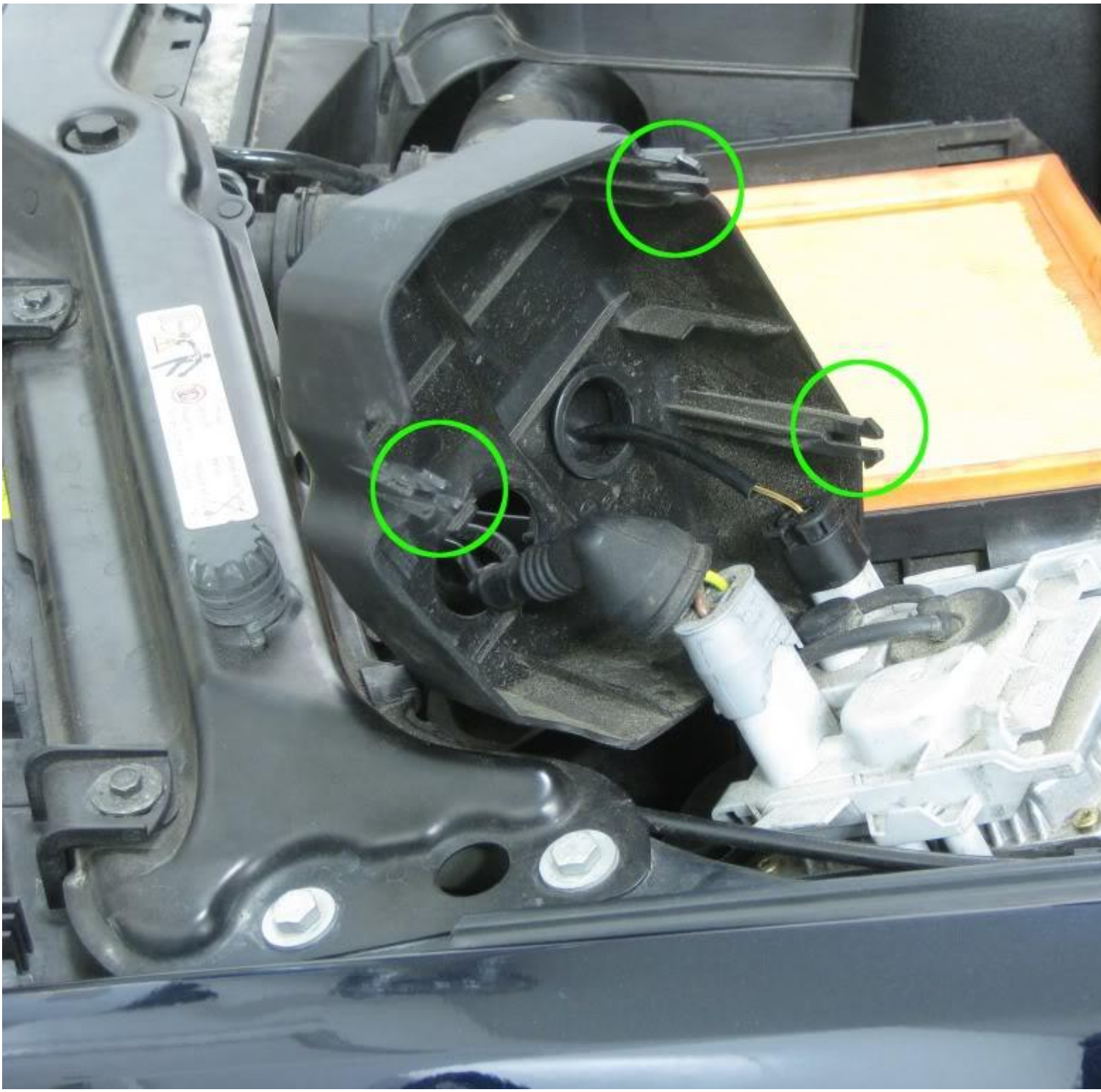
Removal of the stock airbox:
1. Put car on jackstands. If you can't do this, walk away.

