

So I noticed oil seeping from the oil filler neck on the 88 to the point where it was pooling in the block 'pits'. Being a newbie, I couldn't see how to get at the oil filler gasket except by taking off the intake or removing the thermostat housing. The thermostat housing looked like it would not come out without removing the filler pipe. After some research, I found a picture of the thermostat housing removed while the filler neck was still in. That was all I needed to get started...and I was looking forward to some quality under the

hood time with the S4. 🛠️

So for the other newbies that would like to perform this job, I've included some pics of how I did it. Not too hard.

First, here's the gaskets I ended up replacing - thermostat housing to heads (2), thermostat housing to block o-ring, thermostat o-ring, thermostat sealing ring at back of housing, new thermostat, oil filler neck gasket - so it's best to get these ahead of time.



First, Jack up the car and support it with jackstands. Then, remove the cross brace. It takes an 8mm allen wrench.

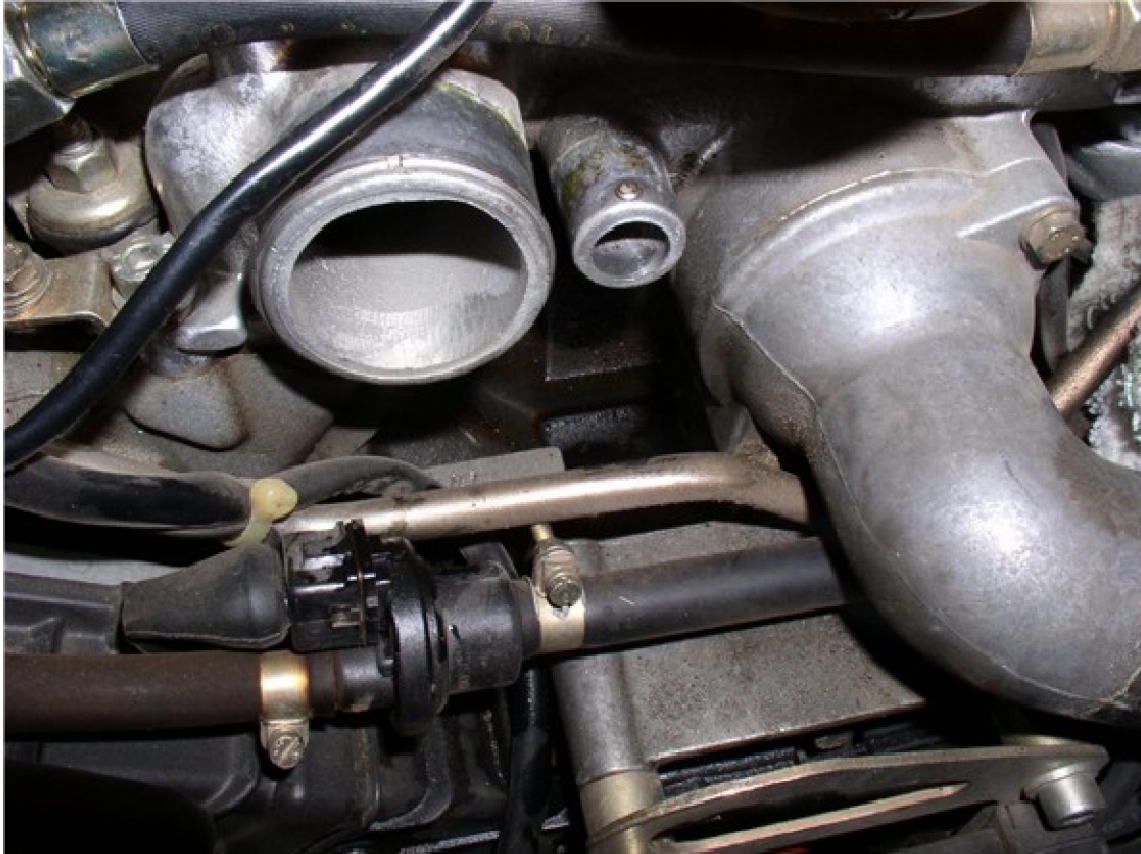


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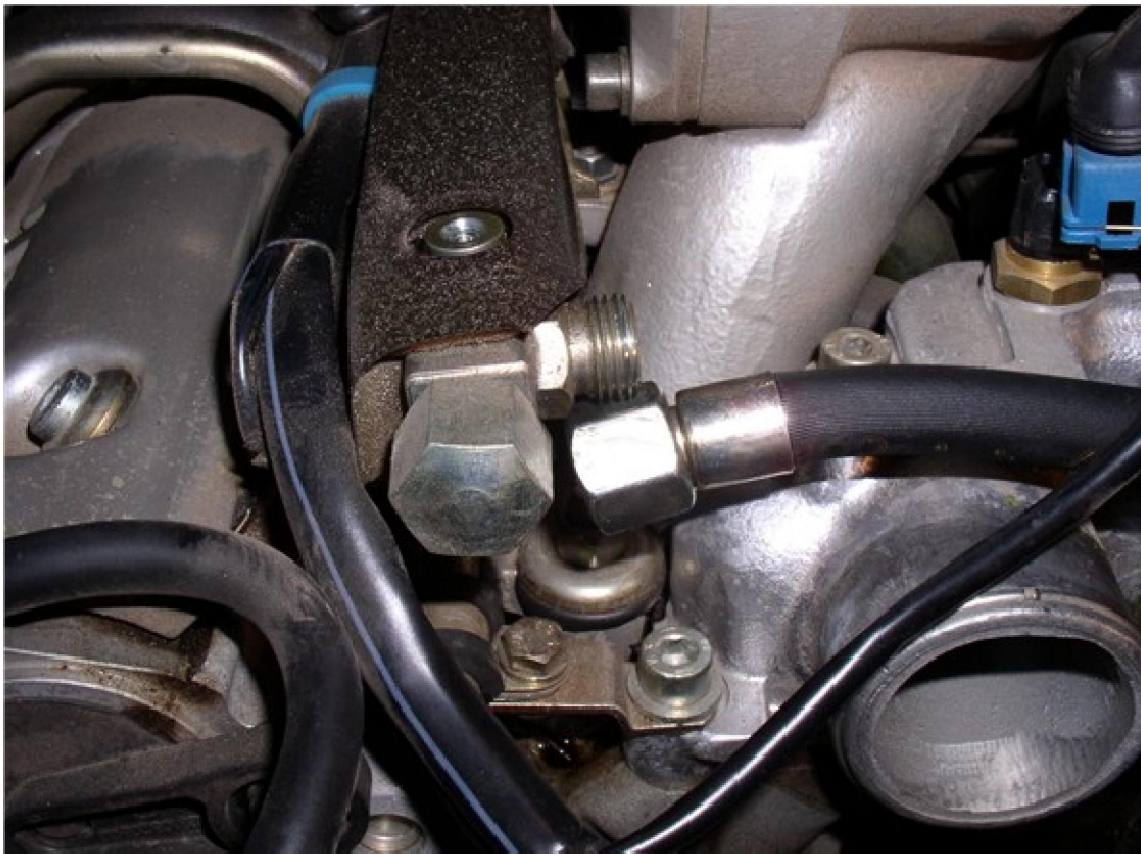


Next, I removed the hoses from the thermostat housing. There are 4 - block to

radiator, radiator to block, bleeder, and heater return hose. I replaced all 4 hoses since they were all original and 20 years old.



