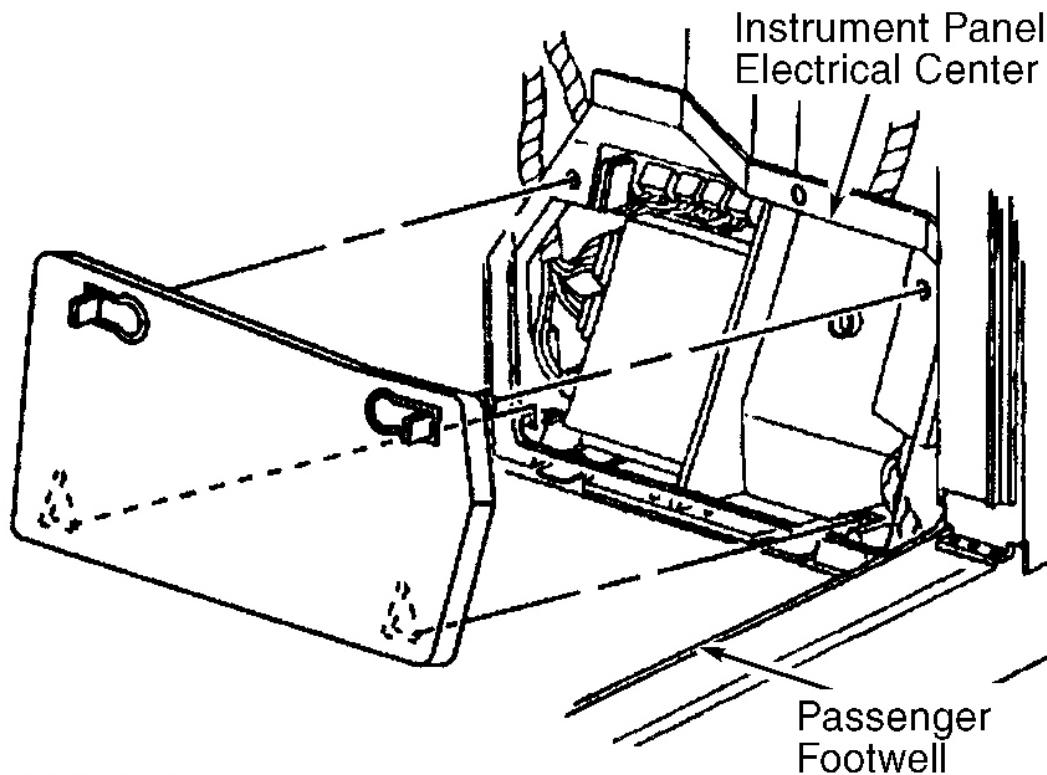


## 2001 ACCESSORIES &amp; EQUIPMENT

## Power Seats - Corvette

## DESCRIPTION

Power seats operate using toggle switches located on outboard side of seat. Seat adjusters are powered by a 12-volt, reversible motor with an internal circuit breaker. Two 20-amp circuit breakers, located in instrument panel electrical center, protect power seat wiring. See **Fig. 1**. Optional features include memory and power lumbar.



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**Fig. 1: Locating Instrument Panel Electrical Center**  
Courtesy of GENERAL MOTORS CORP.

## OPERATION

## 6-WAY POWER SEATS

## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

Power seat uses 3 reversible motors that operate seat functions. Front and back parts of seat are operated by different motors, and can be raised and lowered independently. Third motor controls forward/backward movement.

#### MEMORY SEATS

Memory functions are controlled with buttons located in armrest of driver's door. Memory seat, outside mirror, climate control and stereo settings for up to 3 different drivers can be recorded into the seat control module through memory panel buttons.

To program seat control module, move seat to desired position. Depress and hold No. 1 memory button until indicator light above the memory button glows steady. Continue to hold button down. When position has been stored, light will flash once. To record second setting, repeat function and depress No. 2 button. For third setting, No. 1 and 2 buttons will need to be depressed simultaneously.

To recall a position, depress the button that corresponds with the setting you want recalled. Indicator light will flash until programmed position is achieved. Memory recall will not work if the vehicle is moving, the key is out of the ignition switch or if a seat or memory switch is being used.

