



Providing Crossfire Performance Advantages - 82, 83 & 84 CFI

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Installation Guide for Idle Air Control Test Jumper Harness

INTRODUCTION:

The Idle Air Control (IAC) is located on both throttle bodies and is very much like a precise stepper motor and moves in counts. The ECM controls engine idle speed with the IAC's which is nothing more than a controlled vacuum leak. To increase the engine speed, the ECM retracts (increases the gap) the IAC valve pintle away from its seat allowing more air to bypass the throttle bore. To decrease idle speed, it extends (decreases the gap) the IAC valve pintle toward the seat reducing bypass air flow. Current is controlled by pulsing dc current through the IAC motor. The ECM pulses current on and off at a fixed frequency but varies the ratio of "off-time" to "on-time" (duty cycle), the more time the current is pulsed on, the higher the average current flow. The IAC responds to the average current, moving the pintle a distance proportional to the amount of current. More current equals higher idle speed. Current control types can be monitored by measuring the duty cycle of the signal the ECM sends to the IAC motor, by measuring the average dc voltage, or by measuring the average current. Our test tool harness allows you to measure IAC motor coil resistance to verify a good IAC coil.

INSTALLATION AND TEST PROCEDURES:

CAUTION: "NEVER APPLY VOLTAGE TO THE IAC MOTOR" or permanent damage will result.

1.) With the ignition "OFF", disconnect connector from Idle Air Control (IAC) motor assembly.

CAUTION: Carefully insert test jumper to align the pins into place. The connector only goes in one way and you may have to wiggle the connector to align the pins. **DO NOT** force test jumper into connection, as damage to pins or sensor may result.

2.) Connect the IAC Test Tool harness.

3.) Using a digital voltmeter measure the resistance between terminals "A" (red wire) and "B" (black wire) which is coil #1. Then measure the resistance between terminals "C" (green wire) and "D" (yellow wire) which is coil #2. Both IAC motor coils should read resistance, generally 50-60 ohms +/- 10 ohms. If they do, the IAC is functioning properly. If not, the IAC coil is open and defective.

4.) Now measure the resistance between terminals "B" (black wire) and "C" (green wire). Then measure the resistance between terminals "A" (red wire) and "D" (yellow wire). Both IAC motor coils should read infinite. If they do, the IAC is functioning properly. If not, the IAC is shorted and defective.

5.) Now measure resistance between terminals "A" (red wire) and "C" (green wire). Then measure the resistance between terminals "B" (black wire) and "D" (yellow wire). Both IAC motor coils should read infinite. If they do, the IAC is functioning properly. If not, the IAC is shorted and defective.

6.) If the IAC motor coils check out as described above it is safe to assume that they are functioning properly.

7.) Remove the IAC Test Tool harness and re-connect the stock IAC harness connector to the Idle Air Control.

LIABILITY DISCLAIMER: Dynamic Crossfire Solutions (DCS) will not accept or be responsible for any damage which may result in improper installation of this assembly. Further more; the installer/owner accepts full responsibility for the condition, installation and use of the assembly. By installing the assembly, the installer/owner agrees to this disclaimer after the sale and releases DCS of any and all liabilities.

THANK YOU FOR YOUR BUSINESS!