

Cleaning and Resoldering the Mass Air Flow Sensor (MAF)

by rbalach

edited by enstele

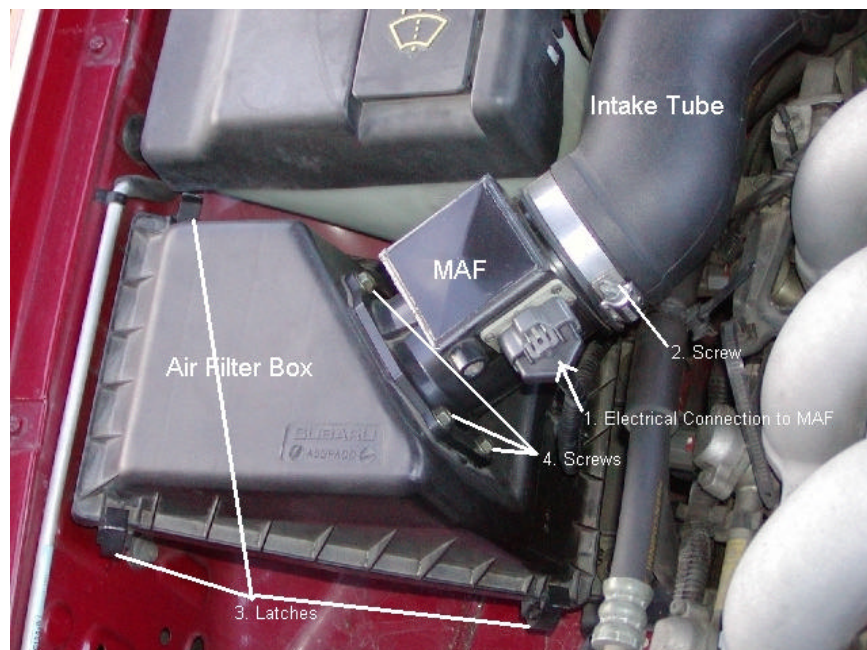
Symptoms:

- The car is fully warmed up, driven on highway at 65mph and loses power for ½ sec and then keeps going.
- Car completely stalls out while at slow speed or while waiting at red light.
- When car stalls, it can be started as if nothing were wrong.
- Check Engine Light (CEL) may not always come on. It may come on for a few seconds after the car stalls, but goes out when the car is started back up. Codes are stored in memory and can be read. To find out how to read the codes, see the How-To Documents. The code stored will probably be related to the MAF.

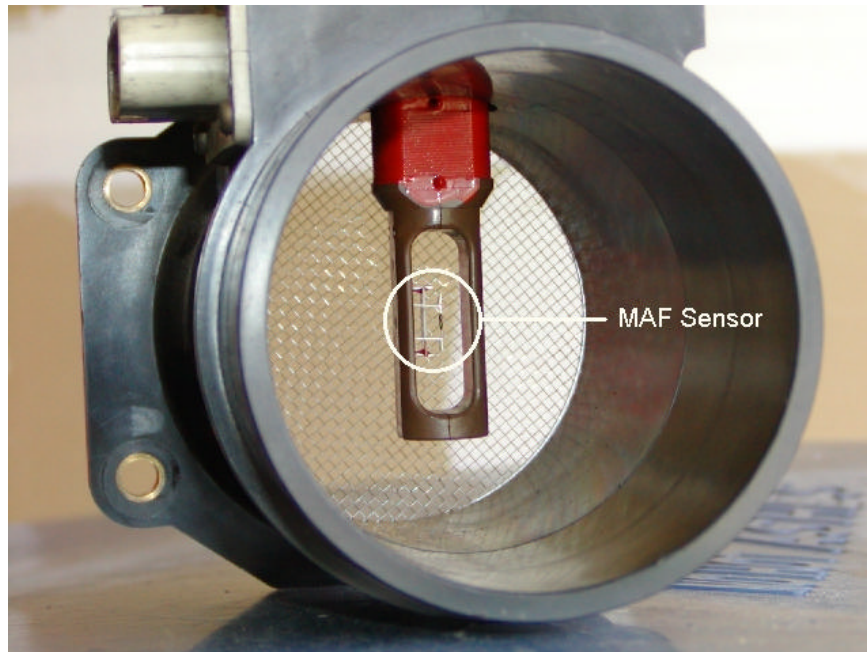
Over the years, dust and other particles will settle on the MAF sensor and can cause the problem. Another cause can be using an oiled air filter which deposits oil on the sensor.

To clean the MAF:

1. Remove the electrical connection to the MAF.
2. Loosen the screw and separate the Intake Tube from MAF
3. Undo the 4 latches that hold the top of the Air Filter Box, remove the Air Filter Box and MAF from the car. One of the latches is under/behind the MAF and is not visible.
4. Undo the 4 screws that secure the MAF to the air box and separate the MAF from the Air Filter Box. One of the screws is under/behind the MAF and is not visible in the picture.



