



**BRAKES**

# ENGINEERED SOLUTIONS

**Bulletin BES 02-23**

**Subject:** Anti Lock Brake Systems Diagnosis and Testing

**Vehicle Involved:** All Vehicles Domestic and Import

**Condition:** Bypassing system pre-checks and tests may result in wasted time and misdiagnosis.

**Repair Procedure:** When diagnosing Anti Lock Brake Systems including Domestic and Import vehicles use the test procedures as outlined in the order they are presented. Bypassing these system pre-checks could result in the unnecessary replacement of parts and a lot of wasted time.

In reviewing the testing sequence in repair manuals nearly all systems require a few preliminary or basic pretests. Jumping ahead to fault codes and flow charts assumes that you have confirmed basic tests. Flow charts likely will not make reference to the fuse or relay that powers up the particular circuit you are troubleshooting. This condition may result in the replacement of unnecessary parts.

The recommended sequence by Ford begins with a System Pre-check. General Motors refers to a Diagnostic System Check. Chrysler calls it the Pre-Diagnostic Inspection. Bosch ABS, which is used on many import and domestic vehicles, refers to a Preliminary Inspection.

Generally speaking most of the system pre-checks include:

- Check brake fluid level in master cylinder.
- Check fuses.
- Check power and ground connectors.
- Check Connector at Anti-Lock Brake Control Module.
- Check ABS Motor connector.
- Check wheel speed sensor connectors.
- Check charging system voltage.

System pre-checks will often caution the technician of static electricity. A 30- volt charge created by static electricity can cause a total or degrading failure in electronic components containing integrated circuits.