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2005 FORD Taurus OEM Service and Repair Workshop Manual

Go to manual page

		battery chiller shut off valve control circuit
SOBDMC (secondary on-board diagnostic control module C) P2612:00	A/C Refrigerant Distribution Valve 'A' Control Circuit Low: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to ground on the battery chiller shut off valve control circuit
SOBDMC (secondary on-board diagnostic control module C) P2613:00	A/C Refrigerant Distribution Valve 'A' Control Circuit High: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to power on the battery chiller shut off valve control circuit

Possible Sources

- Wiring, terminals or connectors
- High voltage battery chiller shut off valve
- BJB (battery junction box) [also known as BCMC (body control module C)]

NOTICE

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

Y1 CHECK THE HIGH VOLTAGE BATTERY CHILLER POWER CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BJB (battery junction box) C1035E .
- Disconnect High voltage battery chiller C1980 .
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1980-1	V⎓	Ground

Is any voltage present?

C1980-2	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to Y4

No	REPAIR the affected circuits. CLEAR all Diagnostic Trouble Codes (DTCs) and CARRY OUT the self-test of the SOBDMC (secondary on-board diagnostic control module C) .

Y4 CHECK THE HIGH VOLTAGE BATTERY CHILLER POWER CIRCUIT FOR A SHORT TOGETHER

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1980-1	Ω	C1980-2

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new high voltage battery coolant cooler. REFER to: High Voltage Battery Coolant Cooler (412-03 Supplemental Climate Control, Removal and Installation). CLEAR all Diagnostic Trouble Codes (DTCs) and CARRY OUT the self-test of the SOBDMC (secondary on-board diagnostic control module C) . TEST the system for normal operation. If the concern is still present, GO to Y5

No	REPAIR the circuits. CLEAR all Diagnostic Trouble Codes (DTCs) and CARRY OUT the self-test of the SOBDMC (secondary on-board diagnostic control module C) .

Y5 CHECK FOR CORRECT BCMC (BODY CONTROL MODULE C) OPERATION

- Ignition OFF.

BCMC (body control module C) P0EE3:00	A/C Refrigerant Distribution Valve 'B' Control Circuit/Open: No Sub Type Information	Test fails when BCMC (body control module C) reports an open circuit on the front evaporator shut off valve control circuit
BCMC (body control module C) P0EE4:00	A/C Refrigerant Distribution Valve 'B' Control Circuit Low: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to ground on the front evaporator shut off valve control circuit
BCMC (body control module C) P0EE5:00	A/C Refrigerant Distribution Valve 'B' Control Circuit High: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to power on the front evaporator shut off valve control circuit
SOBDMC (secondary on-board diagnostic control module C) P0EE3:00	A/C Refrigerant Distribution Valve 'B' Control Circuit/Open: No Sub Type Information	Test fails when BCMC (body control module C) reports an open circuit on the front evaporator shut off valve control circuit
SOBDMC (secondary on-board diagnostic control module C) P0EE4:00	A/C Refrigerant Distribution Valve 'B' Control Circuit Low: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to ground on the front evaporator shut off valve control circuit
SOBDMC (secondary on-board diagnostic control module C) P0EE5:00	A/C Refrigerant Distribution Valve 'B' Control Circuit High: No Sub Type Information	Test fails when BCMC (body control module C) reports a short to power on the front evaporator shut off valve control circuit

Possible Sources

- Wiring, terminals or connectors
- Front evaporator shut off valve
- BJB (battery junction box) [also known as BCMC (body control module C)]

NOTICE

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

No	REPAIR the circuit. CLEAR all Diagnostic Trouble Codes (DTCs) and CARRY OUT the self-test of the SOBDMC (secondary on-board diagnostic control module C) .

Z3 CHECK THE FRONT EVAPORATOR SHUT OFF VALVE POWER CIRCUIT FOR AN OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1309-1	Ω	C1035C-29
C1309-2	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to Z4

No	REPAIR the affected circuits. CLEAR all Diagnostic Trouble Codes (DTCs) and CARRY OUT the self-test of the SOBDMC (secondary on-board diagnostic control module C) .

Z4 CHECK THE FRONT EVAPORATOR SHUT OFF VALVE POWER CIRCUIT FOR A SHORT TOGETHER

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1309-1	Ω	C1309-2

Is the resistance greater than 10,000 ohms?

PINPOINT TEST AA : U0001:88

Refer to Wiring Diagrams Cell 55for schematic and connector information.

