

AutoShock-II™ is a fully automated shock test systems used to measure and identify product fragility levels and evaluate protective packaging. These systems perform a wide variety of half sine, square or saw-tooth waveform impacts. With the simulation of real world shock pulses and impact energy levels, manufacturers can systematically test and optimize product design and packaging.

AutoShock-II™ is a Windows based system. User-friendly controls are designed to interface to a variety of data acquisition and analysis software systems. This unique feature of the **AutoShock-II™**, allows access to best-in-class data acquisition and analysis software.

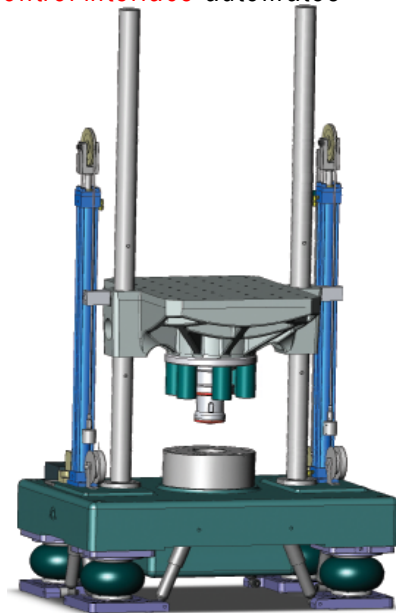
AutoShock-II™, state-of-the-art braking and balanced lift mechanisms allow for a low friction, repeatable, and rebound free impact. The nitrogen braking system is a safe, reliable and a cost effective way to arrest a wide variety of payloads. The balanced hydraulic lift system is unique to the industry. It allows a minimum of column and bearing wear, while effortlessly providing a very effective method to accurately position a wide array of payloads.

AutoShock-II™'s low profile impact absorbing base allows for a lower overall system height, more accessible loading, and better test configuration. The cast iron base contains Square wave cylinders which are recessed into the base for improved performance and to provide optimal system accessibility.

AutoShock-II™ meets or exceeds OEM, ASTM, MIL-STD, IEC, and ISO required test standards.

Standard Features:

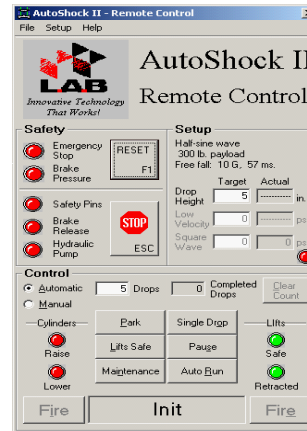
- **Windows based PC control system with intuitive remote control interface** automates procedures and reduces test times. The operator simply enters conditions and **AutoShock-II™** converts them into specific machines instructions and performs the test
- **A multiple post guidance system** with balanced hydraulic lift cylinders provides automatic, chatter-free positioning and alignment of the shock table.
- **An automated shock drop calculator** simplifies the determination of drop heights and pressures to quickly achieve the operator's requested shock pulses. Drop heights and pressures can be stored and retrieved
- **High performance cast or welded aluminum tables** produce optimum table strength and stiffness with minimal table noises and eliminating
- the need for over filtering of shock test data. **A state of the art braking system** eliminates secondary impact rebounds and provides a secure and reliable method of holding table position prior to the drop.



