

Horns

Specifications

Fastener Tightening Specifications

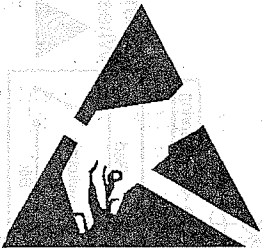
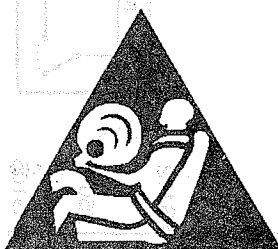
Application	Specification	
	Metric	English
Horn Bolt	27 N·m	20 lb ft

GM SPO Group Numbers

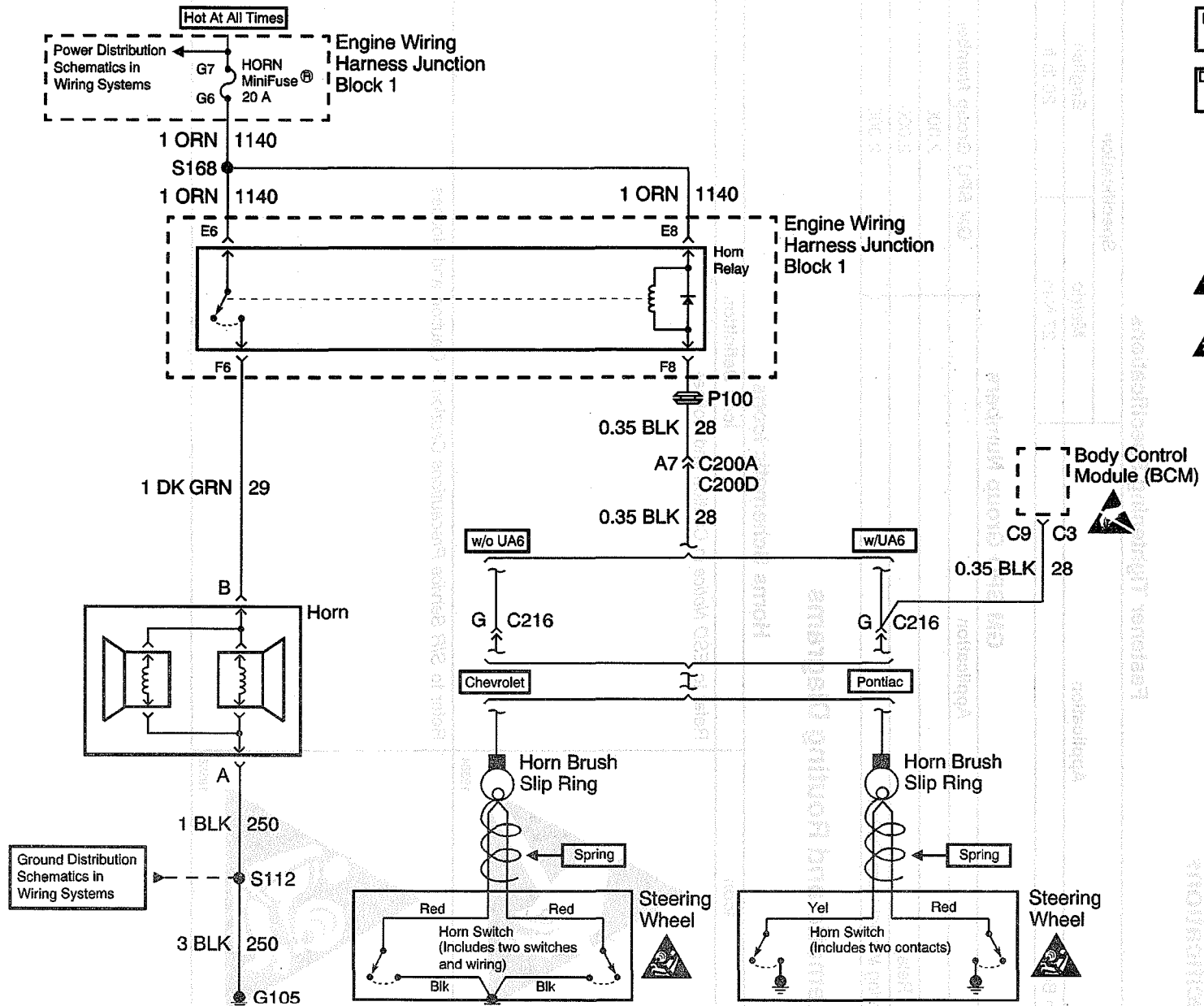
Application	GM SPO Group Number
Horn	2.000
Horn Relay	2.000
Steering Wheel Horn Switch	2.000

Schematic and Routing Diagrams

Horns Schematic Icons

Icon	Icon Definition
 19384	Refer to <i>ESD Notice</i> in Caution and Notices.
 19386	Refer to <i>SIR Service Precautions Caution</i> in Caution and Notices.

