Knock sensor autozone

Posted by EagleTalonTim , Jan 19, Featured Products from our Supporting Vendors. Activity Feed DSMtuners. Join the Community! Chat with others, create a build thread, post questions and answers. Get involved! Logging in will also remove many of the advertisements, along with this notice. Jan 19, 1. With them sitting side by side, you would never know which one is OEM. The reason I am replacing it is because I am getting 43 counts of knock right from take off. The sensor on the car is less than a year old. I was told AutoZone knock sensors are no good. Did I lose out on some money? This is the highest flowing BOV on the market. Jan 19, 2. I know for a fact that some sensors autozone carries are actual OEM parts. I have seen sensors come out of Duralast boxes still in OEM packaging. Jan 19, 3. Well hmmm. I will get it installed and go for a drive. Lets see how much knock I get now Jan 19, 4. I have used the one from AutoZone and side by side I thought they were exactly the same, but I never really looked at the numbers. It said Mitsubishi and looked like the old one, so I was like. I've been running the AutoZone one for a few years with no problems Jan 19, 5. Went for a 10 mile test drive and it seemed to be a lot less sensitive. Still seeing maybe 1 to 3 counts of knock on acceleration every once in awhile. WOT pull was flat 0 knock all the way to rpm. Will see on the drive in to work tomorrow how it goes Apr 6, 6. Just thought I would add to this thread just in case anyone is trying to decide between the two sensors. I recently purchased a knock sensor from AutoZone, and within miles it was dead. Replaced it with an OEM sensor and its perfect now. I know I don't have any real explanation why one is better than the other, but it might give someone a little insight when trying to decide between the two. Apr 6, 7. Apr 6, 8. Autozone isn't that bad. If your part fails take it back and get another. They have Warranty. Apr 6, 9. Apr 6, Thank god there's no auto zone in Canada, I'm iffy enough buying from napa. Napa Gold oil filters for me. Kapok6 likes this. Last edited: Apr 7, Apr 7, I have used both. And honestly, the only difference I could see was the price. Apr 8, In my experience some parts are ok and some are garbage. You must log in or sign up to reply here. Show Ignored Content. Share This Page. Your name or email address: Do you already have an account? No, create an account now. Yes, my password is: Forgot your password? Latest Projects Education. JavaScript is disabled. For a better experience, please enable JavaScript in your browser before proceeding. Troubleshooting a knock sensor. Thread starter strantor Start date Feb 3, Search Forums New Posts. Thread Starter strantor Joined Oct 3, 5, My check engine light came on a few months ago and I had the codes read at Autozone. I had a "knock sensor low voltage" code P My truck '05 GMC, 5. Disconnected the battery to reset the ECU, check engine light went away, but came back within 50 miles of driving. Removing and reinstalling the intake manifold actually all the crap on top of it was quite a job, took several hours. I'd like to avoid doing that again if at all possible. I've been trying to figure out how these things work to know how to effectively troubleshoot them. Most of what I've read on car forums and seen on YouTube is coming from gearheads who have a basic understanding of what's going on, but still seem to be stabbing around in the dark because they don't have the proper tools. Some have said they replaced the sensor several times despite having "good" readings on the meter, and still can't get the codes to go away. I have read several times that only the factory knock sensors from the dealership should be used because the generic ones at autozone are manufactured to looser electrical tolerances which are appropriate for a wider range of vehicles. I used the ones from AutoZone; didn't know any better at the time. Some gearheads say the ECU sends 5V to it, some say it sends 2. Then the AC waveform from the piezo crystal in the sensor will be riding on top of this DC voltage. Is that correct? If that's correct then maybe the bias voltage is just off a little bit. Maybe an external resistor either in series or parallel with the sensor could bring it back into spec and make the light go away. To be clear, I'm not proposing to "fake" the signal or bypass the sensor, as some have done by replacing the sensor with a resistor. I propose to correct the bias voltage with the sensor still in the circuit so that the ECU will see the proper AC waveform and won't get hung up on bias voltage. I haven't even put a DMM on the truck yet; maybe I'm getting ahead of myself. Scroll to continue with content. I'm not ignoring you, I just don't know any better than what you know. Get the shop manual, follow the instructions. That beats the hell out of guessing how it's wired! Right now you don't know if the MCU is sending a voltage, the wiring harness has a problem, the ground is dirty, etc. But you already knew that. I just don't know any better than what you know. Just fumbling around with some ideas A knock sensor must be detecting impulse energy which is stronger than the energy transmitted by normal combustion. The word, "piezo" came up in the conversation. That sounds reasonable. The knock impulses must be synchronized with the ignition timing because the combustion event is what causes the knock to happen. If I was writing software to detect knocking, I might look at a specific time during the revolution of the engine. I would want some AGC automatic gain control to tell the difference between normal combustion events and knock events. So, basically, this is mostly software. If you can get a voltage spike out of a piezo sensor, the rest is distinguishing what a