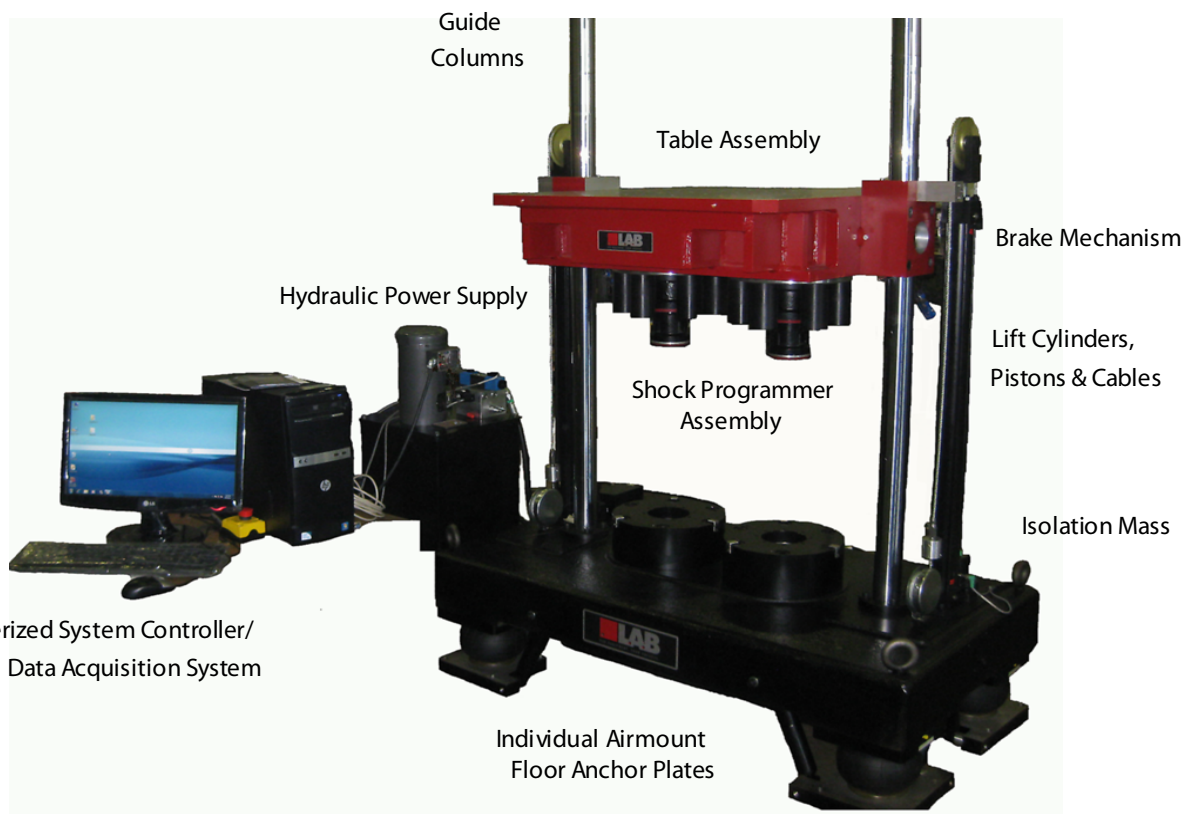
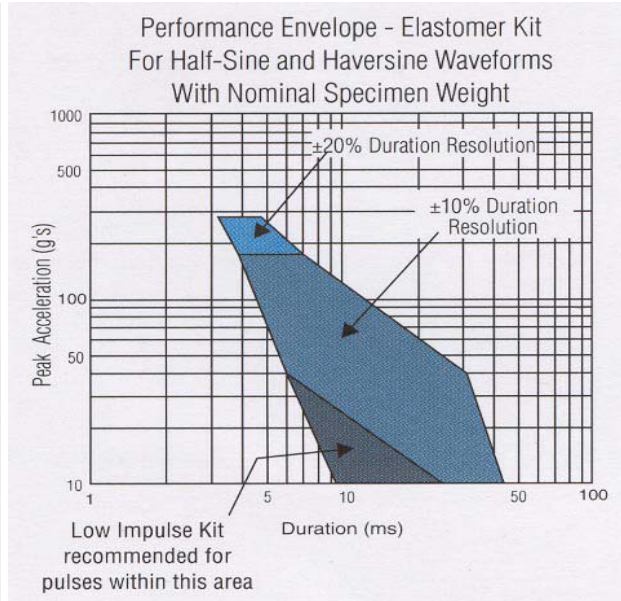
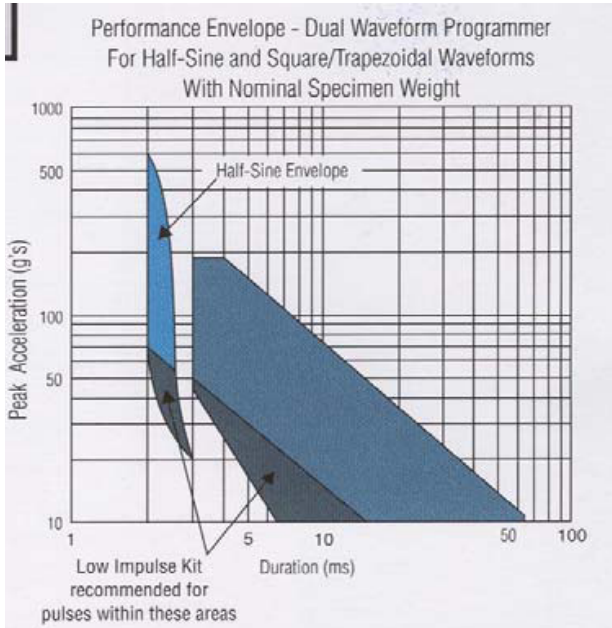
- **Dual waveform shock pulse programmers** provide automated waveform switching between short duration half sine and square wave shock pulses, with consistent repeatability to streamline damage boundary testing.
- **L. A. B's unique balanced square wave programmer system** provides balanced impact across the product and table. Uniform placement of impact cylinders on the low profile high strength base, provides the greatest possible impact uniformity.
- **A full range of safety features** including brakes that engage if power is lost or communications with the remote control are interrupted; a safety horn that sounds before equipment movement; a 24 volt output for an additional safety device such as a warning light; dual emergency stop buttons for mounting on or near the machine and at the operator's station; an additional emergency stop input such as options below, or an additional stop button
- **Universal integration** with a wide array of data acquisition systems allows the user to select a preferred system or use L.A. B's.