#### COMPONENT LOCATIONS

##### COMPONENT LOCATIONS

<b>Component</b>	<b>Location</b>
Driver Door Module (DDM) Or Passenger Door Module (PDM)	In Center Of Each Door, Behind Door Panel
Instrument Panel Electrical Center	Top Of Passenger's Footwell, Behind Carpet
Seat Lower & Upper Motors	Under Respective Front Seat
Seat Control Module (SCM)	Under Driver's Seat
Seat Relay Center	Under Respective Front Seat

#### TROUBLE SHOOTING

##### PRELIMINARY CHECKS

1. If power accessory circuit breaker opens whenever power seat switch is operated, check circuits for a short to ground. Remove and inspect fuses. Check for good, clean ground connections. Check for proper installation of aftermarket electronic equipment.
2. Check for broken or partially broken wire inside of insulation, which could cause system

malfunction but prove good in a continuity/voltage check with system disconnected. These circuits may be intermittent or resistive when loaded. Check by monitoring for voltage drop with system under load. If problem exists, repair as necessary. If problem does not exist, perform self-diagnostics. See **SELF-DIAGNOSTIC SYSTEM** .

## **SELF-DIAGNOSTIC SYSTEM**

Instrument Panel Cluster (IPC) and scan tool can be used to retrieve and clear DTCs. For IPC procedure, see **ANALOG INSTRUMENT PANELS - CORVETTE** article.

### **POWER SEATS DIAGNOSTIC SYSTEM CHECK**

1. Connect scan tool to Data Link Connector (DLC) located under steering column. If scan tool powers up, go to next step. If scan tool does not power up, go to **TEST A: SCAN TOOL DOES NOT POWER UP** under **SYSTEM TESTS** in **BODY CONTROL MODULES - CORVETTE** article.
2. Turn ignition on. Attempt to establish communication with Driver Door Module (DDM), Seat Control Module (SCM), Body Control Module (BCM) and Powertrain Control Module (PCM). If scan tool communicates with all systems, go to next step. If scan tool does not communicate with all systems, go to **TEST B: SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under **SYSTEM TESTS** in **BODY CONTROL MODULES - CORVETTE** article.
3. Using scan tool, select SCM module DTC function, DDM DTC function, BCM DTC function and PCM DTC function. If scan tool displays any DTCs, go to next step. If scan tool does not display any DTCs, diagnose problem by symptom. See **SYMPTOM INDEX** table under **SYSTEM TESTS**.
4. If scan tool displays any DTCs which begin with "U", go to **TEST B: SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under **SYSTEM TESTS** in **BODY CONTROL MODULES - CORVETTE** article. If scan tool does not display any DTCs that begin with "U", go to next step.
5. If DTC B0605 is not set, go to next step. If DTC B0605 is set, go to **DTC B0605: BCM INTERNAL MEMORY MALFUNCTION** under **DIAGNOSTIC TESTS** in **BODY CONTROL MODULES - CORVETTE** article.
6. If DTC P0562 or P0563 are set, perform appropriate test. See **GENERATORS & REGULATORS - CORVETTE** article in **STARTING & CHARGING SYSTEMS**. If DTC P0562 or P0563 are not set, perform test in accordance with DTC retrieved. See **DIAGNOSTIC TROUBLE CODE DEFINITIONS** .

### **DIAGNOSTIC TROUBLE CODE DEFINITIONS**

## 2001 Chevrolet Corvette

2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

### DIAGNOSTIC TROUBLE CODE DEFINITIONS

DTC	Description
<b><u>B0846 &amp; B0851</u></b>	Seat Control Module Battery Supply Circuit
<b><u>B0856</u></b>	Power Seat Position Sensor Voltage Reference Circuit
<b><u>B2172, B2177, B2182, B2187, B2192 &amp; B2197</u></b>	Seat Switch Shorted To Ground
<b><u>B2242 &amp; B2244</u></b>	Memory 1 Or 2 Signal Circuit Short To Ground
<b><u>B2600</u></b>	Seat Motor To Battery Voltage
<b><u>B2605-B2607</u></b>	Seat Position Sensor Failure

