

Preface: I'm aware that there is already a DIY for this. I'm creating this DIY to help other owners like me (who are only familiar with basic maintenance tasks). I want to state the procedure, some issues I encountered along the way and my alternative solutions to them. **Beware: Do this at your own risk, I do not hold any liability against accidents or damage made to your vehicle, physical injury or death to your or anyone else performing these tasks. Take caution and when you need assistance, seek help from a professional.**

Problem: Leaking N52 Oil Filter Housing Gasket

Solution: Replacing Gasket 11427537293 (# retrieved from realoem)

Abstract:

- 1.Remove Engine Cover with T45 bit , oil pressure switch
- 2.Remove oil filter housing cap, oil filter, oil, and clean
- 3.Remove. (3) 8mm bolts mounting Oil Filter Housing
- 4.Remove old gasket and clean contact surfaces
- 5.Install new gasket
- 6.Reinstall engine cover, 3 bolts on housing, oil filter, oil filter cap. Check for leaks!

Suggested time: 1-2 hours + account time for coolant change and venting.

Actual time: 4 hours [I was cleaning and taking pictures for this DIY too]

Level of expertise: I'm a Beginner

Special Notes: This DIY eliminates the step of removing the intake manifold to get to the hard to reach screw.

***It is recommended to drain, fill, & vent Engine Coolant for this procedure.**

Coolant Change Courtesy of e90post member Entity <http://www.e90post.com/forums/showthread.php?t=248187>

1.Remove Engine Cover: Notice the **five red** arrows pointing at 5 the bolts, unbolt using T45 Torx bit(must have tool, you can get a inexpensive set for 9.99 at sears). After you unbolt the screws, remove the silver plastic engine cover. Remove brown oil pressure switch, no tool required, cover contact with tape to prevent dust or oil from ruining it[see **green arrow**].

Note: Removing this engine cover will help give you a solid base to give your self leverage when removing one of the bolts in step three [located under the intake manifold] mounting the oil filter housing [see **green arrow arrows**). This step will prevent you from removing the intake manifold itself.



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2. Remove oil filter cap, oil filter, oil, and clean with a rag. [I used a turkey baster to get the oil out and then finally wiped the excess oil with a rag]



3.Remove (3) 8mm screws mounting Oil Filter Housing with 8mm box end wrench



Bottom bolt #1

2b. Remove bolt located near the intake manifold. I used the same 8mm wrench to LOOSEN this hard to reach bolt. I have small enough hands to maneuver getting the wrench in place and using a bigger wrench as leverage. I bridged my elbows on the valve cover gasket [that's why I removed the engine cover] and used upward force to loosen the bolt.



2c. Once loosened, I used a flexible 8 in. 3/8 extension with an 8mm bit to thread the whole bolt out. [Blue plastic in the housing is a nitrile glove I used to cover the port



2d. With an 8mm wrench, unbolt the easiest bolt. [Notice the aluminum, I covered the alternator so that oil or coolant doesn't ruin it. I also wrapped the brown oil pressure switch with tape just in case.



4a. Once all bolts are removed, you can slowly separate the housing from its base port. Slowly remove old gasket with a pick to get it all out in one piece.



4b. Use brake cleaner to clean surface and contact surface on both sides. I didn't take a picture cleaning it but I do have picture of what you do need to clean. The **red arrows** shows the residual gasket that is stuck on the base. Be careful when cleaning this surface, do not scratch it with a screw driver. I mainly used brake cleaner, chrome

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polisher, my nails, and a few parts a razor. You want this surface as clean and flat as possible-this took up a lot of my time, often taking breaks to prevent frustration and muscle fatigue.



