

THESE INSTRUCTIONS ARE PROVIDED BY ///MPOSTER FOR THE BMW F25 X3 ( 2011+) / ENGINE (N55).  
AS WITH ALL DIYS , DO AT YOUR OWN RISK.

PARTS:

BOSCH SPARK PLUG ZR5TPP33 BMW #12131437986 ( BMW \$25/ TISCHER \$18/ TURNER \$12)

NGK 5992 alternate spark plug (BMS \$12)

T25, T27 TORX SOCKETS

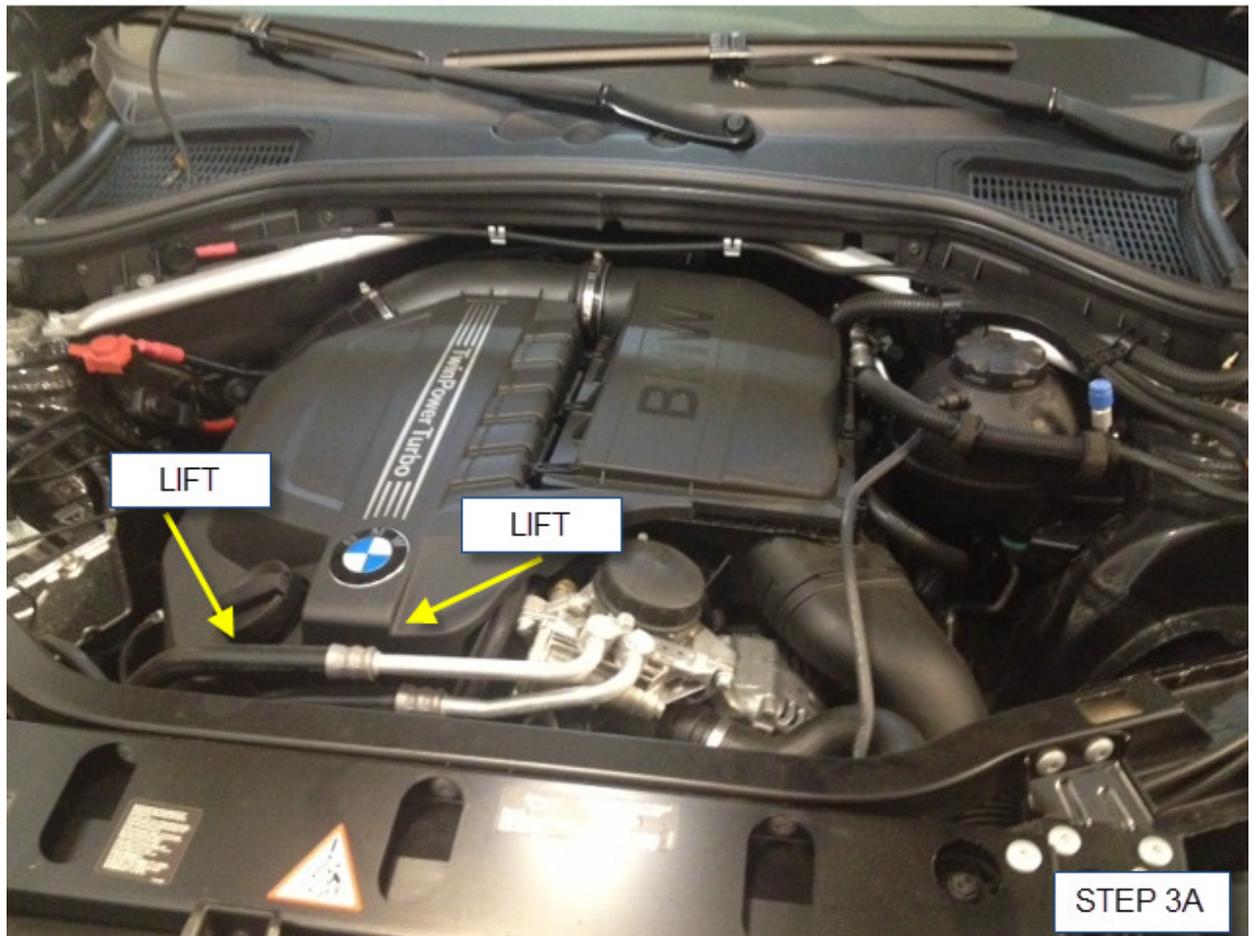
FLAT AND PHILLIPS SCREWDRIVERS

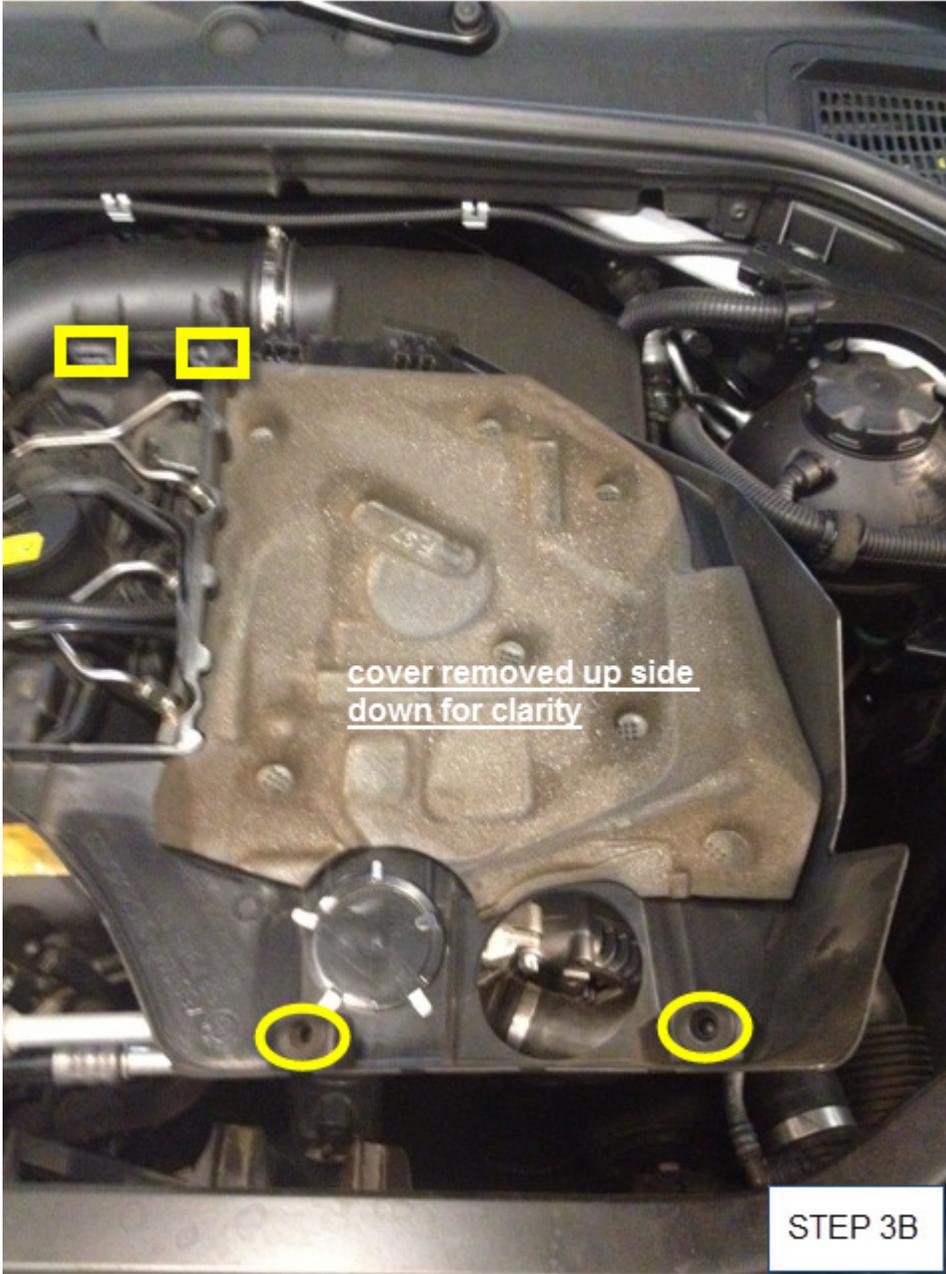
10MM, 16MM SOCKETS

3"EXTENSION, 6"EXTENSION,SPARK PLUG TOOL (\$19 @BMS)