2. Follow this DIY for removing the OEM intake. **I have a few changes that should make the DIY easier/less messy below.** http://www.m3forum.net/m3forum/showthread.php?t=262263

2a. When removing the cover for the HID I would get a pair of needle nose pliers and compress the little holders. Refer to the picture below for location.



2b. Open the SMG reservoir and remove fluid in there with a turkey baster. It will lower the amount of SMG fluid that spills in the engine bay.

2c. The oil bypass valve can EASILY be removed via a quick release. It will be located a little below where the bundle of wires/hoses that hang onto the airbox. Refer to the picture below. (Picture is from Ejaz's install)

2d. DO NOT go and buy the special tool for removal of the clamps. If you go into the trunk of your car and get the wrench out you can remove them with that. I suggest compressing to 2 sections furthest away from the end of the clamp and pull backward.

2e. There should be a hose left that ran from the SMG unit to the SMG reservoir. It will be connected to a red connector. This is removed by holding down the red part and pulling up on the hose.

Okay, done with removing the airbox? Good, now onto the easy part.

STEPS 3-4 SMG ONLY:

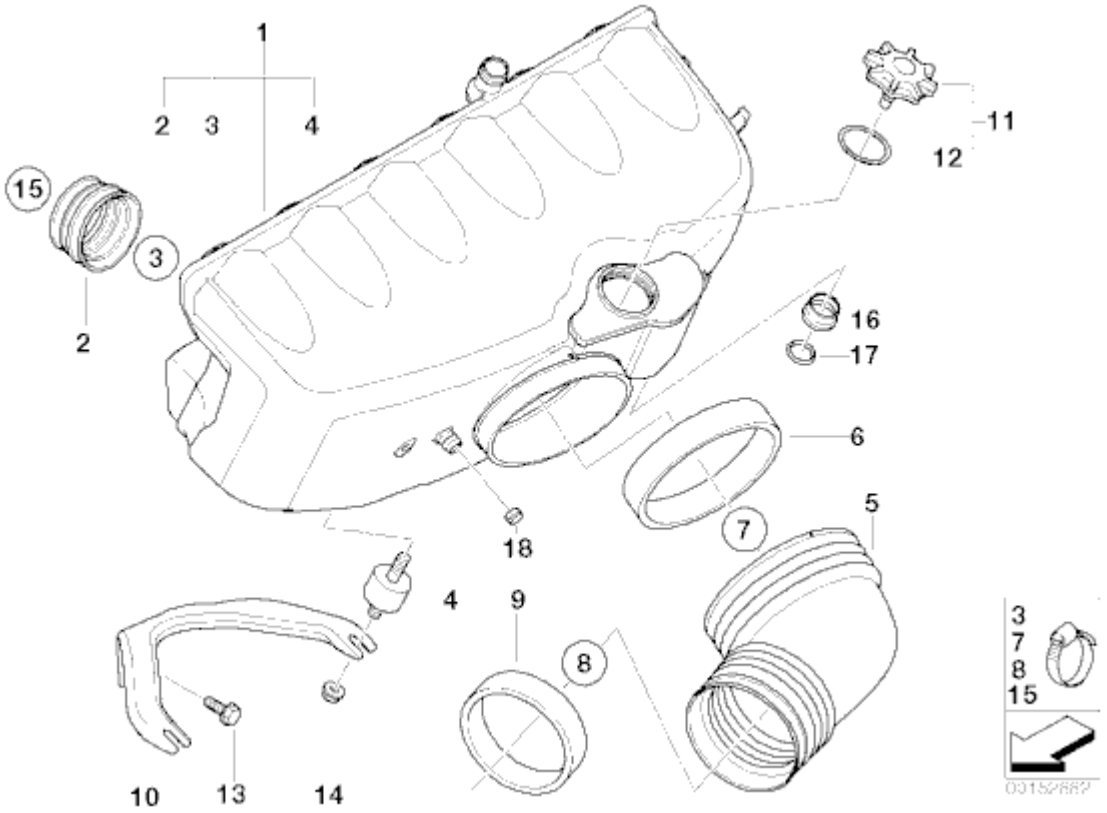
3. Remove cover that leads into the DME. It is located on the driver's side near the windshield. T25 socket will do.

