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## 1997 FORD Escort Wagon OEM Service and Repair Workshop Manual

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		clutch, which allows only reverse and 6th and 8th gears.
PCM (powertrain control module) P0766:00	Shift Solenoid 'D' Performance/Stuck Off: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the D clutch to fail to apply. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that use the D clutch, which allows only 5th and 9th gears.
PCM (powertrain control module) P0771:00	Shift Solenoid 'E' Performance/Stuck Off: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the E clutch to fail to apply. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that use the E clutch, which allows only reverse and 2nd, 4th and 10th gears.
PCM (powertrain control module) P1744:00	Torque Converter Clutch Solenoid Circuit Performance: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with P0741. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P2707:00	Shift Solenoid 'F' Performance/Stuck Off: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the F clutch to fail to apply. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that use the F clutch, which allows only 1st through 3rd gears.

#### Possible Sources

- Shift solenoid stuck off
- Stuck control valve
- Contamination in the main control valve body
- Hydraulic circuit leak
- Clutch damaged

#### **S1 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.
- Using a diagnostic scan tool, retrieve all continuous memory diagnostic trouble codes (CMDTCs) from the PCM (powertrain control module) .

**No**

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

**PINPOINT TEST T : P0752, P0757, P0762, P0767, P0772, P2708, P2758, P2783****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 release.

**DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P0752:00	Shift Solenoid 'A' Stuck On: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the A clutch to remain applied when it was commanded off. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that do not use the A clutch, which allows only reverse and 1st through 6th gears.
PCM (powertrain control module) P0757:00	Shift Solenoid 'B' Stuck On: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the B clutch to remain applied when it was commanded off. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that do not use the B clutch, which allows only reverse, 1st, 2nd and 8th through 10th gears.
PCM (powertrain control module) P0762:00	Shift Solenoid 'C' Stuck On: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the C clutch to remain applied when it was commanded off. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that do not use the C clutch, which allows only 2nd through 5th and 7th, 9th and 10th gears.
PCM (powertrain control module) P0767:00	Shift Solenoid 'D' Stuck On: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault that caused the D clutch to remain applied when it was commanded off. When this DTC (diagnostic trouble code) is present, the failsafe logic disables all gears that do not use the D clutch, which allows all gears except 5th and 9th.

**Is DTC (diagnostic trouble code) P0752, P0757, P0762, P0767, P0772, P2708, P2758 and/or P2783 present in the PCM (powertrain control module) ?**

**Yes**

For DTC (diagnostic trouble code) P0752, A clutch always applied condition,

REFER to: [A Clutch](#)

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

For DTC (diagnostic trouble code)

P0757, B clutch always applied condition,

REFER to: [B Clutch](#)

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

For DTC (diagnostic trouble code)

P0762, C clutch always applied condition,

REFER to: [C Clutch](#)

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

For DTC (diagnostic trouble code)

P0767, D clutch always applied condition,

REFER to: [D Clutch](#)

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

For DTC (diagnostic trouble code)

P0772, E clutch always applied condition,

REFER to: [E Clutch](#)

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

For DTC (diagnostic trouble code)

P2708, F clutch always applied condition,

REFER to: [F Clutch](#)

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

For DTC (diagnostic trouble code)

P2758, TCC (torque converter clutch)

always applied condition,

REFER to: [Torque Converter Clutch \(TCC\)](#)

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

For DTC (diagnostic trouble code)

P2783, REMOVE and DISASSEMBLE the main control valve body. INSPECT the TCC (torque converter clutch)

- F clutch slipping

**U1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DTC (DIAGNOSTIC TROUBLE CODE) P076F**

- Ignition ON.
- Using a diagnostic scan tool, clear all diagnostic trouble codes (DTCs) from the PCM (powertrain control module) .
- Road test the vehicle.
- Using a diagnostic scan tool, retrieve all continuous memory diagnostic trouble codes (CMDTCs) from the PCM (powertrain control module) .

**Is DTC (diagnostic trouble code) P076F present in the PCM (powertrain control module) ?**

<p><b>Yes</b></p>	<p>Check the C clutch for a does not apply or a slipping condition.            REFER to: <a href="#">C Clutch</a>            (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>Check the A clutch for an always applied condition.            REFER to: <a href="#">A Clutch</a>            (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>Check the D clutch for a slipping condition.            REFER to: <a href="#">D Clutch</a>            (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>Check the E clutch for a slipping condition.            REFER to: <a href="#">E Clutch</a>            (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>Check the F clutch for a slipping condition.            REFER to: <a href="#">F Clutch</a>            (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p>
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<p><b>No</b></p>	<p>The fault is not present at this time and may be intermittent.</p>
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**PINPOINT TEST V : P07D9**

Check the C clutch for an always applied condition.

REFER to: [C Clutch](#)

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

Check the D clutch for a slipping condition.

REFER to: [D Clutch](#)

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

Check the E clutch for a slipping condition.

REFER to: [E Clutch](#)

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

Check the F clutch for a slipping condition.

