

Your IAC and TPS are probably so far out-of-whack now that it might be a good idea to start from scratch.

First, do the minimum idle air adjustment. This will also cause the ECU to reset the IAC:

1. Warm the engine to full operating temps
2. Turn engine off and then turn the key back to ON
3. With the IAC connected, jumper pins A and B at the ALDL.
4. Wait 30 seconds and unplug the IAC
5. Remove the jumper at the ALDL
6. Start the engine
7. Adjust engine RPM to 500-550 in Drive using the throttle stop screw on the throttle body.
8. Shut the engine off and plug the IAC back in.
9. Restart the engine
10. Set TPS to .40-.44 volt or whatever your chip manufacturer specifies

The above procedure should reset the IAC and get you close to final values. Then, to fine tune it, follow the procedure below:

(note that everything below should be done with the car in PARK, not DRIVE)

1. Start the car and get it up to operating temperature.
2. With the engine-off, key-on, adjust the TPS per the GNTTYPE procedure so that you get the following on the Scanmaster:

0.40 to 0.42 volts with your foot off the gas pedal.

Over 4.0 volts when you push the gas pedal to the floor.

(note: many people say you need to have at least 4.6 or more volts when you floor the gas pedal. This is not true. Just make sure it's comfortably over 4.0 volts when you floor it. 4.25 volts would be fine. You should not have to ream out the TPS slots as is sometimes suggested. Try sliding the TPS all the way forward and then rotating it to achieve the 0.42 volts - this usually helps to get the highest WOT value possible.)

3. After securing the screws that hold the TPS, start the car. Make sure that at idle, your TPS volts are BELOW 0.46 volts (I make sure mine are in the 0.42 to 0.44 range for a margin of safety). On most cars, the TPS volts jump by about 0.02 when you start the engine - i.e. if you set the TPS to 0.40 volts with the engine off, you will probably see it jump to 0.42 volts after you start the engine.

4. Once the car is warm and in closed-loop, look at your IAC reading at idle. Make sure they are in the 15 to 40 range, with 20 to 25 being "perfect".

If the IAC reading is too LOW, then turn the throttle body screw a little counter-clockwise (i.e. CLOSE the throttle plate a little more).

If the IAC reading is too HIGH, then turn the throttle body screw a little clockwise (i.e. OPEN the throttle plate a little more).

(Warning: if the TPS volts go over 0.45 volts while turning the throttle body screw clockwise, you are no longer in idle mode. Shut the car off and go back to Step 2.)

5. Repeat Steps 2 through 4 above until you get the TPS and IAC readings to be in good values:
TPS at 0.40 to 0.42 volts with the engine-off, key-on.
TPS reading over 4.0 volts when you floor the gas pedal with the engine-off, key-on.
IAC reading between 15 and 40 with the car running at idle, engine warm, in closed loop.

It's an iterative process and takes a little time, but once you get there, you should have a good idle and minimize the chance of tip-in stumble. As others have mentioned, biasing the IAC to the low-end of the acceptable range might help improve your tip-in problem.

One other thing to keep in mind - the exact IAC steps required to idle the car changes every day. If the incoming air is hot, it will open more to maintain idle speed (higher counts). If the incoming air is cold, it will open less (lower counts). So, if you set your TPS and IAC on a warm day, don't be surprised if the IAC steps are lower on a cold day, and vice versa. This is OK as long as they are generally in the ranges shown above.

The good thing about the above is that it costs no money to do as long as you have a ScanMaster or some other scan tool.