Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2000 FORD Taurus OEM Service and Repair Workshop Manual

Go to manual page

Yes	CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (419-10 Multifunction Electronic Modules, Removal and Installation).

No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST D : B1083:07, B1083:11, B1083:12, B1083:13, B11F0:11, B11F0:15

Refer to Wiring Diagrams Cell 54for schematic and connector information.

Normal Operation and Fault Conditions Air Inlet Door Actuator, REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) - System Operation and Component Description

(412-00 Climate Control System - General Information, Description and Operation).

During an actuator calibration cycle, the HVAC (heating, ventilation and air conditioning) control module drives the air inlet mode door until the door reaches both internal stops in the HVAC (heating, ventilation and air conditioning) case. If the air inlet mode door is temporarily obstructed or binding during a calibration cycle, the HVAC (heating, ventilation and air conditioning) control module may interpret this as the actual end of travel for the door. When this condition occurs and the HVAC (heating, ventilation and air conditioning) control module commands the actuator to its end of travel, the air intake may not be from the expected source. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
HVAC (heating, ventilation and air conditioning) B1083:07	Recirculation Damper Motor: Mechanical Failures	Module senses the air inlet door actuator motor control is awake, no actuator drive, stall before achieving target position within 15 seconds.
HVAC (heating, ventilation and air conditioning) B1083:11	Recirculation Damper Motor: Circuit Short To Ground	Module senses a short to ground on air inlet door actuator circuits when motor movement is commanded.

C228A-16	V⎓	Ground
C228A-3	V⎓	Ground
C228A-24	V⎓	Ground
C228A-25	V⎓	Ground

Is there any voltage present?

Yes	REPAIR the circuit.

No	GO to D2

D2 CHECK THE AIR INLET DOOR ACTUATOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C228A-2	Ω	Ground
C228A-16	Ω	Ground

C228A-25	Ω	C289-6

Are the resistances less than 3 ohms?

Yes	GO to D4

No	REPAIR the circuit.

D4 CHECK FOR CORRECT ACTUATOR OPERATION

- Ignition OFF.
- Disconnect and inspect the air inlet door actuator connector (if not previously disconnected).
- Repair:
  - corrosion (install new connector or terminals – clean module pins)
  - damaged or bent pins – install new terminals/pins
  - pushed-out pins – install new pins as necessary
- Reconnect all disconnected connectors. CONNECT the actuator electrical connector before the HVAC (heating, ventilation and air conditioning) control module. This allows the actuator to be calibrated when the HVAC (heating, ventilation and air conditioning) control module is connected. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	INSTALL a new air inlet door actuator. REFER to: Air Inlet Door Actuator (412-00 Climate Control System - General Information, Removal and Installation). CONNECT the actuator electrical connector before the HVAC (heating, ventilation and air conditioning) control module. This allows the actuator to be calibrated when the HVAC (heating, ventilation and air conditioning) control module is connected. TEST the system for normal operation. If the concern is still present, GO to D5

During an actuator calibration cycle, the HVAC (heating, ventilation and air conditioning) control module drives the defrost vent door and the footwell vent/register door until the doors reach both internal stops in the HVAC (heating, ventilation and air conditioning) case. If the defrost vent door or the footwell vent/register door is temporarily obstructed or binding during a calibration cycle, the HVAC (heating, ventilation and air conditioning) control module may interpret this as the actual end of travel for the door. When this condition occurs and the HVAC (heating, ventilation and air conditioning) control module commands the actuator to its end of travel, the airflow may not be from the expected outlets. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
HVAC (heating, ventilation and air conditioning) B1086:07	Air Distribution Damper Motor: Mechanical Failures	Module senses the air distribution door actuator motor control is awake, no actuator drive, stall before achieving target position within 15 seconds.
HVAC (heating, ventilation and air conditioning) B1086:11	Air Distribution Damper Motor: Circuit Short To Ground	Module senses a short to ground on air distribution door actuator circuits when motor movement is commanded.
HVAC (heating, ventilation and air conditioning) B1086:12	Air Distribution Damper Motor: Circuit Short To Battery	Module senses a short to voltage on air distribution door actuator circuits when motor movement is commanded.
HVAC (heating, ventilation and air conditioning) B1086:13	Air Distribution Damper Motor: Circuit Open	Module senses an open on air distribution door actuator circuits when motor movement is commanded.
HVAC (heating, ventilation and air conditioning) B11E7:11	Air Distribution Damper Position Sensor: Circuit Short To Ground	Module senses a short to ground on air distribution door actuator circuits when motor movement is commanded.
HVAC (heating, ventilation and air conditioning) B11E7:15	Air Distribution Damper Position Sensor: Circuit Short To Battery Or Open	Module senses a short to voltage or an open on air distribution door actuator circuits when motor movement is commanded.

