

Thanks to *Kbbt*

I thought I would do a write up on modifying the afc for more rack travel and a smoother fuel curve.

There are a few things you can change/modify easily that limit rack travel (fueling) in the pump via afc. One is the cup washer on the side of the diaphragm near the spring. Another is the shaft part of the afc foot that slides on the round shaft. Next is the smoke screw, this determines pre boost fueling. Last is the starwheel, this determines how fast the fueling comes in according to boost.

First thing to do is to remove the afc from the injection pump.



Next remove 4 screws (1 is a break off screw) to get to the afc diaphragm.

Thanks to *Kbbt*



afc diaphragm.

Thanks to *Kbbt*



Next remove 10mm nut holding diaphragm on.

Thanks to *Kbbt*



Once the diaphragm is off remove the cupped washer on the spring side and replace it with a flat automotive body washer with the same outside diameter and 8mm hole.

Thanks to *Kbbt*



Now that part is done, put diaphragm back in and cover back on.

Next modifying the afc foot.

Remove 10mm bolt holding the slide shaft in.

Thanks to *Kbbt*



Take a flathead screwdriver and pry out slide shaft.

Thanks to *Kbbt*



Remove shaft and afc foot.

Thanks to *Kbbt*



Now grind $1/16$ " to $1/8$ " off the round part of a/c foot that slides on the shaft.

Thanks to *Kbbt*



Now that part is done reassemble afc foot and shaft.

That's it for the rack travel mods.

Next is the smoke screw. The smoke screw is located behind a small cover on the diaphragm cover. Remove 2 screws (one break off) pull off cover.

Thanks to *Kbbt*



This controls the 0 boost fueling, the further in the screw the more tension it puts on the afc spring, allowing more fuel to come on with no boost.
Smoke screw on inside of cover.

Thanks to *Kbbt*



To adjust smoke screw loosen lock nut 10mm, use 3mm allen wrench to adjust smoke screw in or out.

Smoke screw all the way out.

Thanks to *Kbbt*



This adjustment can be done at any time, on or off the injection pump.

Last is the starwheel.

Remove plug located on top of afc using 8mm allen wrench.

Thanks to *Kbbt*



The best way to adjust the starwheel for proper fueling is to use regulated air. Use an air blow gun with a rubber tip, set pressure on compressor to the psi you want full fuel. I'll use 40 psi as an example.

Insert blow gun into the afc where the boost line comes in.

Thanks to *Kbbt*



Adjust starwheel until afc foot travels completely forward with 40 psi of air. The more tension that's on the spring the more psi needed to move the foot forward. Too much tension on the spring will cause the spring to bind up and the foot will not move all the way forward.

With the starwheel adjusted for full fueling at 40 psi the afc foot should barely touch the front of the housing.

Thanks to *Kbbt*



At 20 psi the foot should move about half way forward.

Thanks to *Kbbt*



And this is with no boost.

Thanks to *Kbbt*



Install starwheel plug back on afc.

Now that the afc is complete install on injection pump, adjust afc housing forward or back according to you're tastes.

The smoke screw can also be adjusted at this time too. Just remember to put the small cover back over the smoke screw when the fueling is to your liking.