



Tech Article Title

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Spark Plug Swap

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This is a super easy project that will make you feel like you've done yourself a favor by keeping your money in your wallet while picking up a simple skill. From start to finish should take you under an hour - at most a two-beer job (if you're thirsty). This was done on my 2003 A6 2.7T. I know the earlier years had coilpacks that were bolted in. Not sure what other differences apply.

Anyhow, hope this is useful to somebody someday...

1. Open yourself up a nice, cold brew-ha-ha, because you deserve it, damnit. On the day I did this, I went with the Champagne of Beers, a nice, refreshing High Life. Mmmm, always smooth, never bitter, and just right when you're out of Newcastle, Bass, Boddingtons or Guinness. Take a drink. Ah yes, it's good to be alive.

[ED: AudiWorld does not endorse drinking beer while working on your car, not that one would mistake Miller High Life for beer, but the use of beer in this article is for entertainment purposes only.]



2. Assemble the instruments of your endeavor. For this task, we're going to use one flat head and one phillips head screwdriver, a 3/8 inch flex-handle ratchet with 18"

extension and spark-plug socket, torque wrench set to 22ft/lbs, a tube of anti-sieze compound, 6 spark plugs, and the trusty clothes-hanger-cum-inside airbox clip puller tool (I will sell one to any Audiworlder for cost + 10 percent (that's the "bro price"))).



3. Pop the hood, and look into the heart of darkness.



The first things we're going to do is prep everything for the replacement of the plugs. This requires removing the airbox and the coolant tank / reservoir from their mounted locations. First, the airbox.

4. Using the phillips head screwdriver, remove the two screws atop the air intake / scoop.



5. Once the screws are removed, pull forward on the scoop.



6. After removing the scoop, remove the plastic neck by pulling up on the end closest to the airbox (the end will release easily from a clip) and then by sliding the neck rearward and up.



7. Open the clips holding the hoses atop the airbox. There are two of them.





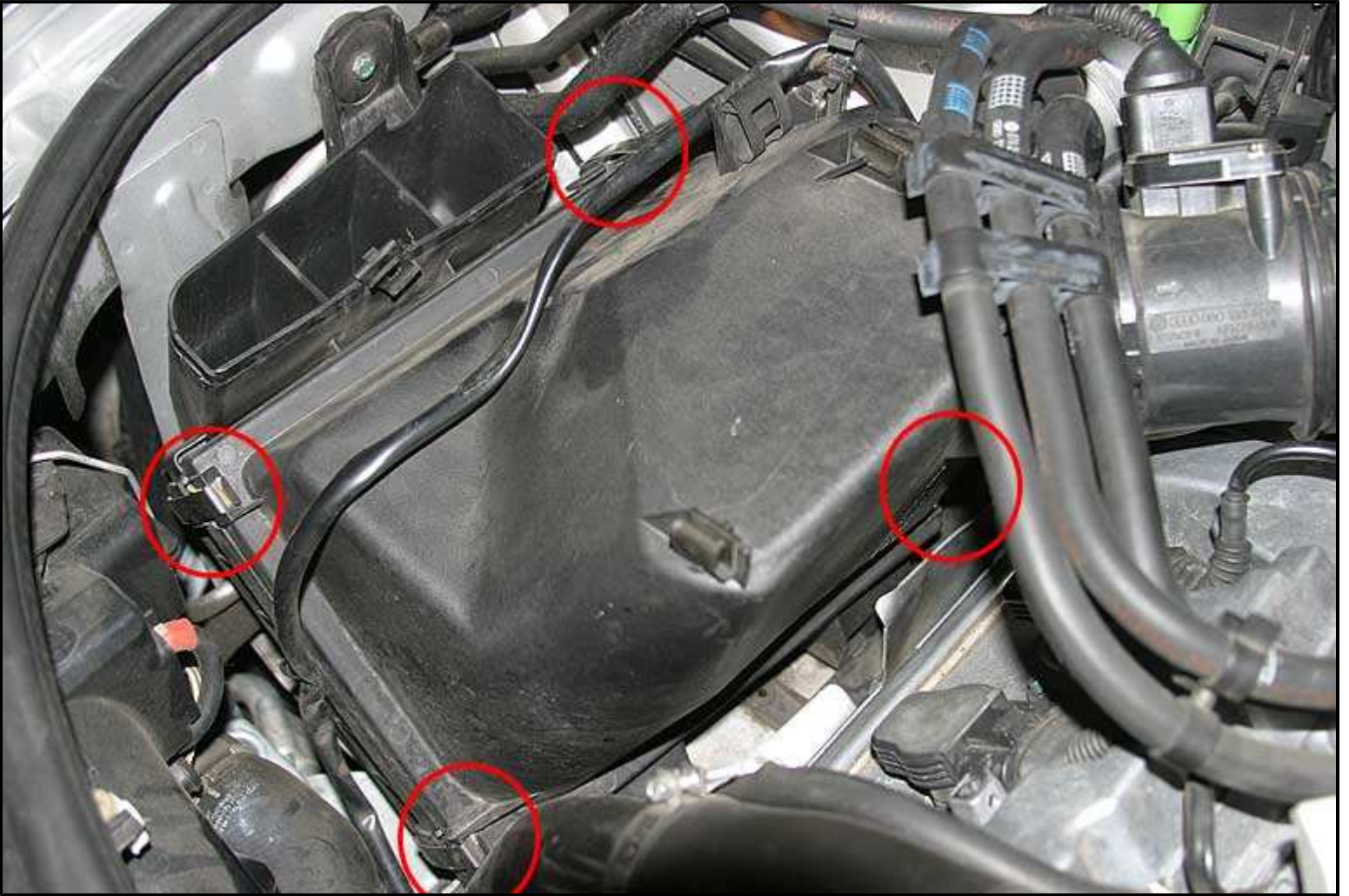
8. Open the clips that secure the MAF sensor housing to the airbox. There are two of them - one facing forward, and one between the MAF housing and the firewall. They operate just like the clips on top of bottles of Grolsch.



