INSTRON®

The difference is measurable®

ElectroPuls™ | Controller, Console & Software

The ElectroPuls™ tower contains the control electronics and the power amplifier required to run the ElectroPuls system. Built on Instron®'s 8800 family of advanced controllers with over 5000 control units supplied to date, the ElectroPuls controller is a hardware and firmware based device. The controller is connected to the PC via a high-speed industry-standard GPIB interface and is expandable to accommodate additional data acquisition channels. Features include:

- 5 kHz control loop update per axis
- Continuous synchronous data acquisition at 5 kHz on all channels
- Advanced sensor technology provides 19-bit data resolution across the complete span of the sensor
- Automatic transducer recognition and calibration prevents configuration errors and simplifies setup
- Maximum and minimum limit detectors for each transducer with 1ms detection time
- 4 off digital inputs and outputs per axis
- 2 off analog outputs and 1 input per axis
- Position, Load and Encoder channels, with a spare channel for additional transducer module
- Spare slot within the controller for additional 4-channel data acquisition card

The power amplifiers for the E10000 and E10000 Linear-Torsion systems are housed with the machine and not the control electronics. The E10000 Linear-Torsion tower contains two axis controller cards.

Height		Width		Depth		Weight		Operating Temperature Range
mm	in	mm	in	mm	in	kg	lb	
650	26	280	11	530	21	38	84	+10 °C to +30 °C (+50°F to +86 °F)

Optional hardware operator panel for E1000 & E3000.

An Alternative Hardware Interface for Fast Test Setup

The optional operator panel is a quick and easy alternative hardware interface for running basic waveforms on the E1000 and E3000. This is preferred by many operators when computer control and data acquisition is not required.

Safety First: Control at Your Fingertips

Critical switches and controls for emergency stop, power and crosshead adjustment are rigidly mounted at the front of the ElectroPuls load frame for ease of access. Also provided is the jog handset, which allows you to work close to your test instrument without moving to and from the computer or optional hardware operator panel. It allows manual positioning of the actuator using a combination of up/down buttons or the fine positioning thumb wheel. When the system is fitted with pneumatic grips, the illuminated clamp and unclamp buttons for the grips are exactly where you need them.

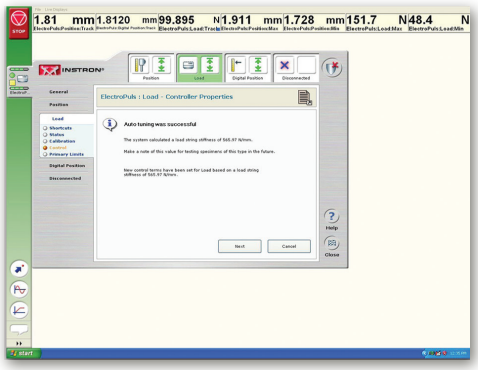
The removable jog handset allows you to work close to your test instrument.

A Software Interface Designed to Put You In Control

Instron®'s Console software interface gives you access to setup features in the controller required to prepare your ElectroPuls™ to carry out a test. This includes features such as:

- Limit setting
- Dynamic waveform and ramp control
- Hassle-free stiffness-based loop tuning
- Automatic transducer setup and calibration
- Configurable live displays of transducer feedback
- Specimen protect
- Calculated or derived channels

The latest version of Console software for ElectroPuls has been engineered using Instron's knowledge of machine usability and safety. By minimizing the number of clicks required to complete an operation, Console sets the standard in simplicity and allows users to take control of the ElectroPuls test instrument without hassle.



The new stiffness-based auto-tuning function establishes loop gains with just a few clicks and allows you to start testing in seconds

A Comprehensive Software Toolkit for Your Application Needs

Built using the latest Instron core technologies, ElectroPuls systems are compatible with Instron's existing application software suites. It allows laboratories to standardize their software platforms across existing testing systems and operators to move quickly and easily from one system to another.

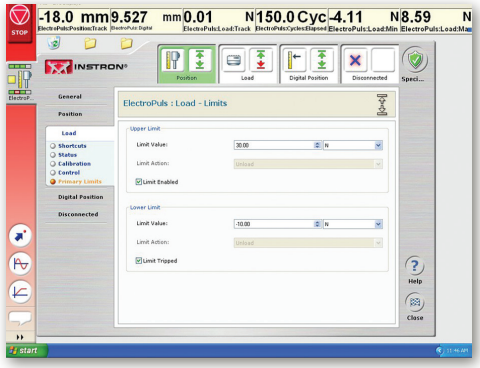
Bluehill® 2

Bluehill 2 sets the standard for power and simplicity for tensile, compressive, flexural, peel, tear and friction testing.

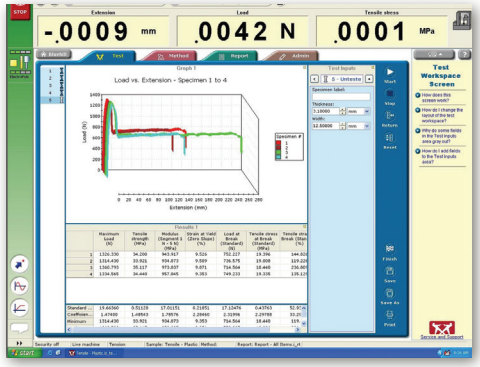
Dynamic Software Suite

The suite of software simplifies setup and running of dynamic tests with user settable features including data collection and waveform generation. Specific programs include:

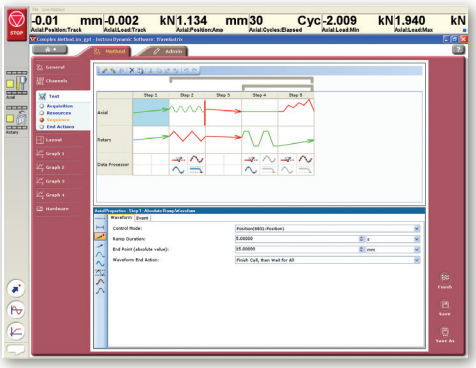
- WaveMatrix™ Software for Dynamic & Fatigue testing
- Fracture Mechanics Suite for crack propagation and fracture toughness tests
- LCF3 for Low Cycle Fatigue tests
- LabView Drivers
- Random and Spectrum Loading



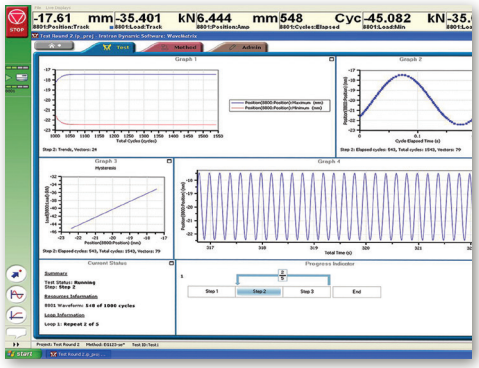
On tripping a user-defined operational limit, Console clearly shows the status of your ElectroPuls™ system from across the laboratory.



Bluehill® 2 offers unmatched flexibility in the configuration of static test methods, results and reports.



WaveMatrix™ capabilities include block loading with a variety of mode changes, simple, static ramps, cyclic waveforms through to complex multi-step, multi-axial tests.



WaveMatrix features a highly visual environment and highly configurable live test workspace.

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