### DIAGNOSTIC TESTS

#### DTC B0846 & B0851: SEAT CONTROL MODULE BATTERY SUPPLY CIRCUIT

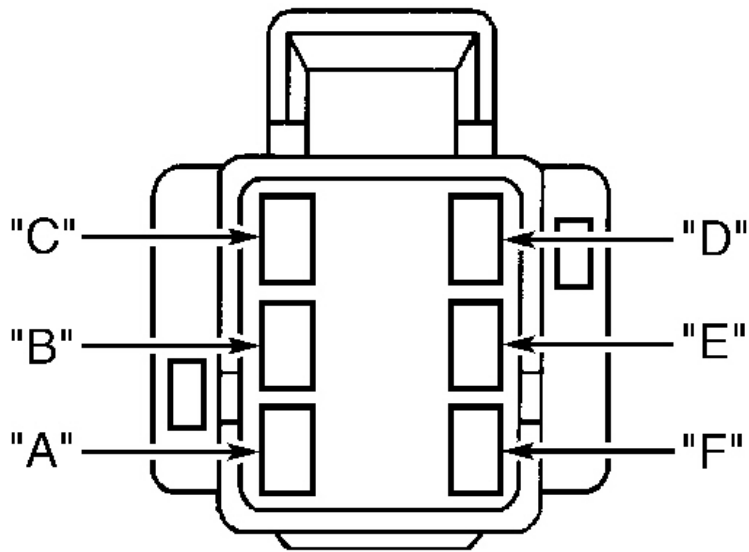
1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Install scan tool to Data Link Connector (DLC). Observe battery voltage supply circuit for Seat Control Module (SCM) in DATA LIST. If voltage is 8.5-16.3 volts, go to next step. If voltage is not 8.5-16.3 volts, go to step 4 .
3. Operate seat adjuster motors and telescoping steering column in both directions. Using scan tool, observe battery voltage supply circuit for SCM in DATALIST. If voltage is 8.5-16.3 volts, problem is intermittent. Check for an intermittent short to ground in adjuster motor or circuit, or problem with charging system. If voltage is not 8.5-16.3 volts, go to next step.
4. Repair battery voltage supply circuit (Orange or Orange/Black wires) for an open circuit. See **WIRING DIAGRAMS** . If an open circuit was found and corrected, go to step 7 . If an open circuit was not found, go to next step.
5. Repair SCM ground circuit (Black wire) for an open circuit. See **WIRING DIAGRAMS** . If an open circuit was found and corrected, go to step7 . If an open circuit was not found, go to next step.
6. Replace SCM. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION. After replacement, go to next step.
7. Turn ignition off. Reconnect all disconnected components. Turn ignition on. Using scan tool, clear all DTCs. If DTC resets, go to step 2 .

#### DTC B0856: POWER SEAT POSITION SENSOR VOLTAGE REFERENCE CIRCUIT

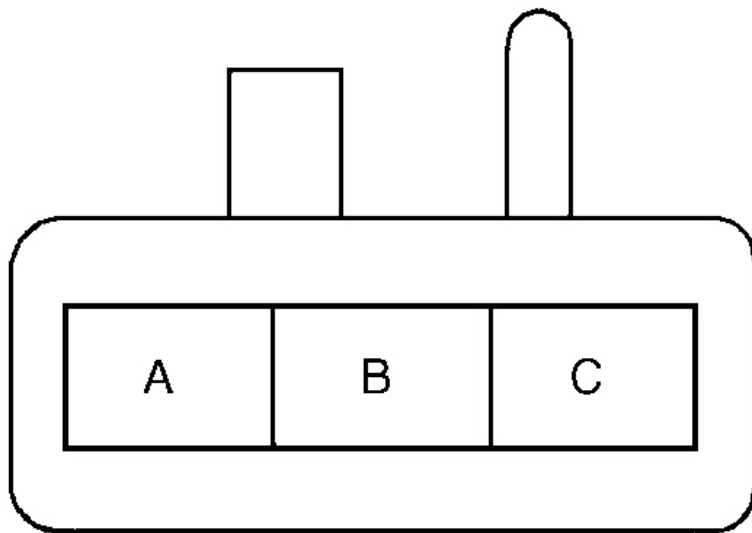
1. If power seats diagnostic system check has been performed, go to next step. If power seats

diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

2. Install scan tool to Data Link Connector (DLC). Observe position sensor reference parameter in Seat Control Module (SCM) DATALIST. Attempt to operate seat and steering column adjuster motor through full range of adjustment. If position sensor reference voltage remains within 4.0-5.2 volts, problem is intermittent. Check position sensor/seat motor connectors and in-line connector to steering column. See **Fig. 2** . If position sensor reference voltage does not remain within 4.0-5.2 volts, go to next step.
3. Disconnect all position sensor/seat motor connectors. Using scan tool, observe position sensor reference parameter while activating an input to SCM. If position sensor reference voltage is within 4.0-5.2 volts, go to step **5** . If position sensor reference voltage is not within 4.0-5.2 volts, go to next step.
4. Check position sensor 5-volt reference circuit (Purple wire) for a short circuit to ground or voltage. If short circuit was found and corrected, go to step **8** . If short circuit was not found, go to step **7** .
5. Check position sensor low reference circuit (Black wire) for a short circuit to voltage. If short circuit was found and corrected, go to step **8** . If short circuit was not found, go to next step.
6. Check position sensor signal circuits (Dark Green, Brown/White and Tan wires) for a short circuit to voltage. If a short circuit to voltage was found and corrected, go to step **8** . If a short circuit to voltage was not found, go to next step.
7. Replace SCM. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION.
8. Turn ignition off. Reconnect all disconnected components. Turn ignition on. Using scan tool, clear all DTCs. If DTCs reoccur, go to step **2** .



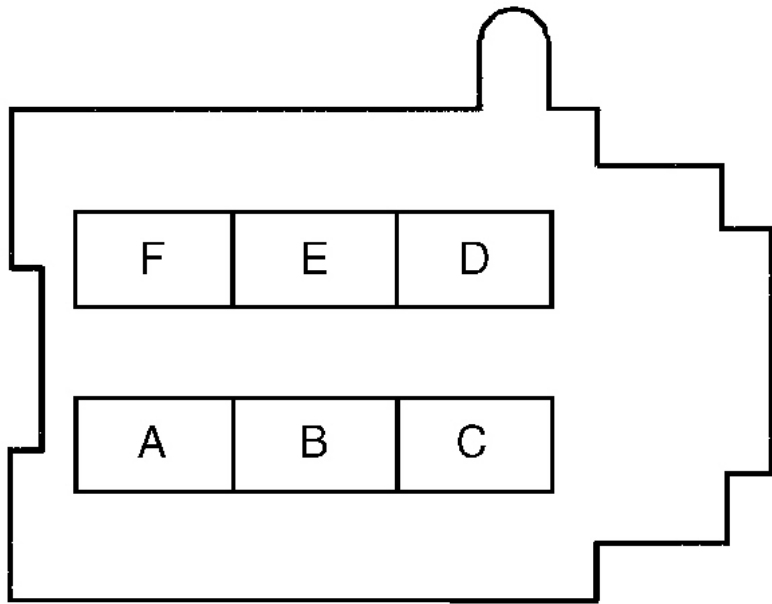
C1



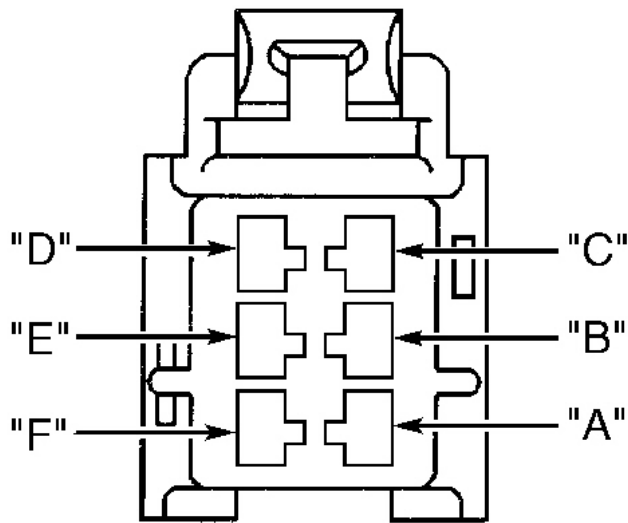
C2, C3 & C4

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**Fig. 2: Identifying Seat Adjuster Motor Connectors & Terminals**  
Courtesy of GENERAL MOTORS CORP.



C2



C3

G98D12222

**Fig. 3: Identifying Seat Control Module & Driver's Seat Relay Center Connectors C2 & C3 Terminals**

Courtesy of GENERAL MOTORS CORP.

