Blazer spider injector

In this article I'll show you how. TIP 2: You'll be working around fuel gasoline , which is extremely flammable. Safety first -be careful, use common sense and think and act safety all of the time. I recommend buying a repair manual for these instructions. TIP 4: To test the Spider fuel injector assembly, you do not need to remove the intake manifold's plenum. The photo I'm using, in this article, shows the Plenum off just to make it easier to explain the test. How can you tell them apart? Also, when anything fails in the CPI type system, you have to replace the entire fuel injector assembly. In the CSFI system, all parts can be replaced individually. The fuel pressure regulator is infamous for leaking fuel from its vacuum inlet nipple. When this happens, the engine can suffer backfire explosions in the plenum due to the leaking fuel that catch the nylon plastic fuel injector lines on fire. The end result is more fuel leaking into the intake manifold and causing some of the following symptoms:. OK, the very first test you'll need to do, to get to the bottom of the issue, is to do a fuel pressure leak down test, let's turn the page and find out more. As an Amazon Associate, I may earn a small commission from qualifying purchases from the Amazon product links from this website. Your purchase helps support my work in bringing you real diagnostic testing information to help you solve the problem! Page 1 Page 2 Page 3. Contents of this tutorial:. All Articles: 4. Applies To:. Chevrolet Vehicles:. Do NOT follow this link or you will be banned from the site! I have a Chevy Blazer S10 I'm having a hard time starting it and its backfiring I've also noticed I'm using more gas then I normally do. Someone said it might be the spider injector and that the blazer if known for this problem. Is it worth getting a new one? No you don't need a spider injector, because there is nothing wrong with your injectors.. A simple fuel pressure check, will show that you most likely have a fuel pressure regulator that's leaking. Not sure about the price of the regulator,but a fraction of replacing the spider. It would probably be a better idea to figure out for sure whats causing your problem before you start throwing money at it. Do it yourself. It will probably take a beginner 8hrs. You will save at least dollars, and gain some knowledge. Yes it thats the problem if someone took the top of the intake off they would know. Trending News. For Tiger Woods, golf is secondary at this point. Poll: Partisan divide over vaccine acceptance grows. Official on Woods: He's 'very fortunate' to be alive. State tax changes could mean bigger refunds for some. Trudeau on Biden call: U. Chris Harrison's 'Bachelor' future up in the air. Mars rover's giant parachute carried secret message. Bucs GM considering Tom Brady contract extension. Answer Save. Favorite Answer. As for labor , maybe 2. Keith Y. The spider injector and gaskets alone are about Dan Lv 6. How do you think about the answers? You can sign in to vote the answer. Gordon M. Johnny Lv 4. Bueford G Carnell. Still have questions? Get your answers by asking now. Your Chevrolet Blazer fuel injectors are part of a fuel injection system which is controlled by a computer and works according to various conditions. Some factors that affect performance include the temperature as well as air pressure. Depending on speed, revolutions per minute of the engine, and the gear you are driving in, the fuel injection system is sensitive to your vehicle's needs and the circumstances in which it is operating, whether you are driving uphill, in summer heat, quickly on a flat highway, or powering through snow on a cold winter's day. The fuel injectors in your Chevrolet Blazer take into account the environmental and weather factors and adjust the performance of your vehicle to the specific needs of your engine in the current circumstances. Your fuel injectors customize the amount of fuel that your vehicle needs to provide the correct amount of power required to operate your vehicle in the conditions it is being operated in. Chevrolet Blazer fuel injectors maximize fuel efficiency and help your vehicle to utilize fuel more effectively, thereby reducing waste and helping your vehicle to correctly maneuver in whatever manner your current conditions require. You can keep your Chevrolet Blazer in top condition with regularly scheduled maintenance and replacing faulty parts with high-quality replacement parts. They are available for the following Chevrolet Blazer years: , , , , , , , , , , , , , , , , , 05, 04, 03, 02, 01, 00, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, This part is also sometimes called Chevrolet Blazer Injector. Very happy with the part was an direct fit no hassle and happy to say fixed my problem in my vehicle.. Ive done buisness with others and was let down by the quality and the i dont know attitude. Skip to main content Menu, Close X. Call To Order: To return a part, simply submit a support ticket within 30 days of ordering