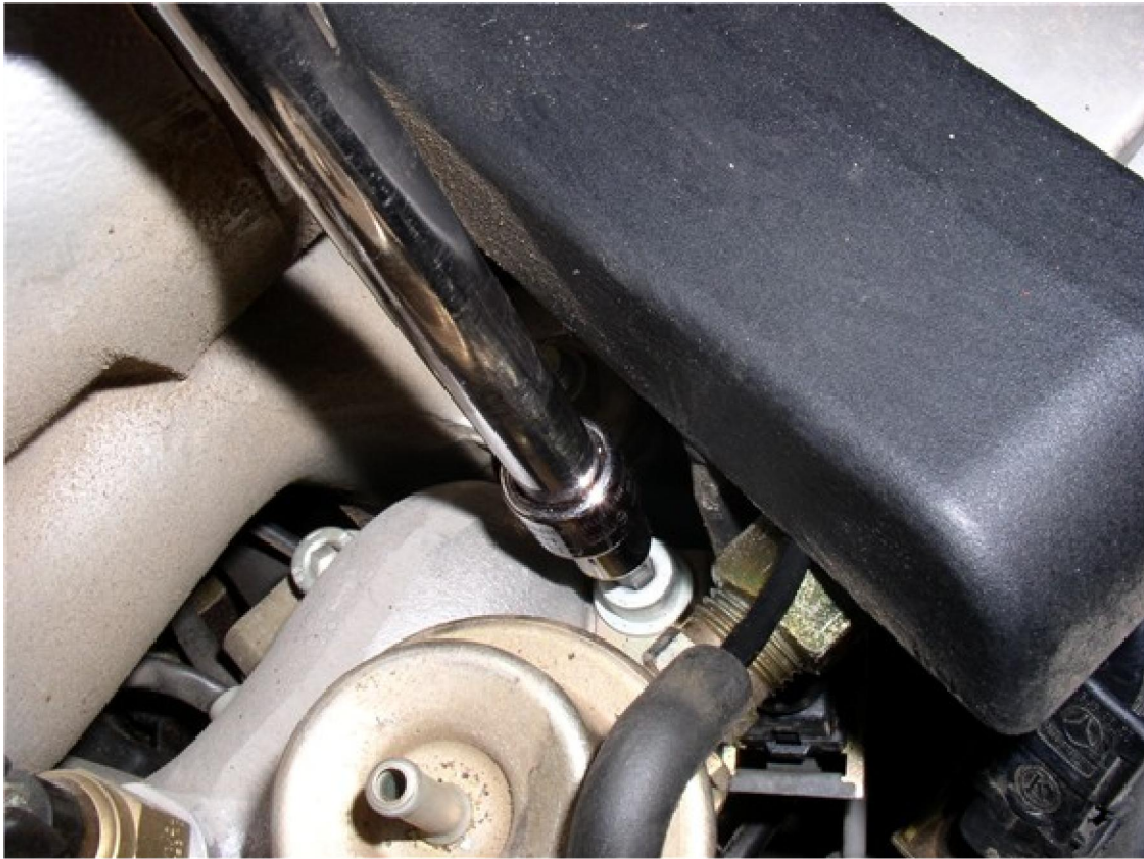
I then removed the fuel pressure damper. I took the plastic cover off the passenger fuel rail so I could access the hex mount to counter hold the connection - then disconnected the hose.



Next, came the remaining 2 connections - one at the driver's side fuel rail and the other at the bottom of the damper. Also remove the vacuum connection at the top.



Then I removed the thermostat housing allen head bolt (6mm) that also holds down the damper bracket.



Next, I took the remaining thermostat housing allen head bolts out. The tricky one is the driver's side rear next to the intake. It's next to impossible to get a socket extension in there straight so I used a regular allen wrench with an

adjustable wrench on top to turn it. This allowed me to get a straight and solid fit with the wrench and avoid stripping it out.



After the bolts are removed and the two temperature sensor wires disconnected from on top, the housing comes out but it's a tight fit. By rocking it back and forth and pulling up and toward you at the same time, it eventually comes out.