SOCKET WRENCH AND TORQUE WRENCH

- 1) Open hood by using the hood latch inside by the lower left drivers footwell
- 2) At the hood, use the safety release latch located just above the grills. The hood will open now.
- 3) Remove the engine cover by lifting up at the oil filler location. This will release the rubber grommets from the spherical standoffs, then pull towards you to release the rear of it from the rear rectangular grommets. **You have now gained access to spark plugs 1,2,3.**





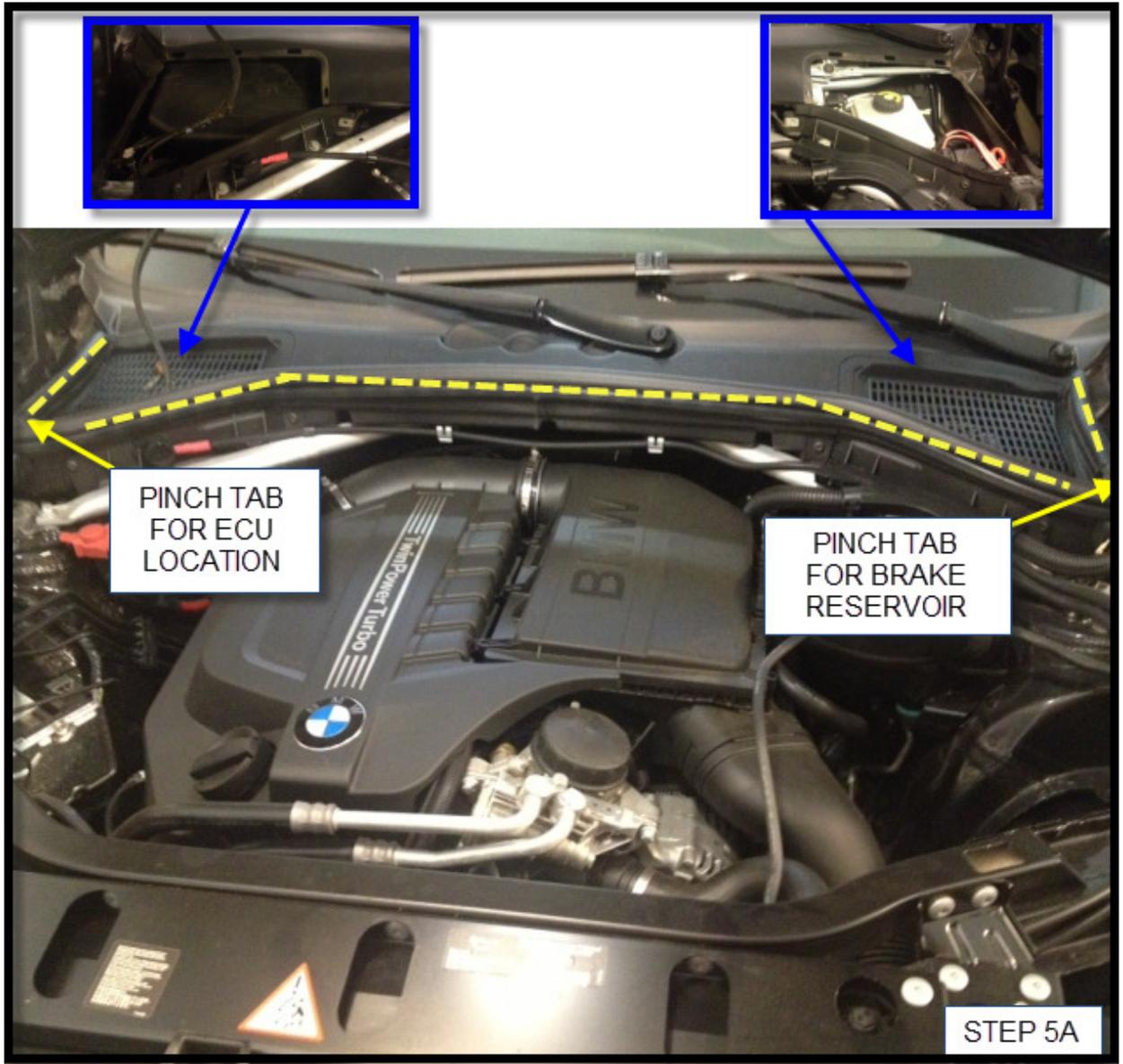
cover removed up side  
down for clarity