and we will issue you an RMA number to return your product. See customer service page for refund and return details. We scour the web to make sure PartsGeek always has low prices. You can buy with confidence! Click to Enlarge. Replacement Fuel Injector Kit. Product Note: 4. Shipping Options: Free Ground Shipping. GB Remanufacturing Fuel Injector. Core Price [? Includes new o-rings and seals made of premium OE quality materials. Includes application specific technical bulletin, where applicable. Product SKU: W The fuel injector plays a crucial role in the fuel delivery system of your Chevrolet Blazer's motor. Since the amount of oxygen is always changing, the fuel injection system must constantly adjust the amount of gas it delivers. The pump in the gas tank delivers the pressurized gasoline to a nozzle in the fuel injector. Once

the gas is inside, the fuel injector sprays a gasoline mist into the motor's intake manifold. It then passes through the manifold to the engine where it is mixed with the oxygen, generating an internal combustion. The more gasoline the motor requires, the longer the valves in the fuel injector will remain open. What is the difference between a fuel injector and a fuel pump? It is understandable why some people don't know the difference between the fuel injector and the fuel pump. Their characteristics are very similar, but a closer look reveals that they perform opposite tasks. The job of the fuel pump is to increase the pressure within the fuel system, while fuel injectors decrease that pressure. A fuel pump accomplishes its task by pressurizing the fuel and delivering it to the fuel injectors by way of the fuel line. The fuel injectors atomize this pressurized fuel and shoot it off it into the combustion chamber. One way to tell them apart is by their relative size. The length of a fuel injector runs between three to four inches and has a diameter of one to two inches. A fuel pump is five to seven inches long with a diameter of four to five inches. What is a fuel injection spider? The spider, unique to a small number of General Motors vehicles, including the Chevrolet Blazer, forces fuel into the engine's cylinders as a fine mist. Rather than having individual injectors for each cylinder, all eight attach to a central unit, resulting in a system that looks like a spider. A misfiring engine, often accompanied by a "check engine" warning on the dashboard, is a symptom of a failing spider injector. If you notice this rough riding condition, you don't have a lot of time to waste before your Chevy Blazer fuel injector spider completely breaks down. You need to act quickly before the issue worsens. How much does it cost to replace a fuel injector? Read more reviews. Great prices and very quick service, I use PartsGeek for all my auto projects. Item was as described and installed very easily. Never had a problem with Partsgeek and will keep ordering what I need for any vehicle I work on. Catalog: E. Vehicle Engine Chevrolet Blazer. Catalog: B. Vehicle Chevrolet Blazer. Vehicle Body Engine Chevrolet Blazer. Catalog: A. Catalog: C. Catalog: P. Catalog: Q. Catalog: N. Automotive Forums. After removing it once The most important thing to remember is you need to immediately block your intake ports firmly with shop rags. If not, you may learn the hard way I can't say it enough! It takes 5 seconds to be safe. This is what I dropped into the intake, and they're NOT magnetic! The cruise cable will pop off backwards, but you'll need to relieve the tension and take the throttle cable bullet off to disconnect it. Gently guide the fuel meter body back out of the cover, and remove the cover. Using a flat screwdriver, gently pry the tabs of the fuel meter from the bracket securing it. Pinch the injector tabs and remove the poppets from their holes. If it appears as though the injectors are leaking from underneath the fuel meter body, you can remove them individually. Using a small screwdriver and needle nose pliers, gently pry the plastic cap from the fuel meter body that secures the injector. You may need to use a small dull screwdriver from the inside to help push the injector out. Be sure to use a slight coat of Oring grease when reinstalling them. Replace all Orings on the fuel meter body in the same manner. Now would be the time to replace the regulator if necessary. It's approx. You may also choose to replace the upper intake cover gasket at this time. Installation is reverse of removal. If you choose to replace the whole assembly, there is an updated fuel spider. It's supposed to correct the problem of sticking injectors, and is half the price if you believe you may have more than one bad injector. NOTE: The blocked intake ports, and cleaned intake! Good Job. Added to the FAQ. Will reply with actual mileage change. Excellent post!!! You are right, a picture is worth a 1, words Looks like they have done away with the poppets If your mileage has improved that will definately offset the cost. Is this this updated assembly very expensive? Thanks Blazee, I