

V12 Full Fuel Switch adjustment.

This switch is commonly called the Blue/White fuel switch, so I will call it that also.

It is used to enrich the fuel mixture by approx 10% on acceleration.

NOT all markets get this switch, so if you cannot find it, somewhere near 4/5A spark plug, then maybe your market did not call for it.

It relies on a specific vacuum to keep the internal contacts OPEN. So, no vac, contacts CLOSED, and the ECU changes to Open Loop enrichment. Vac supplied, and the contacts OPEN, thus placing the ECU in the Closed Loop mode.

On my HE the engine vac sat at about -70KPA, on the cruise.

At mild acceleration in traffic etc, it read about -30 to -40KPA.

At take off, and hurried acceleration, about -20KPS or LESS.

That's as simple as it is, and it works in conjunction with the mechanical micro switch on the throttle capstan, which does the same function, at a pre-set throttle opening, about 2/3 throttle. So either, or, will enrich the fuel mixture.

I was not happy with the factory set vacuum operating points of this switch. It appeared to be not switching until really low vacuum, and that, I did not agree with.

Adventurous that I am, I dug out the Mastik plug in the end of the Blue section, and discovered a screwdriver slot, wow. I then set up my vac gauge, syringe, and "played" with the settings until it switched where I wanted it. This was, A) suited my driving style, and B) suited my engine.

The following snaps show where words sometimes fail me.



The basic set up I used to establish how this thing worked, and what I needed, to understand the system. Here the vac is Zero, the contacts are Closed. ECU is in Closed Loop mode.



Here, the syringe has applied vac to the switch, and the contacts are Open. Car is cruising down the road. ECU is in Closed Loop mode.



This is the vac reading as the contacts Close, putting the ECU in the Open Loop mode.



This shows what is under that Mastik plug. Clockwise increases the spring tension.

By varying the vac signal that suits your engines vac supply, and ALL engines vary here, this switch can be fine tuned, using that screw to adjust when the contacts change mode.

Once the warm and fuzzies have taken over with YOUR adjustments, simply fill that hole with RTV.

Commented [G1]: