

HOW TO: Change the Coolant Temperature Sensor on a 210 V6 (ES9J4S)

Part number - 1338.A7

Old and new sensors



Tools

Spanners - 8mm and 19mm
Torx bits - 40, 50 (only needed if removing the intake manifold)
Sockets - 8mm (only needed if removing the intake manifold)
Phillips Screwdriver
Flat head screw driver
some paper towels

Difficulty - I'd give it 2 Haynes Spanners just because of the amount of stuff you have to move to get to the sensor.

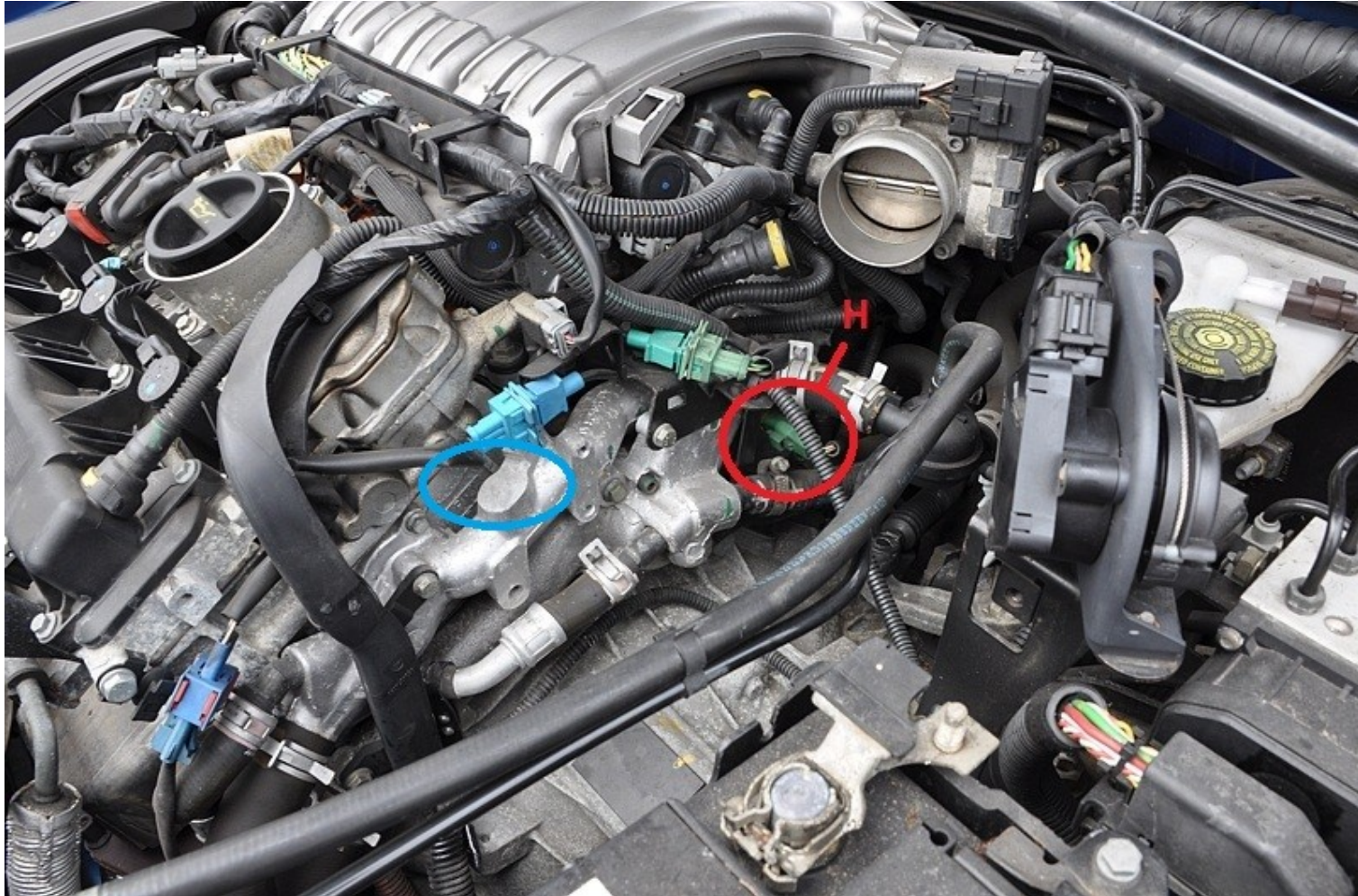
Procedure - (should take less than an hour)