will look into replacing mine, sounds like gmpartsdirect. Did installation of the MFI assembly require any special instructions? It's pretty straight forward. That GM Bulletin that Blazee and I provided the link for, gives the specific directions on the install. It's pretty much just replacing the bracket it sits in a specific direction front to back , and making sure the fuel injector lines are in a specific routing. I believe one has to run under another etc. And then its just making sure the electrical connectors at the tip of each injector are facing the center of the intake to allow clearance when reinstalling the cover. It also notes that once the injector has snapped into its hole, it should not be removed or it may damage the tip. Thanks guys! This website rocks big time!!! Replaced the spider assembly this evening and I am still in shock at how responsive and quick my '98 suv is now running! Hope my gas mileage will improve as well Checking for lower manifold leaks and so far so good as well after replacing the gaskets the 2nd time and torquing to correct specs. I seriously could not have done most of these jobs without your help! Thanks again. Glad to help bro. Judging by the fact that yours is a lot more "responsive and quick" now, if the spider made a difference I'd say the injectors may have been stuck partially closed That was the problem with the old spider assemblys. Don't ask me why GM never recalled them when so many different models used them I wanted to know if after making the swap to MFI does it always start first crank? Didn't say anything about a regulator included. I have a '95 Blazer, and I'm curious about how the fuel

fittings on the back of the plenum are sealed. I never used anything to seal the fuel fittings, and it worked just fine. Now I just tore it all down again to replace my intake gasket, and when I got it all back together, I have a continuous leak out of the fitting on the fuel sending line I tried thread sealer on the threads Or is it just a pressure fitting, and I should just tighten it up? Does anyone know if this will work on a 4. Thank you!! Not quite, you have the numbers for the '96 and up 4. I just got done with this job last night, here's what you need: CPI: javascript:displayDetails 'ACDELCO', '21', " Intake manifold gasket It's also recommend when you have it apart to replace the lines running into the injector, also known as a "nut kit" which is part "" I ended up doing this job twice, once six months ago, and once last night due to the CPI failing again and causing the same problem. Good luck! I am confused. Does that mean that I can't convert my 4. They don't mention the "Nut Kit" GM part but I am sure as long as I am already in there it would be a good idea. I would really appreciate any assistance as I am a Newbee :banghead:. I did some research, and I have found a reference to a conversion, but I haven't found much on it. I think it would be very difficult to do, however. Consider, your PCM is set up to fire one injector How would you control it? IF you could get it to work. There's no real benefit to the other system other than the fact that it will not fail every , miles Most of these trucks don't see , miles, so I doubt you'd be replacing it again. I am in the same boat as Fisher. My Jimmy hasn't ran for almost a year, and a mechanic told us it was the nut kit, and instead of telling us he would fix it, offered to buy it from us, since it isn't worth that much. I figured me and a buddy could change it with the proper instructions I was hoping from AF. I also have the "W" VIN which seems to be different from this write up. Is there any other write that show how to change the nut kit on the "W" VIN? Or is this one similar enough to use on my Jimmy? This modification was developed by GM for use on GM vehicles. NOTE These parts are for a 4. My S has , miles on it and now runs like it did when it was new!! THanks Josh for your write up.. Tremendous difference for me since i notice mine CPI was leaking Hey, I'm new to this site but this is a great post, I'm about to do this upgrade kit to my 4. One slight problem I've run acrossed. How do you get to the fuel supply lines near the fire wall to disconnect them. I'm guessing there's a wrench for this I just want to know the proper approach. Thanks to everyone in advance. Terry L. Once it's broken loose, I can unscrew the rest of the way by hand. If there was space, the proper wrench would be a flare nut wrench. Good luck, John. Good luck, John Hey, John thanks for the reply. Hey, John thanks for the reply I still have the old style injection body, but having tried to get it to stop leaking for the last 2 weeks, I see the MFI upgrade coming. So far as the nuts on the fuel lines, be sure and check or replace the o-rings when you reassemble. Good Luck John. Good Luck John Hi again thanks for the advice already have them. The only thing that I'm waiting for is some type of verifcation that this is the right part. So I can order the upgrade. They look the same according to