STEP 3B

- 4) You need access to the rear 3 spark plug locations, so you will have to remove some cowlings and panels. It is easier to remove it all at once than when you are in the middle of removing the plugs. Use a T27 to remove the black screws on the panel above the intake arm and filter. This will also allow you to see the sensor on the intake as well.



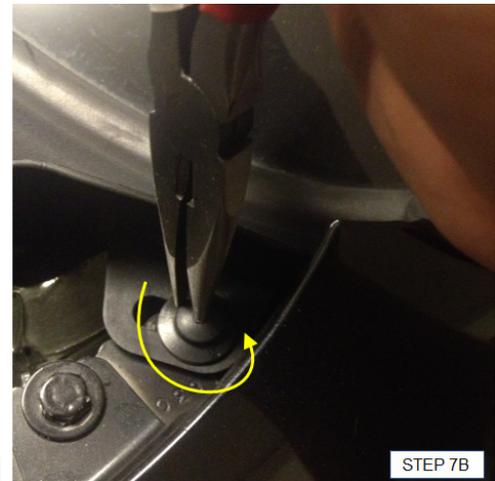
- 5) Next remove the left, center, and right rubber hood seal, as well as the left and right ECU panel and brake reservoir cover panel. For the reservoir panel, pinch the tab and then lift and pull.



- 6) The wipers need to be next. Pull on the round circular covers to expose the nut holding them on. Use a 16mm socket to loosen the nut. I suggest at this point marking the wiper's location with tape. (You don't want them to hit the windshield pillar after install). I moved them to the upright position, then bent them at their spring point, and finally pulled hard to get them removed.