**DTC B2172, B2177, B2182, B2187, B2192 & B2197: SEAT SWITCH SHORTED TO GROUND**

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to Data Link Connector (DLC). Select Seat Control Module (SCM) input display. Monitor power seat switch parameter which set DTC. If scan tool indicates status as ACTIVE, go to next step. If scan tool does not indicate status as ACTIVE, problem is intermittent. Check for poor connector terminal contact or stuck switch contacts.
3. Disconnect power seat switch connector. See **Fig. 4** . Monitor power seat switch parameter on scan tool. If scan tool indicates status as ACTIVE, go to next step. If scan tool does not indicate status as ACTIVE, go to step 5 .
4. Check seat switch signal circuit which set DTC for short to ground in wire between SCM and power seat switch. See **WIRING DIAGRAMS** . If problem is found, repair as necessary and go to step 7 . If circuit is okay, go to step 6 .
5. Replace power seat switch. See **POWER SEAT SWITCH** under REMOVAL & INSTALLATION. After repairs, go to step 7 .
6. Replace SCM. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION. After repairs, go to next step.
7. Turn ignition off. Reconnect all disconnected components. Turn ignition on. Using scan tool, clear all DTCs. Go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

**DTC B2242 & 2244: MEMORY 1 OR 2 SIGNAL CIRCUIT SHORT TO GROUND**

**NOTE:** See **WIRING DIAGRAMS** in **POWER MIRRORS - CORVETTE** and **POWER WINDOWS - CORVETTE** article.

1. If door systems diagnostic system check has been performed, go to next step. If door systems diagnostic system check has not been performed, see DOOR SYSTEMS DIAGNOSTIC SYSTEM CHECK in POWER WINDOWS - CORVETTE article.
2. Install scan tool. Turn ignition on, engine off. Using scan tool, check appropriate memory select switch parameter in Driver Door Module (DDM). If scan tool displays INACTIVE, go to next step. If scan tool does not display INACTIVE, go to step 4 .
3. Activate appropriate memory select switch. Using scan tool, observe appropriate memory select switch parameter in DDM inputs data list. If memory select switch parameter changes state, problem is intermittent. Check wiring and connectors for poor terminal contact. If memory select switch parameter does not change state, go to next step.



## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

4. Turn ignition off. Disconnect driver door switch. Turn ignition on, engine off. Using scan tool, check appropriate memory select switch parameter in DDM inputs data list. If scan tool displays INACTIVE, go to step 7 . If scan tool does not display INACTIVE, go to next step.
5. Check appropriate signal circuit for a short circuit to ground. See **WIRING DIAGRAMS** . After repair, go to step 10 . If signal circuit is okay, go to next step.
6. Check for poor connection at DDM connector. Repair as necessary, then go to step 10 . If connection is okay, go to step 8 .
7. Check for poor connection at driver door switch connector. Repair as necessary, then go to step 10 . If connection is okay, go to next step.
8. Replace DDM and programming replacement DDM. See REMOVAL & INSTALLATION in POWER WINDOWS - CORVETTE article. After replacement and programming, go to step 10 .
9. Replace driver door switch. See REMOVAL & INSTALLATION in POWER WINDOWS - CORVETTE article. After replacement, go to next step.
10. Turn ignition off. Reconnect all disconnected components. Turn ignition on. Using scan tool, clear all DTCs. If DTCs reoccur, go to step 2 .

#### DTC B2600: SEAT MOTOR TO BATTERY VOLTAGE

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Attempt to operate telescoping steering column and all seat adjuster motors through full range of adjustment. If all seat control module functions operate correctly, problem is intermittent. Check electrical connectors for poor terminal contact. If all seat control module functions do not operate correctly, go to next step.
3. Disconnect seat control module connector that corresponds with inoperative adjuster motor. See **Fig. 3** and **Fig. 4** . See **WIRING DIAGRAMS** . Check inoperative adjuster motor control circuits for a short circuit to voltage. If a short circuit is found and corrected, go to step 5 . If a short circuit is not found, go to next step.
4. Replace seat control module. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION.
5. Using scan tool, clear DTCs. If DTCs reoccur, go to step 2 .

