

Horn

Base Part Number: Base Part Number: 13801

DTC Chart(s)

DTC Chart: Horn

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).

Body Control Module (BCM) DTC Chart

DTC	Description	Actions
B1323:11	Horn Switch: Circuit Short To Ground	GO to Pinpoint Test B
B1C55:12	Horn Relay: Circuit Short to Battery	GO to Pinpoint Test A
B1C55:14	Horn Relay: Circuit Short to Ground or Open	• If the horn is inoperative, GO to Pinpoint Test A • If the horn is always on, GO to Pinpoint Test B

Symptom Chart(s)

Symptom Chart: Horn

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 horn is inoperative	Refer to Pinpoint Test	GO to Pinpoint Test A
The horn is always on	Refer to Pinpoint Test	GO to Pinpoint Test B

Pinpoint Tests

The Horn Is Inoperative

Refer to Wiring Diagrams Cell 44 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Horn - System Operation and Component Description](#) (413-06 Horn, Description and Operation).

DTC Chart

DTC	Description	Fault Trigger Condition
B1C55:12	Horn Relay: Circuit Short to Battery	A Continuous Memory Diagnostic Trouble Code (CMDTC) that sets when the BCM detects a short to voltage on the horn relay control circuit. The BCM disables the horn when this DTC is set.
B1C55:14	Horn Relay: Circuit Short to Ground or Open	This DTC sets when the BCM detects a short to ground or an open on the horn relay control circuit.

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Clockspring
- Horn
- Horn relay
- Horn switch
- BCM

Visual Inspection and Diagnostic Pre-checks

Verify the BJB fuse 1 (25A) is OK.

PINPOINT TEST A : THE HORN IS INOPERATIVE

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.	
A1 CHECK THE BCM (BODY CONTROL MODULE) OUTPUT BY ACTIVATING THE BCM (BODY CONTROL MODULE) HORN_RELAY PID (PARAMETER IDENTIFICATION)	
• Ignition ON. • Using a diagnostic scan tool, view BCM Parameter Identifications (PIDs). • Select the active command BCM HORN_RELAY PID and command the horn ON and then OFF.	
Does the horn sound when commanded ON?	
Yes	GO to A10
No	GO to A2
A2 CHECK FOR BCM (BODY CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) B1C55:12, OR B1C55:14	

- Ignition ON.
- Using a diagnostic scan tool, carry out the BCM self-test.
- Using a diagnostic scan tool, carry out the SCCM self-test.

Is DTC B1C55:12 or B1C55:14 present?

Yes	For DTC B1C55:12, GO to A3 For DTC B1C55:14, GO to A5
No	GO to A9

A3 CHECK THE BJB (BATTERY JUNCTION BOX) HORN RELAY CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BJB C1035C.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1035C-9		Ground

Is any voltage present?

Yes	GO to A4
No	GO to A5

A4 ISOLATE THE BJB (BATTERY JUNCTION BOX) HORN RELAY VOLTAGE SUPPLY CIRCUIT SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM C2280F.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1035C-9		Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to A17

A5 CHECK THE HORN RELAY CONTROL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect BCM C2280F.
- Disconnect: negative battery cable.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280F-20	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to A7
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No	GO to A6
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A6 ISOLATE THE HORN RELAY CONTROL CIRCUIT SHORT TO GROUND

- Disconnect BJB C1035C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280F-20	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new BJB.
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No	REPAIR the circuit.
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A7 CHECK THE HORN RELAY CONTROL CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BJB C1035C.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1035C-9	Ω	C2280F-20

Is the resistance less than 3 ohms?

Yes	GO to A8
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No	REPAIR the circuit.
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A8 CHECK THE BJB (BATTERY JUNCTION BOX) HORN RELAY CONTROL CIRCUIT FOR AN OPEN

- Ignition OFF.
- Connect BJB C1035C.
- Connect negative battery cable.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280F-20		Ground

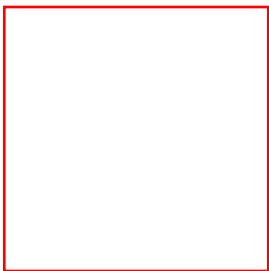
Is the voltage greater than 11 volts?

Yes	GO to A17
No	INSTALL a new BJB.

A9 CHECK THE HORN POWER SUPPLY CIRCUIT

- Ignition OFF.
- Disconnect BJB C1035B.
- Disconnect Horn C131.
- Connect:

Positive Lead	Measurement / Action	Negative Lead
C131-2	Ω	C1035B-1

C131-1		Ground
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Are both resistance measurements less than 3 ohms?

Yes	VERIFY Fuse 1 (25A) is OK. If not OK, use the wiring diagrams as a guide to identify the cause of the circuit short. If OK, INSTALL a new horn. REFER to: Horn (413-06 Horn, Removal and Installation).
No	REPAIR the circuit in question.

A10 CHECK THE HORN SWITCH INPUT TO THE BCM (BODY CONTROL MODULE)

- Ignition OFF.
- Disconnect BCM C2280B.

Is the resistance less than 3 ohms?

Yes	GO to A17
No	GO to A11

A11 ISOLATE THE HORN SWITCH

- Connect BCM C2280B.
- Remove the driver airbag.
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).

Does the horn sound?

