

RD³

Electronic Digital Tap Hammer



RD³ Features

- ❖ Portable, hand held low cost system
- ❖ Can detect flaws with as little as 10 percent change
- ❖ Large .350 inch display for digital value
- ❖ Automatic display reset
- ❖ Low weight detection hammer
- ❖ Scope monitor jack for hammer signal evaluation and signal storage
- ❖ Approximately 20 hours of continuous battery operation
- ❖ Durable impact resistant case
- ❖ "Low battery" light
- ❖ 1-year warranty

The RD³ (Rapid Damage Detection Device) is a hand held, low cost non-destructive inspection instrument that can be used to detect voids, degradation, and delaminations in composite structures. No more tapping with a coin in a noisy environment for questionable results. The RD³, also known as the Electronic Digital Tap Hammer, supplements the subjective tonal discrimination of the operator with a quantitative, objective numeric readout that can be correlated to delaminations in the structure. The unit

consists of a lightweight hammer containing an accelerometer, which is connected by flexible cable to a hand held module containing digital logic components and a liquid crystal display.

With its low cost, quantitative and recordable readout and ease of use, the RD³ will prove invaluable and indispensable to routine non-destructive examinations.

WICHITECH
INDUSTRIES INC.
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RD³ Electronic Digital Tap Hammer

Technical Specifications

**For Use on
Composite and
Metallic Aircraft
Structures for:**

- ❖ **Locating/Measuring
Impact Damage**
- ❖ **Repair Evaluation**
- ❖ **Monitoring:**
 - **Matrix degradation**
 - **Delaminations and
disbonds**

CHARACTERISTIC	SPECIFICATION
Size	7"L x 4"W x 1 5/8"D
Weight	1 Pound
Power	One 9 Volt Alkaline Battery
Battery Life	9 Volt—Approximately 20 Hours of Continuous Use
Automatic Display Reset to Save Battery Power	
Inputs	1. Electronic Digital Tap Hammer Jack
Outputs	1. Large .350 Inch Liquid Crystal Display 2. Standard Oscilloscope Jacks 3. Low Battery Indicator
Storage	Unbreakable, Watertight, Dustproof Equipment Case with Foam Interior
Shipping Weight	Approximately 4 lbs.

In a controlled comparison against another bondtester now on the market, the RD³ produced similar results and actually showed slightly greater relative signal change (sensitivity) at 4,6, and 7 plies. (Their bondtester uses a solenoid-driven impact head to produce a controlled amplitude impact.) The RD³ did not show as great a signal change as the solenoid tapper did at 2 plies, but sensitivity is not an issue at this level because the signal difference between bonded and disbanded plies is so large. In terms of actual data, the RD³ compares favorably with the other much more complex and costly device.

*The RD³ is manufactured by WichiTech Industries, Inc.
Technology licensed by The Boeing Company. Patent 6,748,791.*

For more information, to place an order, or for a personal demonstration, please contact:

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