

Rebuilding the K Jetronic Cast Iron adjustable Fuel distributor

When do you have to rebuild your K Jetronic fuel distributor

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1. If the fuel distributor has an unequal flow from each port and can't be adjusted.
2. If you have turned the CO 3mm Allen screw on the mixture control unit to its maximum position (anti clockwise) and you still have flow to each port (your diaphragm plate has dents).
3. If the plunger is stuck
4. If the fuel distributor is leaking fuel

In General

Bosch doesn't support the rebuilding of fuel distributors. If you decide to rebuild your fuel distributor you do this at your own risk. Rebuilding a fuel distributor is a precise job.

The picture shows the differences between an adjustable and non adjustable cast iron fuel distributor from the outside. The cast iron types can be recognized by the black body. You can recognize the adjustable or non adjustable fuel distributor by the Allen key caps on top. There are some differences in rebuilding these two types of fuel distributors. This instruction is only for the adjustable cast iron fuel distributor.

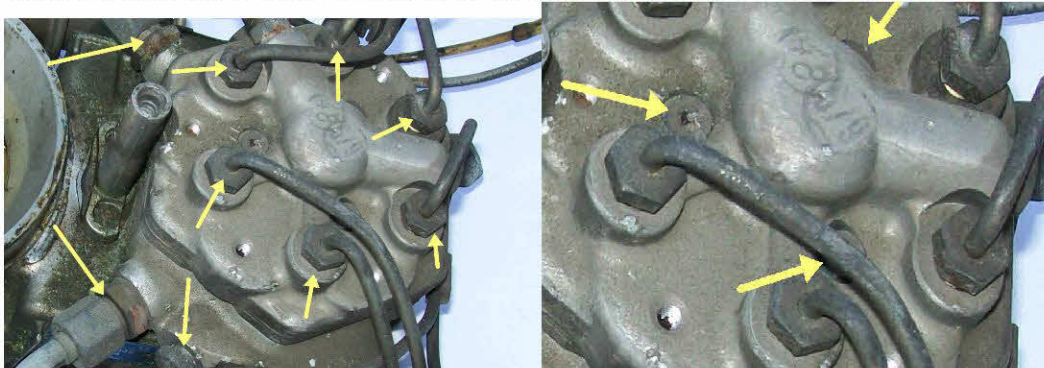


Adjustable or non adjustable

Disassembling

Remove the fuel distributor from your car. Be careful because there will be some fuel pressure on all openings. Use a towel or cloth to catch the fuel that will come out. Make a picture or drawing to be sure where all the fuel lines are attached. Remove all the banjo bolts or struts on top and on the side of the fuel distributor. Remove the (torx) screws on top and remove the fuel distributor from the mixture control unit. See picture.

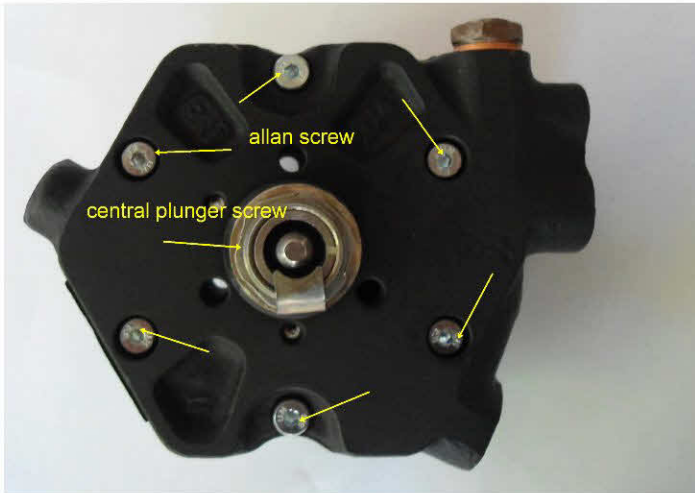
These pictures are taken from a six cylinder fuel distributor but if you have a four or eight cylinder fuel distributor there will be some differences but in general the whole procedure is the same.



location fuel lines

location torx screws

Turn the fuel distributor upside down. Remove the Torx screws and central plunger house screw at the bottom. The torx screws are size 25T. Some 6 cylinder models have also torx screws on top. Remove the plunger very careful (don't drop it on the floor).



bottom Torx and central screw

The upper and lower halves will often stick together. Never drive in a screwdriver on the side between both halves to open the FD because this will harm the housing. Turn in (a few turns to avoid damage to the threads) two M5 screws with the top of the screw 2 mm above the housing. Hammer with a nylon hammer on top of both screws to open it. When the fuel distributor has a small gap you can open it by pulling both halves by hand don't use a screwdriver to wiggle. If it is open you can open it further by removing the two screw and pull and hammer at the plunger house. Don't twist the halves because it can damage or deform the springs inside.



