

# CAR TALK

## SOME TPMS RESEARCH

We've talked several times about our Tire Pressure Monitoring Systems and how expensive it can be to replace sensors whose batteries have given out. Well, I believe I have some good news for you.

Due to a personal need, I pursued some research on tire pressure sensors and was pleasantly surprised at what I found. The left rear sensor on Cheryl's 2008 Cadillac CTS started acting up several months ago. By "acting up" I mean we started getting random messages telling us to check tire pressures. Whenever we checked the pressures, the electronic system showed that the left rear tire pressure was somewhere between 19 psi and 99 psi. Of course, when I would check the pressure with a gauge, it was always right around 35 psi where it should be. The messages kept coming more and more frequently until, finally, the battery in the sensor quit altogether, triggering another alarm messaging telling us to service the TPMS system as soon as possible.

Since I could no longer stand to wait until I needed new tires, I started pricing tire pressure sensors. Remember a few months ago I reported that car dealerships were charging around \$175 for new sensors. Well, I found that if you go to Rockauto.com you can purchase new AC Delco original equipment sensors for around \$40 apiece. I paid \$42 for such a unit made specifically for the CTS. Of course, I wondered what was going to go wrong with this plan. But I took the car and the sensor to Just Tires, where I had purchased the last set of tires, and asked them to install the sensor. They told me that the tires had come with lifetime tire rotations and balancing. So, since they were going to be taking the wheel off the car for balancing anyway, they would replace the sensor at the same time and charged me absolutely nothing. They even checked the alignment and charged me a total of nothing, since the alignment was still good. Total cost of sensor replacement, \$42. And it's working perfectly.

So, you say, that was a Cadillac. But how about a C6 Corvette? That's the same question I had next. I checked Rockauto.com for the proper AC Delco original equipment sensor for a C6.....\$43. And a C5 Corvette.....\$44.79. And a C7 Corvette.....\$38.79. And for the Camaro owners in our midst, I checked the price for a 2014 Camaro V8 model.....\$28.79. Cool, huh? And how about getting the things installed? Well, if you don't have a tire store that you're kind of buddies with, here's what several told me. Just Tires charges \$24 to pull the wheel off, replace the sensor, put the tire back on the rim

and rebalance the wheel & tire. Allen Tire Co. charges \$25. Pep Boys charges \$15. And Performance Plus charges \$27. So for \$70 or less, you can replace a dying tire pressure sensor and regain your peace of mind.

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Do any of you have a rattling sound in the area of your clutch or manual transmission? If you have an automatic, you can tune out for a minute. My Vette has a bit of rattle or clunk somewhere between the flywheel and the rear end. But my Mustang is several times worse and always has been, and it's still going strong with over 150,000 miles under the belt. But a number of C5 owners have confronted Chevrolet for this kind of noise and asked what's wrong with their cars. GM Customer Service has stated that there are no TSBs on this issue and no indications of any such problems reported by GM dealers.

Bottom line, here's the deal. C5's are 11 years old or older now, and regardless of mileage, GM is not responsible for parts that break or wear out at this point. But what most people describe as a rattle from the clutch, particularly in Z06 models, actually has nothing to do with the clutch or throw-out bearing, rather it comes from the transmission's gears rattling. (That makes you feel much better, doesn't it?) Believe it or not, this condition has been described as normal by GM from day one. All manual-transmission-equipped vehicles have a propensity to exhibit gear rattle to one extent or another, but in most cars it's subdued to the point that it is barely noticeable.

Here's where it gets a bit technical: The firing of the engine's cylinders develop harmonic resonance, and within a certain frequency range, this resonance excites the components in the drivetrain sufficiently to cause gear rattle. Engineers usually attempt to reduce gear rattle in new vehicles by using sound insulation, vibration dampers in the drivetrain and so on. Other model Corvettes even used a dual-mass flywheel to dampen the harmonics, all but eliminating the rattle. But in an effort to lighten certain ultra-performance models, such as the Z06, a single-mass flywheel was specified. Saving mass is also the primary reason more sound insulation wasn't used on these Corvettes. The gear rattle and its resulting noise will not harm anything or reduce the useful life of transmission, engine, clutch or any other parts. It may, however, drive you crazy.

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### TRIVIA QUESTION:

The Subaru BRAT was a clever little pickup with a pair of rear-facing seats in the bed. What did BRAT stand for?

- A. It was short for Bi-drive Recreational All-terrain Transporter.
  - B. It was not an acronym, just the word brat which was a good name for a feisty little truck.
  - C. It was an amalgamation of two model names this truck used in other parts of the world; BRumby and TArga.
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### TRUE STORY:

My boys have joined the Army and moved out leaving me with the 2004 Ranger project truck. I've enjoyed restoring the truck after it has survived the boys driving it for years. The latest project was to replace the passenger-side window motor assembly. After removing the door panel and drilling out the rivets, I was finally able to get it out and start the process of installing the new part. I dutifully compared the new part to the old part and was satisfied that it would work. I connected the motor wiring and made sure it would work correctly. I got the whole assembly back into the door cavity and was testing to make sure it work fit and again tested the motor. After removing the rivets, I was going to install bolts to hold it in place. Again I test fitted and ran the motor up and down, but this time it was binding when trying to raise the window. I adjusted it again, but it was still having a tough time raising the window. I tightened all the bolts and tried again. The window came down fine but was having a difficult time going up. I made sure the bolts were tight and then greased the track thinking this would surely fix the problem. Now it didn't move at all! I decided to try it from the driver's side button. That's when I tried to start the truck. It wouldn't start!

Note to self: When you run the battery down, the windows will not move.

Trivia question answer: A