

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.

1983 FORD Capri OEM Service and Repair Workshop Manual

[Go to manual page](#)

The FHCM (Front Hatch Control Module) sends voltage signals to the interior power hood switches and the exterior hood release switch. The signal is routed to ground when a switch is pressed, pulling the signal low to indicate a request to open or close the hood.

The FHCM (Front Hatch Control Module) receives a message from the BCM (body control module) upon a valid request from the passive entry system or a RKE (remote keyless entry) transmitter.

The FHCM (Front Hatch Control Module) controls the opening and closing of the power hood based on the inputs it receives.

The FHCM (Front Hatch Control Module) requires PMI (programmable module installation) when it is replaced.

Refer to: [Module Configuration - Electric - System Operation and Component Description](#)

(418-01A Module Configuration, Description and Operation).

Copyright © Ford Motor Company

Sample

PCM (powertrain control module)	P05C0:00	Active Grille Air Shutter Module "A" Over Temperature: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	U0284:00	Lost Communication with Active Grille Air Shutter Module "A": No Sub Type Information	GO to Pinpoint Test A

Global Customer Symptom Code (GCSC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#)

(100-00 General Information, Description and Operation).

Global Customer Symptom Code Chart

Customer Symptom	Action
Fit/Finish/Body > Exterior Trim > Grille > Alignment	GO to Pinpoint Test A
Fit/Finish/Body > Exterior Trim > Grille > Corrosion/Rust	GO to Pinpoint Test A
Fit/Finish/Body > Exterior Trim > Grille > Loose/Attachment	GO to Pinpoint Test A
Fit/Finish/Body > Exterior Trim > Grille > Poor Fit	GO to Pinpoint Test A

Symptom Chart(s)

Symptom Chart: Active Grille Shutter

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#)

(100-00 General Information, Description and Operation).

Symptom Chart

Condition	Possible Sources	Actions
The active grille shutter is inoperative or does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test A

PCM (powertrain control module) P05A7:00	Active Grille Air Shutter 'A' Supply Voltage Circuit Low: No Sub Type Information	When the grille shutter actuator senses low voltage, it sends a message to the PCM (powertrain control module) via the LIN (local interconnect network) . The PCM (powertrain control module) sets this DTC (diagnostic trouble code) when the fault is communicated for a predetermined amount of time.
PCM (powertrain control module) P05C0:00	Active Grille Air Shutter Module 'A' Over Temperature: No Sub Type Information	This DTC (diagnostic trouble code) sets when the active grille shutter actuator detects excessive internal heat.
PCM (powertrain control module) U0284:00	Lost Communication with Active Grille Air Shutter Module 'A': No Sub Type Information	When the PCM (powertrain control module) does not receive communication from the grille shutter actuator for a predetermined amount of time, the PCM (powertrain control module) sets this DTC (diagnostic trouble code) .

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Grille shutter actuator
- Grille shutters
- PCM (powertrain control module)

Visual Inspection and Pre-checks

- Check for physical damage.
- Check battery voltage.
- Verify BJB (battery junction box) fuse 8 (20A) is OK.
- Make sure the grille opening does not have any debris or other obstructions that inhibit operation of the grille shutter.

A1 CHECK THE ACTIVE GRILLE SHUTTER DEVICE LOST COMMUNICATION (GRILL_LOSTCOMM) PARAMETER IDENTIFICATION (PID)

- Using diagnostic scan tool, view PCM (powertrain control module) PID (parameter identification) s.
- Using a diagnostic scan tool,
Access the PCM (powertrain control module) and monitor the GRILL_LOSTCOMM (Lost Communication with Grill Shutter Control Module A) PID (parameter identification)

Confirm the output of the PID (parameter identification) test?

- Using diagnostic scan tool, view PCM (powertrain control module) PID (parameter identification) s.
- Using diagnostic scan tool,
Access the PCM (powertrain control module) and monitor the GRILL_A_OVRT (Grille Shutter Module A - Indicates An Over Temperature Condition.) PID (parameter identification)

Does the PID (parameter identification) test confirm the fault?

Yes	GO to A14
------------	---------------------------

No	GO to A5
-----------	--------------------------

A5 VERIFY THE GRILLE SHUTTER OPERATION USING THE GRILL SHUTTER A POSITION (GRILL_CMDCAL) PARAMETER IDENTIFICATION (PID)

- Put IGNITION in ON.
- ALLOW for grille shutter calibration to complete.
- Using the diagnostic scan tool, view the PCM (powertrain control module) PID (parameter identification)
- Using the diagnostic scan tool,
Access the PCM (powertrain control module) and monitor the GRILL_CMDCAL (The Grille Shutter Module Either Is Requesting A Command To Perform Or Is Performing The End Point Calibration Process) PID (parameter identification)

Is the AGS still attempting to complete the self learning?

