

QUAKELOGIC

UNIAXIAL EDUCATIONAL SHAKE TABLE



4 g · 25 Hz · ±100 mm

Servo electromechanical drive,
closed-loop PID control, EASYTEST
software included.

DESKTOP-V2



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UNIAXIAL EDUCATIONAL SHAKE TABLE



HANDS-ON STRUCTURAL DYNAMICS FOR EVERY LAB

The DESKTOP-V2 is a compact uniaxial shake table for teaching, research, and demonstration in structural dynamics and earthquake engineering. A 19.7 × 19.7 in (500 × 500 mm) deck, ±3.9 in (±100 mm) stroke, and a servo electromechanical motor under closed-loop PID control reproduce harmonic and recorded earthquake motions up to 4 g and 25 Hz. The controller and servo-driver are built into the chassis, and EASYTEST software for Windows runs every test.

- Reaches strong-motion and near-fault demands with peak acceleration up to 4 g and velocity up to 31.5 in/s (800 mm/s).
- Closed-loop PID control of the servo electromechanical motor delivers accurate, repeatable table motion for teaching and research.
- Controller, servo-driver, and drive share one enclosure, so the system sets up on a standard laboratory bench with no special foundation.
- IP-based communication supports remote operation, and the system also runs fully air-gapped with no internet connection required.

STANDARD FEATURES »

- Servo electromechanical motor
- Closed-loop PID control
- Integrated controller & servo-driver
- EASYTEST software for Windows
- Precision linear guides
- ±3.9 in (±100 mm) stroke
- 19.7 × 19.7 in (500 × 500 mm) deck
- Mounting-hole grid on table
- Integrated limit switch
- Automatic centering / homing
- Bellows dust protection
- Rubber damping strips
- Detachable carrying handles
- L-bracket installation
- IP-based remote control
- 110–240 VAC, single-phase
- Remote commissioning & training

KEY FEATURES

- Servo electromechanical motor with closed-loop PID control produces accurate, repeatable table motion across the full 25 Hz operating range.
- Peak acceleration of 4 g and peak velocity of 31.5 in/s (800 mm/s) at a 16.5 lb (7.5 kg) payload reach strong-motion and near-fault demands.
- ±3.9 in (±100 mm) stroke — 7.9 in (200 mm) total — accommodates long-period ground motions and large-displacement tests.
- 19.7 × 19.7 in (500 × 500 mm) deck with a mounting-hole grid accepts building models, bracing systems, and nonstructural specimens.
- Super low-friction precision linear guides keep motion smooth and true along the test axis.
- Integrated limit switch and automatic centering / home positioning protect the drive, the specimen, and the operator.
- Bellows covers and fully enclosed mechanics keep dust out, with no exposed moving mechanical parts.
- EASYTEST software for Windows handles test setup, motion playback, and real-time monitoring from the user's PC.
- Compact, portable chassis with detachable carrying handles and rubber damping strips installs on a standard bench with L brackets.

PRODUCT FEATURES

- Drive**
Servo electromechanical motor
Closed-loop PID control
- Controller**
Integrated controller and servo-driver
IP-based communication, remote operation
- Software**
EASYTEST for Windows 10 / 11
- Motion**
Uniaxial, ±3.9 in (±100 mm) stroke
Up to 25 Hz operating frequency
- Performance**
4 g and 31.5 in/s (800 mm/s) at 16.5 lb (7.5 kg)
- Payload**
70.5 lb (32 kg) maximum
19.7 × 19.7 in (500 × 500 mm) deck
- Safety**
Integrated limit switch
Automatic centering / home positioning
- Installation**
Bench or floor mounting with L brackets
No special foundation or facility work

For more information about the features, specifications, and available configurations of the DESKTOP-V2, please contact QuakeLogic.

4 g PEAK ACCELERATION at 16.5 lb (7.5 kg)	25 Hz MAX. FREQUENCY operating range	±3.9 in STROKE (±100 mm)	70.5 lb MAX. PAYLOAD (32 kg)
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SYSTEM CONFIGURATION

COMPONENT	CONFIGURATION
Motion Axis	Uniaxial (single horizontal axis)
Actuator	Servo electromechanical motor
Control	Closed-loop PID; integrated controller & servo-driver
Guidance	Super low-friction precision linear guides
Table Deck	19.7 × 19.7 in (500 × 500 mm), mounting-hole grid
Software	EASYTEST for Windows
Communication	Ethernet (IP-based); remote operation supported
Safety	Integrated limit switch; automatic centering / home
Protection	Bellows dust covers; enclosed mechanics
Damping	Rubber strips for damping & stabilization
Mounting	L brackets; bench or floor installation
Portability	Detachable carrying handles

PERFORMANCE

SPECIFICATION	VALUE
Maximum Payload	70.5 lb (32 kg)
Payload Area	19.7 × 19.7 in (500 × 500 mm)
Maximum Stroke	±3.9 in (±100 mm); 7.9 in (200 mm) total
Peak Acceleration	4 g at 16.5 lb (7.5 kg) payload
Peak Velocity	31.5 in/s (800 mm/s) at 16.5 lb (7.5 kg) payload
Maximum Operating Frequency	25 Hz
Motion Profiles	Harmonic and recorded earthquake time histories

OPTIONAL FEATURES & ACCESSORIES

EXTENDED WARRANTY Extends coverage beyond the standard warranty period for long-running teaching and research programs.	MOUNTING ACCESSORIES Detachable mounting accessories with adjustable positioning secure specimens of different footprints to the deck grid.
DUST PROTECTION KIT Additional anti-dust protection accessories for workshops, shared teaching spaces, and demanding lab environments.	VIRTUAL TRAINING Additional live EASYTEST training sessions for new instructors and students, delivered remotely by QuakeLogic engineers.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Model	DESKTOP-V2
Type	Uniaxial shake table
Actuator	Servo electromechanical motor
Control	Closed-loop PID
Controller	Integrated controller & servo-driver
Guidance	Precision linear guides
Table Size	19.7 × 19.7 in (500 × 500 mm)
Maximum Payload	70.5 lb (32 kg)
Stroke	±3.9 in (±100 mm)
Peak Acceleration	4 g @ 16.5 lb (7.5 kg)
Peak Velocity	31.5 in/s (800 mm/s) @ 16.5 lb (7.5 kg)
Max. Operating Frequency	25 Hz
Motion Profiles	Harmonic, earthquake records

SPECIFICATION	DESCRIPTION
Software	EASYTEST (Windows)
Host PC OS	Windows 10 / 11
Host PC Memory	8 GB RAM minimum
Display	1920 × 1080 or higher recommended
Communication	Ethernet, IP-based
Internet	Not required; air-gapped operation
Power	110–240 VAC, 1-phase, 50/60 Hz
Operating Temperature	50–95 °F (10–35 °C)
Humidity	20–80% RH, non-condensing
Clearance	3.3 ft (1 m) around unit
Safety	Limit switch; auto centering / home
Commissioning	Remote commissioning & user training included
Warranty	Standard warranty; extendable

DESKTOP-V2

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About QuakeLogic:

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, high-quality solutions to customers worldwide.

Our Commitment

We are committed to quality, innovation, and customer satisfaction – building lasting partnerships through reliable solutions and dependable support.

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