the pictures. I just don't want to order the wrong part. Thanks Terry. Terry Got reply today from GMDirect. You probably heard from them by now. I picked my parts up from a dealer friend on Wednesday. Looks like it should fit perfectly, but weather hasn't allowed me to get it on yet. Let us know how you come out. Thank you for choosing Got the Jimmy put back together today. Have other issues, but by george, my leaking fuel pressure problems are gone! OK, I need some clarification. It did not look like those injectors would fit into my lower intake manifold. So does the lower intake need to be replaced as well? From the parts list you have up there, it seems not. Also the computer works the same? I do not need to replace any other of those electrical sensors? If not, that is great, but I am just curious. I replaced the CPI injectors and apparently now I have a huge vacuum leak somewhere so I need to take it all apart again to redo it to triple check what is incorrect. Since I am doing it again, I am thinking maybe do this conversion and end the issues with this fuel system. Any input you all can have for me I would appreciate it. On GMC Jimmy 4. Everything else seemed to go slick. Good luck John. I have run across what I hope is not a problem. All my fuel lines coming off the the fuel meter body are facing towards the fuel pressure regulator. It's doesn't look like the fuel lines will turn degrees. I don't want to damage it. Just wanted to know what yours looked like when you took it out of the box. Thanks Like yours, mine had the lines turned around to fit the plastic formed packing. I gently turned them around to the front without problem. That tubing is probably pretty tough, but I treated it gently anyway. Number 3 has to slip behind number 1 slightly. Let us hear how you came out. Like yours, mine had the lines turned around to fit the plastic formed packing. Good luck John Hey John just letting you know I got it on everthing seems ok, but I do have one problem that I thought this kit would fix but it's still there. Once in a while it want's to backfire on start up causing the starter to grind. A mech friend of mine said it's proable the crank sensor , ever hear of this problem? Hey John just letting you know I got it on everthing seems ok, but I do have one problem that I thought this kit would fix but it's still there. Not sure about that one, Terry, but what do you think about starting a new thread on it in problem diagnosis section and let's see what the pros have to say about it? MFI assembly Can someone

tell me if the green plastic tubes on the injectors come off. They appear to be too large for the ports. Aside from the various tools, are these 3 items all one would need to take this job from cradle to grave, assuming everything went smoothly? I too have a GMC Jimmy 4. Yep, that's all you will need. Also, buy a couple cans of throttle body cleaner as yours will probably be gummed up from underneath. Before you attempt the job, also check the condition of your lower intake gaskets as these are problematic with our trucks do a search. If you'd like to replace yours with newer, better designed ones, installing the MFI is almost just a part of re-assembly of that job. Good Luck, My favorite part about the MFI is the quick starts, two revolutions of the starter every time vs with the old poppets! I'm going to be replacing my old spider with a new upgraded module used. The part that concerned me is that the new module doesn't seem to use the same style connector for the lower manifold. It's just a white tube. On my old 96 that I did the injector connectors were black with a tooth like structure on the tip to hold them on. I haven't had time to see if there is a ridge on the inside of the new one though. Is this normal or did I get a unit that is missing parts? Thank you. I am having problem with 1 of my spider lines keeps "clogging" up, I've used fuel injector cleaner, seems to not be helping. I been searching on how to get to them and try to do it myself since mech charges me to bucks each time i take it back for this problem 3 time in 2yrs. Is doing this very hard to do? Is there an updated thread for this topic? The current listing for pk includes the bracket and the seal kit, but does not include the regulator. I'd like to do this mod, but am woried about not getting all of the right parts. Any help? Thanks, Jeff. I just replaced my CPI spider assembly in my 92 S blazer. I had , miles on it. About 2years ago I thought I was going to be replaced but turned out that fuel regulator was leaking. Took me about a little over a hour and half to take out the old one and put in the new one. Used about 2 cans of engine degreaser on the upper intake and the lower intake. Man that was just flat out nasty carbon mess!!! Any way took about 3 cranks and about minute of reving it to clear out all the engine and carb cleaner that was remaning in the ports Im guessing. Will post my fuel milage latter after I run 2 tanks thur it. Got CPI unit from Autowharehouse for Tools