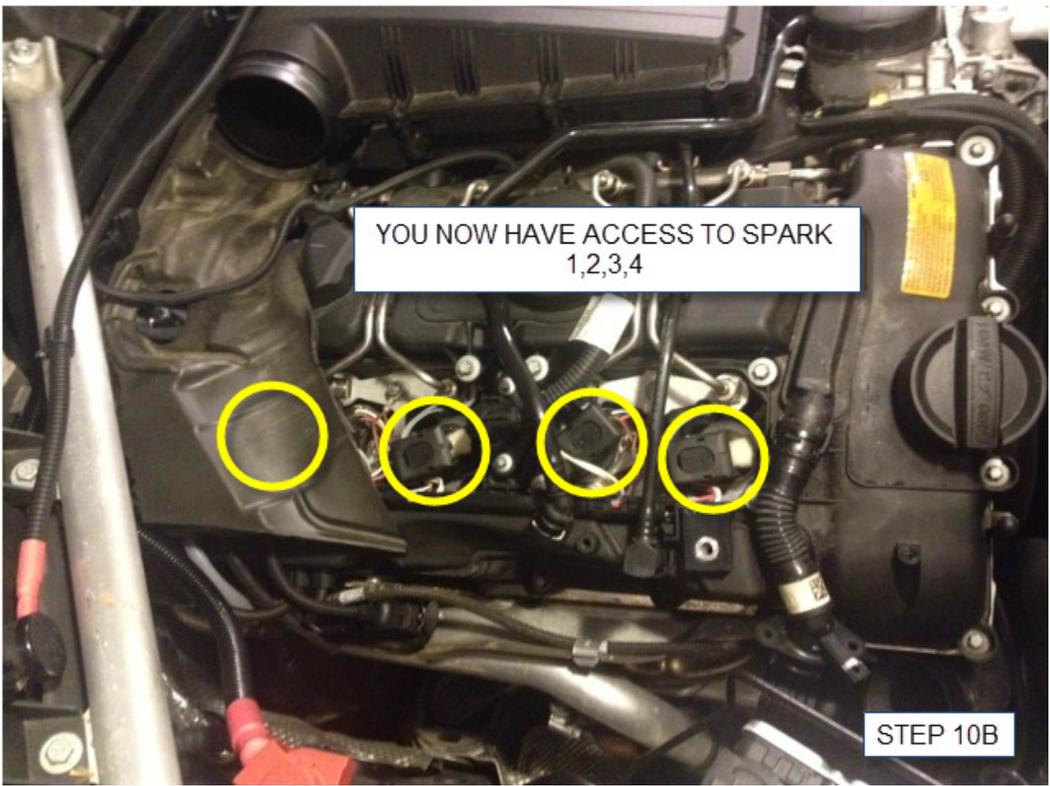
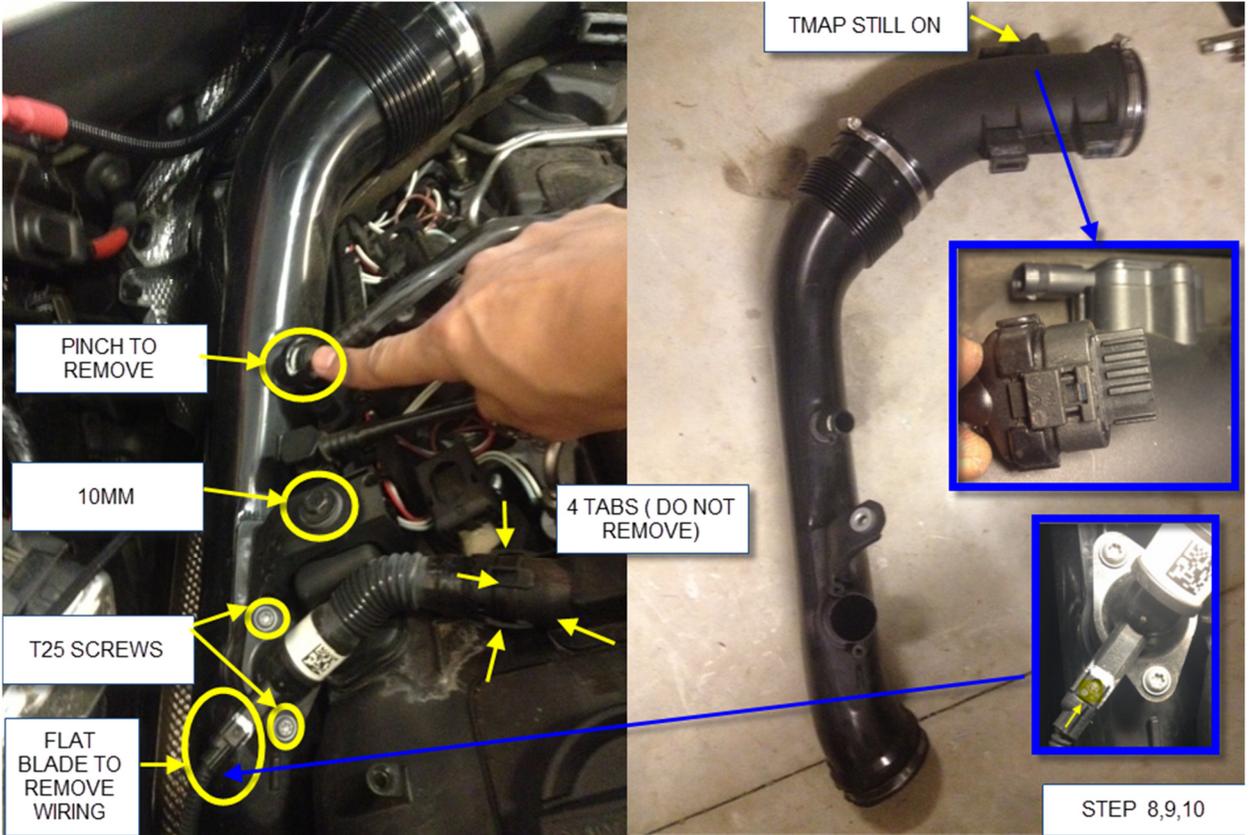


- 7) Remove the cowl by removing the last two secured points. Where the fender meets the window at the pillar, there are two Phillips head plastic screws that need to be removed. Mine stripped so I used pliers to rotate ( as they are threaded). Pull up on the panel in various locations and you will hear pops as the tabs release.

