

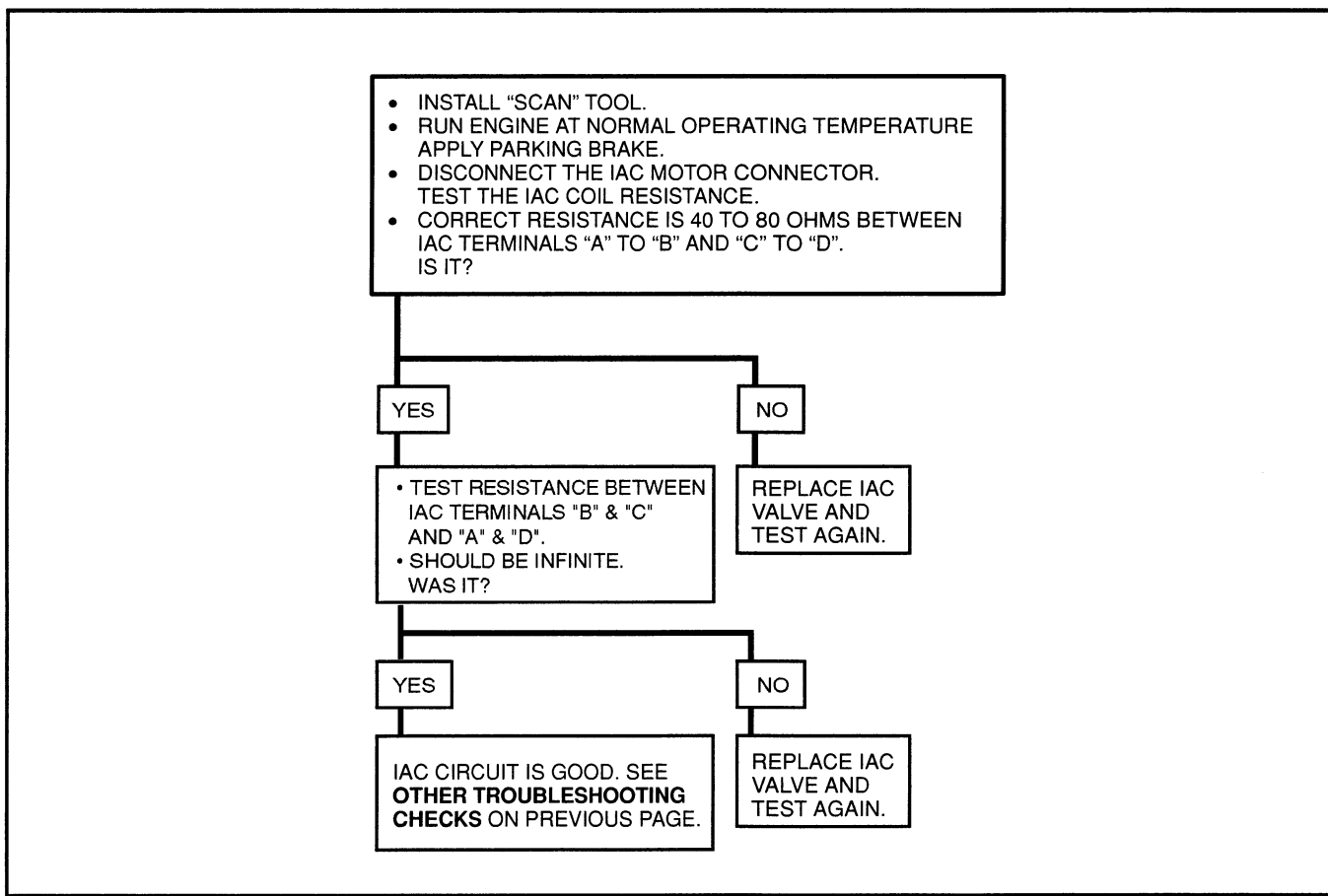
**CHART C-1**  
**IDLE AIR CONTROL (IAC) SYSTEM CHECK**

### CIRCUIT DESCRIPTION

The ECM controls engine idle speed with the IAC valve. To increase idle speed, the ECM retracts the IAC valve pintle away from its seat, allowing more air to bypass the throttle bore. To decrease idle speed, the IAC valve pintle extends towards its seat, reducing by-pass air flow. A "SCAN" tool will read the ECM commands to the IAC valve in counts. The higher the counts indicate more air bypass (higher idle). The lower the counts indicate less air is allowed to bypass (lower idle).

### Other Troubleshooting Checks:

- A slow, unstable, or fast idle speed can be caused by a problem other than the IAC system. Out of control range IAC "SCAN" tool counts will be above 50 if idle is too low, and zero counts if idle is too high. Make the following checks to repair a problem that is not in the IAC system:
- Vacuum Leak (High Idle) – If idle is too high, stop the engine. Fully extend (low) IAC with tester. Start engine. If idle speed is above 800 RPM, fix vacuum leak including PCV system. Also check for smooth movement of the throttle plate or linkage.
- PCV Valve – If a high idle condition exists (800 to 1000 RPM), check for vacuum leaks and correct PCV valve operation. All throttle bodies are pre-set at the factory and do not need adjustment. A missing PCV valve or grommet or a valve that sticks can cause this condition.
- System Too Lean (High Air/Fuel Ratio) – The idle speed can be too high or too low. Engine speed can vary up and down and disconnecting the IAC valve does not help. Check for low fuel pressure, water in the fuel or a dirty injector.
- System Too Rich (Low Air/Fuel Ratio) – The idle speed will be too low. "SCAN" tool IAC counts will usually be above 50. System is rich and can cause black smoke in exhaust. Check for high fuel pressure or an injector that leaks or sticks.
- Throttle Body – Remove IAC valve and inspect bore for dirt.
- IAC Valve Electrical Connections – Check IAC valve connections for correct contact.
- See TROUBLESHOOTING – POOR OPERATION.
- If problems are fixed by disconnecting the IAC, carefully check connections, IAC valve terminal resistance, or replace IAC.



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