

next most prominent symptom. If all diagnosis is complete and no concern is found, it may be helpful to GO to Pinpoint Test [Z](#) in Section 5 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 Section 2, [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 Section 2, [Freeze Frame Data](#) for additional information.

What's New In This Manual

The following is a list of changes to this manual for 2020:

- The Aviator with a new 3.0L GTDI engine.
 - The new Corsair with a new 2.0L GTDI engine, a new 2.3L GTDI engine, and a new 2.5L hybrid engine.
 - The new Escape with a new 1.5L GTDI engine, a new 2.0L GTDI engine, and a new 2.5L hybrid engine.
 - The Explorer with a new 2.3L GTDI engine, a new 3.0L GTDI engine, and a new 3.3L TIVCT engine.
 - The F-Series Super Duty with a new 7.3L engine.
 - The Motorhome with a new 7.3L engine.
 - The Mustang with a 5.2L supercharged engine.
 - The Transit with a new 3.5L TIVCT engine.
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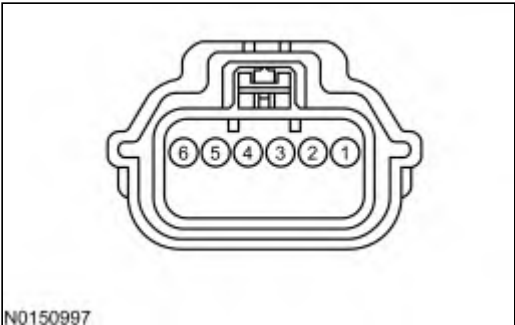
DK: Accelerator Pedal Position (APP) Sensor

Note: After clearing an APP sensor diagnostic trouble code (DTC) to verify a repair or an intermittent concern, apply the accelerator pedal before carrying out the self-test. Take 10 seconds to carry out a full sweep of the accelerator pedal from fully released to fully applied and back to fully released.

This pinpoint test is intended to diagnose the following:

- APP sensor (9F836)
- harness circuits: APP1, APP2, APPRTN1, APPRTN2, APPVREF1 and APPVREF2
- PCM (12A650)

Accelerator Pedal Position (APP) Sensor Connector



Pin	Circuit
5	APP2 (Accelerator Pedal Position 2)
2	APP1 (Accelerator Pedal Position 1)
4	APPRTN2 (Accelerator Pedal Position Return 2)
6	APPVREF2 (Accelerator Pedal Position Reference Voltage 2)
3	APPRTN1 (Accelerator Pedal Position Return 1)
1	APPVREF1 (Accelerator Pedal Position Reference Voltage 1)

Powertrain Control Module (PCM) Connector

For PCM connector views or reference values, refer to Section 6, Reference Values.

Vehicle	Connector	Pin	Circuit

Vehicle	Connector	Pin	Circuit
Continental 2.0L, Continental 2.7L, Continental 3.0L, EcoSport 1.0L, EcoSport 2.0L, Expedition, F-150 3.5L High Output, Flex GTDI 3.5L, Ford GT, Fusion 1.5L, Fusion 2.0L, Fusion 2.7L, MKZ, Navigator	198 PIN	B54 B55	APP2 APP1
Continental 3.7L, Corsair 2.5L, E-Series, EcoSport 1.5L Automatic Transmission, Escape/Kuga 2.5L, F-650 / F-750, Flex TiVCT 3.5L, Fusion 2.5L, KA 1.5L Automatic Transmission, Mustang TiVCT 5.2L, Transit Connect 2.5L	198 PIN	B60 B61	APP2 APP1
Corsair 2.0L, Corsair 2.3L, Edge 2.0L, Escape/Kuga 1.5L, Escape/Kuga 2.0L, Explorer 2.3L, Mustang 2.3L, Nautilus 2.0L, Ranger 2.3L, Transit Connect 1.0L, Transit Connect 2.0L	198 PIN	B34 B33	APP2 APP1
EcoSport 1.5L Manual Transmission, KA 1.2L, KA 1.5L Manual Transmission	112 PIN	B24 B23	APP2 APP1
KA 1.0L	128 PIN	B8 B21	APP2 APP1
Ranger 2.5L	128 PIN	B29 B30	APP2 APP1
All other vehicles	306 PIN	B68 B56	APP2 APP1