

## FAQ

- **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 the last selection, it should say **Default v8 T195**. Select this file and it will download to 100%. After this is done, it will revert to the main menu. Then, go to **Go EFI Initial Setup**, then **Engine Setup**. Once there, input all the parameters needed for your application, making sure to save each one individually. After you have entered your information and saved it, go up and select **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** then find **Idle Setup**. Enter this menu and start the engine. You may have to press the throttle pedal slightly to get the engine to start. If the engine won't stay running without keeping your foot on the pedal a little, then turn the throttle adjustment screw clockwise another half turn. Once the engine is running and at operating temperature, turn the **Idle Set Mode** option **ON** to lock the ECU in idle. On the handheld, go back to the **Main Menu** and enter the **Dashboard**. Locate the **IAC Steps** and check that this number is within 3-10 at warm idle. If the number is 0, 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 to keep the car running. If this happens, it alters the fuel map in ways that may not be optimal for properly running the engine normally. To reset the learn, go into the **Go EFI Initial Setup** menu then find **Reset Learn**. From there, find the **Reset All Learn** option —highlight it, then push right on the joystick to go to #1. Then, save to the ECU by pressing **IN** on the joystick. Once that is saved, go back to the main menu then select **Dashboard**. 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 the many functions the system can read and to go through them point by point, which allows for exact adjustments to be made. When the vehicle is running, go to the **Dashboard** screen and press the joystick on the right of the screen **IN**. A message will pop up saying **"Data Log On"**. Now, you must drive the car until it has the issue you are addressing. Once you finish the drive, you will press the button again to 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 connect it using the USB cable. The handheld will light up with three menu options. Select **USB Mass Storage** at the top. You should see a prompt on your PC to open the handheld folder, if not then go to **My Computer** and select the removable drive. Once the handheld folders come up, find the folder labeled **Log File**. Select this folder and inside there should be several files 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 FiTech technicians to look at.



## FiTech EFI Basic Setup Instructions

- **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 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**. This will save all your current settings and parameters.

- **Cranking Fuel Adjustments**

With the key turned **ON**, go to the **Go EFI Tuning** menu to 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 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. 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. 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, then suddenly takes 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, up 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, up 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. 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 on 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.



## FiTech EFI Basic Setup Instructions

- **Choosing a Cam Selection**

Cam selection is based on vacuum load of the engine. Cam-1 is for 15 Hg or above, Cam-2 is for 10 Hg – 15 Hg, Cam-3 is 8 Hg – 10 Hg, and Cam-4 is 8 Hg – 6 Hg. 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 0 as a base setting. By going negative, you are reducing the amount of time it takes to return to idle; 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 to 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 and the self-learn may not be able to adjust enough 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 to do this. The AFR target is what the computer is constantly adjusting for (higher number means leaner mixture, lower number means richer mixture), but some engines need different fueling depending on the CID and cam they have. To adjust these numbers, go to the **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 how the engine runs. This menu has 10 adjustable settings: #1 is **Idle AFR** (can range from 13.4 to 14.7 on average, depending on the engine). Adjusting this setting helps idle quality and takeoff from idle. The 1100, 3000, 6000 at 45 kpa cruise are cruising AFR ratios that vary from 13.8–14.7 on average depending on engine needs and desired fuel economy. The cruise AFR only affects cruise, so it will not affect acceleration or other AFR settings. WOT 1100, 3000, 6000 are acceleration enrichment settings used for adjusting the desired fueling for accelerating under part throttle or WOT. The average for these settings ranges from 12.4–12.7. Any accelerator needs beyond that requires a FiTech technician to go over it with you. Boost 1100, 3000, 6000 180 kpa should stay within 11.5–11.7 on most engines with boost. Any further adjustments to boosted AFR settings should be brought up with a FiTech technician.