Horns Schematics



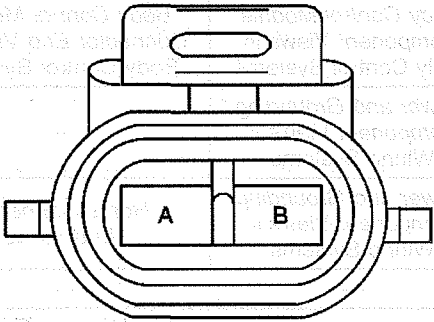
Component Locator

Horns Components

Name	Location	Locator View	Connector End View
Body Control Module (BCM)	Under the right side of the IP near the blower motor	Body Control Module Component Views in Body Control Systems	Body Control Module Connector End Views in Body Control Systems
Engine Wiring Harness Junction Block 1	In the left front corner of the engine compartment	Power and Grounding Component Views in Wiring Systems	—
Horn	In the front right side of the vehicle, directly below headlamp	Power and Grounding Component Views in Wiring Systems	Horns Connector End Views
Horn Switch	In the steering wheel	—	—
C200A (17 cavities)	Forward lamp to IP harness, between the left kick panel and the steering column	Harness Routing Views in Wiring Systems	Inline Harness Connector End Views in Wiring Systems
C200D (48 cavities)	Part of the IP harness, between the left kick panel and the steering column	Harness Routing Views in Wiring Systems	Inline Harness Connector End Views in Wiring Systems
C216 (11 cavities)	IP to steering column harness, attached to the base of the steering column	Harness Routing Views in Wiring Systems	Lighting Systems Connector End Views in Lighting Systems
G105	Attached to the top right side of the radiator support	Harness Routing Views in Wiring Systems	—
P100	Left side in the dash panel, engine to the passenger compartment	Harness Routing Views in Wiring Systems	—
P110	Right side in the dash panel, engine to the passenger compartment	Harness Routing Views in Wiring Systems	—
S112	In the forward lamp harness, approximately 9 cm (3.5 in) from the right lamps breakout	—	—
S168	In the forward lamp harness, approximately 8 cm (3.2 in) from the main branch into the engine wiring harness junction block 1 breakout	—	—

Horns Connector End Views

Horn

			
35437			
Connector Part Information		• 1205-2644 • 2 Way F Metri-Pack 150 Series Sealed (GRY)	
Pin	Wire Color	Circuit No.	Function
A	BLK	250	Ground
B	DK GRN	29	Horn Feed

Diagnostic Information and Procedures

A Diagnostic Starting Point - Horns

Begin the system diagnosis by reviewing the system Description and Operation. Reviewing the Description and Operation information will help you determine the correct symptom diagnostic procedure when a malfunction exists. Reviewing the Description and Operation information will also help you determine if the condition described by the customer is normal operation. Refer to *Symptoms - Horns* in order to identify the correct procedure for diagnosing the system and where the procedure is located.

Symptoms - Horns

Important: Review the system operation in order to familiarize yourself with the system functions. Refer to *Horns Operation*.

Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the Horn System. Refer to *Checking Aftermarket Accessories* in Wiring Systems.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to *Testing for Intermittent and Poor Connections* in Wiring Systems.