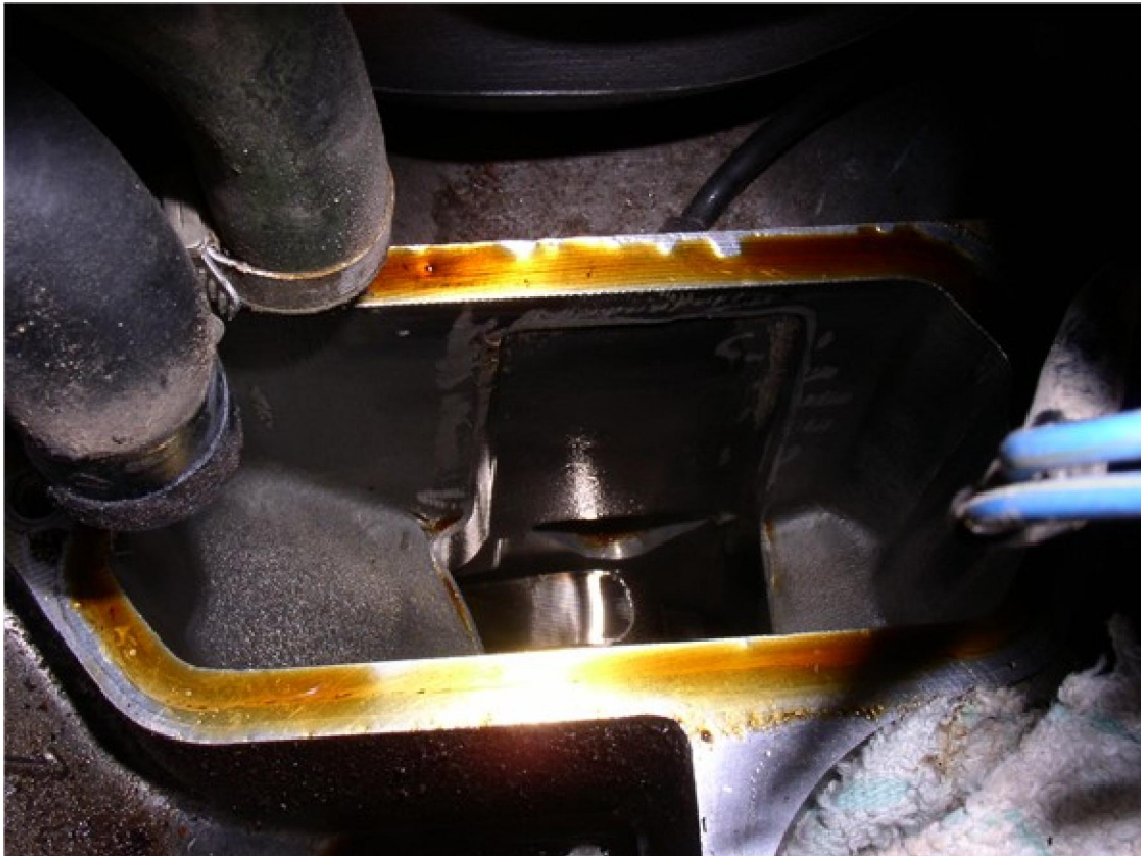
Once the housing is removed, it's a good idea to stuff the openings with something to prevent debris from falling into the openings while working on getting the filler neck out.



Next, to remove the filler neck, I disconnected the two hoses attached to the base.



Remove the filler neck...



With the thermostat housing out, I began disassembly. First I removed the thermostat cover plate.