needed a 7mm socked, 10mm long socket, one straight slot screwdriver and one Torx bit cant remember size and that was it. I couldnt wait till I hit around miles I filled up at miles and it took 6. Im sure it will go over 23 maybe 24 once I change out the oil and put in some new spark plugs. I just wanted to say thanks for this awesome write-up. It was very helpful and informative. I recently replace my fuel spider in my '99 Jimmy. It was getting to where it was very hard to start regardless of temp. I replace the spider and now it fires up better than when we purchased a couple of years ago. I am still getting pretty lame fuel mileage. But I am hoping to learn from this site on how to fix that though. Up date everything is still great milage is constinatly around I did up my air pressure a bit to 38psi and had frontend aligned along with some new goodyear tires, I needed some tires. I checked my plugs last week and everyone of them looks like a perfect burn pattern. Other than that im extreemly pleased on results. So if I get another 5 years out of my 92 Blazer I will be more than happy. The only thing I could see going wrong is the transmission. So far no signs of anything going wrong,but I ocassionally tow my Kubota L with frontend loader and Rhion brush shredder. Wieght is im guessing around lbs. Im on back roads and dont go over 50mph. Great post great pics in pic 3 is the fuel line clip upside down? Sorry thats pic 4 with the 2 small nuts:shakehead car came to me leaking fuel there and spider sucked down in intake with no gasket on it should have caught fire. Can anyone tell me why you must replace the bracket when converting to the new CPI? The old bracket looks the same to me One other question though SB says nothing about bending them, only says to reposition the 3 behind 1 to eliminate interference. Will these bend easily without breaking? Many Thanks to any response! Ok, I knew it was a dumbass question when I asked it. Was just looking for a little reassurance I guess. For anyone else who may have the same concerns They are made of teflon or nylon or something similar with plenty of flexibility. As far as the bracket goes, I just modified the old bracket by using a high speed to grind off the excess length then rounded off all the sharp edges. Even that prob wasn't necessary, I removed the bolt in the bracket securing the fuel supply and return lines to the intake manifold and also down below i removed them from the next attachment point. Misfire codes are gone! She runs like a dream now! Drove her the 60 miles to return her to my dad and didn't really notice an increase in MPGs according to the overhead display. Performance was noticeably better though. Ok idk if it was stated earlier in this thread, I have a 93 Jimmy 4. I recently purchased a Jimmy. Body was in great shape, but the engine wasn't startable - the prior owner had been doing some tinkering under the hood. Anyway, to make a long story short, the fuel injection spider has been completely disassembled. Questions: 1, Is there electronic polarity for the injectors? Are all the injectors the same for each cylinder? Is there anything I need to know about the lines and poppets? I'd really like to see if I can get this heap running "as is" before I dump alot of money into an iffy engine, so I'm not interested in upgrading to MFI at the present

time. Any help with this issue would be greatly appreciated. It would be nice if every new cell phone and electronic device was equipped with the same charge cord. The same can be said for electronic fuel injectors. Just about the time we get comfortable with a certain injector, a new version debuts and we have to learn a new set of parameters. However, for performance engine builders, EFI swappers, and inveterate engine tinkerers, this ever-expanding range of fuel injectors offers both opportunity and confusion. Or, you could just listen to your brother-in-law â€" he knows everything, right? This story will take an overview approach to GM fuel injectors. We will focus on all the important injector fitment specs such as overall length, O-ring sizes, and electrical connectors. The connector part of this story would not be too bad if the industry could stick to one name â€" but with multiple names for each connector â€" it can get perplexing. This injector family portrait includes four of the five popular GM fuel injectors. The one missing version is the late truck injector that is the same height as the early truck LS piece but using the EV6 electrical connector. What you will notice is a lack of flow rate information â€" since this would add a cumbersome volume of material to this story. Combined with the accompanying images, the chart is probably the easiest way to differentiate and make sense of all the different GM injectors. All cathedral port LS engines use the same injector spacing which allows using aftermarket fuel rails like this Holley. Aeromotive does not recommend mixing and matching fuel rails due to the possibility of a high-pressure fuel leak. These