Symptom List

Refer to a symptom diagnostic procedure from the following list in order to diagnose the symptom:

- *Horns Always On*
- *Horns Inoperative*

Horns Always On

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Horns
2	Verify that the horns are on continuously. Does the system operate normally?	—	Go to Testing for Intermittent and Poor Connections	Go to Step 3
3	Disconnect the horn relay. Are the horns still on?	—	Go to Step 4	Go to Step 5
4	Repair the short to battery voltage in circuit 29 between the engine wiring harness junction block 1 terminal F6 and the horn connection terminal B. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to Step 12	—
5	Connect a test lamp from the engine wiring harness junction block 1 terminal E6 to terminal F8. Refer to <i>Circuit Testing</i> in <i>Wiring Systems</i> . Does the test lamp illuminate?	—	Go to Step 6	Go to Step 7
6	1. Ensure that the test lamp is still connected. 2. Disconnect harness connector C216. Is the test lamp still on?	—	Go to Step 8	Go to Step 9
7	Replace the horn relay. Is the repair complete?	—	Go to Step 12	—
8	1. For vehicles without UA6, repair the short to ground in circuit 28 between the engine wiring harness junction block 1 terminal F8 and C216 terminal G. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . 2. For vehicles with UA6, ensure that the test lamp is connected. 3. Disconnect connector C3 from the body control module (BCM). Is the test lamp still on?	—	Go to Step 10	Go to Step 11
9	Replace the horn switches. Refer to <i>Horn Switch Replacement - On Vehicle (Chevrolet)</i> or <i>Horn Switch Replacement - On Vehicle (Pontiac)</i> . Is the repair complete?	—	Go to Step 12	—
10	Repair the short to ground in circuit 28 at one of the following areas: • Between the body control module (BCM) connector C3 terminal C9 and C216 terminal G • Between C216 terminal G and the engine wiring harness junction block 1. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to Step 12	—
11	Replace the body control module (BCM). Refer to <i>Body Control Module Replacement</i> in <i>Body Control System</i> . Is the repair complete?	—	Go to Step 12	—
12	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

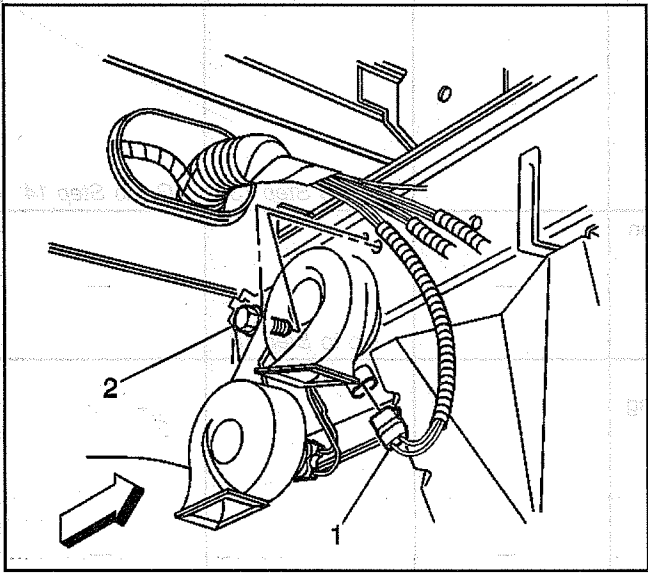
Horns Inoperative

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Horns
2	1. Attempt to sound the horns. 2. Verify that the horns do not sound. Does the system operate normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Disconnect the horn relay. 2. Connect a test lamp from engine wiring harness junction block 1 terminal E6 to ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 4	Go to Step 10
4	Connect a test lamp from engine wiring harness junction block 1 terminal E8 to ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 5	Go to Step 11
5	1. Connect a test lamp between engine wiring harness junction block 1 terminals E6 and F8. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the horn switch. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 12
6	Connect a 20A fused jumper between engine wiring harness junction block 1 terminals E6 and F6. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the horn sound?	—	Go to Step 17	Go to Step 7
7	1. Reconnect the horn relay. 2. Disconnect the horn. 3. Connect a test lamp from horn connector terminal A to battery voltage. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 8	Go to Step 15
8	1. Connect a test lamp from the horn connector terminal B to ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the horn switch. Does the test lamp illuminate?	—	Go to Step 9	Go to Step 16
9	1. Inspect the horn for a poor connection. Refer to <i>Testing for Intermittent and Poor Connections</i> in Wiring Systems. 2. If the connection is OK, replace the horn. Refer to <i>Horn Replacement</i> . Is the repair complete?	—	Go to Step 18	—
10	Repair an open or a poor connection in circuit 1140 between the engine wiring harness junction block 1 terminal E6 and the Horn fuse. Refer to <i>Wiring Repairs</i> or <i>Connector Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Step 18	—
11	Repair an open or a poor connection in circuit 1140 between the engine wiring harness junction block 1 terminal E8 and S168. Refer to <i>Wiring Repairs</i> or <i>Connector Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Step 18	—

