

Tier 0: California and Federal regulations effective prior to Tier 1 phase in dates.

Tier 1: California regulations beginning in 1993 model year and Federal regulations beginning in 1994 model year.

Tier 2: Federal regulations beginning in the 2004 model year.

TWC: Three Way Catalytic Converter

ULEV: Ultra Low Emission Vehicle

ZEV: Zero Emission Vehicle

ENGINE CONTROL COMPONENTS



NOTE: Transmission inputs which are not described in this service information are discussed in the applicable transmission service information.

ENGINE CONTROL COMPONENTS > ACCELERATOR PEDAL POSITION (APP) SENSOR

The APP sensor is an input to the PCM and determines the amount of torque requested by the operator.

ENGINE CONTROL COMPONENTS > ACCELERATOR PEDAL POSITION (APP) SENSOR > FIESTA

There are 2 separate pedal position sensors in the accelerator pedal. The APP1 sensor signal generates a pulse width modulated (PWM) signal to the PCM. The APP1 sensor uses a VPWR circuit, a ground circuit and a signal circuit. Only the APP1 signal circuit is connected to the PCM. The APP2 sensor signal has a positive slope (increasing angle, increasing voltage) and is a class 2 message from the instrument panel cluster (IPC) to the PCM. The APP2 sensor uses a reference voltage circuit, a signal return circuit, and a signal circuit between the IPC and the APP sensor assembly. The two pedal position signals make sure the PCM receives a correct input even if one of the signals has a concern. The PCM determines if a signal is incorrect by calculating an expected position, inferred from the other signals. If a concern is present with one of the circuits the other input is used. The pedal position signal is converted to pedal travel degrees (rotary angle) by the PCM. The software converts these degrees to counts, which is the input to the torque based strategy. For additional information, refer to TORQUE BASED ELECTRONIC THROTTLE CONTROL (ETC) in this service information

ENGINE CONTROL COMPONENTS > ACCELERATOR PEDAL POSITION (APP) SENSOR > ALL OTHERS

There are 2 pedal position signals in the sensor. Both signals, APP1 and APP2, have a positive slope