injectors are physically the largest and tallest of all the GM injectors. These Bosch injectors used a connector that is referred to by no less than three different aliases. The earliest reference is the Jetronic â€"the Bosch name for its early fuel injection system. This connector evolved into the Minitimer that now morphed to EV1. Right away, this becomes mystifying with three different ways to describe this electrical connector. This injector was used all the way up into the mid model-year in certain vehicles. Next in line in terms of height is the first-generation LS1 injector. This unit is much slimmer and slightly shorter than the early Bosch injectors, taking up much less real estate. The early Gen III truck engines such as the 4. Making this early truck injector unique is its Multec 2 connector. Since most aftermarket EFI systems target the more modern EV6 injectors, using the early truck injectors will often require an electrical adapter. This is the only injector that uses this electrical connector. Somewhere around the model year, the truck injectors changed again. This truck injector is 0. This is the shortest injector of all the factory squirters, but its size should not be confused with a lack of flow potential as these injectors can crank out the fuel. Left Wiring pigtail adapters allow you to use existing injectors with a different harness. While this might work as a temporary fix, even the smallest amount of resistance in the circuit can affect injector performance. Swapping these newer, shorter injectors, in taller intake manifold applications opens up the opportunity for aluminum extension fittings that can increase the injector length to adapt these injectors to earlier applications. For example, ICT Billet offers three different length adapters for specific applications. Another subtle change that occurred with the Gen IV LS3 style injector is the lower O-ring diameter which increased from 0. These larger O-rings are sometimes distinguished by color. The AC Delco versions are blue for the 0. The newest LS3 fuel injector uses a larger diameter lower O-ring compared to all the previous injectors. The difference is 0. If you are adding an earlier injector to a later intake like an LS2 or LS3, you will need the larger diameter 0. These O-rings are readily available. We found them for later model LS3 engines through RockAuto. The AC Delco ones are color coded with blue on the top and red on the bottom. This warning would likely also extend to use of adapters. So the point here is to tread carefully and make sure any fuel rail or injector change you make is accomplished properly. This is quite a bit of material to digest in one sitting but studying the information will help cut a trail across most â€" if not all of your fuel injector interchange questions. Left ICT makes swapping injector heights a little easier with these injector adapters. The intake is designed to accommodate the taller injectors so we added the intermediate ICT Billet rail adapters. Be careful with these adapters to ensure there are no fuel leaks at the rail. We will safeguard your e-mail and only send content you request. We promise not to use your email address for anything but exclusive updates from the Power Automedia Network. About Us Sponsors Advertising. Article Sources. Del City. Fuel Injector Clinic. Advanced Fuel Ignition Systems. Fuel Injector Connection. Latest News. More Stories. Horsepower delivered to your inbox. Subscribe Now. We'll send you raw engine tech articles, news, features, and videos every week from EngineLabs. We think you might like EngineLabs Thank you for your subscription. No thanks. Late Model LS Vehicles. Drag Racing. This month we will be concentrating on diagnosing a clogged fuel injector using data from a can tool. Diagnosing a clogged injector is not always easy because the symptoms act similar to low compression or an ignition problem, such as a bad ignition coil, a broken spark plug wire, a bad spark plug, etc. So, low compression or an ignition problem should be eliminated before looking for a possible clogged fuel injector. Fuel related misfires can be caused from too much fuel. Fuel related misfires can

be caused from not enough fuel. Fuel related misfires can be caused from bad fuel. Fuel related misfires can be caused from incorrect atomization of fuel. One of the most common symptoms of a clogged fuel injector is a rough engine idle. A fuel injector that is starting to clog has a certain feel. You will have a slightly rough idle but the vehicle will perform normally under acceleration, up until when the injector becomes completely clogged and creates a cylinder misfire all of the time. Deposits can form on the fuel injectors from fuel droplets that evaporate after the engine is shut off. These gum and tar like deposits can clog an injector, skew its spray pattern, restrict the fuel flow, or prevent the fuel from vaporizing completely. When the fuel injector flow becomes restricted or blocked the engine controller will attempt to