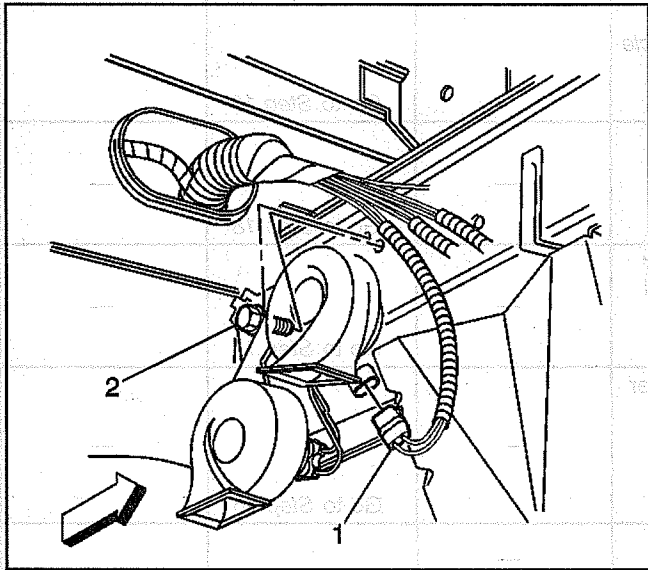
Horns Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
12	1. Disconnect connector C216. 2. Connect a test lamp from engine wiring harness junction block 1 terminal E6 to connector C216 terminal G (steering column side). Refer to <i>Circuit Testing</i> in Wiring Systems. 3. Press the horn switch. Does the test lamp light?	—	Go to Step 13	Go to Step 14
13	Repair an open or a poor connection in circuit 28 between connector C216 and the engine wiring harness junction block 1. E8 and S168. Refer to <i>Wiring Repairs</i> or <i>Connector Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Step 18	—
14	1. Test for an open in the BLK wires attached to the horn brush slip ring. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Test for contact at the horn brush slip ring. 3. For Chevrolet only, inspect for a clean and tight ground at the case of the horn switches. 4. For Pontiac only, inspect for a clean and tight connection at the inflator module. 5. If the above items are OK, replace the horn switches. Refer to <i>Horn Switch Replacement - On Vehicle (Chevrolet)</i> or <i>Horn Switch Replacement - On Vehicle (Pontiac)</i> . Is the repair complete?	—	Go to Step 18	—
15	Repair the open in circuit 250 between horn connector terminal A and S112. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Step 18	—
16	Repair the open in circuit 29 between the horn connector terminal B and the engine wiring harness junction block 1 terminal F6. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Step 18	—
17	1. Inspect for a poor connection at the horn relay. Refer to <i>Testing for Intermittent and Poor Connections</i> in Wiring Systems. 2. If the connection is OK, replace the relay. Is the repair complete?	—	Go to Step 18	—
18	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Repair Instructions



523608



523608

**Horn Replacement
Removal Procedure**

1. Raise and suitably support the vehicle. Refer to *Lifting and Jacking the Vehicle* in General Information.
2. Remove the front bumper fascia air deflector. Refer to *Air Deflector Replacement - Front Bumper Fascia* in Bumpers.
3. Remove the horn mounting bolt (2).
4. Remove the horns from the right engine compartment side outer rail.
5. Disconnect the horn electrical connector (1).

Installation Procedure

1. Connect the horn electrical connector (1).
2. Align horns to rear two holes in right engine compartment side outer rail.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

