■1UR-FE AND 3UR-FE ENGINES

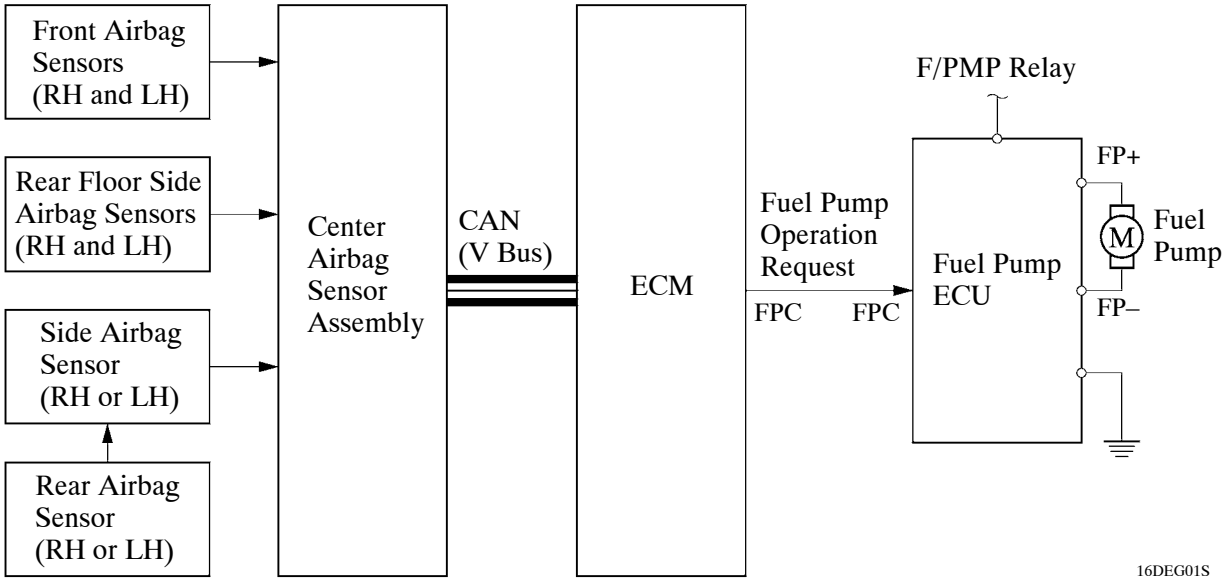
1. Engine Control System

Fuel Pump Control

The fuel pump ECU has been changed, and as a result, the fuel pump control has also been changed.

- On the ’10 Sequoia, 3 stage signals are used and sent to the fuel pump, in order to regulate the fuel pump speed. On the ’11 Sequoia, linear signals are used and sent to the fuel pump, achieving further power consumption reduction.
- The circuit opening relay has been discontinued due to the change in the fuel pump control.

▶ System Diagram ◀



Fuel Pump ECU

- In the fuel pump speed control, the ECM transmits fuel pump operation request signals in accordance with the engine operating conditions. In response to the request signals, the fuel pump ECU then transmits linear output signals to the fuel pump, optimally regulating the fuel pump speed.
- In the fuel pump cut control, if the ECM receives airbag deployment signals from the center airbag sensor assembly, it transmits stop signals to the fuel pump ECU to bring the fuel pump to a halt. When receiving a stop signal, the fuel pump ECU stops the fuel pump.

▶ FP Terminal Output Voltage ◀

Condition		FP Terminal
Normal	Duty input from the ECM: 25% to 80%	Linear
	Duty input from the ECM: 0% or 100% (Included when the airbag is deployed.)	Off
Self-protection function is activated due to overcurrent or overheating.		Off
Open circuit is detected in the FPC signal line connected to the ECM.		Off