

## P00BB: FUEL INJECTOR INSUFFICIENT FLOW - FORCED LIMITED POWER

### OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Advanced
Repair Cost	:	\$90-\$500
Can I Still Drive?	:	Yes (Short-term only)

### What Does The P00BB Code Mean?

Low fuel pressure systems are generally used in diesel systems. The fact that the injection pump does the heavy labour as far as providing diesel engines with the high fuel pressures they need in order to atomize the fuel adequately.

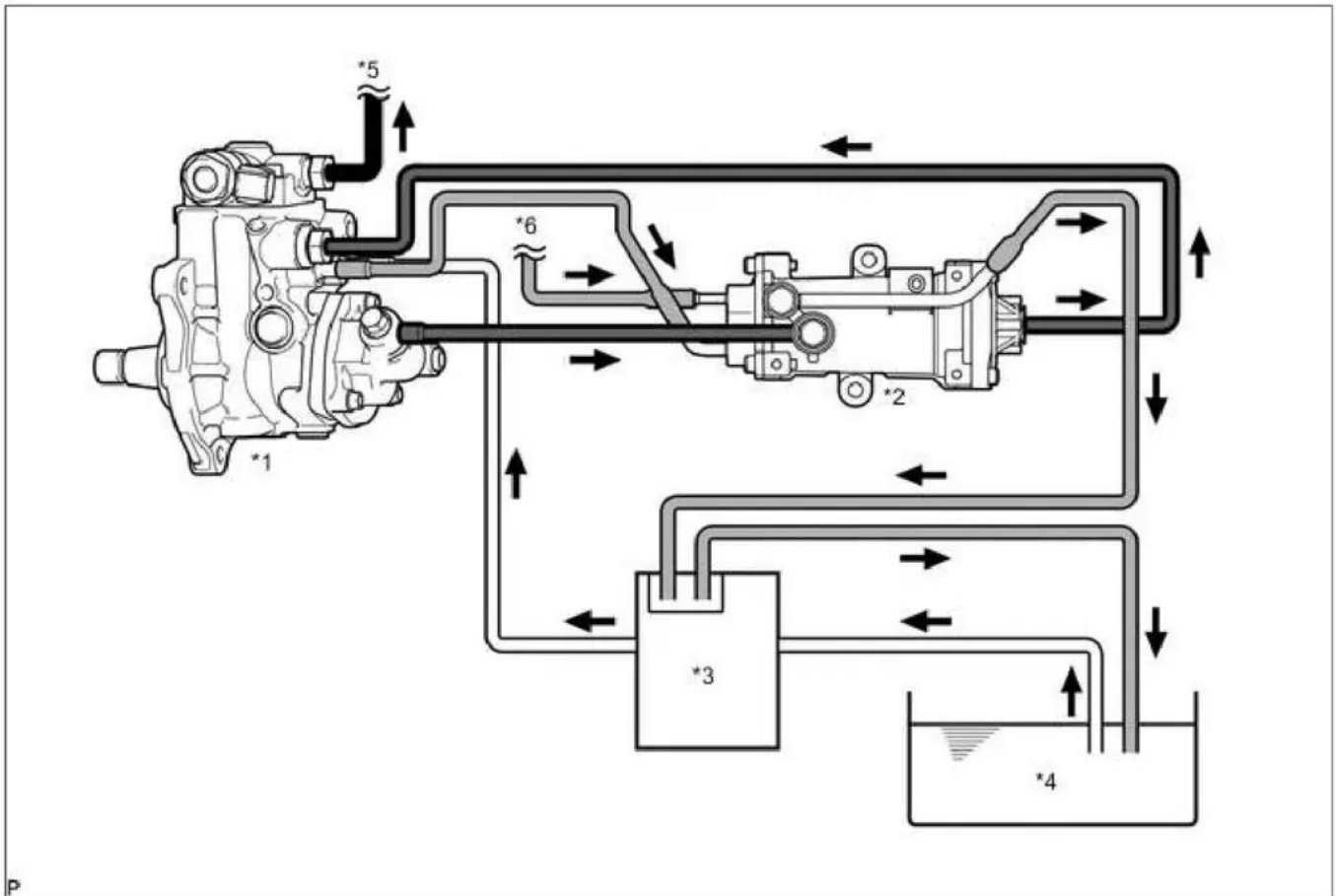
That said, the injection pump still needs to be provided with the fuel in the first place. This is where low fuel pressure pumps/systems come into play. It is extremely important for the ECM (Engine Control Module) to monitor these conditions closely.