3. Install the horn mounting bolt (2).

Tighten

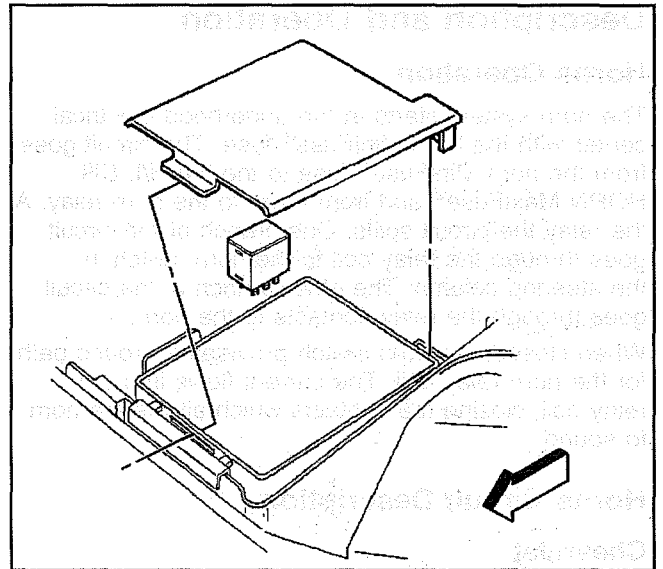
Tighten the horn bolt (2) to 27 N·m (20 lb ft).

4. Install the front bumper fascia air deflector. Refer to *Air Deflector Replacement - Front Bumper Fascia* in Bumpers.
5. Lower the vehicle.

Horn Relay Replacement

Removal Procedure

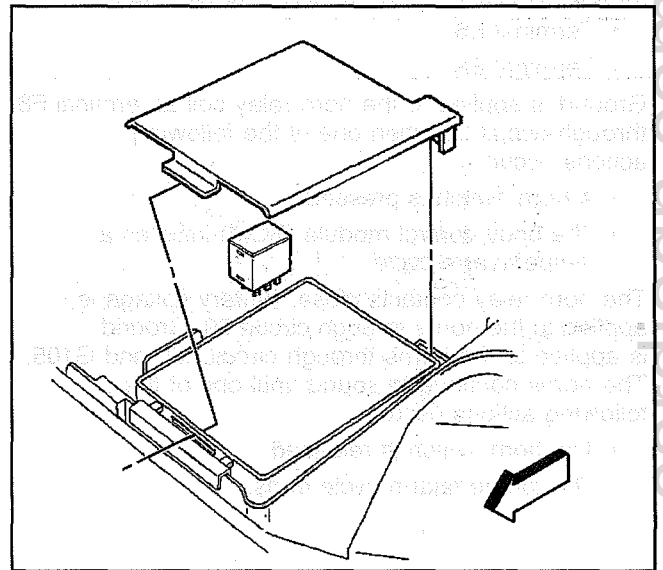
1. Remove the cover from the number 1 underhood electrical center.
2. Remove the horn relay from the electrical center. Refer to *Electrical Center Identification Views in Wiring Systems*.



401242

Installation Procedure

1. Install the horn relay to the electrical center. Refer to *Electrical Center Identification Views in Wiring Systems*.
2. Install the cover to the number 1 underhood electrical center.



401242

Description and Operation

Horns Operation

The horn system starts at the underhood electrical center with the horn MiniFuse® fuse. The circuit goes from the horn MiniFuse® fuse to the the H/L DR HORN MaxiFuse® and from there to the horn relay. At the relay the circuit splits. One branch of the circuit goes through the relay coil to the horn switch in the steering column. The other branch of the circuit goes through the relay contacts to the horn.

When closed, the horn switch provides a ground path for the horn relay coil. The current flows into the relay coil, closing the contacts which allows the horn to sound.

Horns Circuit Description

Chevrolet

Battery voltage is applied at all times to the horn relay through circuit 1140 at the following terminals:

- Terminal E6
- Terminal E8

Ground is applied to the horn relay coil at terminal F8 through circuit 28 when one of the following actions occur:

- A horn switch is pressed
- The body control module (BCM) initiates a tamper/alarm cycle

The horn relay contacts close. Battery voltage is applied to the horns through circuit 29. Ground is applied to the horns through circuit 250 and G105. The horns continue to sound until one of the following actions occur:

- The horn switch is released.
- The tamper/alarm cycle ends.

Pontiac

Battery voltage is applied at all times to the horn relay through circuit 1140 at the following terminals:

- Terminal E6
- Terminal E8

A ground path is provided to the horn relay coil at terminal F8 through circuit 28 under the following conditions:

- When the inflator module is pressed against a spring loaded ground plate in the steering wheel.
- When the BCM initiates a tamper/alarm cycle

The horn relay contacts close with ground applied.

Battery voltage is applied to the horns through circuit 29. Ground is applied to the horns through circuit 250 and g105. The horns continue to sound until one of the following actions occur:

- The inflator module is released.
- The tamper/alarm cycle ends.