knock is. What I gathered from the gearhead description of how it works is, it looks for "pre-detonation" That is, when your gasoline engine starts to behave like a diesel engine and combustion occurs before the spark plug has fired. In that scenario it advances or retards the timing to make it stop. I am curious to see what the output of the knock sensor looks like. I will put a scope on it this weekend and find out. One of the videos I watched indicated that these knock sensors are "tuned" for certain frequencies and don't just output any 'ol wideband vibration signal, so simply smacking the engine block with a hammer might not cause the sensor to change its output. I guess that implies a filter inside it. All I saw in the video was a resistor. I don't think so. The knock event is a short event. I think you should be looking at Hz and above. Last edited: Feb 4, How about that! I stumbled on to a reasonable estimare. All that, "computational power" and we are still getting worse MPG than we did 30 years ago??? What's wrong with this picture? It came before the tall boxy truck fad. A knock sensor is designed to pick up vibrations caused by engine knock and output a signal to the ECM. This can be caused by anything in the engine that can produce the proper frequency. A valve train that is mistimed, carbon fouling causing pre-ignition or detonation, loose components such as a flywheel or torque converter, loose rockers etc. Any noise in the engine that is not normal and can produce the right frequency, will trigger a signal. Knock sensors on the whole, are not components that get regularly replaced and have a very low failure rate. Often times misdiagnosed because of other sources of noise. You can tap on an engine and watch the signal with an oscilloscope. As for aftermarket sensors, I would stay away from them as they are not manufactured to the same specs. Anything electrical or electronic on a vehicle, my rule has always been OEM all the way. I ma sure I will catch some flack about it but that has been my experience. Less headaches and sometimes OEM is cheaper than aftermarket. OEM vs Aftermarket left for another arguement. Anyways, I would scope the signal and see if it is constant or random. Random suggests something mechanical going wrong in your engine. Good luck to you. Check the integrity of your wiring and connections to the ECM as well. Here in Australia the Ford 6 cylinder engine has a Piezo knock sensor that must be fited with the correct Torque. If too much the ignition timing is retarded. Have not yet put the scope on it scopemeter was dead, charging it now but I did put the DMM on it and the numbers are not as expected. With the sensor harness connected, 4. So apparently no voltage divider as I predicted. With the engine running, mV on the sensor wires, whether connected or not. So apparently no DC bias voltage as I predicted, or as described in my earlier link What kind of fuel are you using? Could you really be getting a knock? I do not own a torque wrench. Ok I got a scope reading, aaand I didn't really think this through. I really didn't know what I expected to see on the scope, or what it would mean. I guess in order for this to mean anything, I would need to compare the output of the sensors I have installed, with the output of a known good sensor, installed in the same engine at the same time. I do have a known good sensor, the one I replaced which was still good. But in order to test it against my installed sensors, I have to take the engine apart and put it back together, then take it back apart. I could clamp one of my installed sensors in a vise alongside the known good sensor and bang the vise with a hammer, but again I would have to take the engine apart. I guess I've come to the conclusion that I'll be taking the engine apart again. Since I'm doing that, I might as well just go to the dealership and get the OEM sensors and install them. All this research and testing just to end up spitballing same as anyone else, replacing parts just to see if that fixes the problem same as anyone else, feels like I'm not being very clever. Anyway, about this scope reading, I don't know what the spikes mean; I suspect it's the sound of 8 cylinders firing properly no knock - I hear no audible knock at idle. On

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e cylinder is much louder than the others for some reason, and there's one other cylinder that is also louder but not quite as loud as the first. Could it be the sound of an actual knock? I don't know; I don't hear it. Could it be something else? I don't know, probably. But in any case the sensors are picking up something , which means they aren't dead. If there is in fact not supposed to be any bias voltage from the ECU, and I'm getting a "low voltage" code, then I guess these spikes just aren't as tall as they're supposed to be. I would sugest that the ignition timing is locked in retard, hence poor fuel economy. This would be why there is no pinging or reasonable knock sensor output. You must log in or register to reply here. You May Also Like. Continue to site. Troubleshooting help needed on AnthroDesk motorized standing desk. Jan 24, Power supply relay board troubleshooting - Shimadzu AA Spectrometer. Jan 19, Jan 9, Active Butterworth Bandpass Filter unexpected peak. Jan 3, Jan 2,