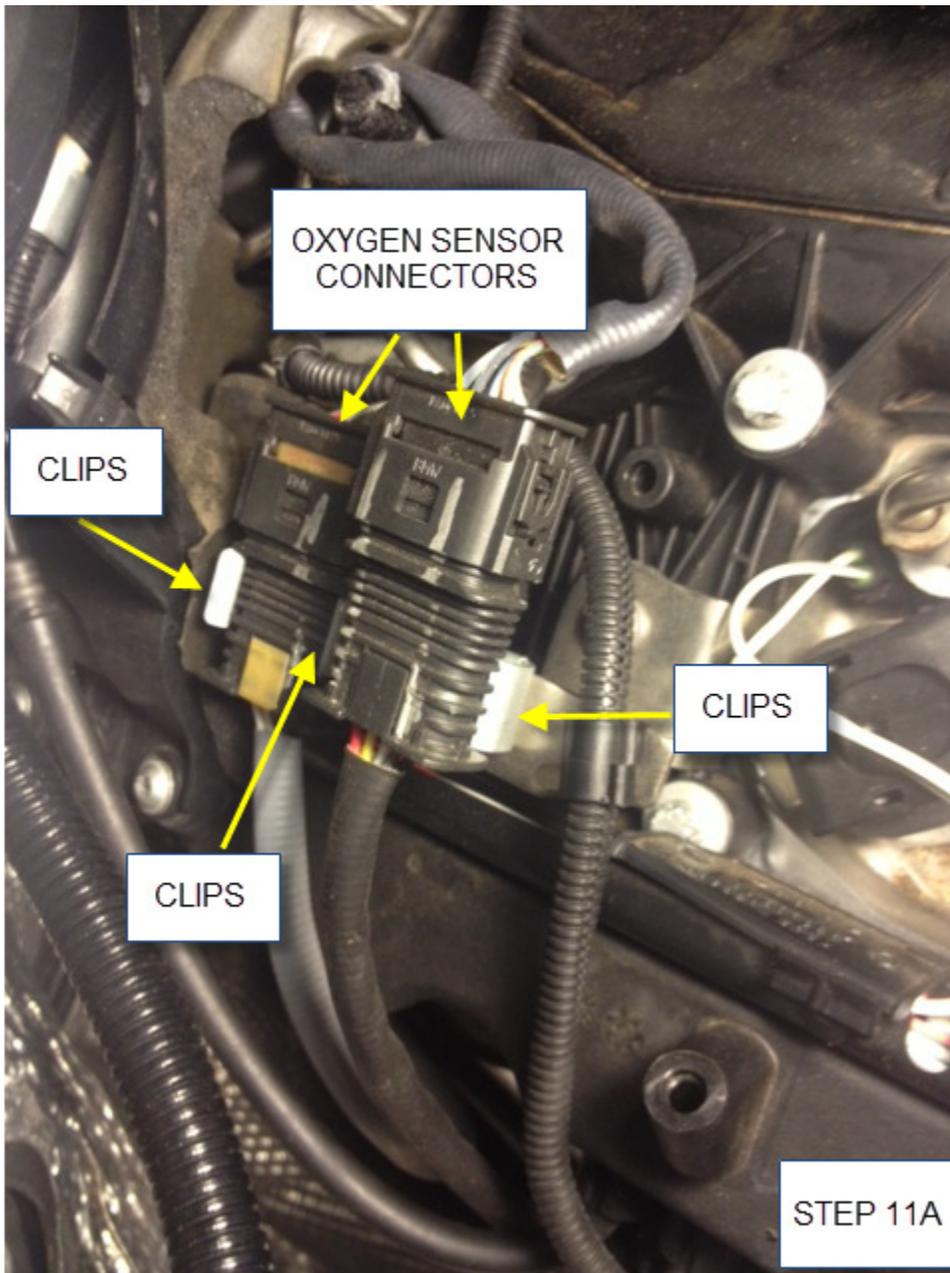




- 8) Next you want to remove the intake arm in one piece, so there will be multiple items that need to be loosened or removed in the following numbered steps. Use a T25 to remove the silver screws on the sensor ( I think PCV) by the lower intake tract. Do not try to remove the sensor by the opposite side as it has 4 tabs that need to be simultaneously lifted. After removing the screws , use a small flat blade screw driver to remove the sensor wiring.( lift on center of tab)
- 9) Next move up the intake tract by the center-top-engine by the TMAP sensor. Press the tab on the sensor connector to release it. No need to unscrew this sensor, just leave it in the intake arm.
