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2015 FORD Fiesta Sedan OEM Service and Repair Workshop Manual

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control module)	No Sub Type	(key on, engine running) self-test. The PCM (powertrain
P1711:00	Information	control module) expects a transmission fluid temperature
		reading between -1°C (30°F) and 120°C (248°F).

Possible Sources

- Transmission fluid temperature outside of self-test range
- TFT (transmission fluid temperature) sensor fault
- PCM (powertrain control module) fault

AD1 CHECK THE TRANSMISSION FLUID TEMPERATURE

- Ignition ON.
- Access the PCM (powertrain control module) and monitor the TFT (Transmission Fluid Temperature)
 (Deg C) PID (parameter identification)

Does PID (parameter identification) TFT show between -1°C (30°F) and 120°C (248°F)?

Yes	GO to	AD2

No

If the monitored temperature is plausible, either warm the transmission fluid temperature or let it cool into self-test range, then GO to AD2 If the monitored temperature is not plausible, GO to Pinpoint Test B

AD2 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON,
- Using a diagnostic scan tool, clear the DTC (diagnostic trouble code) from the PCM (powertrain control module).
- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, carry out the KOEO (key on, engine off) and KOER (key on, engine running) PCM (powertrain control module) self-tests.

Is DTC (diagnostic trouble code) P1711 present in the PCM (powertrain control module)?

Yes





Guided Routine available in the on-line Workshop Manual.

AE1 INSPECT THE TRANSMISSION FLUID FOR SIGNS OF WEAR

• Collect a transmission fluid sample and inspect it for signs of wear.

REFER to: Preliminary Inspection(307-01A Automatic Transmission - 10-Speed Automatic Transmission

- 10R80, Diagnosis and Testing).

Does the transmission fluid condition indicate excessive wear?

Overhaul the transmission.

REFER to: Transmission

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Overhaul).

Carry out the transmission fluid cooler backflushing and cleaning procedure.

REFER to: Transmission Fluid Cooler - Backflushing and Cleaning - Vehicles With: Transmission

Fluid Heat Exchanger

(307-02A Transmission Cooling - 10-Speed Automatic Transmission - 10R80, General Procedures).

REFER to: Transmission Fluid Cooler - Backflushing and Cleaning - Vehicles With: Transmission

Fluid Heat Exchanger

(307-02A Transmission Cooling - 10-Speed Automatic Transmission - 10R80, General Procedures).

No GO to AE2

Yes

AE2 CHECK FOR SIGNS OF INTERNAL TRANSMISSION DAMAGE

- Using a diagnostic scan tool, clear the DTC (diagnostic trouble code) from the PCM (powertrain control module) .
- Road test the vehicle. Pay close attention for any noise, transmission engagement, or shifting concerns.
- Using a diagnostic scan tool, carry out the PCM (powertrain control module) self-test.

Are any gear engagement or clutch fault diagnostic trouble codes (DTCs) present, or are any noise, engagement, or shifting concerns present?

Yes

Overhaul the transmission.

REFER to: Transmission

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Overhaul).

Carry out the transmission fluid cooler backflushing and cleaning procedure.

REFER to: Transmission Fluid Cooler - Backflushing and Cleaning - Vehicles With: Transmission

Fluid Heat Exchanger

(307-02A Transmission Cooling - 10-Speed Automatic Transmission – 10R80, General Procedures).

REFER to: Transmission Fluid Cooler - Backflushing and Cleaning - Vehicles With: Transmission

Fluid Heat Exchanger

The fault is not	present at th	is time and	may be	intermittent.

PINPOINT TEST AG: P2700, P2701, P2702, P2703, P2704, 2705

Normal Operation and Fault Conditions

The PCM (powertrain control module) monitors clutch applications. It sets a DTC (diagnostic trouble code) if it detects a non-electrical fault that causes a clutch to fail to apply and/or release properly.

DTC Fault Trigger Conditions

No

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P2700:00	Transmission Friction Element 'A' Apply Time Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with either P0751 or P0752. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P2701:00	Transmission Friction Element 'B' Apply Time Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with either P0756 or P0757. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P2702:00	Transmission Friction Element 'C' Apply Time Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with either P0761 or P0762. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P2703:00	Transmission Friction Element 'D' Apply Time Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with either P0766 or P0767. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P2704:00	Transmission Friction Element 'E' Apply Time Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with either P0771 or P0772. Resolve the more specific DTC (diagnostic trouble code) first.

P0766 or P0767 are set, resolve those first. Otherwise, check the D clutch for a slipping or a harsh apply condition.

REFER to: D Clutch

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).

For P2704, if either DTC (diagnostic trouble code)

P0771 or P0772 are set, resolve those first. Otherwise, check the E clutch for a slipping or a harsh apply condition.

REFER to: E Clutch

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).

For P2705, if either DTC (diagnostic trouble code)

P2707 or P2708 are set, resolve those first. Otherwise, check the F clutch for a slipping or a harsh apply condition.

REFER to: F Clutch

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and

Testing).

No The fault is not present at this time and may be intermittent.

PINPOINT TEST AH: P27B2, P27B3, P27B4, P27B5, P27B6

Normal Operation and Fault Conditions

The PCM (powertrain control module) monitors the TSS (turbine shaft speed), OSS (output shaft speed), ISSA and ISSB sensors to verify the achieved gear matches the selected gear. If the PCM (powertrain control module) detects a reverse gear when a forward gear is selected, a forward gear when reverse is selected, an incorrect gear ratio or a mismatch between speed sensors, it will set a DTC (diagnostic trouble code).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P27B2:00	Internal Control Module Transmission Range Control Performance: No Sub Type Information	This DTC (diagnostic trouble code) indicates a mismatch between the commanded gear range and the achieved gear range while entering or exiting park.

