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2000 FORD Escort Wagon OEM Service and Repair Workshop Manual

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E8 CHECK THE TRANSMISSION FLUID AUXILIARY PUMP ATFPC AND ATFPM CIRCUITS FOR A SHORT TO GROUND

- Measure:

ATFPC

Positive Lead	Measurement / Action	Negative Lead
C168A-18	Ω	Ground

ATFPM

Positive Lead	Measurement / Action	Negative Lead
C168A-19	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes GO to [E9](#)

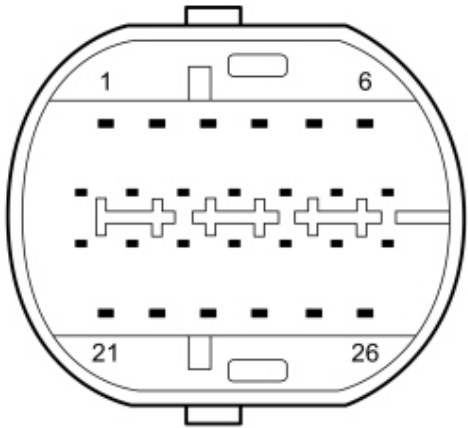
No REPAIR the short to ground.

E9 CHECK THE TRANSMISSION FLUID AUXILIARY PUMP ATFPC AND ATFPM CIRCUITS FOR A SHORT TO POWER

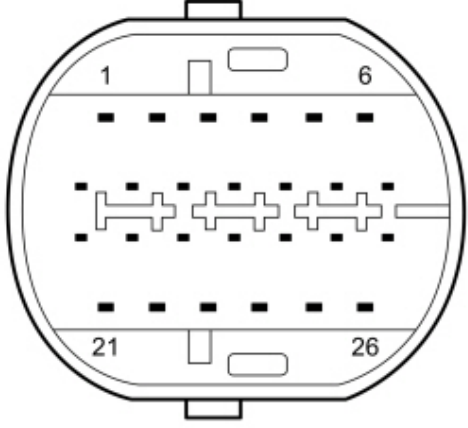
- Ignition ON.
- Measure:

ATFPC

Positive Lead	Measurement / Action	Negative Lead
C168A-18	\bar{V}	Ground

C1792-4	Ω	 <p data-bbox="751 577 858 609">E275612</p> <p data-bbox="715 721 1204 757">Transmission component side, pin 18</p>
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ATFPM

Positive Lead	Measurement / Action	Negative Lead
C1792-5	Ω	 <p data-bbox="751 1556 858 1588">E275612</p> <p data-bbox="715 1691 1204 1727">Transmission component side, pin 19</p>

Are the resistances less than 3 ohms?

Yes	GO to E11
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E12 CHECK THE TRANSMISSION CASE WIRING HARNESS TRANSMISSION FLUID AUXILIARY PUMP POWER CIRCUITS

- Ignition OFF.
- Connect Transmission vehicle harness C168A .
- Connect PCM (powertrain control module) C1381T .
- Connect BJB (battery junction box) fuse F67 (20A) (if previously disconnected).
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1792-1	\bar{V}	Ground
C1792-3	\bar{V}	Ground

Are the voltages greater than 11 volts?

Yes	GO to E13
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No	<p>INSTALL a new transmission case wiring harness. REFER to: Transmission Internal Wiring Harness (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).</p>
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E13 CHECK THE TRANSMISSION INTERNAL WIRING HARNESS TRANSMISSION FLUID AUXILIARY PUMP GROUND CIRCUIT

- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
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PCM (powertrain control module) P0C27:00	Electric/Auxiliary Transmission Fluid Pump 'A' Motor Current Low: No Sub Type Information	This DTC (diagnostic trouble code) indicates the transmission fluid auxiliary pump communication is OK, the frequency is between 125 Hz and 175 Hz, but a low current is detected (10% to 15% duty cycle). Possible causes are a low transmission fluid level or leaking pump seals.
PCM (powertrain control module) P175A:00	Transmission Fluid Over Temperature Condition - Electric Transmission Fluid Pump Disabled: No Sub Type Information	This DTC (diagnostic trouble code) sets if the auxiliary pump communication is OK, the frequency is between 130 Hz and 170 Hz, but an over temperature condition is detected (30% to 34% duty cycle). This DTC (diagnostic trouble code) can be caused by high transmission fluid temperatures.