Optional Features:

- **Automated, high speed data acquisition and analysis system**
To meet your precise requirements, to capture all necessary shock test data; and to produce damage boundary curves (DBC), shock response spectrums (SRS), FFT, and many other types of data analysis
- **High performance magnesium table**
For low noise and highest possible resolution
- **Safety interlock system**
Pressure sensitive emergency stop mat to prevent table drops if the perimeter is intruded upon; 24 volt warning lights
- **Acceleration kit**
For performing shock pulses requiring velocities greater than achievable with a free fall test (see chart on next page)
- **Elastomer half sine kit**
Performs a wide range of long duration half sine pulses of up to 50 ms with acceleration up to 300 g's; one kit is required for each dual waveform programmer
- **Low impulse kit,**
Requirement for performing shock tests with a velocity change less than 1.5 m/s (5 feet/sec.)
- **Dual mass shock amplifiers**
Testing relatively small specimens at very short duration and high acceleration; the amplifier is a precision auxiliary shock table that is bolted to the top of the primary shock table. The 89 X 89 mm (3.5" X 3.5") model is for g pulses up to several thousand g's with durations of .1 to 1 ms. The 305 X 305 mm (12" X 12") model is for performing high g pulses with durations of .2 to 1 ms. An elastomer half sine kit is required for the primary shock table.
- **Lead mold and Electric Furnace**
Melting Lead and making pellets for saw-tooth pulses; the pellets are crushed in testing, but are recyclable.
- **Voltage adaptation** to meet local requirements
- **CE Certification** and marking available



AutoShock-II™



AutoShock-II



OUR EQUIPMENT. YOUR SUCCESS.

Automated Shock Testing

AutoShock-II™

Standard AutoShock-II™ Configurations:

	AS-II 24x32	AS-II 36	AS-II 36x42	AS-II 48	AS-II 48x60	AS-II 60
Table Size	61 x 81 cm (24" x 32")	91 x 91 cm (36" x 36")	91 x 107 cm (36" x 42")	122 x 122 cm (48" x 48")	122 x 152 cm (48" x 60")	152 x 152 cm (60" x 60")
Seismic Base Weight	1,700 kg	2,300 kg	4,050 kg	5,800 kg	7,000 k	8,200 kg
Nominal Specimen Weight	90 kg	140 kg	205 kg	270 kg	335 kg	400 kg
Maximum Specimen Weight	600 kg	600 kg	600 kg	900 kg	900 kg	900 kg
Machine Weight	2,300 kg	3,200 kg	4,500 kg	5,800 kg	7,100 kg	8,400 kg
Machine Dimensions	1.22 x .86 x 2.75 m	1.63 x 1.07 x 2.75 m	1.63 x 1.22 x 2.75 m	1.93 x 1.63 x 2.80 m	1.93 x 1.63 x 2.85 m	2.30 x 1.63 x 2.85 m

	AS-II 24x32	AS-II 36	AS-II 36x42	AS-II 48	AS-II 48x60	AS-II 60
Pulse Duration	2.0 – 65 ms	2.0 – 65 ms	2.0 – 60 ms	3.0 – 60 ms	3.0 – 60 ms	3.0 – 60 ms
Max. Free Fall Velocity Change: Half-sine, Trapezoidal, Squarewave	7.3 m/s	7.0 m/s	7.0 m/s	7.0 m/s	7.0 m/s	7.0 m/s
Max. Accelerated Fall Velocity Change: Half-sine, Trapezoidal, Squarewave	12.2 m/s	11.6 m/s	11.6 m/s	11.6 m/s	11.6 m/s	11.3 m/s
Maximum Acceleration	600g	600g	600 g	600g	600g	500g
Utility Requirements:	Single-phase and 3-phase electric power, 80 – 100 psi air utility, and a 2200 psi nitrogen supply					

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