#### DTC B2605, B2606 & B2607: SEAT POSITION SENSOR FAILURE

1. If power seats diagnostic system check has been performed, go to next step. If power seats

diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

2. Connect scan tool to Data Link Connector (DLC). Select Seat Control Module (SCM) input display. Monitor position sensor parameter which set DTC. If scan tool indicates position sensor parameter is within .1-4.78 volts, problem is intermittent. Check wiring and connectors for poor terminal contact. If parameter is not within .1-4.78 volts, go to next step.
3. Disconnect appropriate position sensor/seat motor. Using scan tool, check position sensor parameter. If voltage parameter is 4.5 volts or more, go to next step. If voltage parameter is less than 4.5 volts, go to step 8 .
4. Connect 3-amp fused jumper wire between position sensor signal circuit and low reference voltage circuit (Black wire). See **IDENTIFYING POSITION SENSOR SIGNAL CIRCUITS** table. If scan tool indicates position sensor parameter is .5 volt or less, go to next step. If parameter is greater than .5 volt, go to step 9 .
5. Remove jumper wire. Connect 3-amp fused jumper wire between 5-volt reference circuit (Purple wire) and signal circuit of appropriate position sensor. See **WIRING DIAGRAMS** . If scan tool indicates position sensor parameter is 4.5 volts or more, go to step 7 . If parameter is less than 4.5 volts, go to next step.
6. Check 5-volt reference circuit (Purple wire) for a short circuit to ground. Repair as necessary, then go to step 15 . If Purple wire was okay, go to step 12 .
7. Check 5-volt reference circuit (Purple wire) for a short circuit to voltage. Repair as necessary, then go to step 15 . If Purple wire was okay, go to step 11 .
8. Check appropriate signal circuit for a short circuit to ground. Repair as necessary, then go to step 15 . If signal circuit is okay, go to step 12 .
9. Check appropriate signal circuit for a short circuit to voltage, high resistance or an open circuit. Repair as necessary, then go to step 15 . If signal circuit is okay, go to next step.
10. Check low reference circuit (Black wire) for high resistance or an open circuit. Repair as necessary, then go to step 15 . If Black wire was okay, go to step 12 .
11. Check for poor connection at position sensor harness connector. Repair as necessary, then go to step 15 . If harness connector was okay, go to step 13 .
12. Check for poor connection at seat control module harness connector. Repair as necessary, then go to step 15 . If harness connector was okay, go to step 14 .
13. Replace appropriate position sensor/seat motor. See **SEAT ADJUSTER MOTORS** under REMOVAL & INSTALLATION. After replacement, go to step 15 .
14. Replace seat control module. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION. After replacement, go to step 15 .

## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

15. Using scan tool, clear DTCs. If DTCs reoccur, go to step 2 .

#### IDENTIFYING POSITION SENSOR SIGNAL CIRCUITS

Position Sensor	Wire Color
Horizontal	Dark Green
Front Vertical	Brown/White
Rear Vertical	Tan

#### SYSTEM TESTS

**NOTE:** For appropriate test, see SYMPTOM INDEX table.

#### SYMPTOM INDEX

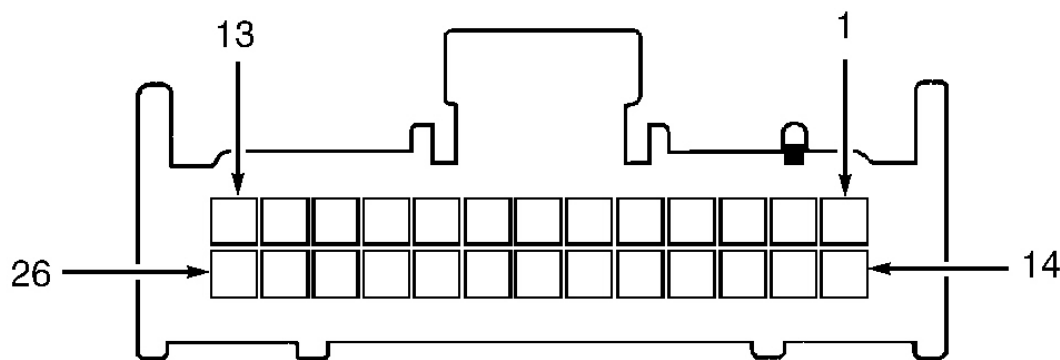
Symptom	Perform Test
Power Seat Inoperative (Without Memory)	<u>A</u>
Power Seat Inoperative (With Memory)	<u>B</u>
Memory Seat Switch Indicator Malfunction	<u>C</u>
Memory Seat Feature Inoperative	<u>D</u>
Lumbar Inoperative	<u>E</u>