Splitting both halves

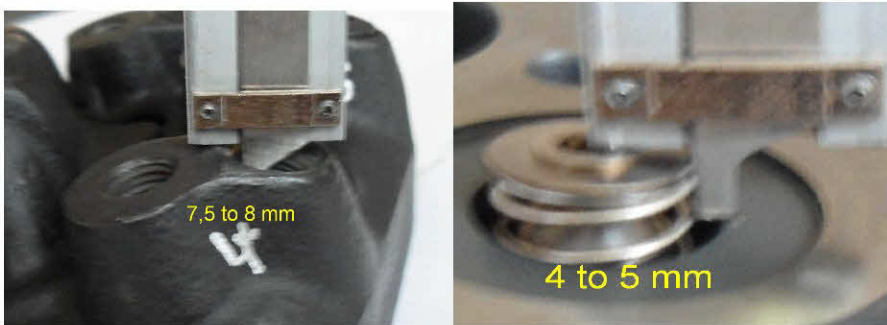


split in half

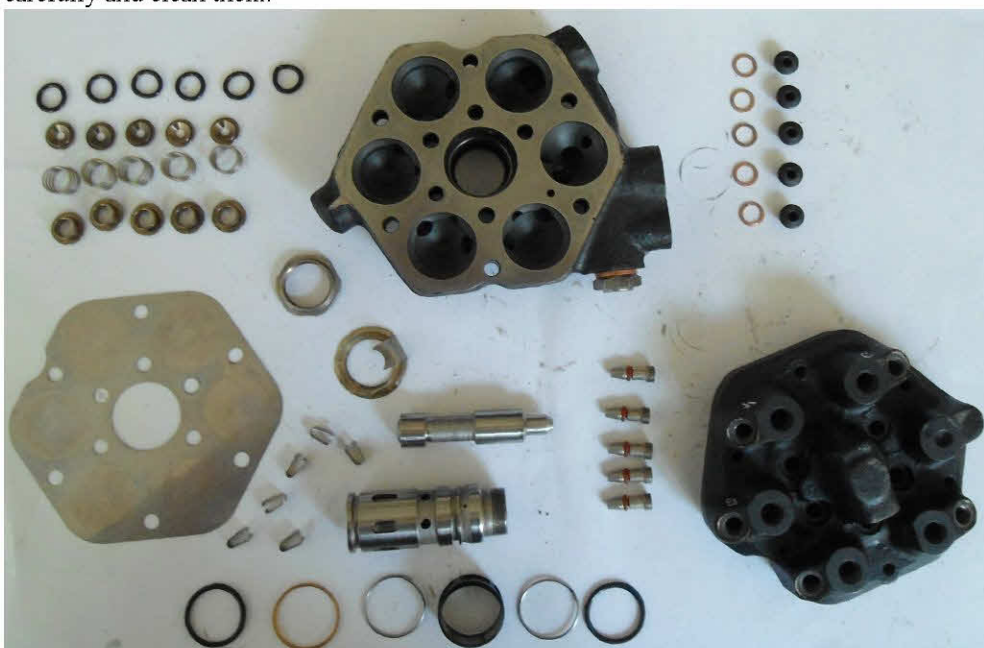
Remove the plunger house by using a nylon hammer when it doesn't come out by hand force. When it is stuck in the lower half you can hammer on the thread side. When it is stuck in the upper half careful hammer on the body (not on the ports). Use a nylon hammer.

Measuring the springs.

Start with measuring the spring tension from the outside. Remove the Allen caps (3.5mm Allen) to get to the adjustable screws (3 mm Allen). Measure the distance between the top of the port and the adjustment screw. Write this down. You will need this distance later. Then measure the distance between the upper half housing and the spring. Write it down. I measured a distance between the top of the adjustment screw and the house of 7,5 and a spring distance of 4mm on most fuel distributors.



These distances are very important. If you screw in the adjustment screw too deep (more than 8mm) You will have dents in the diaphragm plate because of the spring plates. If you screw in the adjustment screw not deep enough you will have dents in the diaphragm plate when you put the fuel distributor under fuel pressure. If your fuel distributor has other sizes and distances please note that my experience is that the best distance to avoid dents is between 4 and 5mm from the house as shown in the picture. You need to know before assembling the fuel distributor what the position of the adjustment screw from the outside is to avoid this problem. For the most common fuel distributors like the 0438100100 and 0438100116 and 0438100125 and 0438100150 fuel distributors the distances are as shown in the pictures for the spring 4 - 5mm and 7,5 to 8mm for the adjustment screw. Please note that a half turn with the adjustment screw will lead to a spring distance difference of 0.5mm. Check the diaphragm plate for dents. If the diaphragm plate already has dents check the type of dents. Is it a very small dent from the top of the port than the spring tension was too low. If it is a larger dent from the spring plate then the spring tension was too high. If the diaphragm plate doesn't have any dents you can reuse it. Reconsider the distances based on the type of fuel distributor and the dents in the diaphragm plate. Remove all the parts from the fuel distributor very carefully and clean them.



opened fuel distributor (picture taken of a 5 cylinder Audi fuel distributor)

