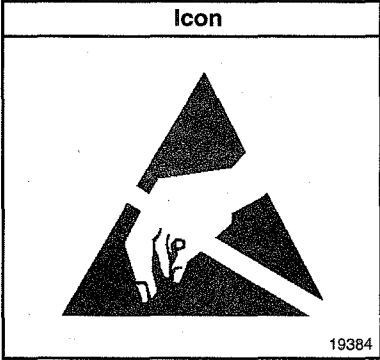


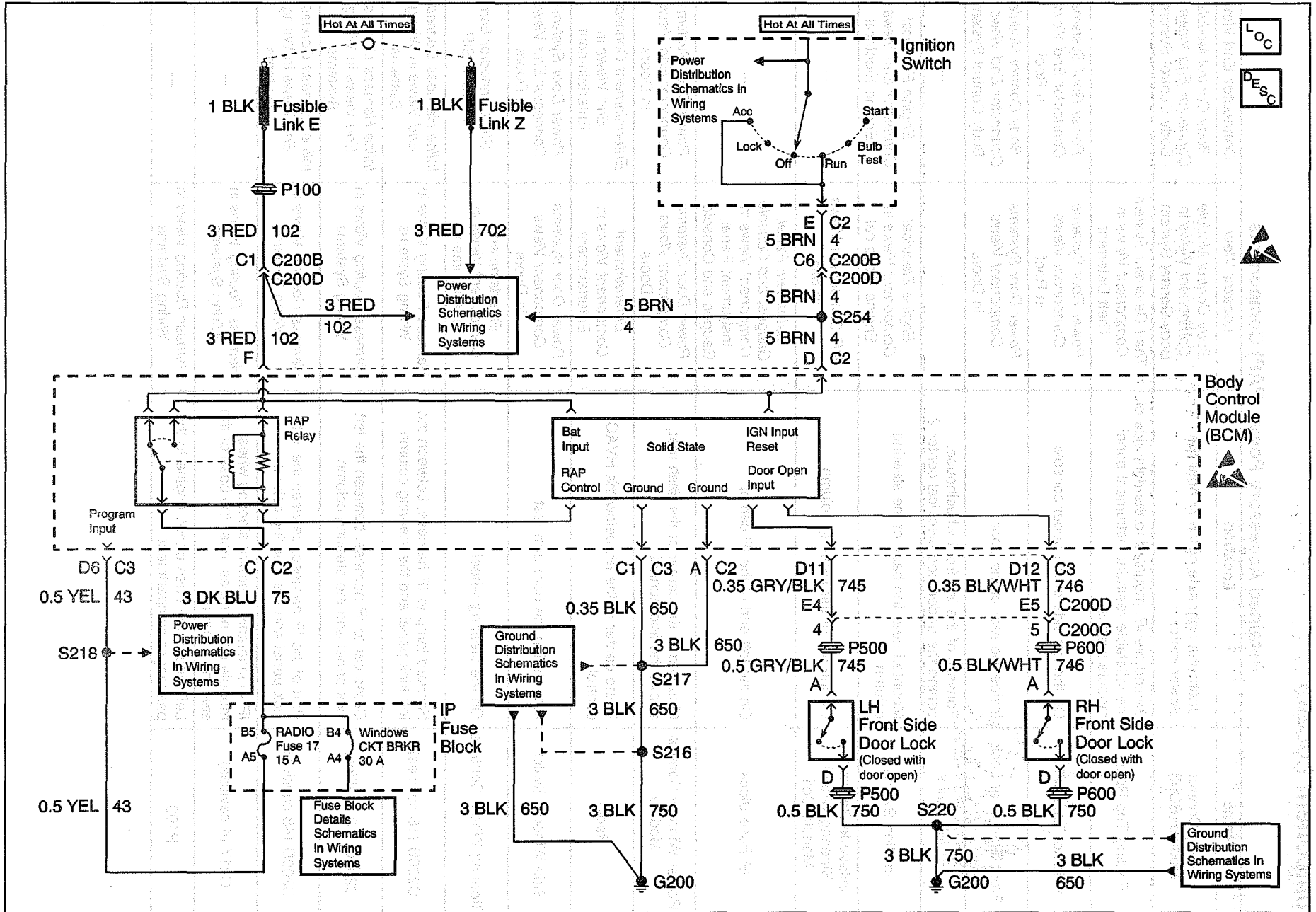
Retained Accessory Power

Schematic and Routing Diagrams

Retained Accessory Power (RAP) Schematic Icons

Icon	Icon Definition
	Refer to <i>ESD Notice</i> in Caution and Notices.

