



B&W BW-LPD-B2000A



Particle Impact Noise Detection System

The Particle Impact Noise Detection System, BW-LPD-B2000A, is dedicated to the detection of very small particles in devices enclosing cavities but which do not contain moving parts. Detectable particles could result in a mission failure, usually manifested as a short circuit. The system permits the placement of the test unit in intimate contact with the pickup surface of a transducer (via an approved couplant) which is tuned to approx. 150 KHz. The device is then vibrated and shocked mechanically to induce motion of any loose particles in the device. The impact of the particles with the inside surfaces of the cavity is detected by the ultrasonic transducer. The Particle Impact Noise Detection System is comprised of two major assemblies: the Electronic Control Console, and the Physical Stimulus Assembly.

Electronic Control Console Specifications

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| Input Power | 115 Volts AC, 60 Hz, 5 Amps RMS Max |
| Output | 100 Watts minimum, 40 to 250 Hz, Sine Wave, 20 Volts DC, 50 Milliseconds, 5 Volts DC standby through Co-Test Shock control. 15 Volts DC, Regulated, 20 Milliampers Max. |
| Input Signal | Piezo Electric Accelerometer output for shaker control. 20 Millivolt noise plus signal at 150 KHz typically |