Adjusting and Cleaning Throttle Position Switch on R107 Mercedes 350/450SL 4.5L

It should be an easy matter to get the TPS off, but there is one screw that I could not find a way to remove on the car:

The throttle housing is easy to get off. Just 4 nuts and 1 hose. Don't drop the nuts – they disappear down into the Vee. But at least not into intake! That rag is important!

The TPS can just be pried off – It is held on by a spring clip. Once off, you need to get cover off. That plastic is old, but I found I could gently lever the tabs and then used a small screwdriver to release the cover:

Sorry, the picture is a bit fuzzy!

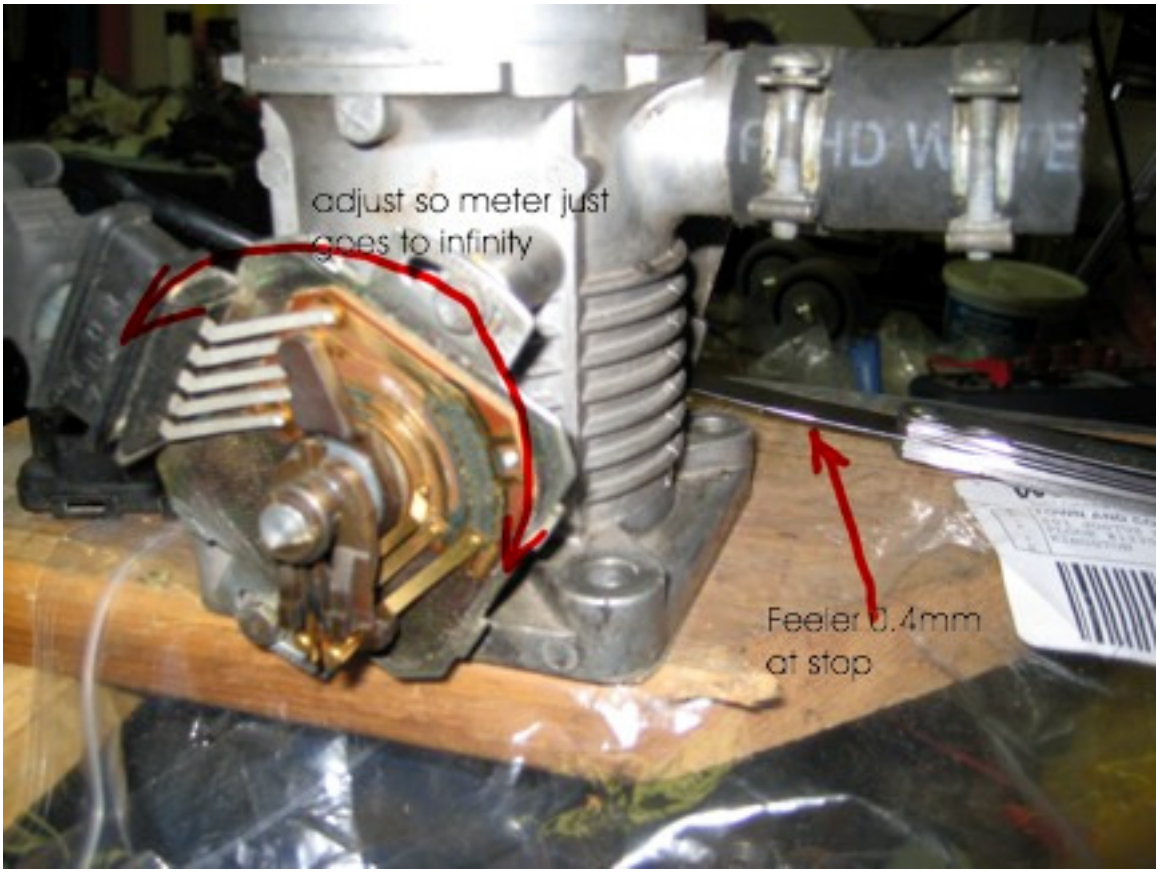
Here is an inside view of the contacts. You can also see the spring clip that holds the shaft

The shop manual shows which pins to use to check the switch. 12 & 17 test the idle switch. The resistance between these pins should be zero when the throttle is against it's stop. If the throttle is slightly opened (1 degree or 0.4mm feeler under stop), the resistance should go to infinity. This switch tells the ECU that you are idling.

The manual diagram of the pins on page 7.4.1 11-040/14 is a bit misleading – The TPS socket is a mirror image. Luckily the pin numbers are molded into the socket.

I found I could use a surplus injector plug to connect 12 & 20 for the idle test and 12 & 20 for the 10 step enrichment.

To adjust the idle switch, I placed a 0.4mm feeler gauge under the stop, then rotated the switch fully one way until meter read zero ohms, then turned slightly the opposite direction until meter read infinity. Clamped right there!



Once reinstalled, follow the instructions in the manual for linkage adjustment. Make sure the linkage is not preventing the spring from pulling the throttle lever against it's stop.

Finally, with pins 12 and 20 connected, I ran throttle slowly from closed to open and checked that resistance cycled between zero and infinity 10 times as wiper went by the s-shaped contacts.

If you meter between pins 12 and 2, you should read zero when the throttle is fully open. This switch tells the ECU throttle is fully open.

Cleaning

I just sprayed the contacts with an electronic cleaner. There were some marks, so I used an old computer trick. Used a pencil eraser to clean contacts and then resprayed.

Hope this helps anyone else attempting this job for first time.