Retained Accessory Power (RAP) Schematics (Body Control Module and Front Side Door Lock Switches)



Component Locator

Retained Accessory Power (RAP) Components

Name	Location	Locator View	Connector End View
Body Control Module (BCM)	Under the right side of the IP near the blower motor	<i>Body Control Module Component Views in Body Control System</i>	<i>Body Control Module Connector End Views in Body Control System</i>
Folding Top Relay	Behind the IP, mounted to the right side of the inflatable restraint instrument panel module bracket	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	—
Folding Top Switch	On the left side of the upper console	<i>Power Roof Systems Component Views in Roof</i>	<i>Power Roof Systems Connector End Views in Roof</i>
Front Side Door Lock	Inside the rear of the door	<i>Power Door Systems Component Views in Doors</i>	<i>Body Control Module Connector End Views in Body Control System</i>
Fusible Links	Forward of the left front wheelhouse, behind the underhood electrical center 2	—	—
Ignition Switch	Mounted near the base of the steering column	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Inflatable Restraint Steering Wheel Module Coil	On the top of the steering column	<i>SIR Component Views in SIR</i>	—
IP Fuse Block	On the left end of the IP carrier	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	—
Power Window Control Module	Mounted to the center of the dash mat, above the floor tunnel	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Radio	In the center of the IP, below the HVAC control	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Side Window Switch	Mounted in the door arm rest	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Steering Wheel Controls	On the steering wheel	<i>Entertainment Component Views in Entertainment</i>	<i>SIR Connector End Views in SIR</i>
C200B (18 cavities)	Forward lamp to IP harness, between the left kick panel and the steering column	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C200C (13 cavities)	Cross car to IP harness, between the left kick panel and the steering column	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C200D (48 cavities)	Part of the IP harness, between the left kick panel and the steering column	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C217 (4 cavities)	IP to inflatable restraint steering wheel module coil harness, near the base of the steering column	<i>Harness Routing Views in Wiring Systems</i>	—
P100	Left side in the dash panel, engine to the passenger compartment	<i>Harness Routing Views in Wiring Systems</i>	—

Retained Accessory Power (RAP) Components (cont'd)

Name	Location	Locator View	Connector End View
P500	Between the driver door and A-pillar	Harness Routing Views in Wiring Systems	—
P600	Between the passenger door and A-pillar	Harness Routing Views in Wiring Systems	—
S208	In the cross car harness, main branch, approximately 26 cm (10.2 in) from the power window control module breakout	—	—
S218	In the IP harness, approximately 4 cm (1.6 in) from the instrument cluster breakout	—	—
S253 (Convertible)	In the IP harness, main branch, approximately 4 cm (1.6 in) from the instrument cluster breakout	—	—

Module	Location
BCM	DTC S208 has been shifted to Ground or Battery

Diagnostic System Check - Retained Accessory Power

Step	Action	Yes	No
1	Attempt to operate the vehicle/courtesy lamps and the power door locks.	Go to Step 2.	Go to Control Enter BCM Diagnostics in Body Control Systems
2	Check for body control module (BCM) DTCs. Refer to Diagnostic Trouble Code (DTC) Diagnostics in Body Control Systems.	Go to Diagnostic Trouble Code (DTC) ListType.	Go to Step 3.
3	Does the BCM flash any other DTCs?	Go to Diagnostic Trouble Code (DTC) ListType in Body Control Systems.	Go to Symptoms - Retained Accessory Power.

Diagnostic Information and Procedures

A Diagnostic Starting Point - Retained Accessory Power

Begin the system diagnosis with *A Diagnostic System Check - Retained Accessory Power*. The Diagnostic System Check will provide the following information:

- The identification of the control module(s) which command the system.
- The identification of any stored diagnostic trouble codes (DTCs) and their status.

The use of the Diagnostic System Check will identify the correct procedure for diagnosing the system and where the procedure is located.