9. Remove the wiring from the clip on the top, fender-side of the airbox.



10. Release the pressure clips holding the top of the airbox down. There are four clips, one near each corner. Just push them outward, away from the center of the airbox and they will snap out of their locked position into an open position. The clip on the bottom nearest the firewall is the hardest to get at. Using a screwdriver and pushing on the clip can make it easier.





11. Once all the clips are opened,remove the MAF housing from the airbox. Be carefull, because there is an O-ring in there that might want to jump out. Set the O-ring aside.



12. Remove the top of the airbox. You might have to finesse it out a bit to get it to clear the wiring and hoses you unclipped from the top (BTW, now would be a good time to check your air filter or clean it, while you're in there).



14. Ahh, what the hell, take another good long drink. Oh yeah, that's better.



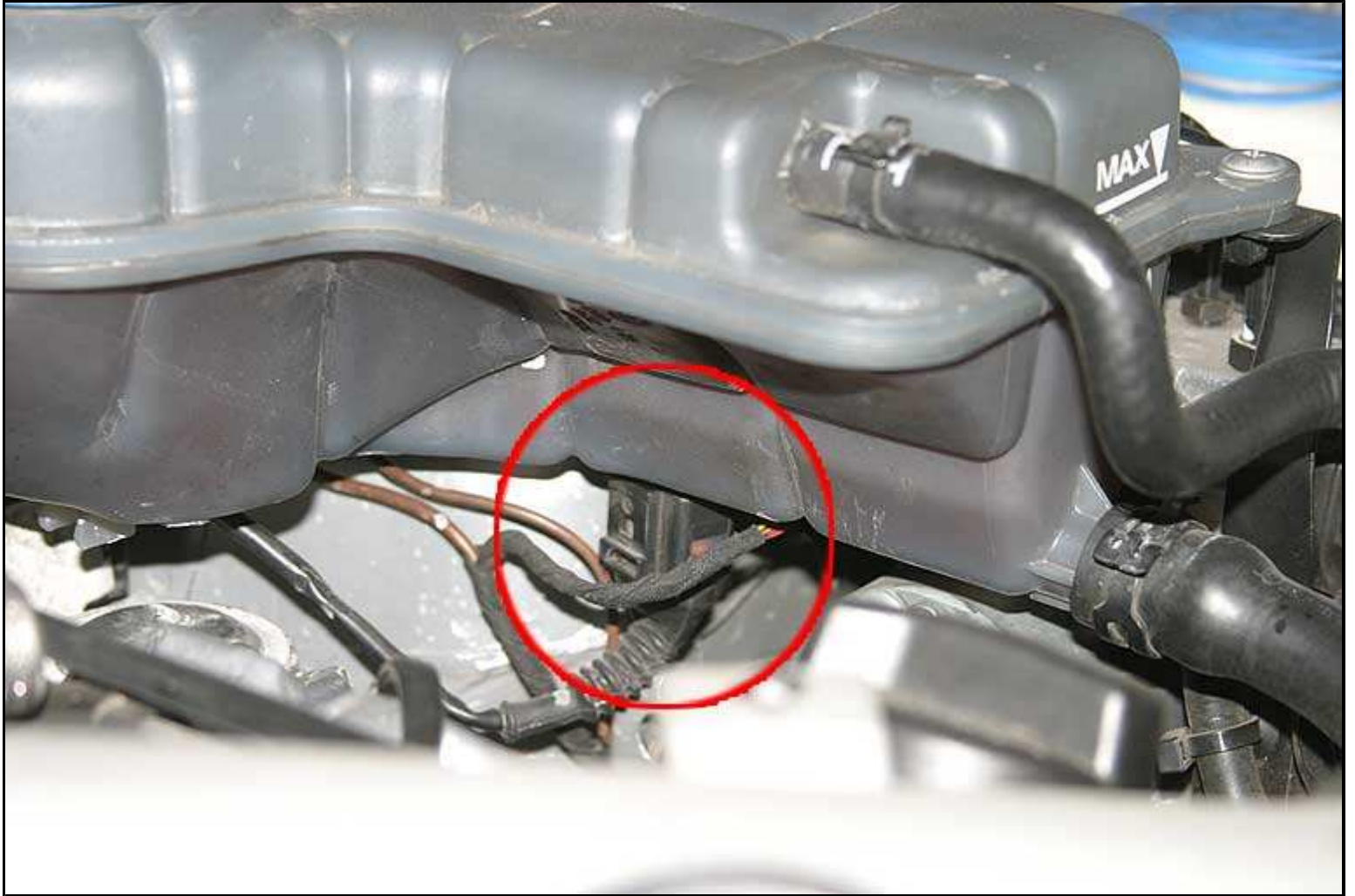
15. Next, go to the other side of the engine and use a phillips head screwdriver to unscrew the screw securing the coolant resevoir.



16. Dismount the tank by pulling forward and up, with a scooping motion. Don't pull too hard, though, as there's a sensor on the bottom that you'll need to disconnect.



17. Use a flat-head screwdriver to release the clip and sensor from the bottom of the coolant reservoir.



Everything is now out of the way, and you can start busting these plugs out and swapping in the new ones.

18. Pick a plug to start with, and use the flat head screwdriver to unclip the wiring from the coilpack (you don't really HAVE to do this, but it might make things easier).