Yes	REMOVE the fused jumper wire. INSTALL a new driver airbag (includes horn switch). REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).
No	REMOVE the fused jumper wire. GO to A12

A12 CHECK THE HORN SWITCH GROUND FROM THE HORN SWITCH

Is the resistance less than 3 ohms?

Yes	GO to A15
No	GO to A13

A13 CHECK THE HORN SWITCH GROUND WHILE BYPASSING THE CLOCKSPrING

- Disconnect Clockspring C218A.
- Disconnect Clockspring C218B.

Is the resistance less than 3 ohms?

Yes	REMOVE the fused jumper wire. INSTALL a new clockspring. REFER to: Clockspring (501-20B Supplemental Restraint System, Removal and Installation).
No	REMOVE the fused jumper wire. GO to A14

A14 CHECK THE CLOCKSPRING GROUND CIRCUIT FOR AN OPEN

Is the resistance less than 3 ohms?

Yes	INSTALL a new steering wheel (includes steering wheel wiring harness). REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).
No	REPAIR the circuit.

A15 CHECK THE HORN SWITCH SIGNAL CIRCUIT

- Disconnect SCCM C226.

Does the horn sound?

Yes	REMOVE the fused jumper wire. GO to A16
No	REMOVE the fused jumper wire. REPAIR the open circuit.

A16 CHECK HORN OPERATION WITH STEERING WHEEL HARNESS ISOLATED

- Connect SCCM C226.
- Disconnect Clockspring C218B.
- Momentarily connect a fused jumper wire:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
Clockspring C218B, pin 4, component side		Ground

Does the horn sound?

Yes	REMOVE the fused jumper wire. INSTALL a new steering wheel (includes steering wheel wiring harness). REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).
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No	REMOVE the fused jumper wire. INSTALL a new clockspring. REFER to: Clockspring (501-20B Supplemental Restraint System, Removal and Installation). TEST the system for normal operation. If the horn is still inoperative, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
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A17 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect the BCM connectors.
- Repair:
 - corrosion (install new connector or terminals – clean module pins)
 - damaged or bent pins – install new terminals/pins
 - pushed-out pins – install new pins as necessary
- Install the horn relay (if previously removed).
- Connect Horn C131.
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	 Click here to access Guided Routine (BCM).
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.

The Horn Is Always On

Refer to Wiring Diagrams Cell 44 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Horn - System Operation and Component Description](#) (413-06 Horn, Description and Operation).

DTC Chart

DTC	Description	Fault Trigger Condition
B1323:11	Horn Switch: Circuit Short to Ground	A Continuous Memory Diagnostic Trouble Code (CMDTC) that sets when the BCM detects a short to ground on the horn signal circuit.
B1C55:14	Horn Relay: Circuit Short to Ground or Open	This DTC sets when the BCM detects a short to ground or an open on the horn relay control circuit.

Possible Sources

- Wiring, terminals or connectors
- Clockspring
- BJB
- Horn switch
- BCM

PINPOINT TEST B : THE HORN IS ALWAYS ON

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.
NOTICE: The following test uses a test light 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.
B1 MONITOR THE BCM (BODY CONTROL MODULE) HORN_SW PID (PARAMETER IDENTIFICATION)

- Disconnect Horn C131.
- Ignition ON.
- Connect a diagnostic scan tool.
- Using a diagnostic scan tool, view BCM Parameter Identifications (PIDs).
- Monitor the BCM HORN_SW PID.

Does the PID status display OFF?

Yes	GO to B2
No	GO to B4

B2 CHECK THE HORN RELAY CONTROL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect BCM C2280F.

Does the test light illuminate?

Yes	GO to B3
No	GO to B8

B3 ISOLATE THE HORN RELAY CONTROL CIRCUIT SHORT TO GROUND

- Ignition OFF.
- Disconnect BJB C1035C.

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new BJB.
No	REPAIR the short to ground on the horn relay control circuit.

B4 ISOLATE THE BCM (BODY CONTROL MODULE) HORN SWITCH INPUT CIRCUIT

- Ignition OFF.
- Disconnect BCM C2280B.

Does the test light illuminate?

Yes	GO to B8
No	GO to B5

B5 CHECK THE HORN SWITCH INPUT CIRCUIT TO THE BCM (BODY CONTROL MODULE) FOR A SHORT TO GROUND

- Disconnect SCCM C226.
- Connect BCM C2280B.

Does the test light illuminate?

Yes	REPAIR the circuit.
No	GO to B6

B6 ISOLATE THE HORN SWITCH

- Remove the driver airbag.
REFER to: [Driver Airbag](#) (501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect Clockspring C218B.
- Connect SCCM C226.

Does the test light illuminate?

Yes	INSTALL a new clockspring. REFER to: Clockspring (501-20B Supplemental Restraint System, Removal and Installation). TEST the system for normal operation. If the test light remains illuminated, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
No	GO to B7

B7 ISOLATE THE STEERING WHEEL WIRING

- Connect Clockspring C218B.

Does the test light illuminate?

Yes	INSTALL a new steering wheel (includes steering wheel wiring harness). REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).
No	INSTALL a new driver airbag (includes horn switch). REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).

B8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect the BCM connectors.
- Repair:
 - corrosion (install new connector or terminals – clean module pins)
 - damaged or bent pins – install new terminals/pins
 - pushed-out pins – install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Connect Horn C131.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	 Click here to access Guided Routine (BCM).
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.