Possible Sources

- Low transmission fluid level
- Transmission fluid auxiliary pump seals
- Transmission fluid auxiliary pump

F1 CHECK THE TRANSMISSION FLUID LEVEL

- Check the transmission fluid level.
REFER to: [Transmission Fluid Level Check](#)(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, General Procedures).

Is the transmission fluid level correct?

Yes	GO to F2
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No	CORRECT the transmission fluid to the proper level, clear the DTC (diagnostic trouble code) and road test the vehicle. If the DTC (diagnostic trouble code) returns, GO to F2
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F2 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DIAGNOSTIC TROUBLE CODES (DTCs)

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

Is DTC (diagnostic trouble code) P0B0D, P0C27 and/or P175A present?

F5 CHECK THE TRANSMISSION FLUID AUXILIARY PUMP SEALS

- Drain the transmission fluid and remove the transmission fluid pan.
REFER to: [Transmission Fluid Pan, Gasket and Filter](#)(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).
- Remove the transmission fluid auxiliary pump tube and inspect the seals.

Are the transmission fluid auxiliary pump seals OK?

Yes	INSTALL a new transmission fluid auxiliary pump. REFER to: Transmission Fluid Auxiliary Pump (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).
No	INSTALL new seals on the transmission fluid auxiliary pump tube. REFER to: Transmission Fluid Auxiliary Pump (307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).

F6 CHECK FOR TRANSMISSION OVER TEMPERATURE DIAGNOSTIC TROUBLE CODES (DTCs)

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

Is DTC (diagnostic trouble code) P0218 and/or P1783 present?

Yes	RESOLVE those DTC (diagnostic trouble code) s first. REFER to the DTC (diagnostic trouble code) chart.
No	GO to F7

F7 RECHECK FOR DTC P175A

- Allow the transmission to cool.
- Ignition ON.
- Using a diagnostic scan tool, clear all diagnostic trouble codes (DTCs) from the PCM (powertrain control module) .

PCM (powertrain control module) P0748:00	Pressure Control Solenoid 'A' Electrical: No Sub Type Information	This DTC (diagnostic trouble code) illuminates the wrench light in conjunction with P0960, P0962 and/or P0963. Resolve the more specific DTC (diagnostic trouble code) first.
PCM (powertrain control module) P0960:00	Pressure Control Solenoid 'A' Control Circuit/Open: No Sub Type Information	This DTC (diagnostic trouble code) indicates an open circuit in the LPC (line pressure control) solenoid circuit.
PCM (powertrain control module) P0961:00	Pressure Control Solenoid 'A' Control Circuit Range/Performance: No Sub Type Information	This DTC (diagnostic trouble code) indicates an LPC (line pressure control) solenoid fault, but the fault did not last long enough to set a more specific DTC (diagnostic trouble code) .
PCM (powertrain control module) P0962:00	Pressure Control Solenoid 'A' Control Circuit Low: No Sub Type Information	This DTC (diagnostic trouble code) indicates a short to ground in the LPC (line pressure control) solenoid circuit.
PCM (powertrain control module) P0963:00	Pressure Control Solenoid 'A' Control Circuit High: No Sub Type Information	This DTC (diagnostic trouble code) indicates a short to power in the LPC (line pressure control) solenoid circuit.
PCM (powertrain control module) P2669:00	Actuator Supply Voltage 'B' Circuit/Open: No Sub Type Information	This DTC (diagnostic trouble code) indicates an open circuit in the transmission solenoid power control 2 (TSPC2) circuit.
PCM (powertrain control module) P2760:00	Torque Converter Clutch Pressure Control Solenoid Intermittent: No Sub Type Information	This DTC (diagnostic trouble code) indicates a TCC (torque converter clutch) solenoid fault, but the fault did not last long enough to set a more specific DTC (diagnostic trouble code) .
PCM (powertrain control module) P2769:00	Torque Converter Clutch Circuit Low: No Sub Type Information	This DTC (diagnostic trouble code) indicates a short to ground in the TCC (torque converter clutch) solenoid circuit.
PCM (powertrain control module) P2770:00	Torque Converter Clutch Circuit High: No Sub Type Information	This DTC (diagnostic trouble code) indicates a short to power in the TCC (torque converter clutch) solenoid circuit.