Possible Sources

- Wiring, terminals or connectors
- Actuator doors binding, stuck or slipping
- Air distribution door actuator

No	GO to E2

E2 CHECK THE AIR DISTRIBUTION DOOR ACTUATOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C228A-20	Ω	Ground
C228A-2	Ω	Ground
C228A-3	Ω	Ground
C228A-22	Ω	Ground
C228A-21	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to E3

No	REPAIR the circuit.

E3 CHECK THE AIR DISTRIBUTION DOOR ACTUATOR CIRCUITS FOR AN OPEN

- Ignition OFF.

- Reconnect all disconnected connectors. CONNECT the actuator electrical connector before the HVAC (heating, ventilation and air conditioning) control module. This allows the actuator to be calibrated when the HVAC (heating, ventilation and air conditioning) control module is connected. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	INSTALL a new air distribution door actuator. REFER to: Air Distribution Door Actuator (412-00 Climate Control System - General Information, Removal and Installation). CONNECT the actuator electrical connector before the HVAC (heating, ventilation and air conditioning) control module. This allows the actuator to be calibrated when the HVAC (heating, ventilation and air conditioning) control module is connected. TEST the system for normal operation. If the concern is still present, GO to E5

No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

E5 CHECK FOR CORRECT HVAC (HEATING, VENTILATION AND AIR CONDITIONING) CONTROL MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect all HVAC (heating, ventilation and air conditioning) control module electrical connectors (if not previously disconnected).
- Repair:
  - corrosion (install new connector or terminal - clean module pins)
  - damaged or bent pins - install new terminals or pins
  - pushed-out pins - install new pins as necessary
- Connect all HVAC (heating, ventilation and air conditioning) control module electrical connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new HVAC (heating, ventilation and air conditioning) control module.

- Pressure test the cooling system for leaks. Refer to the appropriate section in Group 303for the procedure.

Does the cooling system leak?

Yes	REPAIR the coolant leak.

No	FILL and BLEED the cooling system. Refer to the appropriate section in Group 303for the procedure. After filling and bleeding the cooling system, GO to F3

F3 CHECK FOR COOLANT FLOW TO THE HEATER CORE

- Run the engine until it reaches normal operating temperature.
- On the HVAC (heating, ventilation and air conditioning) controls, select the FLOOR position, then set the temperature control to full warm and the blower to the lowest setting.
- Using a suitable temperature measuring device, check the temperature of the heater core inlet hose.

Is the heater core inlet hose temperature above 65.5°C (150°F)?

Yes	GO to F4

No	DIAGNOSE the engine does not reach operating temperature. Refer to the appropriate section in Group 303for the procedure.

F4 CHECK FOR A PLUGGED OR RESTRICTED HEATER CORE

- Using a suitable temperature measuring device, measure the temperature of the heater core outlet hose.

Is the heater core outlet hose temperature similar to the inlet hose temperature [within approximately 6-17°C (10-30°F)]?

Yes	DIAGNOSE for a temperature door actuator not operating correctly. GO to Pinpoint Test N

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P06A0:00	Variable A/C Compressor Control Circuit: No Sub Type Information	This DTC (diagnostic trouble code) sets when the PCM (powertrain control module) senses unexpected voltage on the sensor feedback circuit, indicating a short to voltage, an open circuit or an open sensor.

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Low refrigerant charge
- A/C (air conditioning) compressor clutch
- A/C (air conditioning) compressor
- PCM (powertrain control module)

Visual Inspection and Pre-checks

- Inspect for loose or corroded A/C (air conditioning) compressor connections.
- Make sure BJB (battery junction box) fuse 8 (10A) is OK.
- Verify the A/C (air conditioning) compressor belt is OK.
- Verify the A/C (air conditioning) compressor clutch is engaged/operating.

NOTICE

Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector.

G1 EXTERNALLY CONTROLLED VARIABLE DISPLACEMENT COMPRESSOR (EVDC) PERFORMANCE CHECK WITH THE AC COMPRESSOR ELECTRONIC CONTROL VALVE TESTER

NOTE

Make sure the Air Conditioning (A/C) Compressor clutch is on or is engaged in this step.

NOTE

Proper Air Conditioning (A/C) system diagnosis on a vehicle's compressor is dependent on correct refrigerant system charge and tested in ambient temperatures above 21.1°C (70°F).

C1110-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to G3

No	VERIFY BJB (battery junction box) fuse 8 (10A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.

G3 CHECK THE A/C (AIR CONDITIONING) COMPRESSOR DISPLACEMENT CONTROL VALVE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect PCM (powertrain control module) , 2.7L C1232B, 3.3L C1551B, 3.5L C175B or 5.0L C1381B .
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1110-2	V	Ground

Is any voltage present?

Yes	REPAIR the circuit.

No	GO to G4

G4 CHECK THE A/C (AIR CONDITIONING) COMPRESSOR DISPLACEMENT CONTROL VALVE CIRCUIT FOR A SHORT TO GROUND