Yes	GO to A6
------------	--------------------------

No	GO to A14
-----------	---------------------------

A6 CHECK THE ACTIVE GRILLE SHUTTER DEVICE A POSITION FAULT (GRILL_A_POS_F) PARAMETER IDENTIFICATION (PID)

- Using diagnostic scan tool, view PCM (powertrain control module) PID (parameter identification) s.
- Using diagnostic scan tool,
Access the PCM (powertrain control module) and monitor the GRILL_A_POS_F (Grille Shutter A Actuator Fault - End Stop Not Found Or Found Where Not Expected) PID (parameter identification)

Does the PID (parameter identification) test confirm an end stop not found fault?


Grille Shutter "A" Actuator Fault - End Stop Not Found Or Found Where Not Expected, GO to [A9](#)
For GRILL_A_BLK - Grille Shutter "A" Is Blocked - Unable To Achieve The Commanded Position,
GO to [A9](#)

No

The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

A9 CHECK THE VOLTAGE SUPPLY TO THE ACTIVE GRILLE SHUTTER ACTUATOR

- Check the following components for damage:
 - active grille shutter actuator
 - active grille shutter actuator linkage
 - active grille shutter fins
- Ignition OFF.
- Disconnect: active grille shutter actuator C1651.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1651-3		Ground

Is the voltage greater than 11 volts?

Yes

GO to [A10](#)

No

VERIFY BJB (battery junction box) fuse 8 (20A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the cause of the circuit short.

A10 CHECK THE ACTIVE GRILLE SHUTTER ACTUATOR GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1651-2	\bar{V}	Ground

Is any voltage present?

Yes	REPAIR the circuit.
------------	---------------------

No	GO to A13
-----------	---------------------------

A13 CHECK THE LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1651-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to A14
------------	---------------------------

No	REPAIR the circuit. CLEAR the DTC (diagnostic trouble code) s. REPEAT the self-test.
-----------	--

A14 CHECK THE GRILLE SHUTTER FOR OBSTRUCTIONS AND/OR MECHANICAL BINDING CONCERNS

- Ignition OFF.
- Remove the active grille shutter actuator.
REFER to: [Active Grille Shutter Actuator](#)(501-02 Front End Body Panels, Removal and Installation).
- Manually open and close the active grille shutter, removing any obstructions which can inhibit operation of the grille shutter or linkage. The active grille shutter should open and close easily with no

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

Copyright © Ford Motor Company

Sample

PCM (powertrain control module)	P05AE:00	Active Grille Air Shutter "B" Performance/Stuck Off: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P05B0:00	Active Grille Air Shutter "B" Position Sensor Minimum/Maximum Stop Performance: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P05B1:00	Active Grille Air Shutter "B" Control Circuit /Open: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P05B6:00	Active Grille Air Shutter "B" Supply Voltage Circuit Low: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	P05C0:00	Active Grille Air Shutter Module "A" Over Temperature: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	P05C1:00	Active Grille Air Shutter Module "B" Over Temperature: No Sub Type Information	GO to Pinpoint Test B
PCM (powertrain control module)	U0046:00	Vehicle Communication Bus C: No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	U0284:00	Lost Communication with Active Grille Air Shutter Module "A": No Sub Type Information	GO to Pinpoint Test A
PCM (powertrain control module)	U0285:00	Lost Communication with Active Grille Air Shutter Module "B": No Sub Type Information	GO to Pinpoint Test B

Global Customer Symptom Code (GCSC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#)

(100-00 General Information, Description and Operation).

Global Customer Symptom Code Chart

Refer to Wiring Diagrams Cell 33 for schematic and connector information.

Normal Operation and Fault Conditions REFER to: [Active Grille Shutter - System Operation and Component Description](#)

(501-02 Front End Body Panels, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0284:00	Lost Communication with Active Grille Air Shutter Module 'A': No Sub Type Information	When the PCM (powertrain control module) does not receive communication from the upper active grille shutter actuator for a predetermined amount of time, the PCM (powertrain control module) sets this DTC (diagnostic trouble code) .
PCM (powertrain control module) P05A2:00	Active Grille Air Shutter 'A' Control Circuit/Open: No Sub Type Information	When the upper active grille shutter actuator senses open circuit or 0v between C1766 and ground for more than 1 second, it sends a message to the PCM (powertrain control module) via the LIN (local interconnect network) . The PCM (powertrain control module) sets this DTC (diagnostic trouble code) when the fault is communicated for a predetermined amount of time.
PCM (powertrain control module) P05A7:00	Active Grille Air Shutter 'A' Supply Voltage Circuit Low: No Sub Type Information	When the upper active grille shutter actuator senses low voltage, it sends a message to the PCM (powertrain control module) via the LIN (local interconnect network) . The PCM (powertrain control module) sets this DTC (diagnostic trouble code) when the fault is communicated for a predetermined amount of time.
PCM (powertrain control module) P05C0:00	Active Grille Air Shutter Module 'A' Over Temperature: No Sub Type Information	This DTC (diagnostic trouble code) sets when the upper active grille shutter actuator detects excessive internal heat.
PCM (powertrain control module)	Active Grille Air Shutter 'A' Position Sensor Minimum/Maximum Stop	When the upper active grille shutter actuator senses it is unable to obtain a fully open or closed position of the active grille shutter, it sends a message to the PCM