- 10) Using a 10 mm, remove the bolt in the center of the intake tract that secures it to the valve cover. Before removing the whole intake arm in one piece, make sure you popped off the sensor (PCV), make sure you popped off the breather hose ( right next to it) by squeezing tabs and pulling up. Loosen the clamps at the upper location and lowest location. Finally you are able to remove the arm in one piece. **You have now gained access to spark plug 4.**



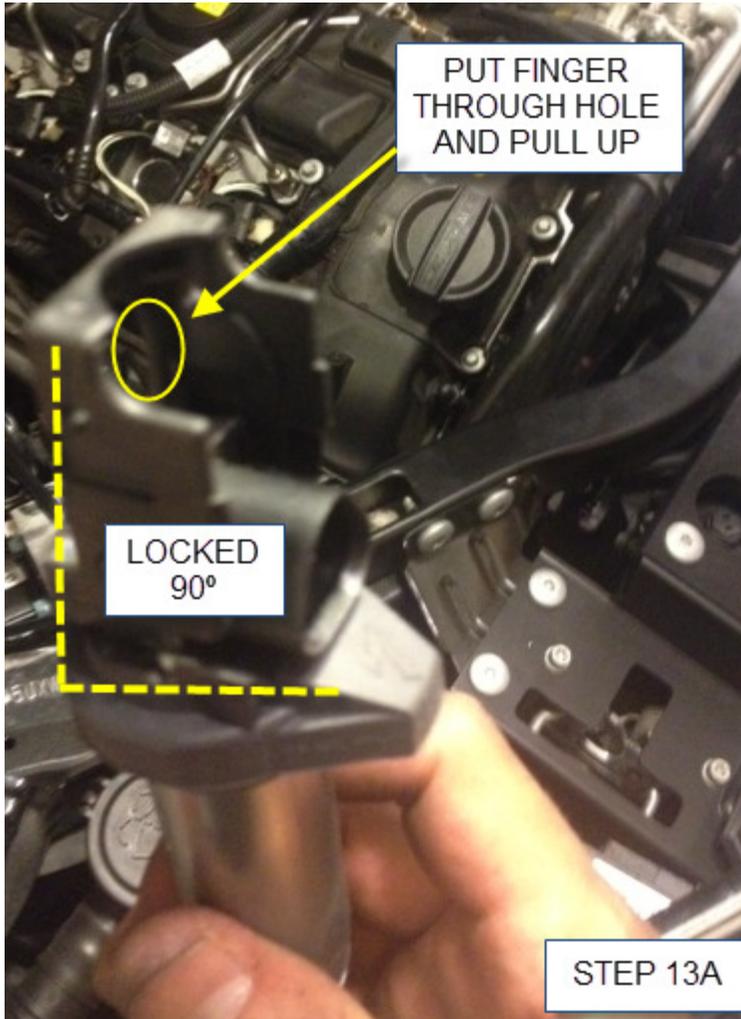
- 11) Remove the oxygen sensor connectors from their clips and push aside( do not disconnect). Use a T25 to remove the oxygen sensor bracket from the valve cover. ( leave attached to harness swivel) **You have now gained access to spark plug 5.**