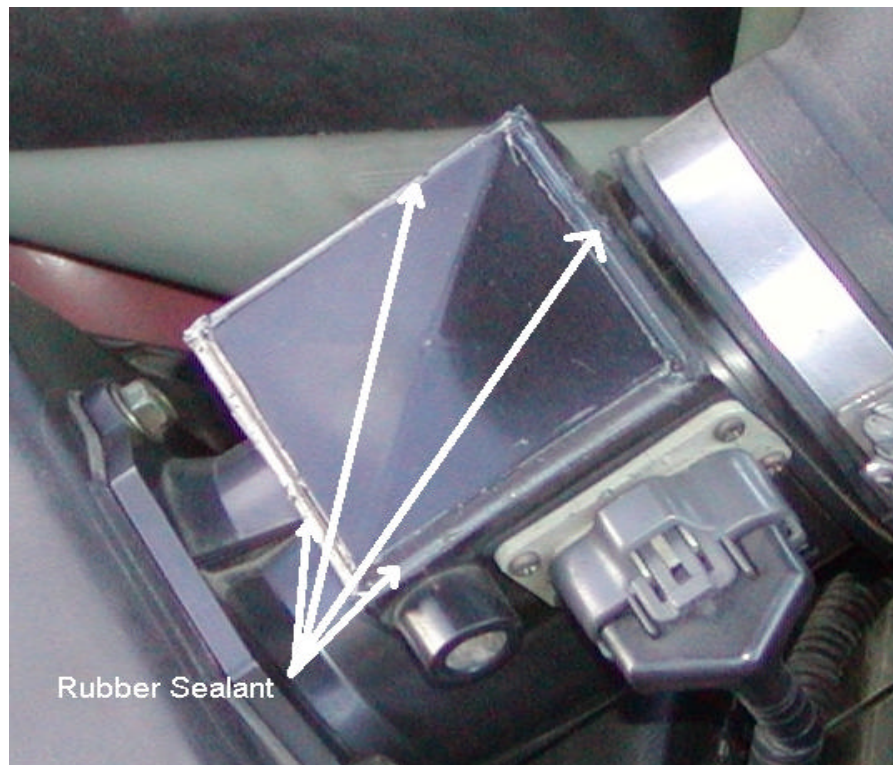
5. Spray the MAF sensor with a cleaner **THAT DOES NOT LEAVE ANY RESIDUE**. Some people have soaked the MAF (just the sensor part of it) in vinegar. Brake Cleaner can be used that specifically says “leaves no residue” on the can. FYI: If the wrong cleaner is used, it can make things worse than before.



6. Let it sit until all the cleaner has evaporated. Reinstall the MAF and check if that fixes the problem. If it does not, go to the next section below.

If the previous cleaning does not fix the problem, there may be a loose or broken connection inside the MAF. To fix this:

1. Use a small pocket knife to cut or gouge out the rubber sealant that seals the cap.



2. Use the knife to lift up and remove the cap. It may take quite a bit of force to get the cap off. The cap is lifted up on an angle in the picture below.



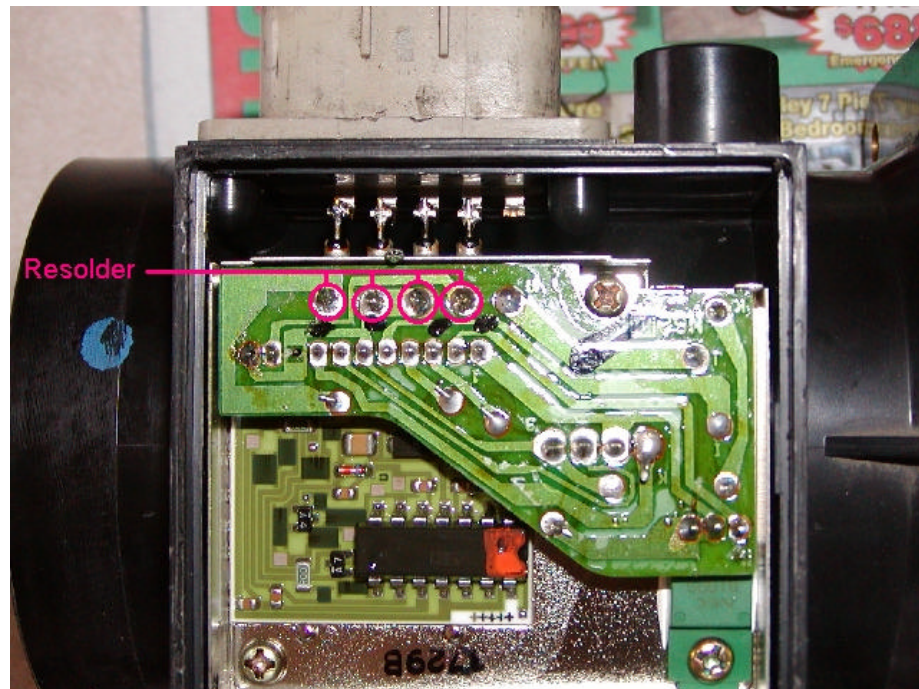
3. Re-solder the 4 connections shown in the figure below. The 5th pin at the far right is unused.



4. If you are curious, you can unsolder and remove the copper cover that covers the printed circuit board inside, or you can see what it looks like in the next step.



5. The points circled in red below can be re-soldered if you take the copper cap off.



6. Finish by soldering the copper cap back on and replace the black plastic cap. To reseal the plastic cap, use a black high temperature RTV silicon gasket maker. Reinstall the MAF and other parts that were removed. The car should run much now.

Don't forget to reset the codes so you can check later for any additional problems.