19. Pull the coilpack straight out firmly but smoothly, and set it aside.





20. Get your socket and stick that baby down in there. That's what I'M talking about! NOW we're having fun! Rotate the socket until it mates with the plug. Once you've got it on, apply firm pressure to loosen and remove the plug. Don't try to impact it loose - you don't want to break it off in there. Just apply firm, controlled pressure and it will come free and out.



21. The plug socket will hold onto the plug as you pull it out. Save the old plugs - they come in really useful when you're looking for something to huck at your buddies or your boss.



22. Apply some anti-sieze to the threads of the new spark plug.



23. Insert the new plug into the socket.



24. Insert the plug with the socket and thread it down just until it bottoms out.



25. Switch the extension and socket to your torque wrench, and tighten the plug down with torque set at 22ft/lbs.



26. Once the plug is installed, reinstall the coil pack by simply pushing it in.



27. Reattach the clip to the coil pack (sometimes it's easier to do this before the coilpack is fully inserted).



28. Repeat the process for the rest of your plugs. The plug closest to the front of the car on each side are the hardest to work with. You will have to navigate the coilpack through some hoses. Just be patient. In some cases, it may be easier to remove the clips from the coilpacks after they have been raised a bit.





29. Once all the plugs have been replaced, you can start putting things back together. Prepare the airbox by inserting the O-ring into the round airbox opening. You'll see three tabs around the circumference of the opening that hold it in place.



