

**This document shows the installation procedure of the DEI Shock Sensor Model 504D to the trunk via tilt sensor of my 2005 E46 M3 Convertible.**

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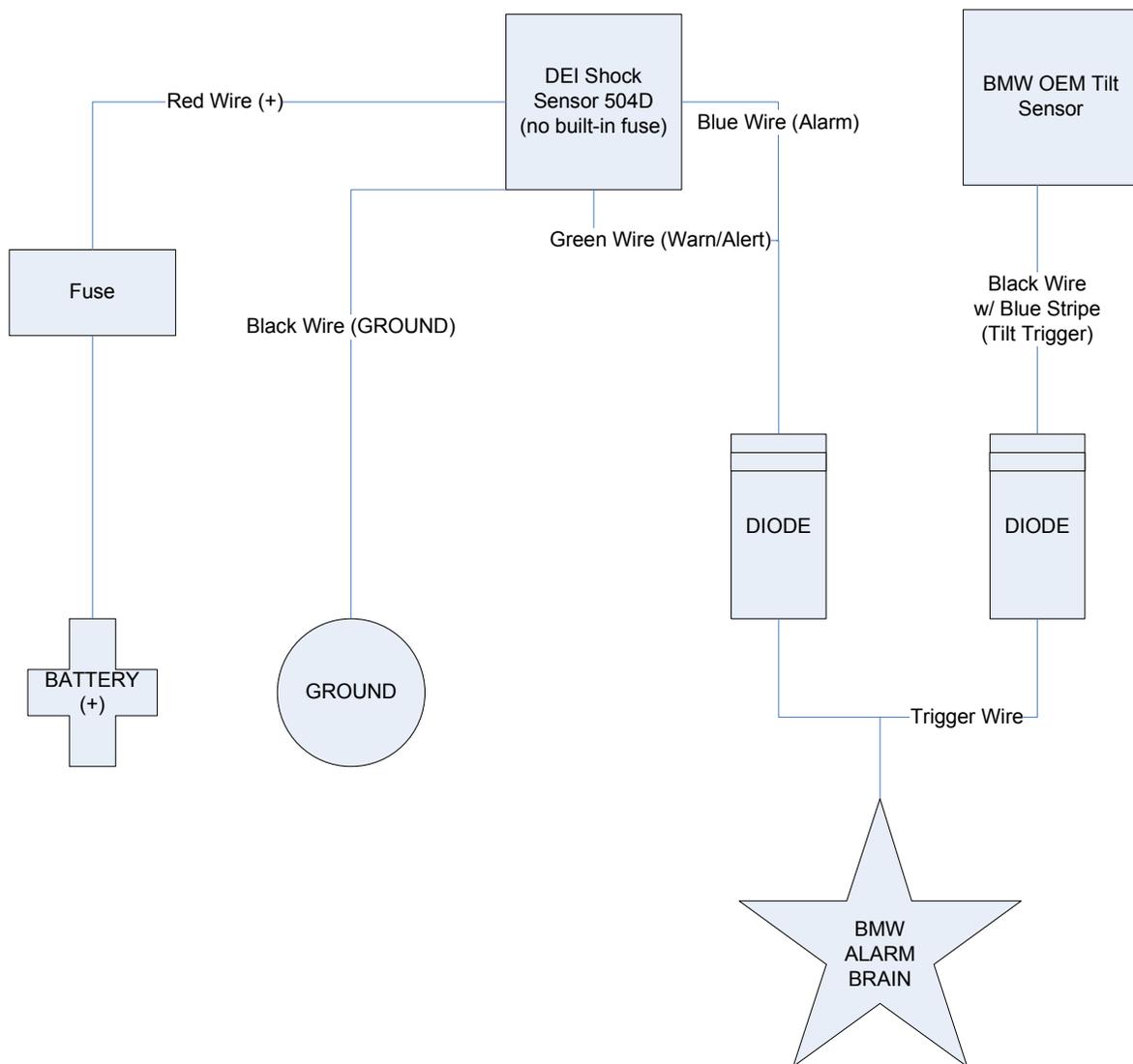
Now that we have that out of the way, before installing the shock sensor I made sure I have the necessary tools for it so I went around and got all the parts and tools that I need. Here is the list of things I got:

1. DEI Shock Sensor 504D
2. Diodes from Radio Shack IN4004 model
3. Fuse Holder
4. Fuse (3A but I'm using 5A for now coz that's the lowest they have at the shop)
5. Tap Connector
6. Electric Tape
7. Set of wire cover
8. Wiring hose (black thing you put the wires in so they are neatly tucked.
9. Small Screw kit (to adjust the sensitivity)
10. Soldering kit
11. Pliers (used to squeeze the tap connector to make sure the metal part touches the wires)

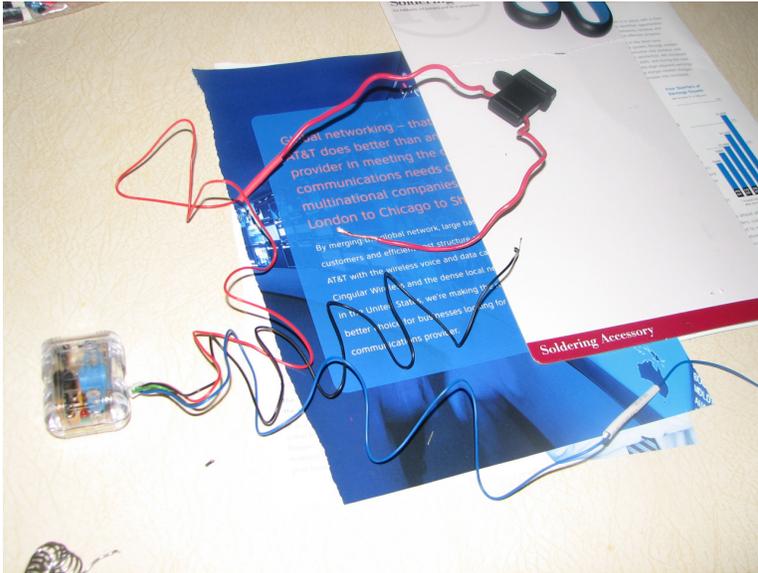


Before Installing I created a diagram so that it will be easier and faster for me to do the steps. Below is the diagram I made based on information I got online, hopefully it's correct.

### Diagram of the DEI Shock Sensor (504D) Installation in the Trunk Tilt Sensor for my 2005 E46 M3 Convertible



With the diagram set and all the tools available I started by working on the Sensor and the wires that I needed to connect even before I worked on the trunk. I soldered the fuse holder to the red wire, the diode to the blue+green wire (notice that the blue and green wire is connected together from the plug) and soldered the tips to make sure the ends does not split and covered the wire covers with electrical tape to make sure all the wires that needs to be covered are covered.



Once the wires are ready I opened up the trunk area to get access to the tilt sensor and wires. There are 5 places you have to unlock which are in the pics below:



Carefully pull back the cover then voila! Once you have access to the wires make sure you get the black with blue stripe wire from the tilt sensor, it would be bound by the OEM wire tape which I took off so it will be easier to work with when I solder it. I placed the red wire to the battery (#1), the black wire to the ground (#2) and the Blue wire I used the tap connector to connect to the black with blue stripe of the tilt sensor (which is the trigger wire) (#3). **NOTE:** I used pliers to fully push the metal portion of the tap connector to the wires, during my 1<sup>st</sup> test the alarm wasn't going off and I noticed that the tap connector's metal was bulging from the plastic cover this is when I realized that the metal wasn't getting through the wire, I used the pliers to squeeze it in and afterwards it worked like a charm. Once I connected all the wires for the sensor I proceeded to cut the black with blue stripe of the tilt sensor and placed the 2<sup>nd</sup> diode there (#4). I connected the sensor and the red LED started blinking, I did my tests first then when it worked fine I used some wire hose (#5) and covered it all up and set the sensor to the back area.

I set the sensitivity of the sensor to MAX setting, it does not go off on rain but it's sensitive enough that if you bang the hood and windshield it will go off. It does not go off when you bump the front bumper though so I'm planning to install another one on front. I imagine if someone was blasting their sound system with a strong bass or an exhaust that's loud it will trigger the alarm.

