

Cleaning and resoldering the Mass Air Flow Sensor (MAF)

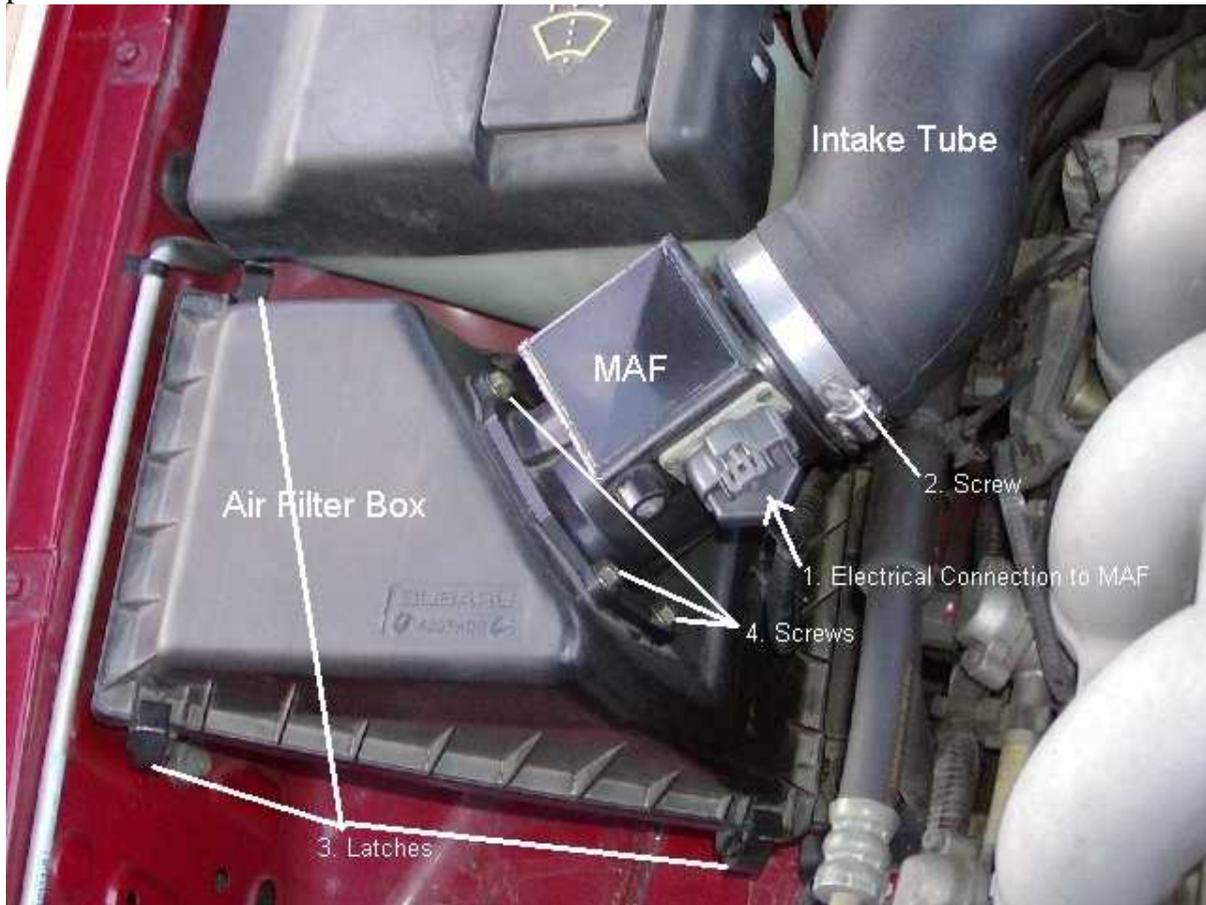
Symptoms (these were the symptoms I had)

- Car fully warmed up, driving on highway at 65mph ;) car loses power for ½ sec and then keeps going
- Car completely stalls out going at slow speed or while waiting at red light
- Every time car stalls, you can start it right back up as if nothing were wrong
- In my case, I did not get a Check Engine Light (CEL) for quite sometime. Then one day when the car stalled, the CEL light came on a few seconds later. When the car was started back up, CEL light went out. The good thing is codes are stored in memory and can be read. To find out how to read the codes, see the “how-to” documents at www.subaru-svx.net or the SVXIpedia link at www.svx-iw.com
- The code stored was related to the MAF