#### TEST A: POWER SEAT INOPERATIVE (WITHOUT MEMORY)

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Attempt to operate seat adjustment through all ranges. If all adjustments operate normally, problem is intermittent. Check wiring and connectors for poor terminal contact. If all adjustments do not operate normally, go to next step.
3. If all driver or passenger power seat functions are inoperative, go to next step. If all functions are operable, go to step 8 .
4. Check for open circuit, high resistance or short circuit to ground in battery voltage circuits (Orange wires). Repair as necessary, then go to step 15 . If wiring is okay, go to next step.
5. Check ground circuits (Black wires) for an open circuit. After repair, go to step 15 . If circuits are okay, go to next step.
6. Disconnect power seat switch connector. Check power seat switch voltage circuits for continuity to ground when switch is adjusted to appropriate position. See **WIRING DIAGRAMS** . If continuity to ground is present, go to step 8 . If continuity to ground is not

present, go to next step.

7. Repair appropriate seat adjuster voltage circuit for an open circuit. See **WIRING DIAGRAMS** . After repair, go to step 15 . If circuits are okay, go to step 14 .
8. Connect fused jumper wire between inoperative voltage circuit and ground. If motor operates, go to step 12 . If motor does not operate, go to next step.
9. Repair open circuit in appropriate seat adjuster voltage circuit. After repair, go to step 15 . If circuits are okay, go to next step.
10. Reconnect power seat switch connector. Disconnect inoperative seat motor connector. If a test light comes on when switch is adjusted in both directions, go to step 13 . If test light does not come on, go to next step.
11. Disconnect inoperative motor connector from seat relay center. See **Fig. 3** and **Fig. 4** . Check motor circuits for an open circuit or high resistance, or short circuit to ground. Repair as necessary, then go to step 15 . If circuits are okay, go to step 14 .
12. Replace power seat switch. See **POWER SEAT SWITCH** under REMOVAL & INSTALLATION.
13. Replace inoperative seat motor. See **SEAT ADJUSTER MOTORS** under REMOVAL & INSTALLATION.
14. Replace seat relay center located under seat. See **POWER SEAT** under REMOVAL & INSTALLATION.
15. Operate seat and verify repair. If a malfunction is still present, go to step 3 .



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**Fig. 4: Identifying Power Seat Switch Connector & Seat Control Module/Seat Relay Center Connector C1 Terminals**

Courtesy of GENERAL MOTORS CORP.

**TEST B: POWER SEAT INOPERATIVE (WITH MEMORY)**

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Attempt to operate seat adjustment through all ranges. If all adjustments operate normally, problem is intermittent. Check wiring and connectors for poor terminal contact. If all adjustments do not operate normally, go next step.
3. Install scan tool and observe status of inoperative power seat switch. If switch is ACTIVE, go to step 6 . If switch is not ACTIVE, go to next step.
4. Disconnect power seat switch connector. Connect fused jumper wire between switch low reference voltage circuit terminal (Gray/Black wire) to harness connector at inoperative switch signal circuit terminal. If scan tool indicates switch status is ACTIVE, go to step 8 . If scan tool does not indicate switch status is ACTIVE, go to next step.
5. Repair adjuster switch low reference voltage circuit (Gray/Black wire) and appropriate switch signal circuit for an open circuit or high resistance. See **WIRING DIAGRAMS** . After repair, go to step 11 . If circuits are okay, go to step 10 .
6. Disconnect inoperative seat motor connector. If a test light comes on when switch is adjusted, go to step 9 . If test light does not come on, go to next step.
7. Repair appropriate seat adjuster motor circuits for an open circuit or short to ground. See **WIRING DIAGRAMS** . Repair as necessary, then go to step 11 . If circuits are okay, go to step 10 .
8. Replace power seat switch. See **POWER SEAT SWITCH** under REMOVAL & INSTALLATION. After repair, go to step 11 .
9. Replace appropriate seat adjuster motor. See **SEAT ADJUSTER MOTORS** under REMOVAL & INSTALLATION. After repair, go to step 11 .
10. Replace seat control module. See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION. After repair, go to step 11 .
11. Operate seat and verify repair. If a malfunction is still present, go to step 3 .

**TEST C: MEMORY SEAT SWITCH INDICATOR MALFUNCTION**

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Verify fault is present. If fault is not present, problem is intermittent. Check wiring and connectors for poor terminal contact. If fault is still present, go to next step.

