

This is my Do It Yourself for the CPS Change. My car is a ML320 V-6  
There is some DIY out there but they don't have good pictures and they are for the V-8.

**The symptoms were:**

1. Engine stalled while accelerating. Car would not re-start.
2. Good Power, no ignition. First I thought it was the fuel pump, Everything sounded strong but no ignition.
3. Was going to tow it home when I decided to try to start engine for the 5th time, it started.
4. Drove it home, checked codes with OBDII Scanner, Code PO335

Decided to replace CPS. It's \$150 from dealer (about \$50 at AutohausAZ)

MB p/n: a0031532728. Bosch p/n: 0261210171

The part number is different for V-8 and it may be different if you have a different year ML so find out from the dealer before you buy!

Replacing the CPs took about 30 minutes:

TOOLS needed: (see pic)

1. E8 Torx socket. Please get the female, 1/4" drive socket. I had a 3/8" drive and it was too big. I got the 1/4" drive at NAPA for \$4. I wouldn't recommend using anything else, pls use the torx socket.
2. 1/4" drive extensions. I only needed one, but it is way easier if you have 4 or 5 of the 4" or 6" extensions. If you don't have them, don't buy them just for this job.
3. Socket Wrench.
4. Lots of light.

LOCATION: (see pic)

1. No need to jack vehicle up, no need to remove wheel cover or heat shield, you have a V-6!!!! you are lucky. Look at my pic, find the brake fluid reservoir, I have my ratchet wrench right behind it in an angle toward the engine.



Get on top of the engine and put a flashlight right there behind this brake fluid reservoir. It will look like on the other picture I have of the CPS without the plug on it. It will help if you have the new plug in your hand. See the pic of the old and new CPS's.



Once you locate it, the easier way to change this plug is without looking at it. I got on top of the engine and got my whole arm in there. you could get a tall chair and stand on it but it's easier to lay on the engine.

2. Next step is to disconnect the plug. You can feel a little lever/latch that you need to push, that will free the connector, be gentle.

3. Put the E8 socket on the 6" extension and before you put it on the ratchet, put it on the bolt.



Remember, it is way easier to do all this without trying to watch, just trust your hands.

4. Get the ratchet and put it in there. If for some reason you MUST see what you are doing, get more extensions and connect one at a time, to clear the brake fluid reservoir and all the other lines that are around. Now you can get the ratchet at the end and a light to make sure you are turning the bolt the right way : ) Before you loosen it up all the way STOP, tighten it up a little ways and remove all the tools. Then get in there and finish the removal process with your fingers, be sure not to drop it, although chances are it will drop all the way down to the ground.

5. Now you are ready to pull the sensor. All you need to do is put your hand on it and pull it out. Some people had some issues removing the sensor, i wouldn't spray it because that stuff will penetrate the hole, it should come out as long as you are pulling straight out, it will help if you spin it.

6. Once the sensor is removed, plug the hole with a tissue and clean the surrounding area, then unplug the hole and install new CPS. It will be tight but it will go in, just make sure you are pushing it straight down. Remember, it is way easier if you don't try to look at the sensor while you remove/install it.

7. The next step is tricky. the best way to install the bolt is by hand, get in a semi-comfortable position on top of the engine and grab the bolt with your fingers, by now you know exactly where the sensor is, you will be able to feel the hole with your remaining fingers, stick it in there and try to start it. if you cannot start it don't worry. Now grab the socket on and extension and put them on the bolt. AGAIN, if you can do all this without watching, just get your arm in there with the extension and the socket. If you must see it while you tighten the bolt get the socket/ratchet on bolt first and then reach for the extensions. Do not over tighten bolt!



8. Place the CPS plug back on the sensor.

9. Reset code with a OBDII scanner or disconnect battery for 20 minutes (so they say) and reconnect. The code went away by itself on my ML.

Hope this description and the bad pictures help, feel free to add to this thread.