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## 1981 FORD Capri OEM Service and Repair Workshop Manual

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| | |
|---|---|
| **Yes** | GO to B16 |

| | |
|---|---|
| **No** | REPAIR the binding/obstruction, or if necessary, INSTALL a new lower active grille shutter.<br>REFER to: Active Grille Shutter<br>(501-02 Front End Body Panels, Removal and Installation). |

**B16 CHECK FOR CORRECT LOWER ACTIVE GRILLE SHUTTER ACTUATOR AND POWERTRAIN CONTROL MODULE (PCM) OPERATION**

# Power Hood

| | |
|---|---|
| ***501-02 Front End Body Panels*** | ***2022 F-150*** |
| ***Diagnosis and Testing*** | ***Procedure revision date: 04/25/2022*** |

## Power Hood

### Diagnostic Trouble Code (DTC) 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).

### Diagnostic Trouble Code Chart

| Module | DTC (diagnostic trouble code) | Description | Action |
|---|---|---|---|
| BCM (body control module) | B1219:11 | Interior Boot/Trunk Release Switch: Circuit Short To Ground | GO to Pinpoint Test C |
| BCM (body control module) | B1219:15 | Interior Boot/Trunk Release Switch: Circuit Short To Battery Or Open | GO to Pinpoint Test C |
| BCM (body control module) | B1219:23 | Interior Boot/Trunk Release Switch: Signal Stuck Low | GO to Pinpoint Test C |
| FHCM (Front Hatch Control Module) | B12E8:23 | Liftgate/Tailgate Control/Release Switch: Signal Stuck Low | GO to Pinpoint Test C |

| | | | |
|---|---|---|---|
| FHCM (Front Hatch Control Module) | B1455:11 | Tailgate/Liftgate/Boot/Trunk Right Pinch Strip: Circuit Short To Ground | GO to Pinpoint Test E |
| FHCM (Front Hatch Control Module) | B1455:13 | Tailgate/Liftgate/Boot/Trunk Right Pinch Strip: Circuit Open | GO to Pinpoint Test E |
| FHCM (Front Hatch Control Module) | B1557:11 | Power Liftgate/Decklid Driver Motor 2: Circuit Short To Ground | GO to Pinpoint Test B |
| FHCM (Front Hatch Control Module) | B1557:12 | Power Liftgate/Decklid Driver Motor 2: Circuit Short To Battery | GO to Pinpoint Test B |
| FHCM (Front Hatch Control Module) | B1557:15 | Power Liftgate/Decklid Driver Motor 2: Circuit Short To Battery Or Open | GO to Pinpoint Test B |
| FHCM (Front Hatch Control Module) | B15DE:11 | Tailgate/Liftgate/Boot/Trunk Latch Release Return: Circuit Short To Ground | GO to Pinpoint Test A |
| FHCM (Front Hatch Control Module) | B15DE:13 | Tailgate/Liftgate/Boot/Trunk Latch Release Return: Circuit Open | GO to Pinpoint Test A |
| FHCM (Front Hatch Control Module) | U0140:87 | Lost Communication With Body Control Module: Missing Message | GO to Pinpoint Test G |
| FHCM (Front Hatch Control Module) | U0294:87 | Lost Communication With Powertrain Control Monitor Module: Missing Message | GO to Pinpoint Test H |
| FHCM (Front Hatch Control Module) | U2001:68 | Reduced System Function: Event Information | GO to Pinpoint Test M |
| FHCM (Front Hatch Control Module) | U201A:55 | Control Module Main Calibration Data: Not Configured | GO to Pinpoint Test L |

| | | |
|---|---|---|
| The hood unlatches but the power hood is inoperative | • Refer to the Pinpoint Test | • GO to Pinpoint Test B |
| The power hood is inoperative from one of the power hood control switches | • Refer to the Pinpoint Test | • GO to Pinpoint Test C |
| The power hood anti-pinch strip does not stop or reverse the hood | • Refer to the Pinpoint Test | • GO to Pinpoint Test D |
| The power hood does not power close (power open OK) | • Refer to the Pinpoint Test | • GO to Pinpoint Test E |
| The power hood does not power open (power close OK) | • Refer to the Pinpoint Test | • GO to Pinpoint Test F |
| The power hood has excessive noise during operation | • Mechanical binding<br>• Hood alignment | • Manually OPERATE the hood and CHECK for mechanical binding.<br>◦ If mechanical binding exists, REPAIR as necessary.<br>◦ If no mechanical binding is found, ALIGN the hood. |

**Pinpoint Tests**

**PINPOINT TEST A : THE POWER HOOD DOES NOT UNLATCH**

Refer to Wiring Diagrams Cell 109for schematic and connector information.
**Normal Operation and Fault Conditions** REFER to: Power Hood - 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 |
|---|---|---|
| FHCM (Front Hatch Control Module) B1452:12 | Tailgate/Liftgate/Boot/Trunk Latch Release Actuator: Circuit Short To Battery | Sets when the FHCM (Front Hatch Control Module) detects a short to battery from |

The following Pinpoint Test uses a test lamp to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

**A1 CHECK THE HOOD LATCH MANUAL RELEASE**

- Mechanically unlatch the hood.