(307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).

No GO to AH2

AH2 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, clear all diagnostic trouble codes (DTCs) from the PCM (powertrain control module) .
- Road test the vehicle.
- In a parking lot, shift the vehicle between Park, Drive and Reverse, allowing the vehicle to move in both directions.
- Using a diagnostic scan tool, carry out the KOEO (key on, engine off) and KOER (key on, engine running) PCM (powertrain control module) self-tests.

Is DTC (diagnostic trouble code) P27B2, P27B3, P27B4, P27B5 and/or P27B6 present in the PCM (powertrain control module)?

Yes GO to AH3

No

The fault is not present at this time. If any observable symptoms are present,

REFER to: Diagnosis By Symptom (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).

AH3 RETRIEVE ALL DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE PCM (POWERTRAIN CONTROL MODULE) SELF-TEST

- Ignition ON.
- Using a diagnostic scan tool, retrieve all diagnostic trouble codes (DTCs) from the PCM (powertrain control module) self-test.

Are any shift solenoid, speed sensor, TR (transmission range) sensor, clutch engagement or module communication diagnostic trouble codes (DTCs) present?

Yes

RESOLVE any shift solenoid, speed sensor, TR (transmission range) sensor, clutch engagement, or module communication diagnostic trouble codes (DTCs) first. REFER to the DTC (diagnostic

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, General Procedures).

No

The concern is not present at this time. It might have been caused by a corrupted calibration.

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PCM (powertrain control module)	P0706:00	Transmission Range Sensor "A" Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test C
PCM (powertrain control module)	P0707:00	Transmission Range Sensor "A" Circuit Low: No Sub Type Information	GO to Pinpoint Test C
PCM (powertrain control module)	P0708:00	Transmission Range Sensor "A" Circuit High: No Sub Type Information	GO to Pinpoint Test C
PCM (powertrain control module)	P0709:00	Transmission Range Sensor "A" Circuit Intermittent: No Sub Type Information	GO to Pinpoint Test C
PCM (powertrain control module)	P0710:00	Transmission Fluid Temperature Sensor "A" Circuit: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P0711:00	Transmission Fluid Temperature Sensor "A" Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P0712:00	Transmission Fluid Temperature Sensor "A" Circuit Low: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P0713:00	Transmission Fluid Temperature Sensor "A" Circuit High: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P0715:00	Input/Turbine Shaft Speed Sensor "A" Circuit: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P0716:00	Input/Turbine Shaft Speed Sensor "A" Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test
PCM (powertrain control module)	P0717:00	Input/Turbine Shaft Speed Sensor "A" Circuit No Signal: No Sub Type Information	GO to Pinpoint Test D

PCM (powertrain control module)	P0736:00	Reverse Incorrect Ratio: No Sub Type Information	GO to Pinpoint Test R
PCM (powertrain control module)	P0740:00	Torque Converter Clutch Solenoid Circuit/Open: No Sub Type Information	GO to Pinpoint Test G
PCM (powertrain control module)	P0741:00	Torque Converter Clutch Solenoid Circuit Performance Stuck Off: No Sub Type Information	GO to Pinpoint Test S
PCM (powertrain control module)	P0743:00	Torque Converter Clutch Solenoid Circuit Electrical: No Sub Type Information	GO to Pinpoint Test G
PCM (powertrain control module)	P0748:00	Pressure Control Solenoid "A" Electrical: No Sub Type Information	GO to Pinpoint Test G
PCM (powertrain control module)	P0751:00	Shift Solenoid "A" Performance/Stuck Off: No Sub Type Information	GO to Pinpoint Test S
PCM (powertrain control module)	P0752:00	Shift Solenoid "A" Stuck On: No Sub Type Information	GO to Pinpoint Test T
PCM (powertrain control module)	P0753:00	Shift Solenoid "A" electrical: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	P0754:00	Shift Solenoid "A" Intermittent: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	P0756:00	Shift Solenoid "B" Performance/Stuck Off: No Sub Type Information	GO to Pinpoint Test S
PCM (powertrain control module)	P0757:00	Shift Solenoid "B" Stuck On: No Sub Type Information	GO to Pinpoint Test T

PCM (powertrain control module)	P0771:00	Shift Solenoid "E" Performance/Stuck Off: No Sub Type Information	GO to Pinpoint Test S
PCM (powertrain control module)	P0772:00	Shift Solenoid "E" Stuck On: No Sub Type Information	GO to Pinpoint Test T
PCM (powertrain control module)	P0773:00	Shift Solenoid "E" electrical: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	P0774:00	Shift Solenoid "E" Intermittent: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	P077D:00	Output Shaft Speed Sensor Circuit High: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P0791:00	Intermediate Shaft Speed Sensor "A" Circuit: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P0792:00	Intermediate Shaft Speed Sensor "A" Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test
PCM (powertrain control module)	P0793:00	Intermediate Shaft Speed Sensor "A" Circuit No Signal: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P0794:00	Intermediate Shaft Speed Sensor "A" Circuit Intermittent: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P07BF:00	Input/Turbine Shaft Speed Sensor "A" Circuit Low: No Sub Type Information	GO to Pinpoint Test D
PCM (powertrain control module)	P07C0:00	Input/Turbine Shaft Speed Sensor "A" Circuit High: No Sub Type Information	GO to Pinpoint Test D