increase the fuel flow by opening the injector for a longer period of time, increasing the injector pulse width. Sometimes these deposits can prevent the fuel injector pintle from seating completely and cause the injector to leak fuel. The slowest unmetered fuel leak can often transmit more fuel than necessary at idle, causing a rough idle. The engine controller will attempt to adjust the fuel flow by opening the injector for a shorter period of time, reducing the injector pulse width. There is also another way fuel injectors can become clogged. If grit or contaminated fuel gets past the main fuel filter it can plug the small mesh filter in the top of the injector. Once an injector filter basket becomes clogged, usually it is too late for intake or fuel rail injector cleaner to resolve the problem. The most effective way to deal with a clogged fuel injector is to remove it from the engine and replace it or have it professionally cleaned. Injector problems fall into two groups: mechanical and electrical. Last time we covered an injector circuit that failed electrically. This time we are going to diagnostic a clogged fuel injector. One of the obvious symptoms of a clogged fuel injector is the lighting up of the "Check Engine" light in your dashboard. The fault codes usually associated with a clogged fuel injector can range from misfire codes to lean codes. Fault codes associated with a clogged fuel injector are the P thru P series, which indicates the engine controller is seeing an engine misfire. If your scanner readings show the system is lean, the cause could be a fuel delivery issue or by a high concentration of alcohol in the fuel for a vehicle not built to a flex-fuel specification. Understanding all the possible causes assists in performing a complete diagnosis by not overlooking potential sources of the problem. While the engine is running, monitor the engine misfire screen on your scanner. You are looking for a cylinder that has multiple misfires indicated. In our example cylinder No 5 has 3, misfires. This indicates that cylinder No 5 is the most affected cylinder. If you notice, there could also be a problem with cylinders No 2 and 1. But before you go ahead and replace the injector s first make sure you have a good compression and there are no ignition problems. Then take a look at the fuel trims. A restriction of percent on a single fuel injector can be enough to cause a misfire. When this occurs, unburnt oxygen enters the exhaust and makes the O2 sensor read lean. In our previous misfire articles in this series we discussed using and maximizing the data from the scan tool in order to determine various causes of misfires. This time, we will concentrate on fuel related misfires and ways to find the root cause. There are some things you must keep in mind when diagnosing misfires, especially fuel related issues. The most common fault codes associated with a clogged fuel injector are P and P, which indicates the engine controller is seeing a lean condition. It is also possible to see fault codes for a rich condition if the injector is leaking or not atomizing correctly. Fuel trims represent the percentage of change in fuel over time for the engine to operate properly. These values are read using a scanner. Short Term Fuel Trim relates to what the engine controller is doing to the fuel mixture right now. This value can change rapidlyâ€" times per secondâ€"and will bounce around quite a bit depending on engine load, speed and operating conditions. The STFT value normally ranges from negative 5 percent to positive 5 percent, but they may occasionally go up toward percent depending on the efficiency of the engine and the age of the components. The readings may spike as much as 25 percent in either direction. Long Term Fuel Trim relates to what the engine controller is doing over a longer term to adjust the fuel mixture. While monitoring the scanner, the normal LTFT reading will appear to stay the same, giving a long-term average of fuel added. Usually, these values will stay around under normal circumstances. As injectors get dirty and the fuel flow becomes restricted, the computer will attempt to adjust the fuel flow by opening the injector longer through the use of its Long Term Fuel Trim function. Fuel injectors that are dirty will need more pulse width held open longer than injectors that are flowing the correct volume of fuel for the engine's needs. If the injectors are leaking fuel, the computer will adjust the amount of fuel coming from the injectors by subtracting fuel through the use of its Long Term Fuel Trim function. A positive fuel trim value means the engine computer is adding fuel. A negative fuel trim value means the engine computer is subtracting fuel. On '95 vehicles equipped with an OBD-I computer system you will be looking at the Block Learn data, which we will go over next time. We install a budget cooling system on an early Chevy. How To: Additional Tech: View Full

