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## Brake Lock-up Nissan Quest and Mercury Villager (10-2637 & 13-2637)

**Application:** Nissan Quest/Mercury Villager minivans with ABS (up to the 2002 model year). Master Cylinder 10-2637 and 13-2637.

**Problem:** Left front/right rear brake is locking up.

**Cause:** Contaminated brake fluid may have blocked the ABS modulator valves or the "Dampener Valve". The Dampener Valve is a component that is screwed into one of the outlet ports of the master cylinder. The brake line for the left front and right rear brakes come out of this part. Another possibility is ABS system component failure causing brake pressure not to be released.

- Solution:**
1. The first step is to examine brake fluid condition for signs of debris and contamination; flushing and replace the fluid as needed.
  2. Next verify there are no ABS codes. Faulty wheel sensors (code 21) can cause false ABS actuator operation resulting in wheel lock-up. Repair or replace as necessary, then clear ABS codes and verify operation.
  3. Before replacing the master cylinder, the dampener valve, or the ABS Actuator, loosen the master cylinder so it can be pulled away from the brake booster to eliminate the possibility of brake pedal free play or a pushrod adjustment problem. While this type of problem usually affects all four brakes, it does allow the master cylinder and linkage to be isolated. If the brakes still do not release, loosen the brake line from the dampener valve and verify the brakes free up. If the brake fluid pressure is not releasing on its own, this may indicate a problem in the ABS actuator or the dampener valve that is blocking release of brake fluid pressure back to the reservoir.

In most cases the cause of the lock-up is the accumulation of debris and contamination that is effecting the operation of the ABS unit or the dampener valves. Proper periodic flushing and replacement of the brake fluid will help avoid this lock-up problem.

**Note:** Please refer to your vehicle's service manual for specific diagnostic instructions. This ProTech bulletin is supplied as technical information only and is not an authorization for repair.

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