

## Check Codes and Scan Tools

If you are like me and you try to do as much of your own maintenance on your more modern vehicles as possible, things start to get a little complicated when your check engine light goes on and it appears to be more than just a simple service reminder. The first step is simple – read the code(s) using a diagnostic scan tool, which usually means a trip to your local auto parts store if you don't have your own tool.

Recently I ran into a check engine light issue with both my '08 Vette and my '07 Lexus RX350. In both cases, I ran down to Autozone to have them read the codes. In both cases, they were codes that required additional diagnostics in order to understand what the underlying problem may be before determining next steps to correcting the problem. Trouble was, Autozone (or any auto shop) won't reset the codes. So I either had to wait to see if the code would clear on its own, pay to take them both into the shop and let them diagnose the problem, or get my own scan tool so I could reset the codes on my own.

Since I was anxious to figure out what was going on and I hate to spend money unless I really have to, I decided to purchase my own scan tool. I spent a little while searching online to learn more about the various types of scan tools out there, their costs, and reading reviews about them. Quite a number of choices, and quite a variation in price. I ultimately decided on purchasing two of them. A less expensive version that is mostly good for reading/resetting codes, and a more expensive version that connects to my smartphone and my laptop and allows me to see all sorts of stuff going on within the car's network.

I purchased the Autel MaxiScan MS300 scan tool (\$19 from Amazon) for the less expensive model. It got pretty good reviews, seemed to work with most cars, and would let me do the basics (read/reset codes). BTW – I have decided to loan this scan tool to Bruce so he can have it available at the store. Feel free to use it, provided it stays at the store.

For the more expensive scan tool, I picked up the OBDLink MX, Bluetooth Version (a WiFi version will be available in August). It cost \$99 (either from ScanTool, LLC located in north Phoenix, or through Amazon). The MX Bluetooth will connect to your Android or Windows based device (the WiFi version will additionally connect to IOS & Mac devices), and provides a great deal of diagnostic information you won't get out the Autel device.

These scanners have been a welcomed addition to the garage, making it much easier (not to mention more convenient) to help diagnose more complicated check engine issues. In the RX350, I had cylinder misfires, which is typically due to failing Coil-Over-Plug (COP) failures. To make sure that was the case, I moved the COP from the failing cylinder to a good cylinder to see if the problem followed the coil or stayed with the cylinder. It followed the coil, so I replaced it (actually replaced them all, as it was a question of when versus if the others likely would fail).

For the Vette, it was a P0420 code, which meant there were issues with the left side bank exhaust, either a failing sensor or CAT. I reset the code and waited to see how long it would take to come back, and under what conditions. So far, it takes quite a while (as in week or two) to come back, so I'm still looking to see when it becomes more consistent and then take it in to the dealership for warranty repair.

Cheers!

Garry