REFER to: [F Clutch](#)

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

<b>No</b>	The fault is not present at this time and may be intermittent.
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## PINPOINT TEST W : P07F6

### Normal Operation and Fault Conditions

The PCM (powertrain control module) monitors clutch applications for all gears. It sets a DTC (diagnostic trouble code) if it detects a ratio error but is unable to detect which clutch caused the issue. The transmission logic disables the gear in question. If multiple incorrect gear ratio diagnostic trouble codes (DTCs) are set, look for a common clutch involved in the operation of those gear applications. If no common clutch errors are found, look for a line pressure or pump pressure concern.

### DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P07F6:00	Gear 9 Incorrect Ratio: No Sub Type Information	This DTC (diagnostic trouble code) indicates a gear ratio error either in or while shifting to 9th gear. The fault did not last long enough to set a more specific DTC (diagnostic trouble code) . The failsafe logic disables 9th gear for the remainder of the key cycle during which the fault occurred.

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

## PINPOINT TEST X : DTC P07F7

### Normal Operation and Fault Conditions

The PCM (powertrain control module) monitors clutch applications for all gears. It sets a DTC (diagnostic trouble code) if it detects a ratio error but is unable to detect which clutch caused the issue. The transmission logic disables the gear in question. If multiple incorrect gear ratio diagnostic trouble codes (DTCs) are set, look for a common clutch involved in the operation of those gear applications. If no common clutch errors are found, look for a line pressure or pump pressure concern.

### DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P07F7:00	Gear 10 Incorrect Ratio: No Sub Type Information	This DTC (diagnostic trouble code) indicates a gear ratio error either in or while shifting to 10th gear. The fault did not last long enough to set a more specific DTC (diagnostic trouble code) . The failsafe logic disables 10th gear for the remainder of the key cycle during which the fault occurred.

### Possible Sources

- Transmission fluid contamination
- Low line pressure
- D clutch stuck off or slipping
- E clutch stuck on
- B clutch slipping
- C clutch slipping
- F clutch slipping

### X1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DTC (DIAGNOSTIC TROUBLE CODE) P07F7

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

PCM (powertrain control module) P0868:00	Transmission Fluid Pressure Low: No Sub Type Information	This DTC (diagnostic trouble code) indicates a non-electrical fault causing 2 or more clutches to fail to apply. The PCM (powertrain control module) understands this as most likely caused by low line pressure.
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**Possible Sources**

- Transmission fluid contamination
- Low line pressure

**Y1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DTC (DIAGNOSTIC TROUBLE CODE) P0868**

- Ignition ON.
- Using a diagnostic scan tool, clear all diagnostic trouble codes (DTCs) from the PCM (powertrain control module) .
- Road test the vehicle.
- Using a diagnostic scan tool, retrieve all continuous memory diagnostic trouble codes (CMDTCs) from the PCM (powertrain control module) .

**Is DTC (diagnostic trouble code) P0868 present in the PCM (powertrain control module) ?**

<b>Yes</b>	<p>Check the transmission fluid for contamination. REFER to: <a href="#">Preliminary Inspection</a> (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p> <p>Carry out the line pressure test. REFER to: <a href="#">Special Testing Procedures</a> (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Diagnosis and Testing).</p>
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<b>No</b>	The fault is not present at this time and may be intermittent.
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**PINPOINT TEST Z : P1636**

**Normal Operation and Fault Conditions**

The PCM (powertrain control module) contains Phoenix drivers, which are chips that control the low sides of the solenoid circuits to provide the commanded current. The main processor in the PCM (powertrain control



Guided Routine available in the on-line Workshop Manual.  
After programming the new PCM (powertrain control module)  
, CARRY OUT the transmission strategy download.  
REFER to: [Transmission Strategy Download](#)  
(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, General  
Procedures).

<b>No</b>	GO to <a href="#">Z2</a>
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## **Z2 ROAD TEST THE VEHICLE AND RECHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DTC (DIAGNOSTIC TROUBLE CODE) P1636**

- Road test the vehicle.
- Ignition OFF.
- Road test the vehicle a second time.
- 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) P1636 present in the PCM (powertrain control module) ?**



**Yes**

Guided Routine available in the on-line Workshop Manual.  
After programming the new PCM (powertrain control module)  
, CARRY OUT the transmission strategy download.  
REFER to: [Transmission Strategy Download](#)  
(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, General  
Procedures).

<b>No</b>	The fault is not present at this time.
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**PINPOINT TEST AA : P163E, P163F**



**Yes**

Guided Routine available in the on-line Workshop Manual.  
 After programming the new PCM (powertrain control module)  
 , CARRY OUT the transmission strategy download.  
 REFER to: [Transmission Strategy Download](#)  
 (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, General  
 Procedures).

**No**

The fault is not present at this time. It might have been caused by an incorrect or corrupted  
 calibration.

**PINPOINT TEST AB : P1705**

**Normal Operation and Fault Conditions**

The PCM (powertrain control module) only runs the KOEO (key on, engine off) and KOER (key on, engine  
 running) self-tests when it confirms the vehicle is in park or neutral.

**DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P1705:00	Transmission Range Circuit Not Indicating Park/Neutral During Self Test: No Sub Type Information	This DTC (diagnostic trouble code) indicates the TR (transmission range) sensor did not show park or neutral during a KOEO (key on, engine off) or KOER (key on, engine running) PCM (powertrain control module) self-test.

**Possible Sources**

- Carrying out a PCM (powertrain control module) self-test with the vehicle in gear
- TR (transmission range) sensor
- Park system components
- PCM (powertrain control module) fault