

**PINPOINT TEST AF: FRONT HOOD LATCH RELEASE CABLE ACTUATOR INOPERATIVE****– [Introduction](#)**

Refer to Wiring Diagrams Cell [113](#) for schematic and connector information.

**Normal Operation and Fault Conditions**

REFER to: Handles, Locks, Latches and Entry Systems - System Operation and Component Description (501-14 Handles, Locks, Latches and Entry Systems, Description and Operation).

**DTC Fault Trigger Conditions**

<b>DTC</b>	<b>Description</b>	<b>Fault Trigger Condition</b>
<b>BCM</b> B167A:12	Frunk Disable Circuit 1: Circuit Short To Battery	Sets when the <b>BCM</b> detects a short to short to battery from the front trunk release relay 1.
<b>BCM</b> B167A:14	Frunk Disable Circuit 1: Circuit Short To Ground Or Open	Sets when the <b>BCM</b> detects a short to short to ground or open from the front trunk release relay 1.
<b>BCM</b> B167B:12	Frunk Disable Circuit 2: Circuit Short To Battery	Sets when the <b>BCM</b> detects a short to short to battery from the front trunk release relay 2.
<b>BCM</b> B167B:14	Frunk Disable Circuit 2: Circuit Short To Ground Or Open	Sets when the <b>BCM</b> detects a short to short to ground or open from the front trunk release relay 2.

**Possible Causes**

- Fuse
- Relay
- Front trunk release relay module
- Wiring, terminals or connectors
- Hood latch release cable actuator
- **BCM**

**Visual Inspection and Pre-checks**

- Inspect **BJB** fuse 129 (5A) and fuse 93 (5A).

**AF1 CHECK THE HOOD LATCH RELEASE CABLE ACTUATOR**

- Ignition OFF.
- Disconnect the hood latch release cable actuator [C1846](#).
- Measure on the component side:

[Click to display connectors](#)

<b>Positive Lead</b>	<b>Measurement / Action</b>	<b>Negative Lead</b>
C1846, pin 1 component side	<b>Ω</b>	C1846, pin 2 component side

**Is the resistances between 1 and 3 ohms?**



<b>Yes</b>	GO to <a href="#">AF2</a>
<b>No</b>	INSTALL a new hood latch release cable actuator. REFER to: REFER to: Hood Latch Release Cable Actuator (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

**AF2 CHECK FOR VOLTAGE TO THE BCM (BODY CONTROL MODULE)**

- Ignition OFF.
- Disconnect BCM [C2280E](#).
- Disconnect auxiliary fuse box.
- Ignition ON.
- Measure:

[Click to display connectors](#)

**Auxiliary Fuse Box**

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C1035A</a> Pin 42		<a href="#">C2280E</a> Pin 22
<a href="#">C1035A</a> Pin 35		<a href="#">C2280E</a> Pin 15

**Is there voltage on each circuit?**



<b>Yes</b>	GO to <a href="#">AF11</a>
<b>No</b>	GO to <a href="#">AF3</a>

**AF3 CHECK FOR VOLTAGE TO THE AUXILIARY FUSE BOX**

- Ignition OFF.
- Remove relays from auxiliary fuse box
- Ignition ON.
- Measure:

[Click to display connectors](#)

### Auxiliary Fuse Box

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C1035A</a> Pin 42		Relay 1, socket 1
<a href="#">C1035A</a> Pin 35		Relay 2, socket 1

Is there voltage on each circuit?

<b>Yes</b>	GO to <a href="#">AF4</a>
<b>No</b>	INSPECT <a href="#">BJB</a> fuse 129 (5A) and fuse 93 (5A), if fuses are OK, REPAIR the circuit for an open.

### AF4 CHECK FOR AN OPEN CIRCUIT FROM THE AUXILIARY RELAY BOX TO THE BCM (BODY CONTROL MODULE)

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
Relay 1, socket 2	$\Omega$	<a href="#">C2280E</a> Pin 15
Relay 2, socket 2	$\Omega$	<a href="#">C2280E</a> Pin 22

Is the resistance less than 3 ohms?

<b>Yes</b>	GO to <a href="#">AF5</a>
<b>No</b>	REPAIR the circuit in question.

### AF5 CHECK THE FRONT TRUNK RELEASE RELAY MODULE CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect front trunk relay release module [C2435](#).

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C2435</a> Pin 9	$\Omega$	Ground
<a href="#">C2435</a> Pin 10	$\Omega$	Ground

**Are the resistances greater than 10,000 ohms?**

<b>Yes</b>	GO to <a href="#">AF6</a>
<b>No</b>	REPAIR the circuit in question.

#### **AF6 CHECK THE FRONT TRUNK RELEASE RELAY MODULE CIRCUITS FOR AN OPEN**

- Ignition OFF.
- Remove both relays from the auxiliary fuse box
- Measure

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C2435</a> Pin 9	$\Omega$	Relay 2, socket 4
<a href="#">C2435</a> Pin 10	$\Omega$	Relay 1, socket 4

**Is the resistance less than 3 ohms?**

<b>Yes</b>	GO to <a href="#">AF7</a>
<b>No</b>	REPAIR the circuit.

#### **AF7 CHECK THE FRONT TRUNK DOOR LATCH CIRCUITS FOR A SHORT TO GROUND**

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C1846</a> Pin 2	$\Omega$	Ground
<a href="#">C1846</a> Pin 1	$\Omega$	Ground

**Are the resistances greater than 10,000 ohms?**

<b>Yes</b>	GO to <a href="#">AF8</a>
<b>No</b>	REPAIR the circuit in question.

#### **AF8 CHECK THE FRONT TRUNK DOOR LATCH CIRCUITS FOR AN OPEN**

- Measure

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
<a href="#">C1846</a> Pin 2	$\Omega$	Relay 1, socket 3
<a href="#">C1846</a> Pin 1	$\Omega$	Relay 2, socket 3

**Is the resistance less than 3 ohms?**

<b>Yes</b>	GO to <a href="#">AF9</a>
<b>No</b>	REPAIR the circuit.

#### **AF9 CHECK FOR CORRECT FRONT TRUNK RELEASE RELAY MODULE OPERATION**

- Disconnect and inspect the front trunk release relay module connector.
- 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 front trunk release relay module connector and make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

<b>Yes</b>	INSTALL a new front trunk release relay module. REFER to: Front Trunk Release Relay Module (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).  If the concern is still present, GO to <a href="#">AF10</a>
<b>No</b>	The system is operating normally at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

**AF10 CHECK FOR CORRECT GFM (GENERIC FUNCTION MODULE) OPERATION**

- Disconnect and inspect all of the GFM 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 GFM 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?**

<b>Yes</b>	CHECK <u>OASIS</u> for any applicable service articles: <u>TSB</u> , <u>GSB</u> , <u>SSM</u> , or <u>FSA</u> . 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 <u>GFM</u> . REFER to: Front Trunk Release Module [GFM] (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).
<b>No</b>	The system is operating normally at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

**AF11 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION**

- Disconnect and inspect all of the BCM 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 BCM 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?**

<b>Yes</b>	CHECK <u>OASIS</u> for any applicable service articles: <u>TSB</u> , <u>GSB</u> , <u>SSM</u> , or <u>FSA</u> . 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 <u>BCM</u> . REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
<b>No</b>	The system is operating normally at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.