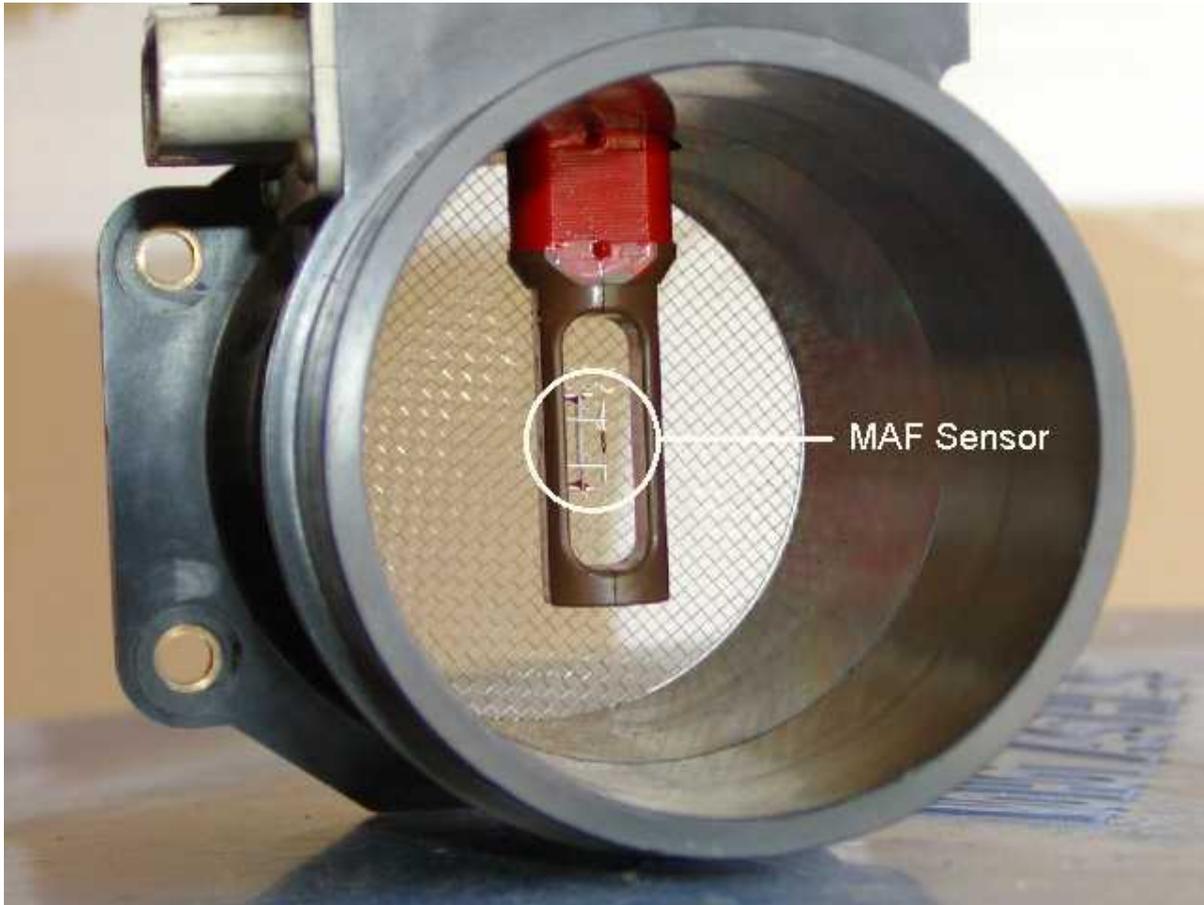
Over the years dust and other particles will settle on the MAF sensor and could be the cause of the problem.....

To clean the MAF:

1. Remove electrical connection to the MAF.
2. Loosen screw and separate Intake Tube from MAF
3. Undo the 4 latches that hold the top of the Air Filter Box, and remove the Air Filter Box + MAF from the car. One of the latches is under/behind the MAF and is not visible in the picture.
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. I have read about some people soaking the MAF (just the sensor part of it) in vinegar for a while. I used Brake Cleaner that specifically said “leaves no residue” on the can. FYI: I used the wrong kind of cleaner the first time and things got really bad. The stalling was about 10 times worse than before.



