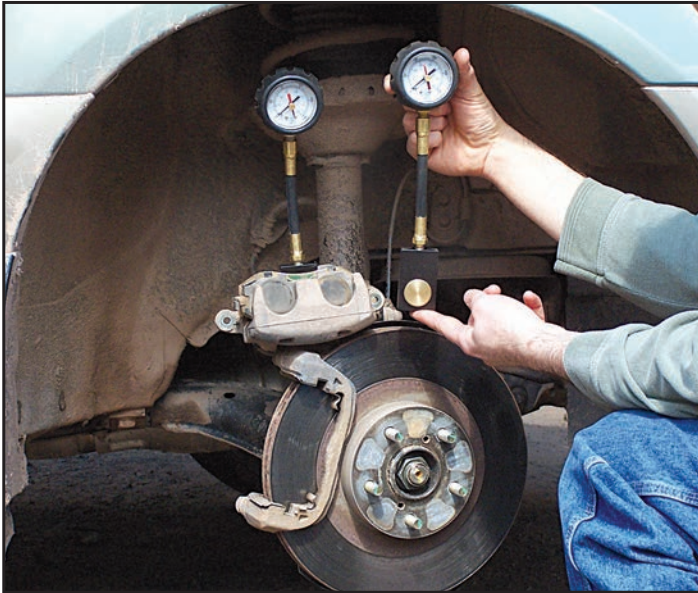


# Eliminate Guesswork with

## The Disc Brake System Analyzer.

Identify the cause of uneven brake wear.



For 20 years the Disc Brake System Analyzer has been a critical tool for brake diagnostics.

### Disc Brake System Analyzer #7884

- Identifies the exact cause of uneven wear
- The only tool that identifies an imploded brake hose and accurately detects exactly where the problem lies without breaking a line
- Tests improperly adjusted proportioning valves, air in hydraulic systems, power booster problems, rear brake adjustment check and many more!
- Tests sticky or broken brake calipers

**20**  
**YEAR**  
**ANNIVERSARY**



Winner of Top 20 Tools of the Year. First Prize for Most Technically Innovative at Key Auto Grand Prix International.



# ***“The Disc Brake System Analyzer: If you don’t have one you are just guessing!”***

(A Message to the Professional Technician)

The Disc Brake System Analyzer is a must have for the professional brake technician. It is the only tool that can quickly identify an imploded brake hose and can quickly diagnose a proportioning valve imbalance.

If a customer comes to you with uneven brake wear and you just assume it is a bad caliper and replace it, you may be guessing! Imploded brake hoses and stuck proportioning valves produce hidden symptoms not easily diagnosed.

An imploded brake hose symptom occurs when the inner nitrile tube of the brake hose ruptures for several reasons. The two most common are, 1) when techs use vice grips to crimp off a brake hose when changing calipers. This is a bad practice since many times, it will break the inner nitrile tube, setting the stage for a hose rupture and implosion. 2) Some manufacturers clamp the brake hose to the fender wall. Over time, there is a warring effect between the point where the hose is held tight in the clamp and where it flexes. The inner tube will rupture again and set the stage for an implosion of the inner tube. Once the tube rupture occurs and the brakes are applied, the brake fluid is pushed past the rupture, actuating the caliper. However, when you release the brake, the implosion acts like a one way valve, not allowing the fluid to find its way back to the master cylinder, and not allow the caliper to release.

This has all the indications of a stuck slide or frozen piston, but it is only the hose that needs replacement. It’s a hard lesson to learn when the car comes back with the same symptom after replacing all of the brake hardware, i.e., rotor calipers and brakes.

To eliminate the guess work, the Disc Brake System Analyzer was created. It can quickly diagnose an imploded brake hose and much more.

To test for a ruptured brake hose, install the Disc Brake System Analyzer’s load cell in place of the brake pad. Step on the brake and quickly release the brake pedal. The pressure needle should snap back to zero indicating a clear passageway. However, if the needle hesitates or hangs, you most likely have a bad hose. It could still be a stuck slide or piston, but to be certain it is the hose, break open the pet cock. If the PSI drops, it is the caliper. If it continues to hang, it is the hose!

Uneven brake wear can also be misdiagnosed very easily because there are no tools to detect its hidden cause. Here is a very common scenario that shop owners face because of uneven brake wear. A customer comes in with one side brake pads worn down to the metal and the other side in good shape. The first reaction is to replace the calipers, rotors and brakes. Then test drive the car and return it to the customer. Two weeks later, the customer comes into the shop again and describes the same noise and problem as before, but this time, they’re not so nice. As soon as you pull the car into the shop and hear the metal scraping again, you will immediately know what the problem is, but may not know why it’s happening again. At this point, some techs will either install a second set of parts hoping the first caliper was bad or maybe replace the proportioning valve, maybe the master cylinder, maybe the brake hose.

This is where the Disc Brake System Analyzer can save the day. It can accurately detect exactly where the problem is and allow the tech to fix it the first time, saving time, energy, guess work and embarrassment when the customer comes back.

To check for unproportionate brake pressure imbalance, install the Brake System Analyzer in place of the front brake pad and step on the brake. If you see a disparity in PSI from right to left, you most likely have a bad proportioning valve on the diagonal brake circuit. However, before replacing the portioning valve, be certain the rear brake adjustment is correct. Improper rear brake adjustments can also cause front uneven brake wear. When conducting this test, test twice--one time with the emergency brake applied and another time with it off. The PSI balance between the front left and right sides should remain stable on both tests. If not, this is an indication that the rear brakes are not adjusted properly. This can also be a real time savor when working on tandem wheels since they are so hard to check for rear brake adjustments.

You can also check front to rear pressure on four wheel disc brake applications by installing the Disc Brake System Analyzer first, in place of the front pads, then step on the brake with mid- range pressure. Then again, install the Disc Brake System Analyzer in place of the rear pads and step on the brake with mid-range pressure. The average brake pressure disparity between the front and rear is approximately three times on the front compared to the rear. An example is 500 PSI rear to 1,500 PSI front. The load leveling proportionate valve can also be checked by installing the Disc Brake System Analyzer in place of the rear pads and jacking up and letting down the rear axle, simulating a load in the rear of the vehicle and noting the change in pressure at the rear. This is a very important test on pick-up trucks and vans, or any time the rear brakes are locking up or showing improper wear.

The Disc Brake System Analyzer can do many other things, but the one thing it does best is eliminates the guess work. So, if you work on brakes and do not own a Disc Brake System Analyzer, get one! The IPA Disc Brake System Analyzer comes with a lifetime warranty.