



DYNAMIC INSTRUMENTS DI-811A

DI-811A SHAKER SYSTEM

The DI-811A, Transducer Test Set (TTS), is a portable, self-contained shaker system which can be used to verify a transducer's calibration or as a test stimulus for a vibration analysis system.

- **Transducers Supported by Calibration Verification:**
 - Single and tri-axial accelerometers
 - Velocity transducers
 - Displacement probes
- **Verifies:**
 - Proper operation of vibration analysis equipment
 - Proper operation of fixed monitoring systems
 - Testing for potential cross talk or wiring errors in multi-channel vibration data acquisition systems

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ACCURATE

- **Auto Sensitivity Calculations**
Automatically calculates transducer sensitivity (signal output/unit of motion).
- **Auto Mass Calculations**
Automatically adjusts measurements and calculations to compensate for transducer mass loads.

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CONVENIENT

- **Internal Data Storage**
Large memory stores test parameters and results (over 1600 tests).
- **Built-in Printer**
Data stored in memory may be downloaded and hard copy recorded.

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RELIABLE

- **Built-in Test**
Automatically self-tests during power up and provides internal diagnostics.
- **Phase Test**
Verifies transducer phase integrity.



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DI-811A Specifications

- **Display:**
 - Screen size: 5 x 7"
 - Resolution: 4 x 20
 - Viewing angle: 170°
 - Readable in both sunlight and darkness
- **Calibration:**

Traceable to NIST standard at 100 Hz from 2 to 5gs
- **Accuracy:**
 - Acceleration: 10 Hz to 2,000 Hz $\pm .3$ dB
3 Hz to 10,000 Hz ± 1 dB
 - Velocity: 10 Hz to 500 Hz $\pm .3$ db
 - Displacement: 25 Hz to 200 Hz $\pm .3$ db
 - Frequency Readout Accuracy:
3Hz to 10 kHz: .001% ± 1 count
- **Amplitude Range:**
 - Max. acceleration 10 g (100 m/sec²), PK
 - Max. velocity 10 in/sec (1000 mm/sec), PK
 - Max. displacement. 100 mils (2.54 mm), PK-PK
- **Max. Acceleration Table:**

Max. Load (Grams)
- **Frequency $\leq 100 \leq 250 \leq 500 \leq 750$:**
 - 10-100 Hz 10g 4g 2g 1g
 - 100-1000Hz 7g 5g 2g 1g
 - 1000-10,000Hz 3g 2g n/a n/a
 - * Limited at lower frequencies to 0.1 inch (2.54 mm), PK-PK displacement
- **Reference Accelerometer Output:**
 - Sensitivity = 50 mV/g $\pm .15$ dB @ 100 Hz
 - Output Impedance = 100 Ω nominal
- **Power: (Built-in Charger):**
 - Battery powered
 - 115 Vac, 50/60 Hz charger (operable while charging)
 - Auto Power Management
- **Memory:**
 - 128 KB
 - Storage for up to 100 transducer tests, with up to 25 tests per transducer
- **Printer:**
 - Fast, rugged thermal type printer
 - Character Format: 5 x 7 dot matrix
 - Printing Speed (Line/Sec): 0.9
 - Paper Width: 2.3"
- **Physical:**
 - Size: 11" long x 7" wide x 10" high
 - Weight: Approx. 21 lbs.
- **Environmental:**

10-120°F @ 95% RH

Accessories

Standard Accessories (Stored in Lid)

- Power Cord (in cloth pouch)
- Spanner Wrench
- Vel and Accel Mounting Fixtures
- 1/4 - 28 Mounting Stud Adapter to:
 - 1/4 - 28 Stud
 - 10 - 32 Stud
 - 2 - 56 UNC Threaded Hole
 - 6 - 32 UNC Threaded Hole
 - 10 - 32 UNC Threaded Hole
- Connector, TTS Input



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