6. Let it sit until all of the cleaner has evaporated, reinstall the MAF and see if that fixes your problem. If it does not, read on

If the above does not work you might have a loose/broken connection inside the MAF.
To fix this:

1. Follow steps 1 through 5 above to remove and clean the MAF.
2. Using a small pocket knife, gouge out all the rubber sealant that seals the cap



- Using the knife lift up and remove the cap (it took quite a bit of force to get the cap off)



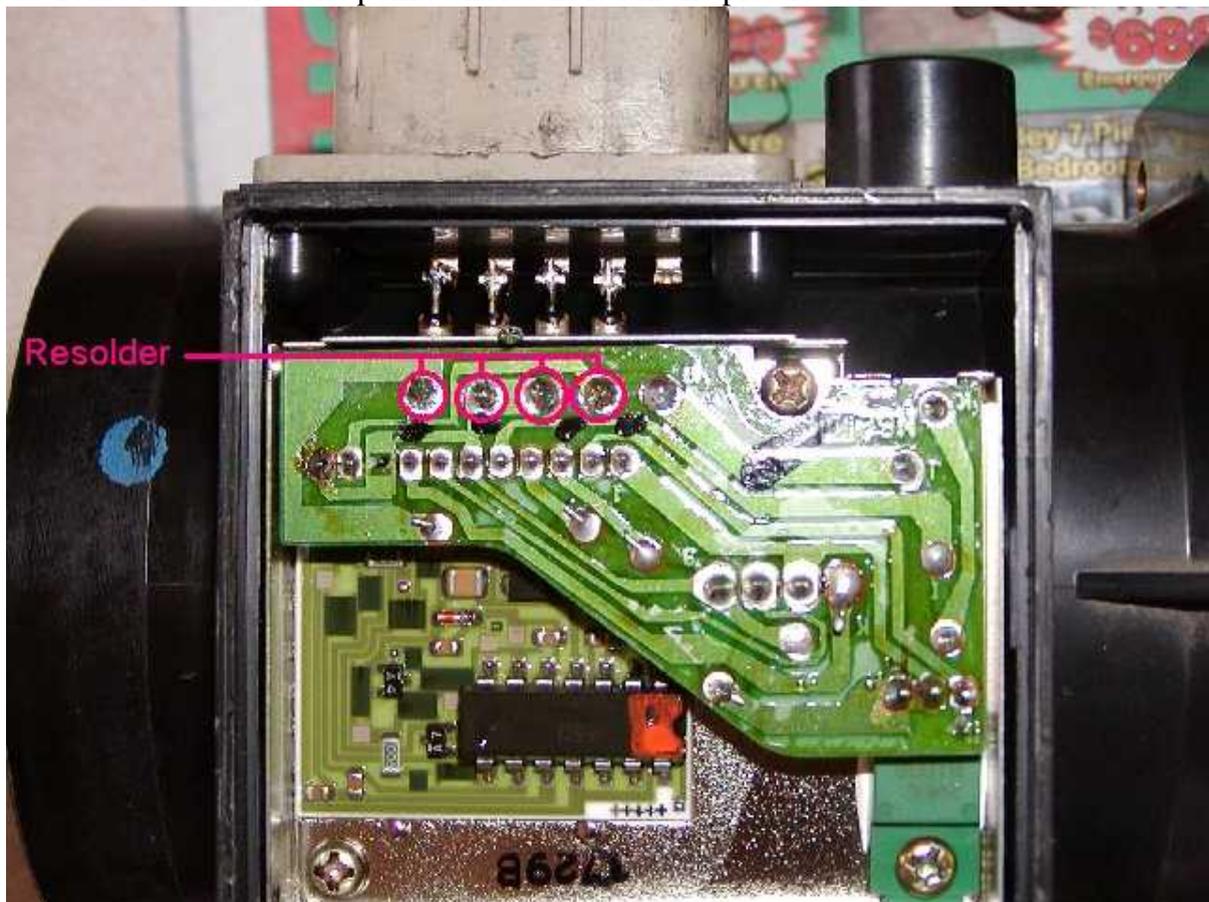
- Re-solder the 4 connections shown in the figure. The 5th pin all the way on the right is unused.



5. If you are curious (like me) you can unsolder and remove the copper cover that covers the printed circuit board inside.



6. I also re-soldered the points circled in red in the picture below.



Finish up by soldering the copper cap back on and replacing the black plastic cap.

To reseal the plastic cap I used a black high temperature RTV silicon gasket maker. Reinstall the MAF and hopefully things are back to normal.

In my case, I did both the cleaning and the resoldering at the same time and things went back to normal.