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
ACCM (air conditioning control module) U0001:88	High Speed CAN Communication Bus: Bus Off	The module could not communicate on the network at a point in time. The fault is not currently present since the module had to communicate with the diagnostic scan tool to report this DTC (diagnostic trouble code) .

Possible Sources

- Intermittent fault with the CAN (controller area network)

AA1 DIAGNOSE THE INTERMITTENT FAULT

ACCM (air conditioning control module) U0100:00	Lost Communication With ECM/PCM 'A': No Sub Type Information	Sets in continuous memory when the ACCM (air conditioning control module) detects network messages are missing from the PCM (powertrain control module) for more than 5 seconds.
HVAC (heating, ventilation and air conditioning) U0100:00	Lost Communication With ECM/PCM 'A': No Sub Type Information	Sets in continuous memory when the HVAC (heating, ventilation and air conditioning) control module detects network messages are missing from the PCM (powertrain control module) for more than 5 seconds.

Possible Sources

- Network communication concern
- ACCM (air conditioning control module) concern
- HVAC (heating, ventilation and air conditioning) control module concern
- PCM (powertrain control module) concern

AB1 VERIFY THE CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to AB2

No	The system is operating normally at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.

AB2 VERIFY THE DIAGNOSTIC SCAN TOOL COMMUNICATES WITH THE PCM (POWERTRAIN CONTROL MODULE)

- Connect the diagnostic tool.
- Attempt to establish a vehicle session using the diagnostic scan tool.

Can a vehicle session be established?

Yes	GO to AB3

Is DTC (diagnostic trouble code) U0100:00 still present?

Yes	GO to AB6

No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have set due to high network traffic or an intermittent fault condition.

AB6 CHECK FOR OTHER CAUSES OF NETWORK COMMUNICATION CONCERN

NOTE

If new modules were installed prior to the Diagnostic Trouble Code (DTC) being set, the module configuration can be incorrectly set during the Programmable Module Installation (PMI) or Programmable Module Installation (PMI) the may not have been carried out.

- Check the vehicle service history for recent service actions related to the PCM (powertrain control module) and the module setting the DTC (diagnostic trouble code) (ACCM (air conditioning control module) or HVAC (heating, ventilation and air conditioning) control module). If recent service history is found:
  - verify correct replacement module was installed
    - vehicle parts build list may be used to verify correct part fitment
  - verify the configuration of replacement module was correct
    - re-configure module using as-built data if prior configuration is suspect
  - verify the module was not obtained from a like vehicle and installed into vehicle with concern
    - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to AB7

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

AB7 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

ACCM (air conditioning control module) U0111:00	Lost Communication With Battery Energy Control Module 'A': No Sub Type Information	Sets in continuous memory when the ACCM (air conditioning control module) detects network messages are missing from the BECM (battery energy control module) for more than 5 seconds.

Possible Sources

- Network communication concern
- ACCM (air conditioning control module) concern
- BECM (battery energy control module) concern

AC1 VERIFY THE CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to AC2

No	The system is operating normally at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.

AC2 CHECK THE NETWORK COMMUNICATION

- Using a diagnostic scan tool, carry out the network test.

Does the BECM (battery energy control module) pass the network test?

Yes	GO to AC3

No	REFER to: Controller Area Network (CAN) Module Communications Network(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

AC3 CHECK FOR NON-NETWORK DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the self-test for the ACCM (air conditioning control module) setting the DTC (diagnostic trouble code) .

AC6 CHECK FOR OTHER CAUSES OF NETWORK COMMUNICATION CONCERN

NOTE

If new modules were installed prior to the Diagnostic Trouble Code (DTC) being set, the module configuration can be incorrectly set during the Programmable Module Installation (PMI) or Programmable Module Installation (PMI) the may not have been carried out.

- Check the vehicle service history for recent service actions related to the BECM (battery energy control module) and the ACCM (air conditioning control module) setting the DTC (diagnostic trouble code) . If recent service history is found:
  - verify correct replacement module was installed
    - vehicle parts build list may be used to verify correct part fitment
  - verify the configuration of replacement module was correct
    - re-configure module using as-built data if prior configuration is suspect
  - verify the module was not obtained from a like vehicle and installed into vehicle with concern
    - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to AC7

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

AC7 CHECK FOR CORRECT BECM (BATTERY ENERGY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the BECM (battery energy control module) connectors.
- Repair:
  - corrosion (install new connectors or terminals - clean module pins)
  - damaged or bent pins - install new terminals pins
  - pushed-out pins - install new pins as necessary
- Reconnect the BECM (battery energy control module) connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?