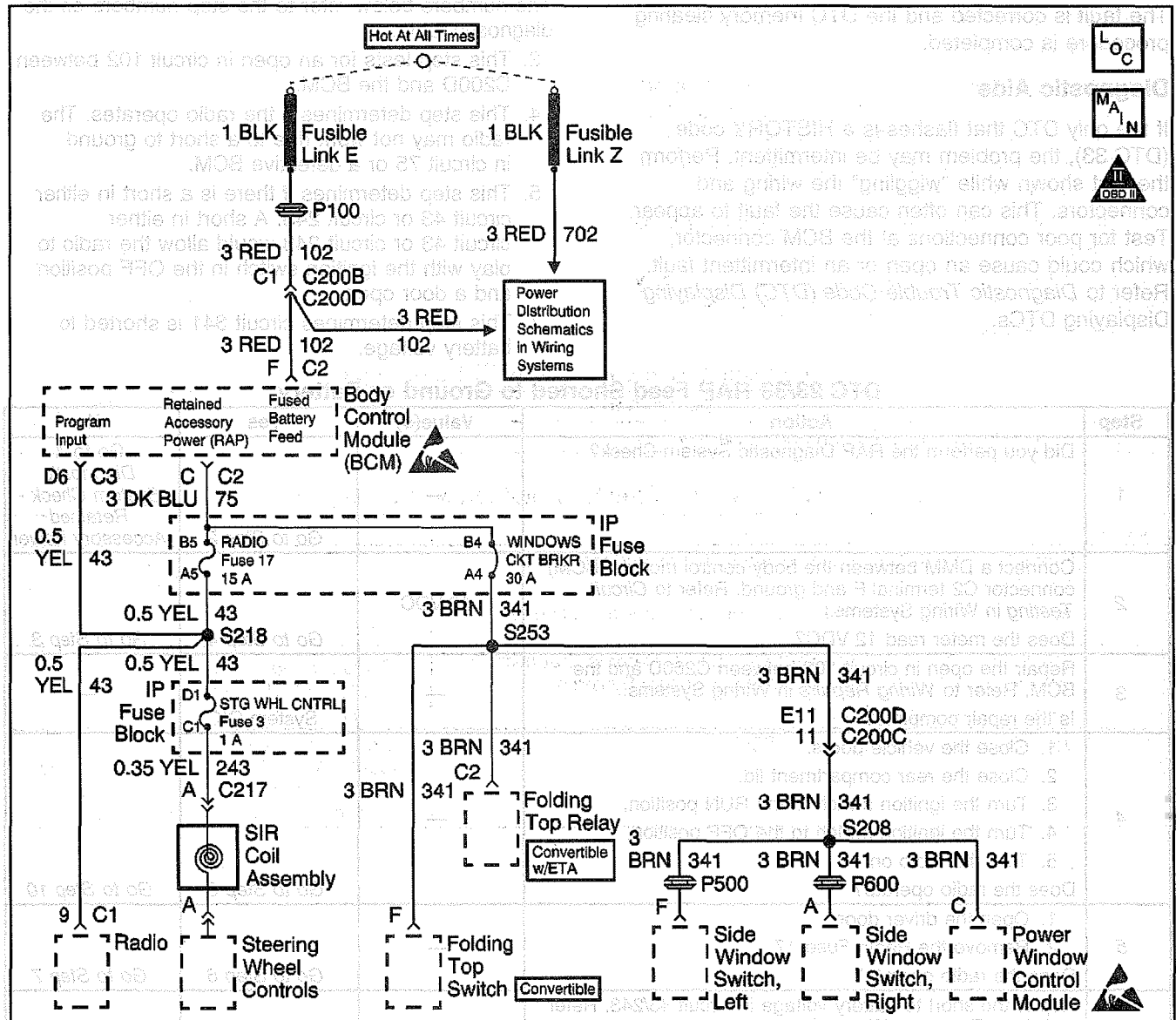
Diagnostic Trouble Code (DTC) List/Type

Description	Module
DTC 23/33 RAP Feed Shorted to Ground or Battery	BCM

A Diagnostic System Check - Retained Accessory Power

Step	Action	Yes	No
1	Attempt to operate the vehicle courtesy lamps and the power door locks. Are the courtesy lamps and the power door locks operational?	Go to Step 2	Go to <i>Cannot Enter BCM Diagnostics</i> in Body Control Systems
2	Check for body control module (BCM) DTCs. Refer to <i>Diagnostic Trouble Code (DTC) Displaying</i> in Body Control Systems. Does the BCM flash DTC 23/33?	Go to <i>Diagnostic Trouble Code (DTC) List/Type</i>	Go to Step 3
3	Does the BCM flash any other DTCs?	Go to <i>Diagnostic Trouble Code (DTC) List/Type</i> in Body Control Systems	Go to <i>Symptoms - Retained Accessory Power</i>

