Basic Setup Instructions

This is a basic overview of the most common setup questions.

Resetting to a Stock Calibration

From the main menu, go to the very bottom and select Write Cal To ECU. Once in this menu scroll down to the second to last selection, it should say Default v8 T195. Once on this file select it, and it will download to 100 percent. After this is done it will revert to the main menu. Now go to Go EFI Initial Setup, then Engine Setup, now input all of the parameters that are needed for your application, making sure to save each one individually.

After you have entered your information and saved it, go up and select the DashBoard. Once in the dashboard, turn the ignition key off and wait for all the data to blackout. Once this happens, turn the ignition key to the on position and start the car.

IAC Steps

turn the key on and go to Initial Setup on the hand held. Hit enter and find Idle Setup. Enter into this menu and start the engine. To get engine to start you may have to press the throttle pedal slightly. If the engine wont stay running without keeping your foot on the pedal a little turn the throttle adjustment screw clockwise another half turn. Once engine is running and at operating temperature turn ON Idle Set Mode. This locks the ECU in idle. On the handheld go back to the Main Menu and enter into Dashboard. Find IAC Steps. This number needs to be within 3-10 at warm idle. If the number reads zero then slowly turn the screw OUT (counter clockwise) until the IAC Steps reads between 3-10. If the number is above 10 then turn the screw IN (clockwise) until the IAC Steps are between 3-10. Once the throttle screw is in the correct position key the ignition off and allow the system to save.

Reset Learn

All Fitech EFI systems have learning procedures that the system uses to adjust the active fuel tables it is using for operation. Sometimes if there are outside problems such as bad misfires, exhaust leaks, or any other situation that could cause poor readings on the O2 sensor, the system will try to compensate in order to keep the car running. If this happens, it alters the fuel map in ways that may not be optimal for proper running the engine normally.

To reset the learn is a very easy procedure. Go into the Go EFI Initial setup then find Reset Learn. Once in that menu, find Reset All Learn, highlight this and push right on the joystick to go to #1, then save that to the ECU by pressing IN on the joystick. Once that is saved, go back to the main menu and then up to the Dashboard and select it. Once on the dashboard, turn the key off and wait for the numbers in the value side to go black. This means the system has saved. You have now reset the learn function.

Data Logging

Data logging is a useful tool for diagnoses and tuning. It allows you to check how the many functions the system can read and go through them point by point. This allows for exact adjustments to be made

When the vehicle is running, go onto the dashboard screen and press the joystick on the right of the screen IN, and a message will pop up saying Data Log On. Now you will drive the car and get it to have the issue you are having. Once you finish the drive, you will press the button again, and this will save the data log. Then you can turn the vehicle off and wait 15 seconds for the data on the dashboard to go black. Once this happens you can take the handheld to your PC and plug in the USB cable and handheld. The handheld will light up with three menu options, USB mass storage is at the top, select this. You should see a prompt on your PC to open the handheld folder, if not go to My Computer and you should see a removable drive, select it. Once the handheld folders come up, on-screen find the folder labeled log_file. Select this folder and inside you should see several files inside that say Dashboard, you can click on these, and they will bring up an Excel file showing the data you have recorded. You can also copy and paste these files and send them to our technicians to look at as well.

Save Your Current Settings and Tune

To save a tune, first, turn the key to the On position, not running. Then find Read Cal from ECU on the main menu and then select it. Once in this menu, highlight one of the backup files you wish to save to and then either press OK on the screen or push the joystick IN, and it will save all your current settings and parameters.

Cranking Fuel Adjustments

With the key turned on, go to the Go EFI Tuning menu, find Crank and Warm-up. There, you will see three cranking fuel selections. For cold starts add or subtract fuel from Crank fuel 65f, for hot starts add or subtract fuel from crank fuel 170f. Changing these settings should help with your startup issues, along

with setting the IAC. A good starting point is to change the settings in intervals of 10 to find which way you need to adjust the system to work better.

Accel Pump/Fast Accel Adjustment

If the system is having hesitation or bogging issue, and your IAC steps are between 3-10 at warm idle, then your next step would be to adjust the accel pump function to increase or decrease the fuel added on acceleration. To start with, turn the key to the on position and then find Go EFI Tuning on the main menu and press enter. Then find the Accel pump and press enter. You will see a menu with multiple different settings, and you need to focus on the Accel pumps (20f, 65f, 170f) and Fast Accel (20f, 65f, 170f). These settings adjust how much fuel, at varying temperatures, the system injects when you accelerate. Accel pump is used for any normal throttle input, and Fast Accel is for any fast throttle inputs or Wide Open Throttle.