**Does the Hood latch release?**

| | |
|---|---|
| **Yes** | GO to A2 |

| | |
|---|---|
| **No** | INSTALL a new power hood latch.<br>REFER to: Hood Latch - Electric<br>(501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation). |

**A2 CHECK FOR COMMUNICATION TO THE FHCM (FRONT HATCH CONTROL MODULE)**

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

**Does the FHCM (Front Hatch Control Module) pass the network test?**

| | |
|---|---|
| **Yes** | VERIFY the BJB (battery junction box) fuse 72 (40A) is OK. If OK, GO to A3 If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. |

| | |
|---|---|
| **No** | REFER to: Controller Area Network (CAN) Module Communications Network - Electric - System Operation and Component Description(418-00A Controller Area Network (CAN) Module Communications Network, Description and Operation). |

**A3 CHECK FOR HIGH CURRENT VOLTAGE TO THE FHCM (FRONT HATCH CONTROL MODULE)**

- Ignition OFF.
- Disconnect FHCM (Front Hatch Control Module) C2332A .
- Connect:

| Positive Lead | Measurement / Action | Negative Lead |
|---|---|---|
| C1858-3 |  | Ground |

- **NOTE**

  The FHCM (Front Hatch Control Module) only supplies voltage to the actuator momentarily. It is important to monitor the test lamp while pressing the hood release switch.

While pressing the hood release switch, monitor the test lamp.

**Does the test lamp momentarily illuminate?**

| | |
|---|---|
| **Yes** | GO to A6 |

| | |
|---|---|
| **No** | GO to A7 |

**A6 CHECK THE HOOD LATCH GROUND CIRCUIT FOR AN OPEN**

- Connect:

| Positive Lead | Measurement / Action | Negative Lead |
|---|---|---|
| C1858-3 |  | C1858-4 |

- **NOTE**

  The FHCM (Front Hatch Control Module) only supplies voltage to the actuator momentarily. It is important to monitor the test lamp while pressing the hood release switch.

While pressing the hood release switch, monitor the test lamp.

**Does the test lamp momentarily illuminate?**

| | |
|---|---|
| **Yes** | INSTAL a new power hood latch. |

| | |
|---|---|
| **Yes** | GO to A9 |

| | |
|---|---|
| **No** | REPAIR the circuit. |

**A9 CHECK FOR CORRECT FHCM (FRONT HATCH CONTROL MODULE) OPERATION**

- Disconnect and inspect all FHCM (Front Hatch 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 all the FHCM (Front Hatch Control Module) connectors and 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 Technical Service Bulletins (TSBs). If a TSB (Technical Service Bulletin) exists for this concern, DISCONTINUE this test and FOLLOW TSB (Technical Service Bulletin) instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new FHCM (Front Hatch Control Module) . REFER to: Front Hatch Control Module (FHCM) - Electric (501-02 Front End Body Panels, Removal and Installation). |

| | |
|---|---|
| **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. |

**PINPOINT TEST B : THE HOOD UNLATCHES BUT THE POWER HOOD IS INOPERATIVE**

Refer to Wiring Diagrams Cell 109for schematic and connector information.

**Normal Operation and Fault Conditions** REFER to: Power Hood - System Operation and Component Description (501-02 Front End Body Panels, Description and Operation).

**DTC Fault Trigger Conditions**

- Power hood motor
- FHCM (Front Hatch Control Module)

**NOTICE**

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

**B1 CHECK THE OPERATION OF ALL THE POWER HOOD INPUTS**

- Ignition ON.
- Select PARK.
- Unlock the doors using the door lock control switch.
- Close the hood to the full closed position (manually if necessary).
- Open and close the power hood using the front interior power hood switch (located on the instrument panel).
- Close the power hood using the exterior power hood switch (located on the bottom of the hood trim panel).

**Does the power hood power open or power close from any input?**

| | |
|---|---|
| **Yes** | GO to the Symptom Chart and DIAGNOSE the correct symptom. |
| **No** | GO to B2 |

**B2 CHECK FOR COMMUNICATION TO THE FHCM (FRONT HATCH CONTROL MODULE)**

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

**Does the FHCM (Front Hatch Control Module) pass the network test?**

| | |
|---|---|
| **Yes** | GO to B3 |
| **No** | REFER to: Controller Area Network (CAN) Module Communications Network - Electric - System Operation and Component Description(418-00A Controller Area Network (CAN) Module Communications Network, Description and Operation). |

| | | |
|---|---|---|
| C1486-5 | V⎓ | Ground |

**Right Power Hood Motor**

| Positive Lead | Measurement / Action | Negative Lead |
|---|---|---|
| C1485-2 | V⎓ | Ground |
| C1485-5 | V⎓ | Ground |

**Is any voltage present?**

| | |
|---|---|
| **Yes** | REPAIR the circuit in question. |

| | |
|---|---|
| **No** | GO to B6 |

**B6 CHECK THE POWER HOOD MOTOR CIRCUITS FOR A SHORT TO GROUND**

- Ignition OFF.
- Measure:
  **Left Power Hood Motor**

| Positive Lead | Measurement / Action | Negative Lead |
|---|---|---|
| C1486-2 | Ω | Ground |
| C1486-5 | Ω | Ground |