MAF SENSOR CLEANING
http://www.lexusownersclub.co.uk/knowledge/index.php?page=index_v2&id=50&c=9

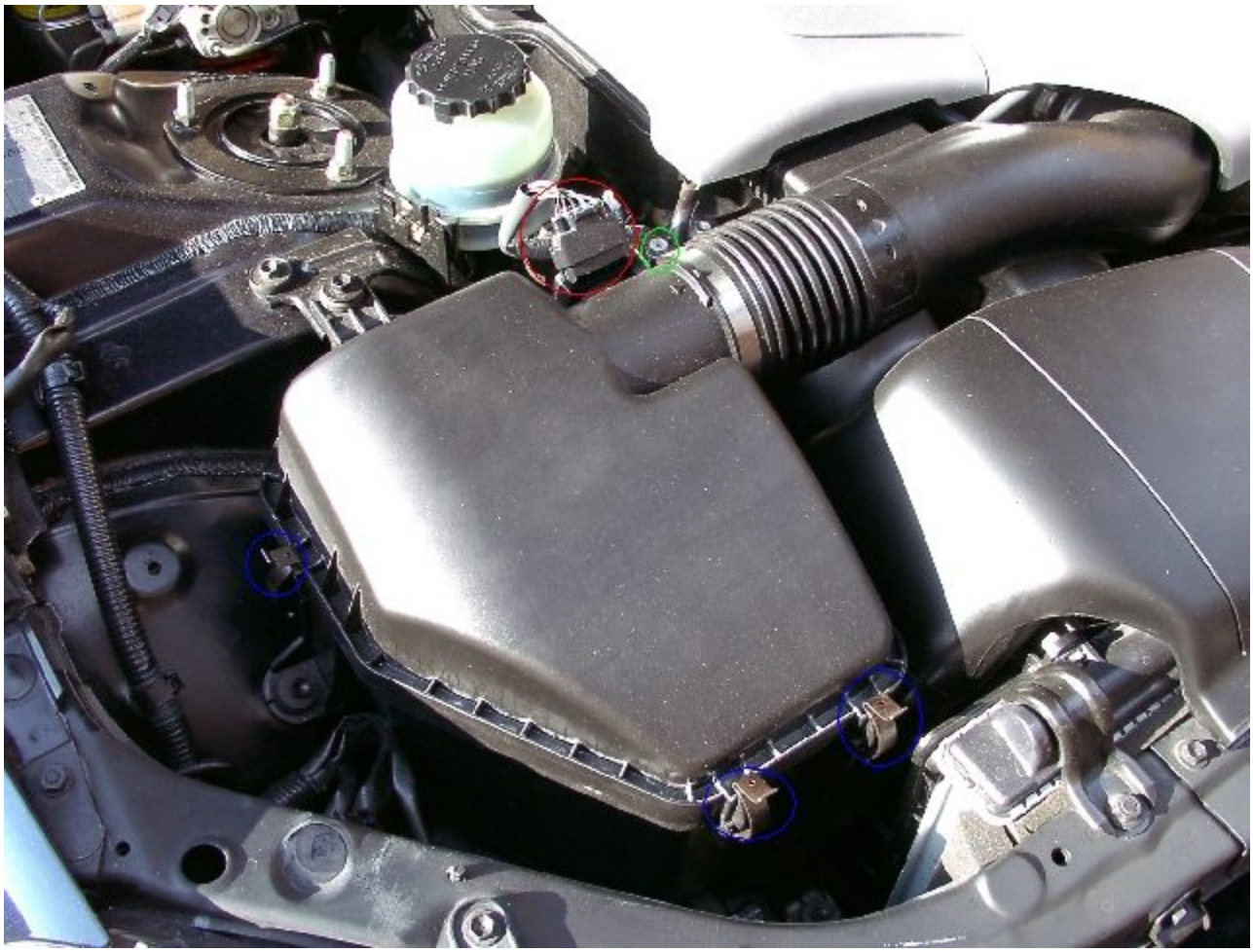
3UZ-FE engine: Cleaning MAF sensor

Author: Colin Barber

The MAF sensor is very important to the running of the car as it determines how much air is entering the engine. As the hot wire within the sensor becomes dirty over time the sensor indicates more air is being drawn in than actually is. The ECU, using this data, will start to add more fuel leading to poor idling, poor throttle response, increase in fuel consumption and a reduction in power. I recommend that the sensor is cleaned every 20,000 miles or every 2 years as it is very easy to do.

The pictures have been taken from a GS430 but the procedure is the same for all models using 4.3 3UZ-FE engine.