Hesitation

If the vehicle has a hesitation (when you step on the throttle, and the engine does hang and/ or almost dies and then suddenly take off) this normally is a lack of fuel so you would fix this by increasing the Accel Pump (for normal throttle input hesitations) or Fast Accel (for fast throttle or WOT inputs). You would make changes starting in increments of 10, to the temp range that you are finding the issue to reside in.

Bogging/engine loads up/slow to respond

If the vehicle is bogging (when you step on the throttle, and the engine is slower/sluggish to come up to a higher rpm), this is normally caused by over-fueling. To fix this you would need to reduce the amount of fuel it is injecting as an accel pump shot. To do this, decrease the Accel Pump (for normal throttle input hesitations) or Fast Accel (for fast throttle or WOT inputs). You would make changes starting in increments of 10, to the temp range that you are finding the issue to reside in.

Decel Fuel Cut Off

When you let off the throttle and deal with your vehicle the EFI will reduce fueling to prevent popping and an over-rich condition that would occur if the fueling continued as it normally would. Depending on the size of your engine, camshaft specs, engine temp, gearing, and several other factors like environmental conditions, you may have either too much or too little fuel cut on deal.

In order to change the amount of fuel it applies, you must go to Go EFI Tuning and then find Fuel Cut Control. Inside this menu, you will see an option called

DFCO Return fuel. This number represents the amount of fuel the system will inject when you start to give the vehicle throttle again. If you are having a hesitation when getting back in the throttle then add to the DFCO Return fuel to give the engine more fuel when transitioning back to acceleration. You may also need to adjust your accel pump settings to help with this transition, as well.

Choosing a Cam Selection

Cam selection is based on vacuum load of the engine. Cam-1 is for 15Hg or above, Cam-2 is for 10Hg to 15hg, Cam-3 is 8Hg to 10Hg, and Cam-4 is 8Hg to 6Hg. These are estimates, and you may need to switch between them if the vacuum load is between two different cam settings, to get the engine to run better for your application.

Idle Return

If the engine is not returning to idle quick enough for your liking or is dropping too quickly and killing the engine then you may need to adjust the rate at which the injection system comes to an idle. To do so you need to go to Go EFI Tuning, then find and select Idle Control. Once in this menu you will see several settings, the only one we are going to work with is Decel open IAC. This number should be at zero as a base setting, by going negative you are reducing the amount of time it takes to return to Idle, and by going positive you are increasing the time it takes. Normal procedure of adjustment is to add or subtract 10 to start with and then adjust it to your liking or what the engine needs. Then once the setting is input save it to the ECU by pushing the joystick IN, the handheld will show Send To ECU Successful. Once this is done make sure to go back to the dashboard and turn the key off until the numbers clear out on the value side. This shows that the system has saved.

AFR Target Adjustment

AFR stands for Air Fuel Ratio. Some vehicles may have greater needs for fueling that the self-learn may not be able to adjust in a great enough amount to operate correctly right out of the box. The injection unit is always trying to maintain a targeted AFR throughout its operation. It is either adding or taking away fuel at any given time from its current fuel table in order to do this. The AFR target is what the computer is constantly adjusting for (the higher the number, the leaner the mixture, the lower the number, the richer the mixture is), but some engines need different fueling depending on the CID and cam they have. To adjust these numbers you must go to our Go EFI Tuning menu then to AFR targets, typically adjusting any AFR target should be done .01 at

a time either up or down as the AFR has drastic effects on how the engine runs.

Once in this menu, you will see 10 settings you can adjust. Number one is for Idle AFR, which can range from 13.4 to 14.7 on average, depending on the engine. Adjusting this setting will help idle quality and takeoff from an idle. 1100, 3000, 6000 at 45kpa cruise are your cruising AFR ratios, and these can vary from 13.8 to 14.7 on average depending on the engine's needs and your desired fuel economy. The cruise AFR only affects cruise, so it will not affect your acceleration or other AFR settings. WOT 1100, 3000, 6000 are your acceleration enrichment settings and are used for adjusting the desired fueling for accelerating under either part throttle or WOT. The average for these settings only ranges from 12.4 to 12.7. Any accelerator needs beyond that will require one of our technicians to go over with you. Boost 1100, 3000, 6000 180kpa should stay within 11.5 to 11.7 on most engines with boost, any further adjustments to your boosted AFR settings should be brought up with one of our technicians.

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