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1979 FORD Capri OEM Service and Repair Workshop Manual

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C2517-1		Ground
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#### **EXTERNAL FRONT TRUNK RELEASE SWITCH**

Positive Lead	Measurement / Action	Negative Lead
C1857-1		Ground

• Remove the fused jumper wire.

# Does the hood open or close?

Yes	REPAIR the circuit.

No GO to C7

# C7 CHECK THE POWER HOOD SWITCH INPUT CIRCUIT FOR AN OPEN

- Disconnect FHCM (Front Hatch Control Module) C2332B.
- For the suspect hood switch, measure:

# FRONT TRUNK COMPARTMENT LAMP SWITCH

Positive Lead	Measurement / Action	Negative Lead
C2610-1	Ω	C2332B-6

#### REMOTE FRONT TRUNK RELEASE SWITCH

Positive Lead	Measurement / Action	Negative Lead
C2517-1	Ω	C2332B-12

- 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 D: THE POWER HOOD ANTI-PINCH STRIP DOES NOT STOP OR REVERSE THE HOOD

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

**Normal Operation and Fault Conditions** REFER to: Power Hood - System Operation and Component Description

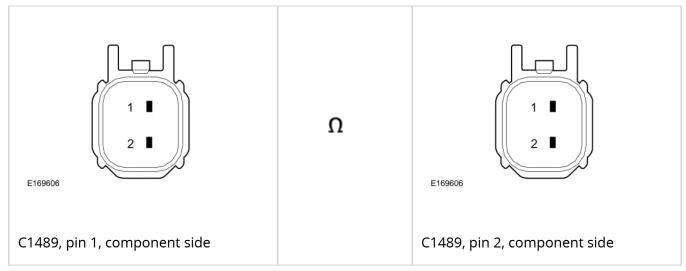
(501-02 Front End Body Panels, Description and Operation).

#### **Possible Sources**

- Hood anti-pinch switch
- 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.



Is the resistance between 0 to 200 ohms with the hood anti-pinch switch firmly pressed and between 5,700 and 6,700 ohms with the hood anti-pinch switch released?



**No** INSTALL a new hood anti-pinch switch for the one in question.

# D3 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).

• 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.

# E1 CHECK FOR FHCM (FRONT HATCH CONTROL MODULE) HOOD ANTI-PINCH SWITCH DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, carry out the FHCM (Front Hatch Control Module) self-test.

# Is DTC (diagnostic trouble code) B1454:11, B1454:13, B1455:11 or B1455:13 present?



#### **E2 CHECK THE HOOD ANTI-PINCH SWITCH**

- Ignition OFF.
- Disconnect the suspect hood anti-pinch switch.
- While pressing firmly and releasing the hood anti-pinch switch, measure:

Positive Lead	Measurement / Action	Negative Lead
1 <b>I</b> 2 <b>I</b> C1488, pin 1, component side	Ω	1 <b>I</b> 2 <b>I</b> C1488, pin 2, component side

C1489-1	₩	Ground
C1489-2	₩	Ground

# Is any voltage present?

Yes	REPAIR the circuit in question.

No GO to E4

# **E4 CHECK THE HOOD ANTI-PINCH SWITCH CIRCUIT FOR A SHORT TO GROUND**

- Ignition OFF.
- Measure:

#### **Left Hood Anti-Pinch Switch**

Positive Lead	Measurement / Action Negative Lead
C1488-1	Ground

# **Right Hood Anti-Pinch Switch**

Positive Lead	Measurement / Action	Negative Lead
C1489-1	Ω	Ground

# Is the resistance greater than 10,000 ohms?

Yes	GO to	E5

C1488-1	Ω	C2332B-10
C1488-2	Ω	C2332B-23

# **Right hood Anti-Pinch Switch**

Positive Lead	Measurement / Action	Negative Lead
C1489-1	Ω	C2332B-11
C1489-2	Ω	C2332B-23

#### Are the resistances less than 3 ohms?



**No** REPAIR the circuit in question.

# E7 CHECK FOR OTHER FHCM (FRONT HATCH CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

• Review the results from the FHCM (Front Hatch Control Module) self-test.

# Are any Diagnostic Trouble Codes (DTCs) present?

Yes

REFER to the FHCM (Front Hatch Control Module) DTC (diagnostic trouble code) Chart in this section.

No GO to E8

- 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 F: THE POWER HOOD DOES NOT POWER OPEN (POWER CLOSE OK)

### **Normal Operation and Fault Conditions**

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

#### **Possible Sources**

- Hood alignment
- Hood striker alignment
- Mechanical binding

#### F1 CHECK FOR FHCM (FRONT HATCH CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, carry out the FHCM (Front Hatch Control Module) self-test.

#### Are any Diagnostic Trouble Codes (DTCs) present?

#### **PINPOINT TEST G: U0140:87**

#### **Normal Operation and Fault Conditions**

The FHCM (Front Hatch Control Module) and the BCM (body control module) communicate through the CAN (controller area network). Messages are exchanged between the modules for the purposes of determining what functions are carried out.

#### **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
FHCM (Front Hatch Control Module) U0140:87	Lost Communication With Body Control Module: Missing Message	Sets by the FHCM (Front Hatch Control Module) if expected data messages received from the BCM (body control module) over the CAN (controller area network) are missing.

#### **Possible Sources**

- Network communication concern
- FHCM (Front Hatch Control Module)
- BCM (body control module)

#### **G1 VERIFY THE CUSTOMER CONCERN**

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

#### Is an observable symptom present?

No

CLEAR the DTC (diagnostic trouble code). The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or intermittent fault condition.

#### G5 RECHECK THE FHCM (FRONT HATCH CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, clear the FHCM (Front Hatch Control Module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, carry out the continuous memory self-test.
- Check the FHCM (Front Hatch Control Module) Diagnostic Trouble Codes (DTCs).

# Is DTC (diagnostic trouble code) U0140:87 still present?



No

The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or intermittent fault condition.

#### **G6 CHECK FOR OTHER CAUSES OF COMMUNICATION NETWORK CONCERN**

- Check the vehicle service history for recent service actions related to the BCM (body control module) . If recent service history is found:
  - verify correct replacement module was installed
    - HVBOM may be used to verify correct part number
  - 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 customer vehicle
    - 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?



No

The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.