. (122 cm) square	60 in. (152 cm) square	60 in. (152 cm) square
Max Opening	21-76.5 in. (53-194 cm)	48 in. (122 cm)	78 in. (198 cm)	84 in. (213 cm)	84 in. (213 cm)
Max Force	2,650 psi 1,200 kg/mm	5000 lbs. (22.2 kN)	15,000 lbs. (66.7 kN)	30,000 lbs. (133 kN)	50,000 lbs. (222 kN)



Drop Test Systems

Drop testing determines the ability of a package to withstand the impacts prevalent in the distribution environment. Considered the gold standard for accuracy and repeatability, every Lansmont drop tester is factory-calibrated to ensure it exceeds industry specifications.

	PDT-80M	PDT-80	PDT-300	PDT-700	QR-3000
Max Test Item Weight	80 kg (177 lbs.)	80 kg (177 lbs.)	300 kg (661 lbs.)	700 kg (1,540 lbs.)	1,361 kg (3,000 lbs.)
Drop Height Positioning	Manual	Electric Hoist	Electric Hoist	Electric Hoist	Hung from Lifting Ring – User Defined
Machine Control	Foot Switch	Handheld Control and Foot Switch	Handheld Control and Foot Switch	Handheld Control and Foot Switch	Foot Switch

Made to Order Not quite the equipment size or performance level that you need? If we do not already manufacture the test machine ideally suited for your company's testing applications, our engineering team can custom design a test system specific to your needs.

Lansmont

Mechanical Shakers

Mechanical shakers are a low cost testing equipment option for challenging the integrity of your packaging designs. Lansmont Mechanical Shakers comply with repetitive shock requirements as referenced in common industry standard testing specifications.

These products allow programmable frequency input in a 2-5 Hz. range, with maximum acceleration input up to 1.25g.

All can be operated in a circular-synchronous, vertical-linear or 30° out-of-phase motion.

	MS 400	MS 2000
Test Bed Size	48 in. square (122 cm square)	60 in. square (152 cm square) 84 in. square (213 cm square)
Payload Capacity	400 lb. (181 kg)	2,000 lb. (909 kg)

Inclined Impact Test Systems

During shipping and handling, large packages such as pallet loads or crates will experience some bumps and bruises. Lansmont Inclined Impact Testers are ideal for testing your packaged-product's ability to withstand the types of impacts that occur in the distribution environment.

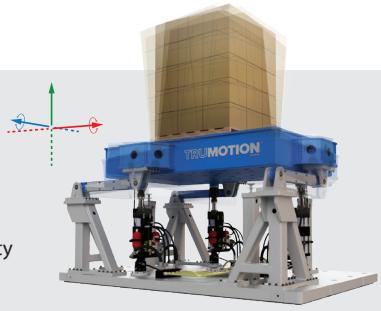
Lansmont Inclined Impact Testers comply with industry standard package testing specifications such as ASTM, ISTA, ISO, and MIL-STD.

	152-4K	213-6K
Carriage Size (L x W)	60 x 60 in. (152 x 152 cm)	84 x 84 in. (213 x 213 cm)
Backstop Size (W x H)	84 x 76 in. (213 x 193 cm)	96 x 96 in. (244 x 244 cm)
Velocity	7.3 ft./sec. (2.2 m/sec.)	7.3 ft./sec. (2.2 m/sec.)
Payload Capacity	4000 lb. (1814 kg)	6000 lb. (2721 kg)

TruMotion™

Vast improvements in the quality and quantity of environmental field data now demands improvements in test methodologies.

Regulatory bodies are starting to require testing that's closer to reality – closer to the truth. Introducing Lansmont TruMotion™ vibration and load stability test systems, delivering high fidelity, tightly controlled motions.



Our MDOF Vibration System generates simultaneous pitch, roll and vertical inputs, using either time-history replication or power spectral density random vibration control profiles.

The system has the ability to simultaneously test multiple until loads, placed side-by-side, and even stacked on top of each other – simulating more realistic transportation condition and unit load interaction.

MDOF Vibration System

- Robust and durable design, assuring maximum operational efficiency
- Time-domain and PSD-based motions with corresponding fidelity
- Pitch, roll and vertical inputs
- Advanced simulation, comparably closer to reality

Our Load Stability Acceleration System simulates long-duration, constant acceleration events that can be associated with vehicle braking, turning and accelerating.

These systems can be configured to deliver user-defined acceleration vs. time input profiles. levels of 1g over These advanced simulation solutions bring true-to-life test results directly into your laboratory.

Load Stability Acceleration System

- Simulate braking and turning accelerations
- Used for unit load stability validation
- EUMOS 40509 compliant
- Belt-driven linear actuators

NOTE: Continued product improvement necessitates that Lansmont reserves the right to modify these specifications at any time without notice.

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