- The MAF sensor is located on the exit of the air intake box

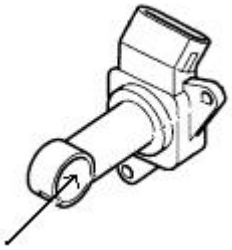


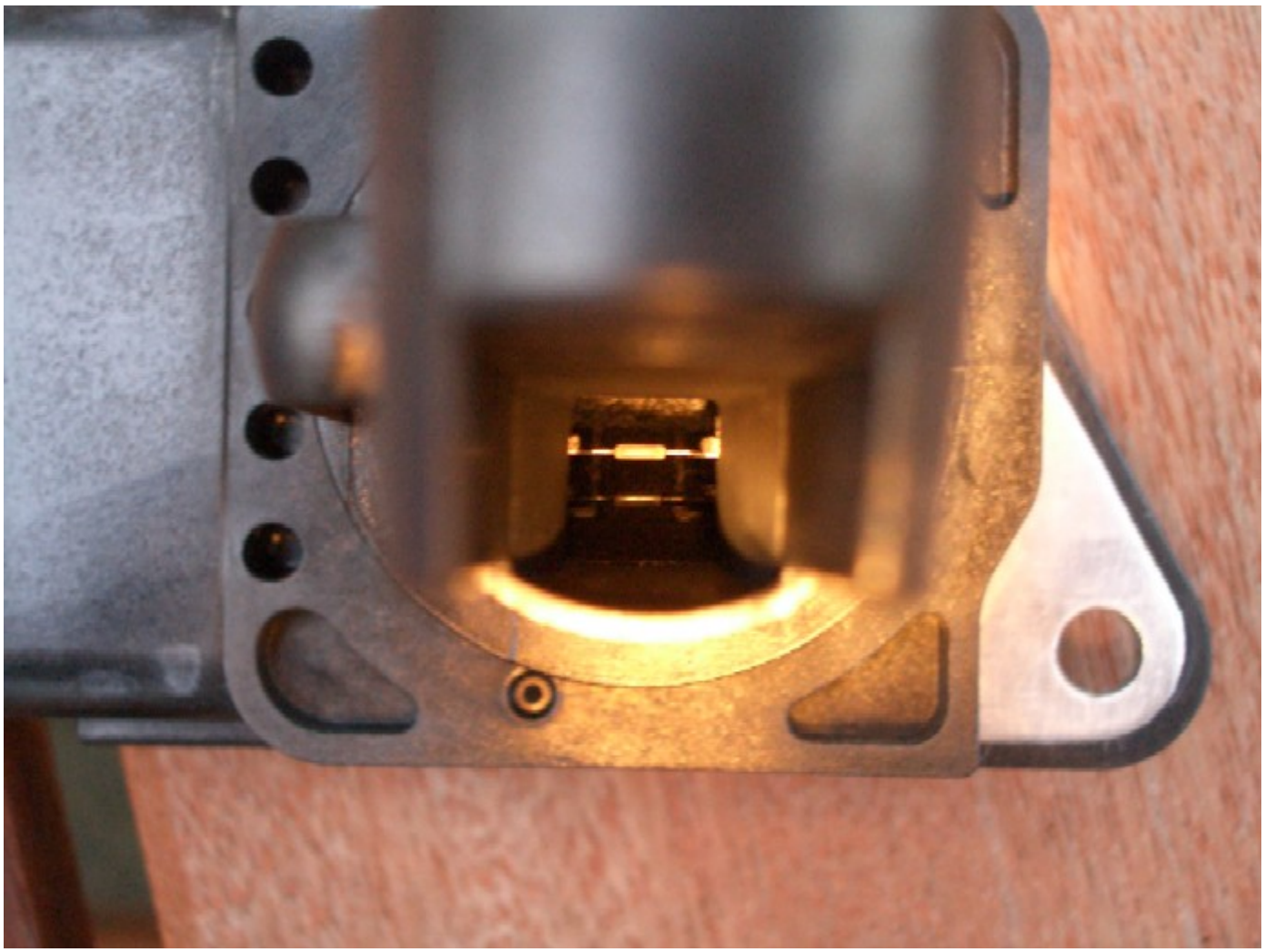
- The easiest way to remove the MAF sensor is to remove the top cover of the air box. First disconnect the MAF sensor connector (circled in red), undo the 4 lid clips (circled in blue) and then loosen the pipe clip (circled in green). The cover can now be removed.

- Once the cover has been removed you can now gain access to the two screws which secure the MAF sensor.

- Remove the two screws and pull the sensor from the housing.

- Looking down the tube of the sensor you should be able to see the two wires.





- One of the wires may look darker than the other but both will probably be dirty. Once cleaned they will both look shiny.

- Spray 99% pure isopropyl alcohol (available at electronic stores) onto the wires to clean and shake dry. Be careful not to use other solvents as they may damage the sensor.

- The wires will probably need more than just a spray to clean them so spray the alcohol onto a cotton bud and use that to wipe the wires. Be careful doing this as the wires can be easily damaged resulting in the need for a new sensor.

- The MAF sensor also incorporates the intake ambient air temperature sensor so it's a good time to also give that a quick wipe.

- Once clean, make sure all excess cleaner has been shaken away, smear a tiny bit of oil around the sensor o-ring to make a good seal and reinstall the sensor into its housing.

- Refit in the reverse order making sure to plug the connector back into the sensor and the pipe clip is tight to stop any air leaks.