

## “KEEPING PACE” - #74

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### g-ANALYST ACCELEROMETER:



Another case came up recently where a state trooper had “confirmed” that a brake pedal went clear to the floor when he tested it at an accident scene. However, the 1996 Chevy Blazer was still drivable, so I was able to conduct a simulated panic stop from 30mph. The photograph shows the readout head of my g-Analyst accelerometer during the test of this vehicle.

This g-Analyst independently measures the actual stopping force every one-tenth second during a simulated panic stop. The g-Analyst is especially useful for anti-lock brake (ABS) systems which do not leave good skid marks. When the g-Analyst measures a stopping force of 0.55 g or above for a large truck, it confirms that the entire braking system is functioning properly. If the brake at any wheel was operating less than satisfactorily, the total stopping force could not be 0.55 g.

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The g-Analyst is useful in other ways. In one case, I was able to measure 0.3 g for a truck which had a leak in its brake line. The brakes still functioned, but not properly. In another case, I was able to measure the stopping force during every “click” of the parking brake handle.

The photograph below shows the light skid marks left by the ABS system on the Blazer mentioned above during my test. Most ABS systems will leave a light skid mark, but it will usually disappear within 24 hours.<sup>1</sup> Thus, a policeman at an accident scene should try to detect and measure these light skid marks immediately, in my opinion.



Sincerely,

Handwritten signature of Frederick F. Franklin, P.E.

Frederick F. Franklin, P.E.  
Forensic Engineer

<sup>1</sup>“Evidence of A.B.S. Scuff Marks On the Roadway,” Accident Reconstruction Journal; Volume 7, No. 4, July 1995, Pages 22 and 23.