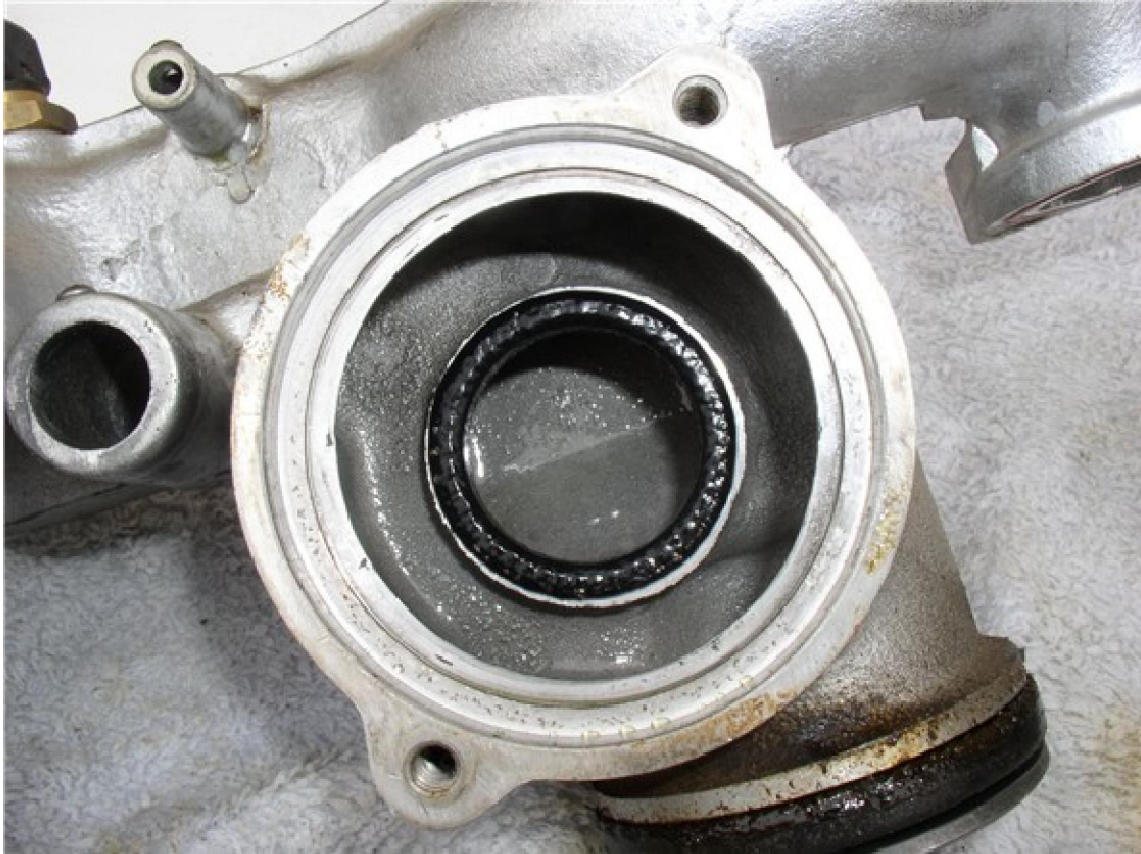


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mostat.



I then removed the thermostat sealing ring at the rear of the housing. I used a screwdriver to bend the edge in toward the center enough to get a grip with

some pliers then pulled it out with the pliers being careful not to damage the housing.



After removing the remaining gaskets and o-ring from the housing, I began putting in the new seals, gaskets. First the sealing ring at the rear of the housing. This just presses in.



The sealing ring sits flush...



Next, I installed the housing to heads gaskets.



Then the large o-ring for the connection from housing to engine block.



he arrow



Then tighten the thermostat plate back on.



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adiator.



Next the parts are ready for installation. I installed the filler neck first (after

cleaning it off and installing the new gasket, of course.



Then comes the thermostat housing. Installing it the same way it came out - rocking and pushing down and away from you. After some maneuvering, it will go back into place. Before putting the thermostat housing back in, you could fill the engine block with coolant to minimize the bleeding. However, I left it empty and needed to spend a little extra time allowing it to bleed off the air in the block before I would get normal temperatures.



At this point, finishing the job is a matter of installing the thermostat housing bolts back in (14 ftlbs - the manual recommends the 2 step approach - 7 ftlbs first then 14 ftlbs next). Remember to install the fuel pressure damper bracket back in place before tightening the driver's side front allen head bolt. Finally, re-attach the crossbrace and tighten down before lowering the car. Here's everything back to gether again...

