

P0300,P0301,p0302,p0303,p0304,p0305,p0306,p0307,p0308

These are misfire codes. P0300 means multicylinder misfire and the rest mean cylinder specific misfires. P0301 means misfire cylinder #1, p0302 cylinder #2 and so on. If you have a scanner and it shows one cylinder misfiring you just have to concentrate on that cylinder. I would suggest that prior to pulling any plugs to look and see if you have any oil present in the well for the plug / coil. Presence of oil could cause the coil to foul and misfire. The evidence of oil is caused by one of the seals leaking; repairing this will require removal of the cam / valve cover and new seals / gaskets.

1) On single cylinder misfire codes, identify the affected cylinder by either the code stored or a power balance test. To perform a power balance test with out special tools. You will need to remove the coil covers on both sides of the engine. After the coil covers are removed, you can simply disconnect coil connector a time and when you find one that when disconnected makes no difference you have found the one with the problem. If only one cylinder is misfiring go to step#2. If more than 1 is misfiring go to step #3.

2) Now you have to find out why it is not firing. First try swapping coils with the cylinder next to it that runs. If the problem follows the coil to the next cylinder you have found the problem. If not pull the spark plug and swap it, if that does not work, at least you have ruled out 2 things. There are really only compression and fuel left. If you have a compression gauge you can check that easy enough. The fuel part can be a bit tricky. But if you have ruled out everything else, and all the other cylinders run, you really only have the fuel injector left.

3) If you have multiple cylinders misfiring you should start by finding out what they have in common. A whole bank of cylinders are connected by the camshafts on that head, so if a whole bank goes bad all at once, its logical this may be causing it and checking cam timing would be a good place to start. If 2 cylinders are next to each other, check compression on each, as you may have a head gasket issue.

It is important to note that some of these tests will cause trouble codes you did not have before and this may not be a clue to the puzzle. The secret to a quick and accurate diagnosis is eliminating what works and what cannot cause you concern and focus on what is left over. This is why we would run codes first and do a power balance next. We are eliminating as many things in a single test as we can

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