4. Remove the salmon relay so the SMG pump doesn't prime.

Prepping the New Intake and Engine:

5. Next we'll prep the new intake. You'll need to attach the bracket the came with the airbox. If it is backwards compared to mine it is fine. We only need it to hold the group of wires/hoses. The hole at the end is used for the OEM CSL dipstick which we won't be using.

6. Find the OEM intake and flip it upside. You'll want to remove the grommet/bolt pieces and install them on the new airbox. A 15mm wrench will remove these. I cleaned mine up before installing them on the new airbox. The grommet/bolt I'm referring to is #4 in the picture below.



7. Next we'll be installing the hosing that run along the top and bottom of the CF airbox. This is a lot easier to do outside the engine bay. I would refer to the hoses you removed from the stock airbox. Once you are done the bottom of the airbox should look like this.

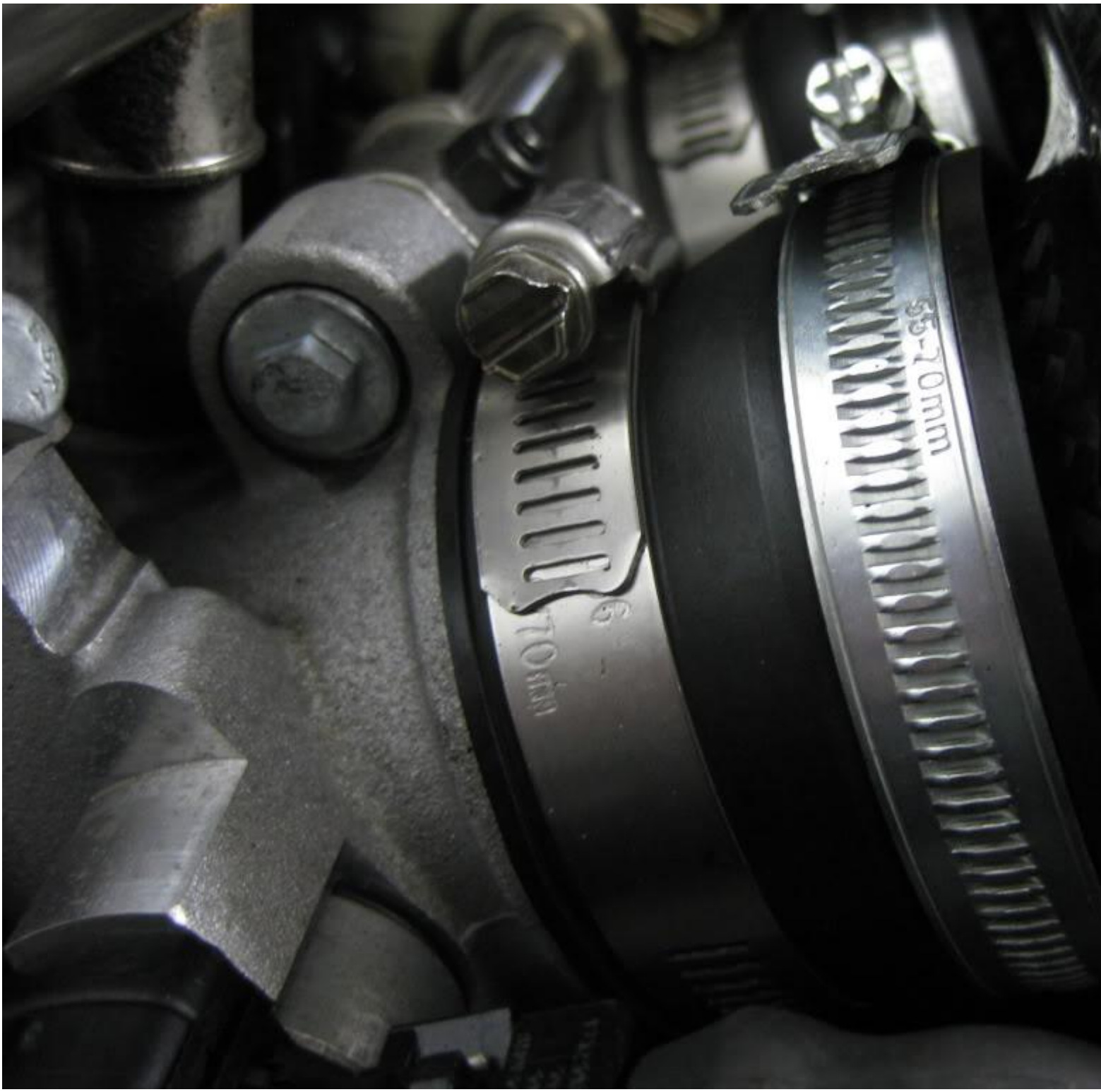
8. Remove the rubber air tubes that connect between the throttle bodies and the stock airbox. First remove the clamp, don't feel bad destroying it since we won't be using it again. I suggest using a needle nose pliers or wrench to bend and remove each one. Once the clamp is off unscrew the air tubes. I cleaned mine up a bit afterward. Once removed you'll notice there is threading on the inside, this is a plastic ring that can pop out of the air tube. Bend the air tube in whatever manner necessary to remove it.

