

that is most evident). Go to the NO DIAGNOSTIC TROUBLE CODES (DTCS) PRESENT SYMPTOM CHARTS as indicated. If no PCM DTCs are present and the vehicle symptom is not listed in the No Diagnostic Trouble Codes (DTCs) Present Symptom Chart Index, go to the appropriate service information to continue diagnosis.

- The No Diagnostic Trouble Codes (DTCs) Present Symptom Charts contain areas to be tested for diagnosis of the vehicle symptom. The chart is arranged to place the higher probability or easiest to test items toward the top of the chart. However, the technician is not required to follow this order due to reasons such as variations in vehicle type, vehicle repair history, or technician experience.
  - The System/Component column indicates the areas that are tested. This column may also contain a quick system/component test.
  - The Reference column indicates where to go for the System/Component testing. All references are to the beginning of a pinpoint test in PINPOINT TEST of this service information unless noted otherwise. If referred to a pinpoint test in this service information go to the procedures. Follow the directions given in those procedures, including directions to other tests or service information. If a damaged part is found, repair as directed. If no concern is found, and diagnosis in that area is complete, return to the NO DIAGNOSTIC TROUBLE CODES (DTCS) PRESENT SYMPTOM CHARTS to continue to the next item.
  - If a quick system/component test is in the System/Component column, the Reference column indicates where to go if the test failed.
- During diagnosis, if directed to test a system/component that is not contained on that vehicle, go to the next step.
- If the No Diagnostic Trouble Codes (DTCs) Present Symptom Chart for the vehicle symptom is completed and no concern is found, return to the NO DIAGNOSTIC TROUBLE CODES (DTCS) PRESENT SYMPTOM CHART INDEX to address the next most prominent symptom. If all diagnosis is complete and no concern is found, it may be helpful to GO to Pinpoint Test Z service information to continue diagnosis.
- The installation of any new component that affects the PCM adaptive learning strategies (adaptive airflow, idle speed, refueling event, or fuel trim) requires the reset of keep alive memory (KAM). Refer to RESETTING THE KEEP ALIVE MEMORY (KAM) to reset the KAM.
- After any repair, reconnect any components and remove any test equipment. Verify the vehicle is operating correctly and the original complaint is no longer present. If a DTC was present, clear the DTCs and repeat the self-test to verify the repair.
- If a symptom is determined to be intermittent, a careful visual and physical underhood inspection of connectors, wiring harnesses, vacuum lines, and components is required. The Customer Information Worksheet may contain more detailed symptom information. Before an in-depth diagnosis begins, start the engine and wiggle wires, tap on components while listening for an indication of a concern (such as a RPM change or a relay clicking).

Information about engine conditions is stored when a DTC that illuminates the malfunction indicator lamp (MIL) is set. This information is called freeze frame data and may be helpful in diagnosing intermittent concerns. Refer to FREEZE FRAME DATA for additional information.

## **INTRODUCTION > WHAT'S NEW IN THIS MANUAL**