DTC 23/33 RAP Feed Shorted to Ground or Battery



Circuit Description

The body control module (BCM) retained accessory power (RAP) function is enabled when the ignition switch is turned to the RUN position. The RAP allows the operation of the following components for up to 10 minutes after the ignition switch is turned to the OFF position:

- The power windows
- The radio and the steering wheel controls
- The folding top
- The rear fog lamps (export only)

The RAP is immediately disabled if any door is opened. The BCM provides the RAP function through circuit 75 to the following components:

- The WINDOWS circuit breaker
- The RADIO Fuse 17

Conditions for Setting the DTC

- Circuit 75 is shorted to ground for more than 50 milliseconds while the RAP is enabled.
- Circuit 75 is shorted to B+ for more than 50 milliseconds while the RAP is disabled.
- Circuit 102 is open.

Action Taken When the DTC Sets

- The RAP feature will not function if circuit 75 is shorted to ground.
- The RAP feature will not deactivate when the door is opened if circuit 75 is shorted to B+.
- The BCM will read out a series of flash codes upon entering the diagnostic mode.

Conditions for Clearing the DTC

The fault is corrected and the DTC memory clearing procedure is completed.

Diagnostic Aids

If the only DTC that flashes is a HISTORY code (DTC 33), the problem may be intermittent. Perform the test shown while "wiggling" the wiring and connectors. This can often cause the fault to appear. Test for poor connections at the BCM connector, which could cause an open or an intermittent fault. Refer to *Diagnostic Trouble Code (DTC) Displaying* Displaying DTCs.

Test Description

The numbers below refer to the step numbers on the diagnostic table.

- This step tests for an open in circuit 102 between C200D and the BCM.
- This step determines if the radio operates. The radio may not work due to a short to ground in circuit 75 or a defective BCM.
- This step determines if there is a short in either circuit 43 or circuit 243. A short in either circuit 43 or circuit 243 would allow the radio to play with the ignition switch in the OFF position and a door open.
- This step determines circuit 341 is shorted to battery voltage.

DTC 23/33 RAP Feed Shorted to Ground or Battery

Step	Action	Value(s)	Yes	No
1	Did you perform the RAP Diagnostic System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Retained Accessory Power
2	Connect a DMM between the body control module (BCM) connector C2 terminal F and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the meter read 12 VDC?	12 VDC	Go to Step 4	Go to Step 3
3	Repair the open in circuit 102 between C200D and the BCM. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	System OK	—
4	1. Close the vehicle doors. 2. Close the rear compartment lid. 3. Turn the ignition switch to the RUN position. 4. Turn the ignition switch to the OFF position. 5. Turn the radio on. Does the radio operate?	—	Go to Step 5	Go to Step 10
5	1. Open the driver door. 2. Remove the Radio Fuse 17. Does the radio operate?	—	Go to Step 6	Go to Step 7
6	Repair the short to battery voltage in circuit 43/243. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	System OK	—
7	1. Remove the windows circuit breaker. 2. Attempt to operate either power window. Does the power window operate?	—	Go to Step 8	Go to Step 9
8	Repair the short to battery voltage in circuit 341. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	System OK	—
9	Test for and repair a short to battery voltage in circuit 75. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair a short?	—	System OK	Go to Step 11
10	Test for and repair a short to ground in circuit 75. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair a short?	—	System OK	Go to Step 11
11	Important: Perform the set up procedure for the body control module (BCM). Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Did you complete the replacement?	—	System OK	—

Symptoms - Retained Accessory Power

Visual/Physical Inspection

Important: The following steps must be completed before using the symptom tables.

