

PINPOINT TEST AE: B1452:11, B1452:13, B1452:4B, B1452:98, B15DE:11, B15DE:13, B161F:11, B161F:13, B1620:11, B1621:11

– [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

DTC	Description	Fault Trigger Condition
<u>GFM</u> B1452:11	Tailgate/Liftgate/Boot/Trunk Latch Release Actuator: Circuit Short To Ground	Sets when the <u>GFM</u> detects a short to ground from the front trunk release relay module.
<u>GFM</u> B1452:13	Tailgate/Liftgate/Boot/Trunk Latch Release Actuator: Circuit Open	Sets when the <u>GFM</u> detects an open from the front trunk release relay module.
<u>GFM</u> B1452:4B	Tailgate/Liftgate/Boot/Trunk Latch Release Actuator: Over Temperature	Sets when the <u>GFM</u> detects a temperature of greater than 185° Fahrenheit (80° Celsius).
<u>GFM</u> B1452:98	Tailgate/Liftgate/Boot/Trunk Latch Release Actuator: Component Or System Over Temperature	Sets when the <u>GFM</u> detects a temperature of greater than 185° Fahrenheit (80° Celsius).
<u>GFM</u> B15DE:11	Tailgate/Liftgate/Boot/Trunk Latch Release Return: Circuit Short To Ground	Sets when the <u>GFM</u> detects a short to ground from the front trunk release relay module return circuit.
<u>GFM</u> B15DE:13	Tailgate/Liftgate/Boot/Trunk Latch Release Return: Circuit Open	Sets when the <u>GFM</u> detects an open from the front trunk release relay module return circuit.
<u>GFM</u> B161F:11	Front Trunk Relay Coil Power: Circuit Short To Ground	Sets when the <u>GFM</u> detects a short to ground from the front trunk release relay module coil power circuit.
<u>GFM</u> B161F:13	Front Trunk Relay Coil Power: Circuit Open	Sets when the <u>GFM</u> detects a short to ground from the front trunk release relay module coil power circuit.
<u>GFM</u> B1620:11	Front Trunk Relay Coil SET: Circuit Short To Ground	Sets when the <u>GFM</u> detects a short to ground from the front trunk release relay module set circuit.
<u>GFM</u> B1621:11	Front Trunk Relay Coil RESET: Circuit Short To Ground	Sets when the <u>GFM</u> detects an open from the front trunk release relay module reset circuit.

Possible Causes

- Fuse

- Front trunk release relay module
- Front trunk release module [GFM](#)
- Wiring, terminals or connectors

Visual Inspection and Pre-checks

- [BJB](#) fuse 72 (20A)

AE1 CHECK THE GFM (GENERIC FUNCTION MODULE) DTC (DIAGNOSTIC TROUBLE CODE) S

- Ignition ON.
- Using a diagnostic scan tool, carry out the [GFM](#) self-test. Record the [DTC](#) s.

Are [GFM DTC](#) s [B1452:11](#), [B1452:13](#), [B1452:4B](#), [B1452:98](#), [B15DE:11](#), [B15DE:13](#), [B161F:11](#), [B1611F:13](#), [B1620:11](#), [B1621:11](#) present?

Yes	GO to AE2
No	GO to Pinpoint Test AF

AE2 CHECK THE GFM (GENERIC FUNCTION MODULE) RELAY CIRCUITS FOR A SHORT TO GROUND

- Disconnect [GFM](#) [C2332A](#) and [C2332B](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C2332A Pin 13	Ω	Ground
C2332A Pin 14	Ω	Ground
C2332B Pin 10	Ω	Ground
C2332B Pin 7	Ω	Ground
C2332B Pin 8	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AE3
No	REPAIR the circuit in question.

AE3 CHECK THE GFM (GENERIC FUNCTION MODULE) RELAY CIRCUITS FOR AN OPEN

- Measure

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C2332A Pin 13	Ω	C2435 Pin 6
C2332A Pin 14	Ω	C2435 Pin 8
C2332B Pin 10	Ω	C2435 Pin 5
C2332B Pin 7	Ω	C2435 Pin 4
C2332B Pin 8	Ω	C2435 Pin 2

Are these resistances less than 3 ohms?

Yes	GO to AE4
No	REPAIR the circuit.

AE4 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?

Yes	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 AE5
No	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

AE5 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?

Yes	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).
No	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.