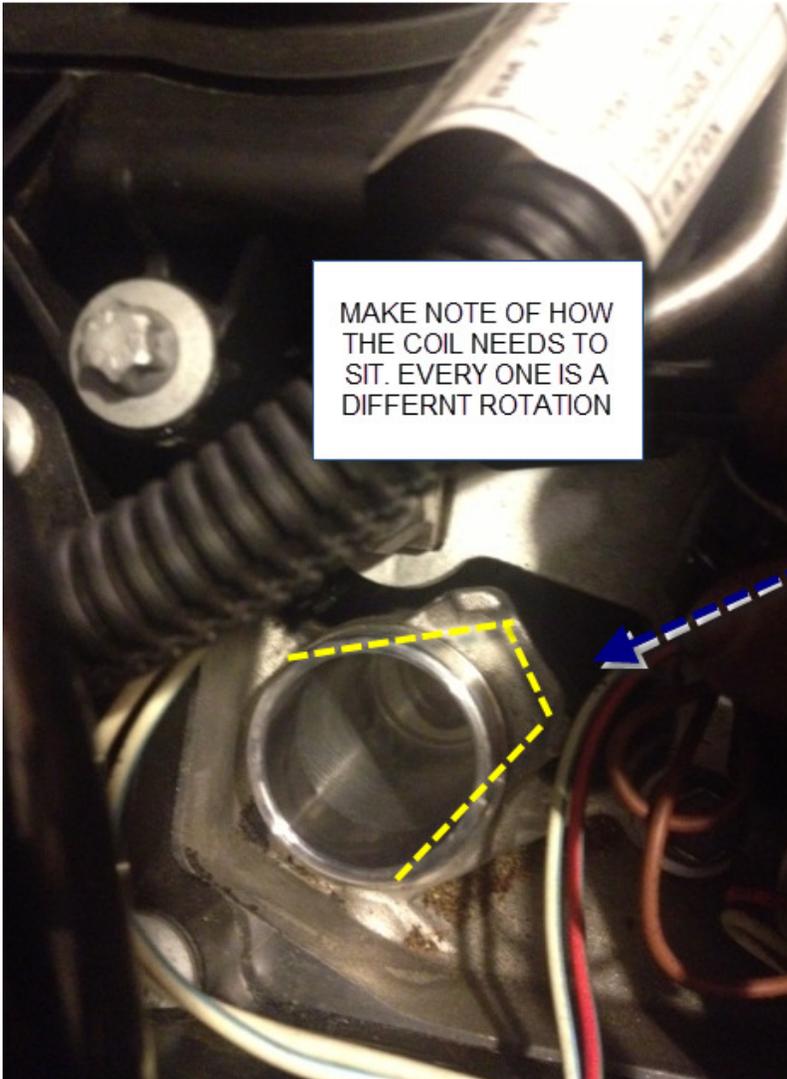


- 12) You need to remove the power harness tract by removing 2 of 3 screws. Use a T25 to remove the closest one to you and the furthest one . The one in the center can stay secured. The top of the wiring tract comes off. Now lift the wiring over and out of the way of the spark plug 6. **You have now gained access to spark plug 6.**



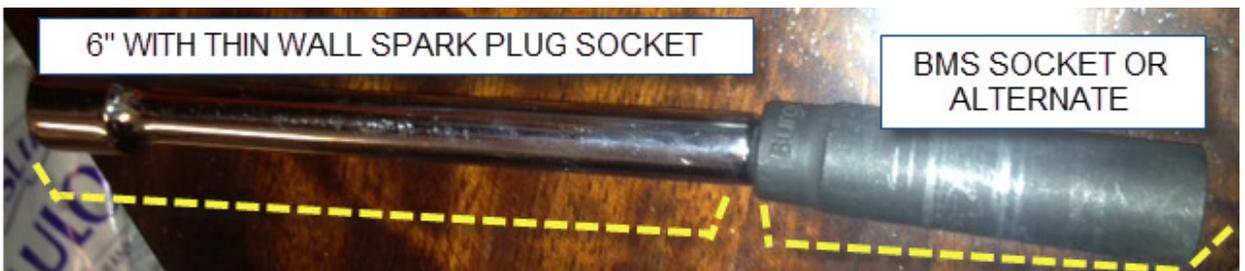
- 13) Remove the coil by lifting up on the circular holed tab until it locks in its 90° position. This allows you to remove the coil's connector. Then pull up with your finger parallel to the coil (as possible). Some people break the tab by pulling at an angle so be careful and take your time.





STEP 13B

- 14) Use your special thin walled spark plug socket with 6" extension ,then add 3" extension, then wrench to remove spark plug 6. Spark plugs 5,4,3,2,1 are a lot easier and may not need the extra extension.



- 15) Torque the spark plug to 23 Nm or 17 foot pounds.