Gallery. There are a few things you should keep in mind when diagnosing a fuel related misfire. View Full Image. Connect With Us. Get Latest News and Articles. Newsletter Sign Up. Related Articles. So, whether you have replaced the Spider fuel injector assembly or the fuel pressure regulator and are experiencing a rough idle that wasn't there before or you're about to take the intake manifold apart, this article will:. The most common symptom is a rough idle condition. You could also see one or more of the following:. Let's take a look at the next heading and find out more. As I mentioned at the beginning of this article, the rough idle condition you're experiencing if you have replaced anything to do with the Spider fuel injector assembly is usually due to the rubber O-ring around the spider's connector breaking, or slipping off, as you installed the plastic plenum and causing a vacuum leak. Checking to see if this is indeed what's happened in your particular case is pretty easy. All that you have to do, to confirm the vacuum leak, is spray carburetor cleaner spray around the Spider's electrical connector and see if the engine's idle changes. Start with a cold engine. If you've had the engine idling for any length of time, let it cool down. This is important, since you'll be spraying carburetor cleaner spray which is very flammable around the upper intake manifold plenum and intake manifold itself and you don't want to risk a fire by spraying on a hot engine. Double check that all vacuum hoses are connected to their respective places. Checking to make sure you have all vacuum hoses connected will speed up your troubleshooting by eliminating any loose ends. Start the engine and lightly spray carburetor cleaner around the Spider Injector Assembly's electrical connector. NOTE: The area you're gonna' spray is the one where the orange arrows are pointing to in the photo above. This test result confirms that the O-ring broke or slipped off during the installation of the plastic plenum. The solution here is to remove the plenum and replace if necessary the O-ring and install it again following the suggestion in the next heading: Precautions To Take When Installing The Intake Manifold Plenum. This test result tells you that the O-ring, around the Spider fuel injector assembly is not broken, nor has it slipped off during the installation of the plenum. If your vehicle is suffering a rough idle condition after replacing the spider or fuel pressure regulator , take a look at the section: Spider Fuel Injector Assembly O-ring is Not Leaking Vacuum, What Next? As an Amazon Associate, I may earn a small commission from qualifying purchases from the Amazon product links from this website. Your purchase helps support my work in bringing you real diagnostic testing information to help you solve the problem! Page 1 Page 2 Page 3. What precautions you can take to avoid this common problem. And if you're currently experiencing this issue, I'll give you some tips on how to troubleshoot it. You could also see one or more of the following: Loud vacuum leak noise coming from the area around the Spider's electrical connector. P System too Lean Bank 2. Engine stalls. Bad gas mileage. How To Diagnose The Rough Idle Condition Using Carburetor Cleaner Spray As I mentioned at the beginning of this article, the rough idle condition you're experiencing if you have replaced anything to do with the Spider fuel injector assembly is usually due to the rubber O-ring around the spider's connector breaking, or slipping off, as you installed the plastic plenum and causing a vacuum leak. These are the test steps: 1. All Articles: 4. Applies To:. Cadillac Vehicles:. Do NOT follow this link or you will be banned from the site! Your Account. Support Center. Select Year. Select Make. Select Model. Select Part. Select Fitment. We ship from multiple warehouses across the country, so you get your part as soon as possible. Free, one year or more , unlimited mileage warranty. Covers everything; parts and shipping costs. Experts in auto parts since â€" rated 4.

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The part you are searching for is not available online. Please contact us for further information. We provide a free industry leading warranty and free shipping on most parts. If you are having some trouble finding the right Spider Injector for your specific Chevrolet Blazer S or have any questions, please give us a call or chat with us online. Our experienced team of auto parts specialists will find what you need and provide you the best price available for your Chevrolet Blazer S We are proud to provide industry leading customer service and warranties. Our customers love working with us and continue to show us their appreciation by leaving us outstanding online reviews. Click here for Mobile version. Home Toggle navigation. Your Account Support Center. We've got your back Free, one year or more , unlimited mileage warranty. Return for any reason within 60 days for a full refund. Your part can be more easily found using the Diff Wizard. Thank You! Secure Shopping. All rights reserved.