Reason being, any introduced air caused by a starved injection pump/injector under load can and will cause major issues. Forced limited power is usually a sort of mode that the vehicle enters when it needs to control certain values to prevent the operator from further damaging the engine. Fuel, also has to go through numerous filters, pumps, injectors, lines, connections etc. to finally be delivered to the engine, so as you can imagine, there are a lot of possibilities here.

Even small fuel leaks usually provide you with a smell strong enough to notice so keep that in mind.

All while monitoring numerous other systems and sensors, the ECM has detected a low fuel pressure condition and/or insufficient flow. Be aware of local fuel conditions. Repetitive fill-ups with dirty fuel can contaminate not only the fuel tank but also the fuel pump and everything else involved to be honest.

P00BB Fuel Injector Insufficient Flow – Forced Limited Power code is set when the ECM detects that a fuel injector is not receiving adequate flow to perform optimally.



P00BB wiring diagram

## What Are The Symptoms Of The P00BB Code?

Symptoms of a P00BB diagnostic code may include:

- Low power
- Limited output
- Abnormal throttle response
- Decrease fuel economy
- Increased emissions
- Sluggish
- Engine noise
- Hard start
- Engine smoking on start-up

## What Are The Potential Causes Of The P00BB Code?

Causes for this code may include:

- Dirty fuel
- Plugged fuel filter
- Restricted fuel line (e.g. kinked, clogged, etc.)
- Fuel pump pickup dirty
- Unstable fuel
- Fuel injector defective
- Weak low pressure fuel pump
- Sludgy fuel (e.g. old, thick, contaminated)

## How Can You Fix The P00BB Code?

### Basic Step #1

Make sure if there are any leaks, to address them immediately. This can and will cause lower than desired fuel pressures in any closed system so ensure the system is properly sealed and not actively leaking anywhere. Rusty lines, fuel filter gaskets, deteriorated O-rings, etc. all cause fuel leaks.

### Basic Tip #2

Check your low fuel pressure system's filter. These may be located on the frame rail or close to the fuel tank. It should be fairly evident if the fuel filter has been replaced recently or if it looks like it has never been changed (or not for a while). Replace accordingly. Keep in mind, Introducing air into a diesel fuel system can be a tricky problem to rectify so make sure you follow proper bleeding and filter replacement procedures. Refer to service manual for specifications and procedures.

### Basic Step #3

If possible, locate your fuel injector. These usually are pretty simple to find but that said, sometimes plastic covers and other brackets may be in the way of proper visual inspection. Make sure to ensure no fittings or connectors are leaking fuel. Also, around the injector itself (O-ring) is a common leak. Visually inspect for any signs of physical damage or for that matter anything that would cause fuel flow to be reduced (i.e. kinked line at injector).

Particles within the fuel is a real possibility given the openings being so small. Ensure proper fuel system maintenance (e.g. fuel filters, EVAP, etc.)

## Severity Description

As explained earlier, low fuel pressures can and will cause issues in the future when diesel engines are concerned. I'd say severity would be set to moderate-high, because if you plan to drive your vehicle daily, and it's a diesel, you will need to make sure your fuel system is function adequately.

## Reference Sources

[Diagnostic Trouble Code \(DTC\) Charts and Descriptions for P00BB](#) - Page 19.