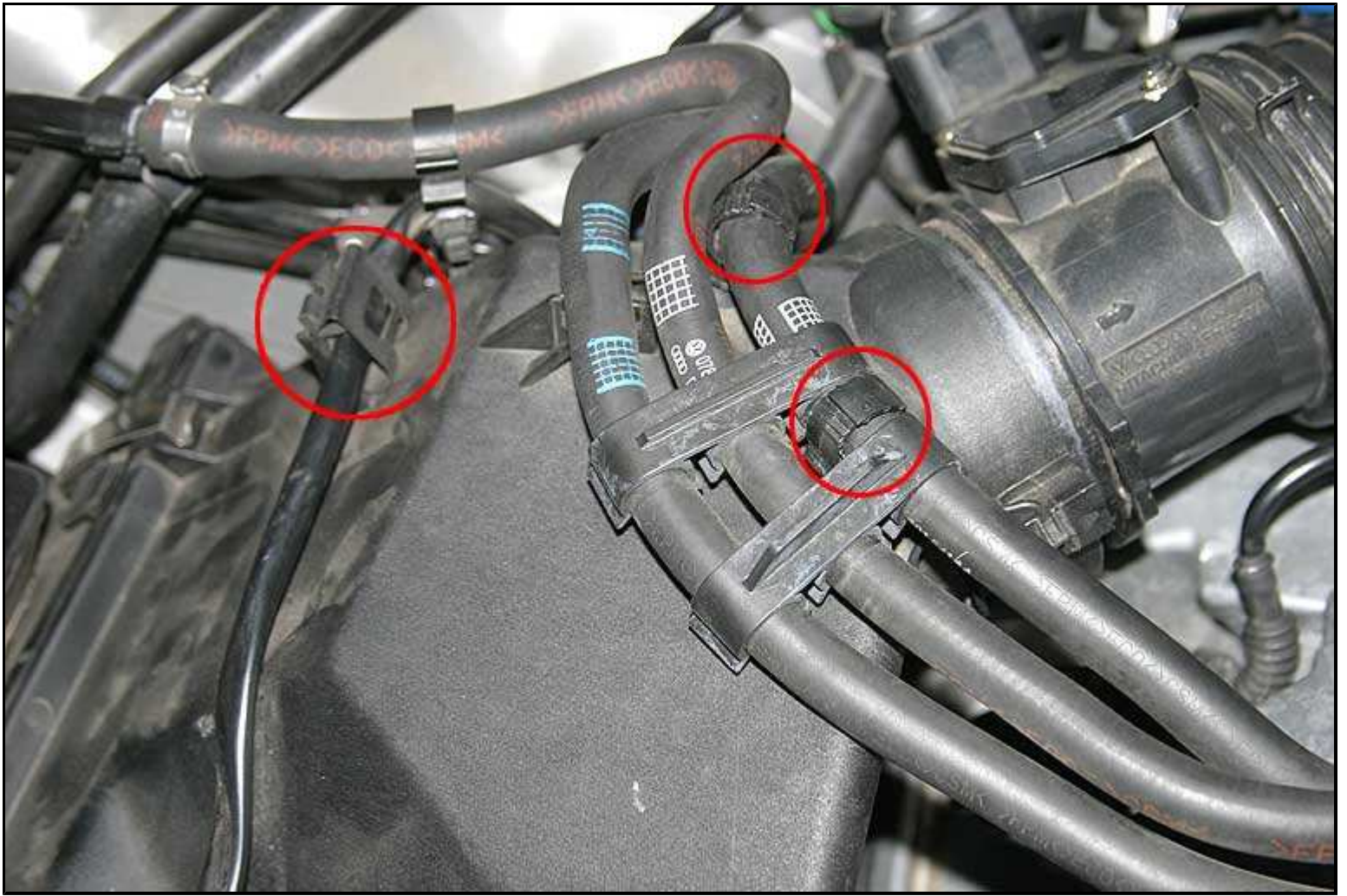


30. Re-seat the top of the airbox and close the 4 clips back to the locked position by snapping them back in place. Use the clothes-hanger airbox clip puller tool to hook onto the bottom clip near the firwall, and just give it a gentle tug to snap that otherwise hard-to-reach clip into place.





31. Re-secure the wiring and hoses to the top of the airbox using the appropriate clips.



32. Insert the end of the MAF housing into the airbox opening and push it in. Clip the ends of the Grolsch style clips into the MAF housing, and close the clips.



33. Re-secure the sensor to the bottom of the coolant resevoir, and reinstall the resevoir itself, securing it with the screw you removed earlier.



34. Reinstall the airbox neck and air scoop, and secure them with the screws you removed earlier.





35. Step back and admire a job well done. Check the car over and test drive it to make sure you didn't do something dumb which you and your financial planner will regret for years.



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