

What's needed to do this?

- 1) Laptop w/ AEM FIC software installed
- 2) USB cable
- 3) OBD2 scan tool that can read fuel trims

Assumptions

AEM FIC is tuned and all parameters are all set incl TPS etc.
You are using the MAF table
Your MAF table is in MAF and Voltage settings
You are using the O2 table
Your O2 MAP is in voltage mode
Proper install with no vac leaks (ZERO)
Stock cams
Your idle is between -20-22 in of hg

Procedure

1) Ensure the turbo system has no vac leaks! This is the biggest shoot yourself in the foot item that leads back to my mantra of have a quality install. Use RTV, pipe sealant, gaskets etc when installing.

2) Fire up that laptop and hook up FIC.

3) Hook up OBD2 scan tool

4) Turn car to ACCII (position before starting)

5) Note MAF voltage minimum voltage (save value)

6) Start car and let fully warm up to about 180°F

7) Make sure your AEM FIC has a zero brake point on the Y axis in the MAF table. In that zero field, enter that min MAF value for the zero row in the MAF table going horizontally across the RPM breakpoints.

***make sure your RPM break points are broken down with some granularity as well. Recall the car revs to 6250, so 6500 as the max value will be just fine and a good minimum RPM point will be 0 RPMS. So your RPM breakpoints should be about every 325RPMS. Note, the first 3 RPM break points will be your idle "pocket".

8) Note current MAF voltage on OBD2 scan tool

9) See where that falls in your MAF table and make sure it falls on a solid value and isn't between a HUGE interpolation point. In other words, say your MAF voltage at idle is .35, make sure you have a .35 breakpoint on that MAF table or something very close to it.

10) Now go ahead highlight that .35V (or whatever voltage it may be) across entire MAF voltage span horizontally over the RPM breakpoints. Right click on the row and you will see a menu pop up. Hit the "+" once or twice to give a nice buffer on that MAF voltage.

11) Pull up FIC gauges View>Gauges and note MAF in and MAF out. They should be close in proximity.

12) Open up the O2 map and put 0 values in that idle pocket. So say your idle load is about 6 PSIA and you want zeros from 2.5 to 7 PSIA and from say 0-975 or even 0-1300.

13) Now for the fun stuff. Open the Fuel MAP on the FIC and put up LTFT and STFT (Long term fuel trim and Short term fuel trim) on the OBD2 scan tool. Take both STFT and LTFT and add them together. Say you have a LTFT of +10 and a STFT of -20, your total fuel trim would be -10. This means the ECU overall is set to pull out 10% fuel in the overall grand scheme. (adding 10% now, pulling 20% over long term) Figure out your trim value at idle.

***If you have a total sum of say -15. This means 15% fuel will be pulled out. If you have a -30 in the fuel map in your idle pocket, then go ahead and try -33 in that same area and watch the trims adjust. Keep moving it around until you get to a 0 to -5 total total in LTFT + STFT (ideally).

14) Now adjust your fuel map up and down and watch the trims. Your goal should be +/- 10 total. If you can get to +/- 5 or less, even better. Once you get this in check, your idle should be crisp and even better than factory.