9. Once all of the rubber air tubes have been removed we can reinstall them onto the throttle bodies. The clamps I bought at the store were big enough to go on the throttle body side, but not the airbox side, so save the ones from Evolve for the airbox side. Begin to tighten each clamp prior to actually installing onto the throttle body. You want it to still be able to move with a bit of easy, but it shouldn't fall off. We are going to need to make fine adjustments to clear the throttle rail (I don't know the proper name) and put in a position that will be easily accessible in the future.

10. Once each rubber air tube has been prepped on the throttle body side repeat the same process on the airbox side, but using the Evolve supplied clamps. I suggest actually attaching the air tube to the CF airbox and begin to tighten to where it is snug, but the airbox can still be removed with relative ease.

11. Alright, now that clamps have been installed on both sides install the rubber air tubes onto each throttle body. Begin tightening down the throttle body side. Note the position of where the actual clamp part is positioned. You will want to make sure it doesn't interfere with any moving parts, i.e. the throttle rail. As well, we want them positioned to a way that can make it easier down the road should the airbox need to be removed again. Refer to the picture below for clamp positioning. Intake 4, fourth from the front of the car, is the only clamp that is not accessible from up to. I couldn't figure out a better place than that.

Here is what the clamps and rubber hose should look like when secure.

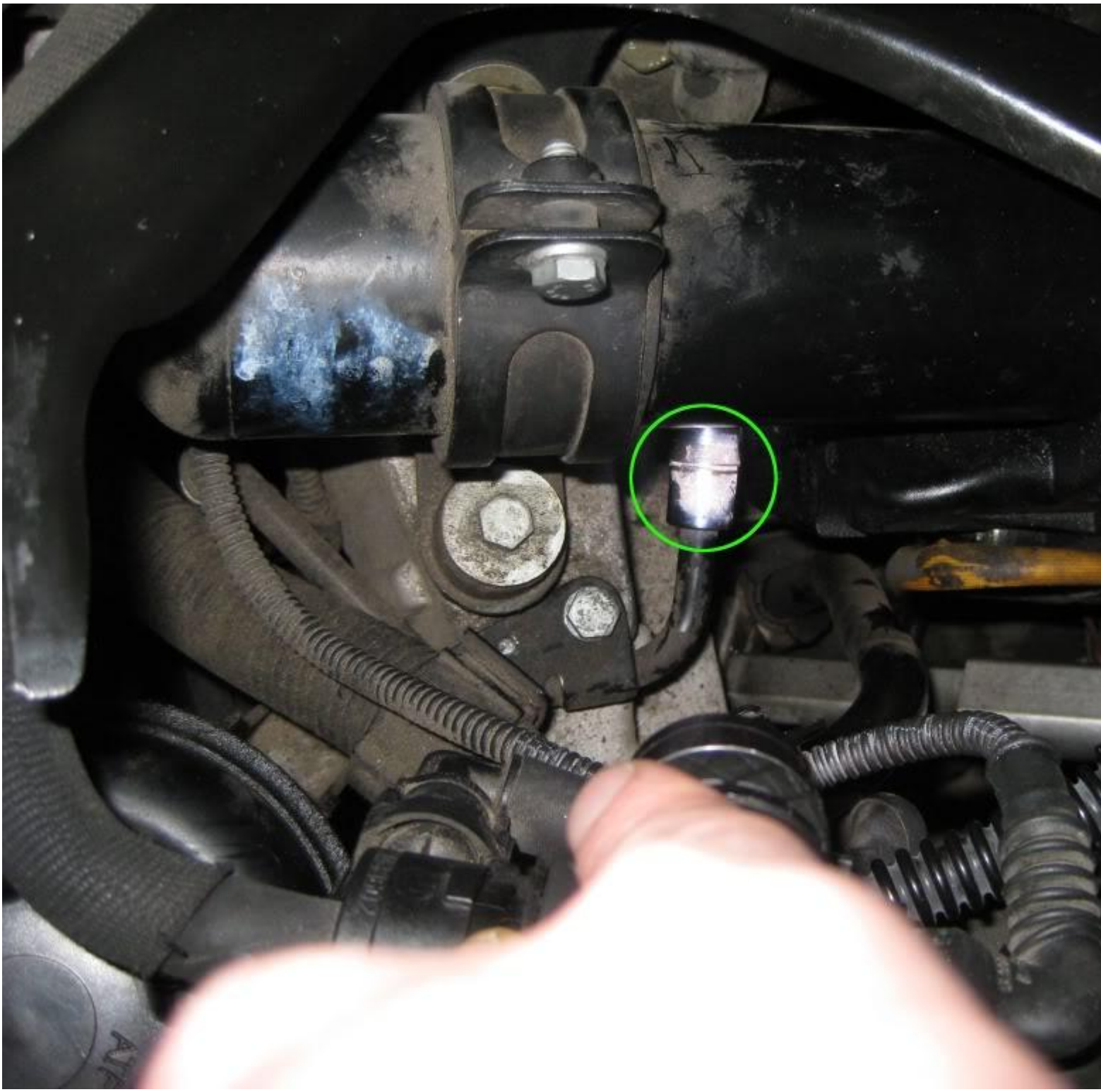


Recap and Power Steering Fluid Change:
12. Okay recap here, we've removed the stock airbox, prepped the CF one, and prepped the rubber air tubes. At this point it would be a good time to change your power steering fluid. This DIY is very handy and and actually attempts to get all of the fluid out of the steering rack. http://forum.e46fanatics.com/showthread.php?t=696928

Now, that's using your dipstick jimmy!:
13. Okay, now onto the actual physical part of the install, bending of the stock dipstick. The best way I found to bend it was with my hands. Once it is disconnected from the stock airbox it easily moves around. Refer to the picture below for a good placement of it.
Quote:

Originally Posted by **OptionLessM**
I would also recommend removing the dipstick tube before bending it.

14. Now it's time to install the first half of the CF airbox. Begin by rerouting and reconnecting the oil bypass valve. It will be the most annoying thing to reinstall outside of the rear 10mm bolt that connects to the airbox bracket.



15. Once that is done insert the airbox into the rubber air tubes and position the grommet/bolts into the airbox bracket. Then bolt on the 10mm bolts until they are lightly snug. Once that is done reattach the bottom forward hose and the two top hoses.