1. Perform *A Diagnostic System Check - Retained Accessory Power* before using the Symptom Tables in order to verify that there are not DTCs set.
2. Review the system description in order to familiarize yourself with the system functions. Refer to *Retained Accessory Power (RAP) Circuit Description*

- Inspect for aftermarket devices which could affect the operation of the Retained Accessory Power 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:

- *Retained Accessory Power (RAP) On After Timeout*
- *Retained Accessory Power (RAP) Inoperative*

Retained Accessory Power (RAP) On After Timeout

Step	Action	Value(s)	Yes	No
1	Did you perform the Diagnostic System Check?	—	Go to Step 2	Go to <i>A Diagnostic System Check - Retained Accessory Power</i>
2	1. Close the vehicle doors. 2. Close the rear compartment lid. 3. Turn the ignition to the RUN position. 4. Turn the ignition to the OFF position. 5. Wait at least 10 minutes. Do all of the RAP functions still operate after the 10 minute timeout period?	—	Go to <i>Testing for Intermittent and Poor Connections</i> in Wiring Systems	Go to Step 3
3	Important: Perform the set up procedure of the body control module. Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Is the repair complete?	—	Go to Step 4	—
4	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Retained Accessory Power (RAP) Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Diagnostic System Check?	—	Go to Step 2	Go to <i>A Diagnostic System Check - Retained Accessory Power</i>
2	1. Close the vehicle doors. 2. Close the rear compartment lid. 3. Turn the ignition to the RUN position. 4. Turn the ignition to the OFF position. 5. Attempt to operate one of the following components: • The radio • The power folding top • The power windows • The rear fog lamps (Europe) Do all of the RAP functions operate normally?	—	Go to <i>Testing for Intermittent and Poor Connections</i> in Wiring Systems	Go to Step 3

Retained Accessory Power (RAP) Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
3	1. Turn the ignition switch to the RUN position. 2. Turn the radio on. Does the radio operate?	—	Go to Step 4	Go to Step 9
4	1. Disconnect the BCM connector C2 and connector C3. 2. Connect a test lamp between the BCM connector C2 terminal F and the BCM connector C3 terminal C1. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 5	Go to Step 7
5	Connect a test lamp between the BCM connector C2 terminal F and terminal A. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 8
6	Test for and repair a poor connection at the BCM connector C2 and connector C3. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 15	Go to Step 14
7	Repair the open in circuit 650 between the BCM connector C3 terminal C1 and S217. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 15	—
8	Repair the open in circuit 650 between the BCM connector C2 terminal A and S217. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 15	—
9	1. Leave the ignition switch in the RUN position. 2. Connect a test lamp between the BCM connector C2 terminal D and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 10	Go to Step 13
10	Connect a test lamp between the BCM connector C2 terminal C and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 11	Go to Step 12
11	Repair the open in circuit 75 between the BCM and the IP fuse block. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 15	—
12	Test for and repair a poor connection at the BCM connector C2 terminal C and terminal D. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 15	Go to Step 14
13	Repair the open in circuit 4 between the BCM connector C2 terminal D and S254. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 15	—
14	Important: Perform the set up procedure of the body control module. Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Did you complete the replacement?	—	Go to Step 15	—
15	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Description and Operation

Retained Accessory Power (RAP) Circuit Description

The retained accessory power (RAP) system is a subsystem of the body control module (BCM).

The RAP system provides the following features:

- Convenience
- Increased security

The RAP system applies battery voltage through circuit 75 to the following components:

- The radio fuse 17
- The windows circuit breaker

The RAP system allows operation of the following components with the ignition switch in the OFF position:

- The power folding top
- The radio
- The power windows
- The rear fog lamps (Export)

The RAP system allows operation of the above components for approximately 10 minutes after the ignition switch is turned to the OFF position. Operation is interrupted before the end of 10 minutes if a door is opened.

The BCM also allows the operation of the door locks and the rear compartment lid release with the ignition switch in the OFF position. This is true in the following situations:

- The rear compartment lid release is operated from the remote control door lock transmitter.
- Either door is opened.
- Less than 35 seconds have passed since both doors were closed. After 35 seconds, the doors will lock once but not unlock.

If the universal theft deterrent system (UTD) is armed within 35 seconds of the doors closing, the unlock command is disabled. All of the components in these circuits are enabled as long as the ignition switch is in one of the following positions:

- ACCY
- RUN

All of the components in these circuits are enabled for approximately 10 minutes when the following conditions exist:

- The ignition switch is in the OFF position.
- Both of the doors are closed.

If either of the doors opens, the 10 minute timer is canceled. The door locks will remain enabled for as long as the door is open. The door locks will not operate with the door open if both of the following conditions exist:

- The key is in the ignition.
- The lockout prevention feature is enabled.

For more information, refer to *Power Door Locks Circuit Description*.