

So I finally got around to changing my main thermostat after previously changing my EGR thermostat and to no avail of the low running temperatures (max 75deg C).

Good news is that it's very doable and you don't need a lift/pit it can be done all from the top with the car level on the ground.

You'll need...

Main thermostat 11 51 7 805 811 €65.00 delivered.

Small socket set mainly 7, 8 and 10mm



A torx set, T20 (female) is the biggest and a few smaller ones for the air intake (male)

Allen Keys or better still I've a set of ½ drive Allen sockets

Flat screwdriver

10mm spanner

Box for screws/bolts

Some coolant 2l

Clean can...garden hose/beer line something small

Rags

Coffee/music

Best done with the engine cold as the old 'stat will be closed and maximum amount of coolant saved.

Open the expansion tank and with a piece of hose siphon the cold coolant out into a clean container.

Remove the acoustic cover from the top of the engine.



Undo the air intake duct above the kidney grille, there are two torx screws left and right and one on top, then using a flathead take out the flexible hose the connects onto the intake silencer.



Now you can start undoing the EGR 'stat. Note it's clean and still has the part no. Attached (a few weeks old)! For this take a 7 & 10mm socket and torx head. Open the jubilee and pull the hose off (tie out of the way to preserve coolant). Undo the oil breather and pull it well out of your way. You can now access both 10mm nuts holding in the EGR stat...Undo those and lift out the stat.



You now must remove the stainless steel pipe coming from the EGR heat exchanger to the EGR itself. Using a 7mm socket undo both jubilees at either end and take out this pipe. Note the jubilees have clamps inside and you may need to also pry open a bit with a screwdriver.



Now you need to remove the air intake from the other side of the cleaner element that connects onto the turbo (oddly enough has no clip) on top you need a T20 female torx and there is nothing on the bottom just pull the hose off the turbo. Take care with a small 3-4 inch pipe in the middle of the larger pipe (no clips just pulls off too)



The EGR heat exchanger now must come out; you'll need an Allen socket and a torx on the exhaust end. Undo both Allen bolts that are closest to where EGR stat was, then undo other Allen bolt on left (NOTE ITS THE LONGER BOLT DO NOT REPLACE IT IN THE WRONG SIDE OR YOU MAY DRIVE IT INTO THE TIMING CHAIN)

Now the hard bit. There are two torx bolts above the turbocharger on the exhaust side and these will be baked on with the heat...take care and gently undo these...use WD40 but only a little. The EGR HX will now be free apart from one small hose underneath...take a 7mm socket and undo this...when you are doing this take your hose and place it over or into this pipe and collect coolant in your container. I used beer line and it snugly fit inside it allowed me to collect about half a litre of coolant. Now take out the HX.



The thermostat can now be seen.

Unclip both clips from hoses on either side of the thermostat with a flathead. Pull out the left hose and tie it up...some coolant will leak. Now loosen the 10mm bolt under the EGR valve that supports the rigid coolant hose running over the alternator ...this will make it easier to take off the right hose from the thermostat.

Loosen the four 10mm bolts that hold the thermostat in place...you will lose coolant here about a litre...I just slowly let it flow out and collected it underneath in a flat oil tray. I did not reuse. Now undo the right hose the same way as the left. You can now fully remove the thermostat bolts and take it out.



Examine old stat and you'll see it looks fine (mine did). (Note belt driven not electric water pump)



Install new thermostat taking care not to undo the seal...also oil up the bolts that hold stat in place as they can be dry.



Putting everything back together is easy and this only took me about half an hour...just take care that you don't miss anything and that you replace bolts like for like as some are longer than others.

When everything is back in place minus the acoustic cover start the car.

You will get low coolant warning but this is ok.

Enter the menu and display coolant temperature.

Start adding coolant slowly, and then open the bleed valve on top of EGR 'stat. Now carefully squeeze as many of the coolant hoses as you can to eliminate any trapped air.

At this point you may have coolant spraying from the bleed screw if you do then close it...if not check coolant level and see do you need more.

Replace acoustic cover.

I should point out that coolant temperature reached 75deg C (from 22) after 20 mins and this was idling while the system was being bled.

At this point enough coolant was added and you will see some return spray inside the expansion tank. Close cap.



I took the car on a half hour road test and when I started the coolant temperature was 78degC. It steadily rose to 91 degC within 5 min and found a happy medium of 91-93degC, this was driving moderately at 50mph in steady traffic with max rpm 2,000. The ambient was 8degC and the AC was on 20degC both sides. During the journey I carefully opened the expansion tank to let out any trapped air.



I'm very pleased with the results as my car always sat around 75degC...I've only once seen it in the 90's and that was climbing a mountain in summer! I'm looking forward to improve MPG!

Hope this encourages you fellow 330d/335d owners to get those stats changed!

Let me know if I missed anything...or if you have any questions

Shane.