



# Gauges and Indicators

## – How the Circuit Works

The indicators are controlled by different conditions in their associated systems. Refer to each associated system to see its entire schematic.

### Engine Coolant Temperature Gauge

The engine coolant temperature gauge (part of the LCD Display) is controlled by the CPU in the gauge assembly. The ECT sensor sends a coolant temperature signal to the ECM through the RED/WHT wire (cavity C26). The ECM then sends a coolant temperature signal to the CPU in the gauge assembly through the LT GRN/RED wire (cavity A4). The CPU controls the LCD display to turn on the correct number of segments to indicate the coolant temperature.

Refer to the Service Manual (Section 22, Gauges) for specific tests or troubleshooting procedures.

### Fuel Gauge and Low Fuel Indicator



**Do not smoke while working on the fuel system. Keep open flame away from the work area. Drain fuel only into an approved container.**

The fuel gauge (part of the LCD Display) and the low fuel indicators are controlled by the CPU in the gauge assembly. The fuel gauge sending unit (part of the fuel tank unit) sends a fuel level signal to the CPU in the gauge assembly through the YEL/BLK wire (cavity A3). The signal varies depending on the position of the float in the fuel tank which changes the resistance of the sending unit. The sending unit's resistance varies according to the position of its float:

Float Position	Resistance ( $\Omega$ )
F	11–13
1/2	65–71
E	130–132

The CPU controls the LCD Display to turn on the correct number of segments to indicate the fuel level. When the fuel level drops below the LOW level, the CPU grounds the low fuel indicator, which turns the indicator on.

Refer to the Service Manual (Section 11, Fuel Supply System) for specific tests or troubleshooting procedures.

### Speedometer and Odometer

The speedometer and odometer (part of the LCD Display) are controlled by the CPU in the gauge assembly. The CPU receives a pulsing input from the vehicle speed sensor. The pulse rate increases as the car accelerates. The frequency and duration of these input pulses are measured by the CPU. The CPU controls the LCD Display to turn on the correct number of segments to indicate the vehicles speed and mileage.

Refer to the Service Manual (Section 22, Gauges) for specific tests or troubleshooting procedures.

### Tachometer

The tachometer (part of the LCD Display) is controlled by the CPU in the gauge assembly. The CPU receives a pulsing input from the ECM through the BLU wire (Cavity A19). The frequency and duration of these input pulses are measured by the CPU. The CPU controls the LCD Display to turn on the correct number of segments to indicate the engine speed.

Refer to the Service Manual (Section 22, Gauges) for specific tests or troubleshooting procedures.