Possible Sources

Positive Lead	Measurement / Action	Negative Lead
C168A-11	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to G3
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No	REPAIR the short to ground.
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G3 CHECK THE SOLENOID CONTROL CIRCUIT FOR AN OPEN

- For the TCC (torque converter clutch) solenoid, measure:

Positive Lead	Measurement / Action	Negative Lead
C168A-25	Ω	C1381T-33


- For the LPC (line pressure control) solenoid, measure:

Positive Lead	Measurement / Action	Negative Lead
C168A-24	Ω	C1381T-20

Is the resistance less than 3 ohms on the suspect circuit?

Yes	GO to G4
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- For the LPC (line pressure control) solenoid, measure:

Positive Lead	Measurement / Action	Negative Lead
C168A-24		Ground

Is any voltage present on the suspect circuit?

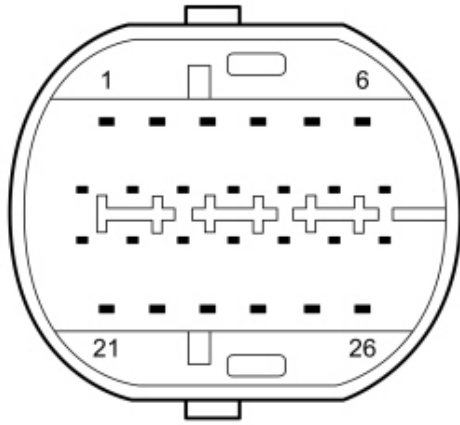
Yes	REPAIR the short to power.
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No	GO to G6
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G6 CHECK THE TRANSMISSION INTERNAL WIRING HARNESS CIRCUITS FOR AN OPEN

- Ignition OFF.
- Drain the transmission fluid and remove the transmission fluid pan.
REFER to: [Transmission Fluid Pan, Gasket and Filter](#)(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).
- Disconnect TCC (torque converter clutch) solenoid C1841 .
- Disconnect LPC (line pressure control) solenoid C1840 .
- For the TCC (torque converter clutch) solenoid, measure:

Positive Lead	Measurement / Action	Negative Lead

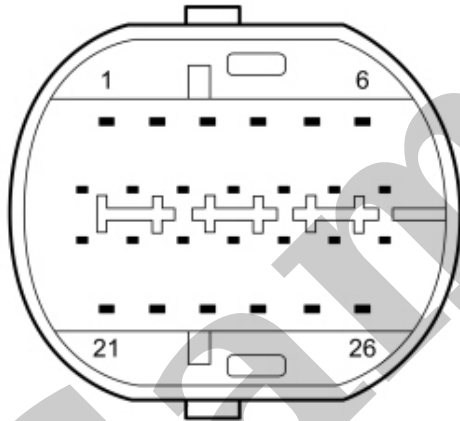


E275612

Transmission component side, pin 11

Ω

C1840-1



E275612

Transmission component side, pin 24

Ω

C1840-2

Are the resistances less than 3 ohms on the suspect circuits?

Yes

GO to [G7](#)

No

INSTALL a new transmission internal wiring harness (both pieces).

REFER to: [Transmission Internal Wiring Harness](#)

(307-01A Automatic Transmission - 10-Speed Automatic Transmission – 10R80, Removal and Installation).