Checking and adjusting the fuel pressure of your K jetronic system

Because you are working on a fuel system under pressure take the necessary precautions. You need to know the correct fuel pressure figures for the engine of your car. You often find these figures in the workshop manual of your car.

Checking the primary pressure

To check the primary fuel pressure you need to have a fuel pressure meter. To check the control pressure you need to have a fuel pressure meter with a valve. Connect the fuel pressure meter to the top of the K Jetronic CIS Fuel Distributor (the 8mm banjo eye) connect the other end to the 10 mm (the biggest) banjo bolt on top of the Warm up regulator. Disconnect the (electrical) Bosch connector on top of the warm up regulator.

Disconnect the Bosch connector from your air valve sensor. Disconnecting this connector makes the fuel pump run when you turn the ignition key to the second II position. Some cars have an other safety device check your workshop manual. Make sure that the engine doesn’t crank.

You have to work together with an assistant. Turn the ignition key to position II. The fuel pump should start pumping fuel to the fuel distributor. Open the valve and wait until the air in the fuel line is removed or bleed the meter otherwise. (Close the valve and) read the fuel pressure. This figure is your primary fuel pressure. Check your workshop manual for the right figures (often between 4.8 and 5.6 bar)
If the pressure is too low (check your workshop manual) you can replace the two back Viton O rings of the fuel pressure regulator in the fuel distributor. Make sure that you use all the shims when reassembling the fuel pressure regulator.

There are two kits for repairing or rebuilding the fuel pressure regulator. The first kit is a Bosch kit with number 3 437 010 021. This kit contains a whole new fuel pressure regulator. We deliver a small kit with only the replaceable O rings shims and copper rings. You can use your exciting fuel pressure regulator. The tip of the fuel distributor regulator (left on the picture) can’t be replaced. If the tip is damaged you have to replace the whole fuel distributor. You can remove this tip from your fuel pressure distributor with the top of an wooden pencil. Make sure not to damage it.

If the pressure is (much) too high there will probably be a restriction in the fuel return line. Check this by removing the return line to the fuel tank and check if there is fuel coming out when you let the fuel pumps run. If there is no restriction you can (if the pressure is too high and you have replaced the two O rings) remove shims to lower the pressure. 0.1 mm of shim will effect the pressure with about 0.15 bar.
Checking the controle pressure
To check the control pressure (controlled by the Warm Up Regulator) connect the Bosch connector on top of the warm up regulator. The control pressure is influenced by the bi-metal strip which is heated by electricity. Make a time table on paper and check the fuel pressure every 10 seconds. The control pressure will change from low to high. See the example figure below. If you don’t want to make a test over time you can check the control pressure on a cold and warm engine. If this pressure is in between the lines of the figure you may assume that the warm up regulator is working properly. This figure can be found in your workshop manual.

![Graph](image)

Some warm up regulators have a vacuum connection. You can test the Warm up regulator also on different vacuum circumstances. Connect a vacuum meter to the line between the inlet and the warm up regulator. The normal vacuum of a idle running engine is between 510 and 550 mbar. The control pressure with a disconnected hose and a warm engine should have a figure between 2.7 and 3.1 bar (example). With a connected vacuum hose with the correct vacuum level the control pressure should be between 3.4 and 3.8 bar (example).

If the Warm up regulator control pressure is incorrect you can repair or rebuild the warm up regulator. See the other documents on www.ferrari400parts.com