

INFORMATION BULLETIN

November 15, 2000



AIR BRAKE SAFETY RECALL

Vehicle manufacturers and Bendix Commercial Vehicle Systems have become aware of reported incidents of unwanted temporary antilock brake system (ABS) activation at low speeds, on certain air brake-equipped vehicles. The issue can arise on school buses, buses and trucks equipped with an electronic control unit (ECU) with the model number EC-17-1030R, in combination with certain installation or equipment issues that can generate a type of erratic false wheel speed signal to the ECU. The defect can cause the driver to lose the ability to brake for as long as four seconds at speeds below 20 miles per hour. Full braking is restored after a few seconds of ABS activity.

The installation issue that can cause this defect is a chafed wheel speed sensor wire rubbing on a rotating component resulting in an unintended signal being sent to the ECU to release the brakes for several seconds instead of activating the brakes. The equipment issue that can cause this same problem is a displaced or loose sensor exciter ring (tone ring).

For there to be a risk of unwanted ABS activation, vehicles must have both an ECU model EC-1-7-1030R and one of the installation or equipment defects. Bendix has stated that "If a driver senses a loss of brakes and cannot stop the vehicle, he or she can apply the parking brakes to stop the vehicle." Drivers of buses without anti-compounding systems can apply the parking brake by pulling the yellow dash button out, with anti-compounding systems, drivers should be reminded to remove their foot from the brake pedal first, then pull the yellow dash button out. Most buses and school buses are equipped with anti-compounding.

Bendix, the vehicle manufacturers, and the National Highway Traffic Safety Administration (NHTSA) are recommending that all vehicles affected by this recall be inspected for wheel speed sensor cable abrasion or chaffing and for tone ring issues via ABS diagnostics light-emitting diode or diagnostic tools and are not recommending that buses or trucks be taken out of service. The recall affects over 300,000 vehicles

including 46,000 buses and school buses. The NHTSA has determined that school buses and fire and emergency service vehicles would be the first priorities for this recall.

Bendix has already taken steps to maximize production capacity in order to manufacture the required number of ECUs for the recall. In the meantime, there are some steps owners of affected vehicles can take to reduce the chances that a problem will develop:

- Inspect the vehicle for damaged speed sensor wires. Verify that the wires have not been damaged from rubbing or chafing on any moving parts, and make sure the wires have not been pinched by the axle stops, cross-members, brackets, etc. If a damaged sensor wire is found, contact the local dealer and have the speed sensor wire replaced.
- To prevent speed sensor wire damage, look for excessive wire length at the wheel ends and near the drive shaft. If there is extra wire length at the wheel end, make sure the wires can not rub on the tire, rim, brake drum, or brake rotor disc. Also, consider whether or not the wires can come in contact with any moving parts as the vehicle is making a full turn in either direction. Wires should be at least 1.5 inches away from all rotating parts.
- If the ABS dash lamp comes on at any time (even if only momentarily), except during engine start-up, a diagnostic check should be performed
- A visual inspection of the tone ring is performed by removing the tire, wheel and drum. Inspect the tone ring for proper seating on the hub flange. There should be an even gap at the seat and tone ring as the hub is rotated. If the tone ring is machined or cast into the hub surface, only inspect for surface damage. After inspection, ensure that the wheel speed sensor is pushed all the way into the sensor mounting block, making sure that it contacts the tone ring, setting the proper gap.

Bendix recommends that service personnel refer to the vehicle manufacturer's published inspection procedures for the specific vehicle. Any unwanted ASS activation or brake performance issues should be reported to the vehicle manufacturer or dealer. Once owners receive the vehicle recall notice, they should plan to have the ECU changed out promptly. This recall affects only air-braked vehicles, not hydraulic-braked vehicles.

Additional Information regarding this safety recall may be obtained from Bendix and the following vehicle manufacturers:

Bendix Commercial Vehicle Systems Amtran Corporation	1-800-478-1793 1-501-327-7761
Blue Bird Body Company, Inc.	1-912-757-7100
Freightliner LLC	1-800-547-0712
International Truck and Engine Corporation	1-800-448-7825
Thomas Built Buses, Inc.	1-336-889-4871
Volvo Trucks North America, Inc.	1-800-541-6535

Any questions regarding this Information Bulletin should be directed to Commercial Vehicle Section at (916) 445-1865.

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