STEPS 16-22 **SMG ONLY: Removal and Installing the SMG Reservoirs:**
16. Next step is to hookup CSL SMG reservoir hose. We'll mount the reservoir after installing the airbox for better placement. Attach the reservoir hose to the red input of the SMG unit.
Quote:

Originally Posted by **turbotoy2791**
I just want to add before you clip the smg reservoir line in. fill it with fluid and tap it with a wrench lightly to get the air out. This little tip would have saved me 200 dollars and about 25hrs work. I didnt get the air out of my line and it started having shifting problems, parked the car to get a haircut, came out ,started the car ,put it in first and the tranny locks up in two gears. Get it towed home took the transmission out tore it apart put it back together, put it back in, and replaced the gps, still the same problem with shifting did the trick above solved the shifting problems. 

17. Now that we have the first part of the airbox on we can go ahead and test fit the second half. We aren't going to install the air filter yet because we will need to remove the second half for mounting of the CSL SMG reservoir. Install it and attach one, maybe two of the little screws.

18. On the strut tower we will be positioning the CSL SMG reservoir. The best location is where you can fit it. That little "bolt" that sticks out is not used for the reservoir, but is a good guide. You'll want to make sure you aren't too high up or else the hood will not close. I would suggest installing the bracket on the reservoir and moving it around until you find a location you like. Mark the lower bolt hole and remove the bracket from the reservoir and mark the upper bolt hole. Make sure it is level as well. There is no turning back once you start drilling so be confident with your placement. Select a drill bit that slides through the bolt holes on the bracket and drill away.
Reference photo:

19. Once the holes are made into the strut tower, insert your bolt/nut hardware and apply some loctite to secure it.

20. Install the CSL SMG reservoir.

21. Get the Pentosin CHF 11S fluid out and begin to fill up the reservoir to max on the cap.

22. Prep the SMG with fluid use the following steps.
22a. Turn key to position 2.
22b. Press and hold brake pedal.
22c. Shift between R and N (0 for early models) until the transmission stops shifting gears. Wait until the hydraulic pump stops.
22d. Turn key to position 0.
22e. Check reservoir and fill fluid to max.

Wrapping Up:
23. Install the air filter.

24. Install the second half of the airbox. It slips into the back of the first half of the airbox. It may require some jimmying around to get it to fit.

25. There are three screw holes that secure the second half of the airbox to the first half. I believe a 5.5 mm allen wrench will get the job done. Use the screws supplied from Evolve, not the ones installed on the airbox when you received it. The ones you DO NOT want to use are the ones that are cut, you'll see the metal (silver) at the bottle of the threads.

Wiring:
The wiring is really not too complicated. The wiring harness you received from Evolve that connects to the Intake Air Temperature (IAT) sensor needs to be wired to the MAF connector via pins 1 (Blue/Yellow) and 3 (Brown). It does not matter which wire from the harness is wired to which pin, just that the connection is completed. These wires run back to DME and are used to measure IAT. The other wires are no longer used and will need to be protected from the elements in some fashion.

This is the MAF connector you will be working with/around. You can remove the rubber grommet my cutting the zip tie attached to it. It will also let you see which wire is which pin in the connector.

Here is the MAF connector without the rubber grommet around it. You can see where pins 1 (Blue/Yellow) and 3

(Brown) are located.


5 4 3 2 1
LK
49757 0
>PA 6 GF 30<

1. Splice/Split Wires Method:
Pretty straight forward approach, you will want to split the wires from the IAT wiring harness into pins 1 (Blue/Yellow) and 3 (Brown). You do not want to cut the wires, but split into them. This approach will allow you to return back to stock if need be. You'll want to solder and protect the wires from the elements. As well, cover the MAF connector.

As per Paul's suggestion:
Quote:

> Originally Posted by **Paul@evolve**
> *Pin 1 you need to cut and solder one of the wires from the wiring loom - remember that you need to solder to the wire going back into the ecu.*
>
> *Then pin 3 need to spit into this wire and solder (don't cut this wire) to the remaining wire on new loom.*

As per Ejaz's suggestion:
Quote:

> Originally Posted by **0-60Motorsports**
> *The two wires from this splice into Pins number 1 and 3 on the maf connector. Disconnect the maf after that and upload the tune from EVOLVE and you'll be good to go.*