# 9 DIAGNOSING A DDEC SYSTEM FAULT

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#### 9.1 FIRST STEP FOR DIAGNOSING A FAULT WITHIN THE DDEC SYSTEM

The following procedure is the starting point for diagnosing DDEC codes using the Diagnostic Data Reader (DDR).

### 9.1.1 Check Engine Light

Perform the following steps to check the Check Engine Light (CEL):

- 1. Turn the ignition on while at the same time observing the Check/Stop Engine light (engine not running).
  - [a] If the CEL comes on and stays on, refer to section 9.1.2.
  - [b] If the CEL comes on for up to five seconds, and then turns off, refer to section 9.1.3.
  - [c] If the CEL does come on, but the condition of light is erratic or intermittent, refer to section 10.4.
  - [d] If the CEL does not come on, refer to section 10.4.

#### 9.1.2 Read Active Codes

Perform the following steps to read the active codes.

1. Turn ignition on. Plug DDR into DDL connector. See Figure 9–1.

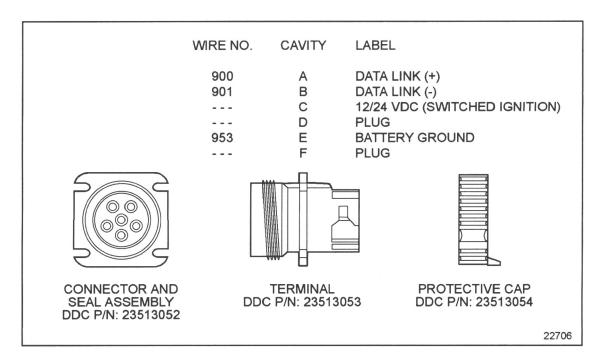


Figure 9–1 Diagnostic Connector

- 2. Read active codes by selecting the DIAGNOSTIC CODE MENU (ACTIVE CODES) on the DDR.
  - [a] If active codes are displayed on the DDR, follow the appropriate diagnostic procedures for the codes received. Refer to the section number that is the same as the Flash Code number.
  - [b] If the DDR display is blank or random, refer to section 10.5.
  - [c] If DDR displays NO DATA or DDEC Info not available, refer to section 10.8.
  - [d] If the DDR display reads "No Active Codes", refer to section 10.8.

#### 9.1.3 Read Inactive Codes

Perform the following steps to read inactive codes.

- 1. Plug DDR into the DDL connector.
- 2. Read inactive codes. (Select inactive codes on the DDR.)
  - [a] If DDR displays no inactive codes, the problem may be intermittent. Refer to section 10.1.
  - [b] If DDR display is blank or random, refer to section 10.5.
  - [c] If DDR displays NO DATA or DDEC Info not available, refer to section 10.5.
  - [d] If the DDR displays any inactive codes, clear the codes and refer to section 9.1.4.

## 9.1.4 Attempt to Make Codes Active

Perform the following steps to make codes active.

- 1. Start and run the engine for eight minutes. Warm the engine. Coolant/oil temperature must be greater than 140°F (60°C).
- 2. If required, perform road test with an assistant.
  - [a] If CEL or SEL illuminate, read codes and refer to the section number that matches the flash code number logged.
  - [b] If CEL or SEL do not illuminate and no codes log, return to service.
  - [c] If CEL or SEL do not illuminate but symptom occurs, refer to section 10.1, and Diagnosis by Symptom.