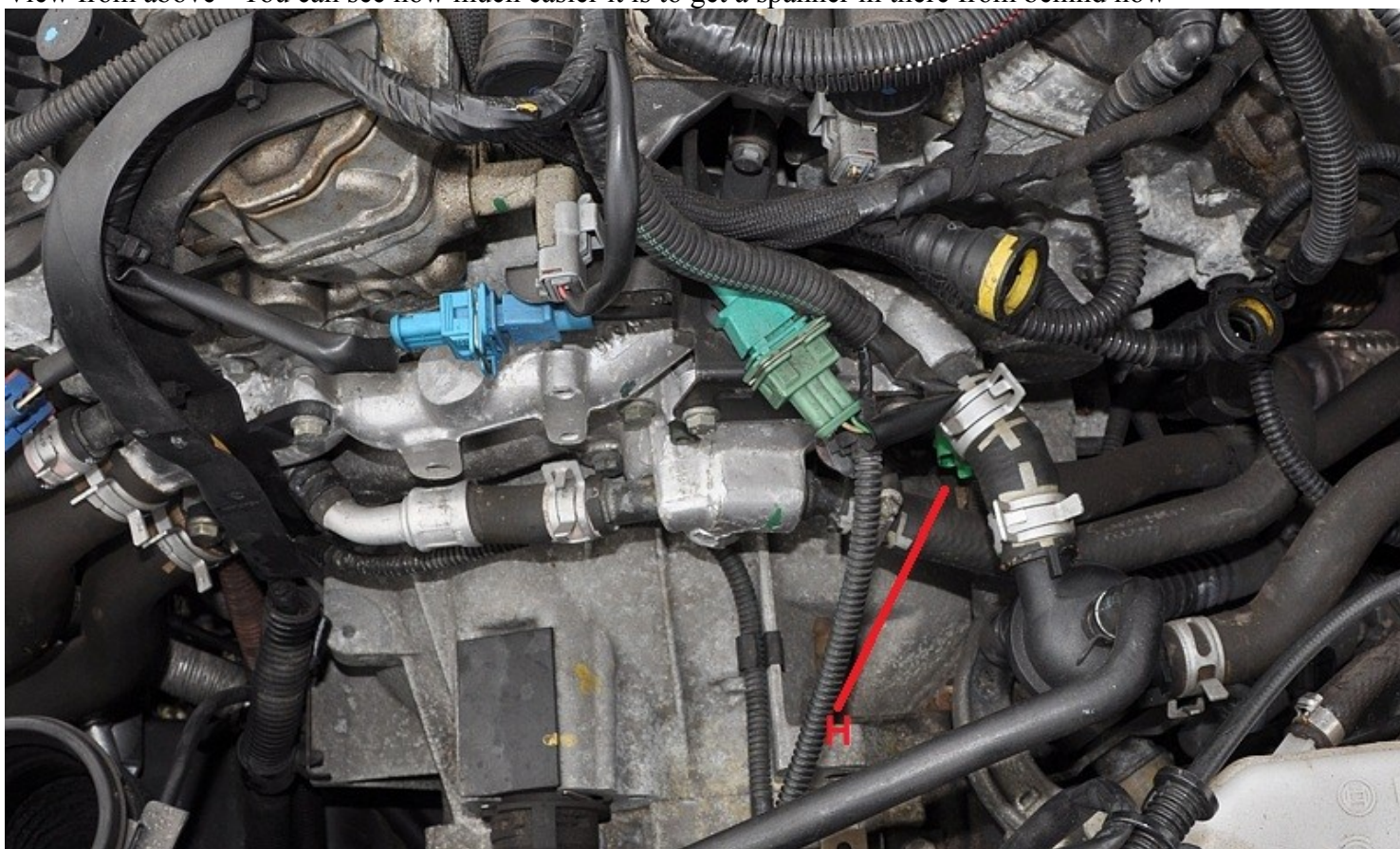
1. Disconnect the battery (A) using the 8mm spanner. Pop the lead out of the way down the side of the battery box
2. Loosen the two thin hoses (B) from the airbox (C) and radiator (D). Remove the plastic engine cover
3. Loosen the giant jubilee clip (E) that holds the flexible intake pipe (F) to the airbox. Pull the pipe from the airbox.
4. Disconnect the intake air temperature probe (G). Lift the airbox up and out of the engine bay.
5. You can perform the swap of the sensor at this point but I found it easier to remove the entire intake manifold as I wasn't able to get any leverage on the sensor to unscrew it. It shouldn't take much but at the time I wasn't to know this. It also makes general access easier. To remove the manifold follow my guide to changing coils here:

<http://www.peugeot406coupe.com/phpBB3/viewtopic.php?f=45&t=20922>

6. You should now be able to access the sensor (H). On the later ES9J4S engine there appears to be only one sensor. On the earlier ES9J4 engine there was other sensor at the point circled in blue. It looks like the aluminium port in the pipe simply hasn't been drilled out.



View from above - You can see how much easier it is to get a spanner in there from behind now



7. Unclip the electrical connector from the sensor. I find using a flat head screwdriver helps to lift the clips on these types.

8. Unscrew the sensor anti-clockwise with the 19mm spanner. The sensor shouldn't be too tight. No coolant will leak until you pull it right out so have the new sensor ready. Pop your finger in the hole to stop the coolant draining then quickly stick the new sensor in. Provided by 406 Coupe Club <http://www.406coupeclub.org>
Screwing it in by hand then tightening up with the spanner. I don't know of any specific torque required so just did it till it offered resistance.

9. Mop up any coolant spills and put everything back the way it was

10. When you start the engine up first time you make get a few rattling, popping noises as the small amount of air that will have entered the system works its way through. I don't think this is anything to worry about. Test drive and check for any leaks once the engine has heated up and cooled down again.