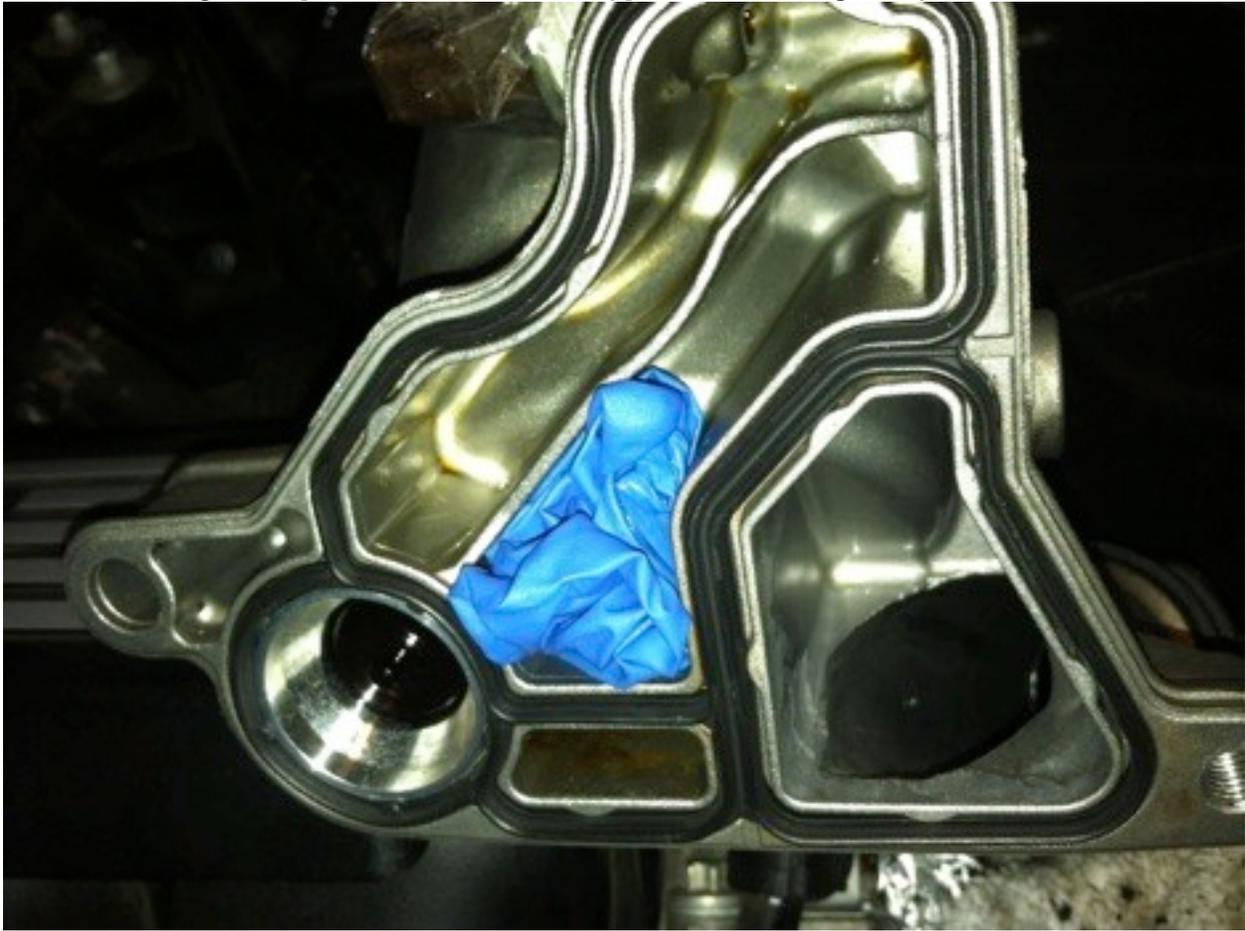
4c. Clean surface looks like this. I'm taking out a nitrile glove that is covering the port.



Almost done: Compare your gasket to see the difference for yourself. Left side is new.



5. Install new gasket [no sealants necessary] and fit housing into place.



6. FINALLY! 6.Reinstall engine cover, 3 bolts on housing, oil filter, oil filter cap. Check for leaks!

NOTE: Install all bolts by hand and then use the wrench to tighten. When torquing the 3 bolts, STOP torquing when the bolt begins to stop torquing. Over torquing will cause the gasket to flatten and will eventually cause the same leak.

Just pay attention and feel when the bolts begin to tighten and stop. Remember its aluminum. **Don't forget if you have not drained your coolant in the beginning, drain and replace your coolant and vent it now before you start it up.** Good Job!

Truly yours,

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