3. If malfunctioning indicator is always on, go to next step. If indicator is not always on, go to step 5 .
4. Check appropriate memory select indicator control circuit for a short circuit to ground. See **WIRING DIAGRAMS** . Repair wiring as necessary, then go to step 11 . If wiring is okay, go to step 9 .
5. Disconnect left door switch connector. Connect test light between battery voltage and appropriate memory select indicator control circuit terminal in door switch harness connector. See **WIRING DIAGRAMS** . Install scan tool. Display Driver Door Module (DDM) special functions mirror test. Command appropriate memory indicator on. If test light comes on, go to step 7 . If test light does not come on, go to next step.
6. Check appropriate memory select indicator control circuit for an open circuit or high resistance. See **WIRING DIAGRAMS** . Repair wiring as necessary, then go to step 11 . If wiring is okay, go to step 9 .
7. Repair poor connection at left door switch, then go to step 11 . If connection is okay, go to step 8 .
8. Replace left door switch. See REMOVAL & INSTALLATION in POWER WINDOWS - CORVETTE article. After repair, go to step 11 .
9. Repair poor connection at DDM, then go to step 11 . If connection is okay, go to next step.
10. Replace DDM. See REMOVAL & INSTALLATION in POWER WINDOWS - CORVETTE article. After repair, go to next step.
11. Operate seat and verify repair. If a malfunction is still present, go to step 3 .

**TEST D: MEMORY SEAT FEATURE INOPERATIVE**

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. If memory seat recall functions operate correctly, problem is intermittent. Check wiring and connectors for poor terminal contact. If functions do not operate correctly, go to next step.
3. Install scan tool and display Driver Door Module (DDM) data list. Press appropriate memory select switch. If scan tool indicates switch status is active, go to step 6 . If scan tool does not indicate switch status is active, go to next step.
4. Disconnect left door switch. Connect fused jumper wire between appropriate memory select switch signal circuit terminal and ground circuit terminal (Black wire) in door switch harness connector. If scan tool indicates switch status is ACTIVE, go to step 8 . If scan tool does not indicate switch status is ACTIVE, go to next step.
5. Check appropriate memory select switch signal circuit for an open circuit or high resistance.

- See **WIRING DIAGRAMS** . Repair as necessary, then go to step 14 . If circuit is okay, go to step 10 .
6. Check position sensor/seat motor 5-volt reference circuit (Purple wire) for open circuit or high resistance. Repair as necessary, then go to step 14 . If circuit is okay, go to next step.
  7. Check position sensor/seat motor low reference voltage circuit (Black wire) for an open circuit or high resistance. Repair as necessary, then go to step 14 . If circuit is okay, go to step 12 .
  8. Repair poor connection at left door switch, then go to step 14 . If connection is okay, go to next step.
  9. Replace left door switch. See **REMOVAL & INSTALLATION** in **POWER WINDOWS - CORVETTE** article. After repair, go to step 14 .
  10. Repair poor connection at DDM, then go to step 14 . If circuit is okay, go to next step.
  11. Replace DDM. See **REMOVAL & INSTALLATION** in **POWER WINDOWS - CORVETTE** article. After repair, go to step 14 .
  12. Repair poor connection at seat control module, then go to step 14 . If connection is okay, go to next step.
  13. Replace seat control module, then go to next step. See **SEAT CONTROL MODULE** under **REMOVAL & INSTALLATION**.
  14. Operate seat and verify repair. If a malfunction is still present, go to step 3 .

**TEST E: LUMBAR SUPPORT INOPERATIVE**

1. If power seats diagnostic system check has been performed, go to next step. If power seats diagnostic system check has not been performed, go to **POWER SEATS DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**.
2. Operate lumbar support. If lumbar support operates correctly, problem is intermittent. Check wiring and connector for poor terminal contact. If lumbar support does not operate correctly, go to next step.
3. If all driver and passenger lumbar features are inoperative, go to next step. If all features are not inoperative, go to step 6 .
4. Check voltage supply circuits between power seat switch and lumbar pump for open circuit or high resistance, or short circuit to ground. See **WIRING DIAGRAMS** . Repair wiring as necessary, then go to step 11 . If wiring is okay, go to next step.
5. Repair lumbar pump ground circuit (Black wire) for an open circuit or high resistance, then go to step 11 . If wiring is okay, go to next step.
6. Disconnect power seat switch. Connect fused jumper wire between battery voltage and inoperative lumbar relay control circuit. See **WIRING DIAGRAMS** . If lumbar operates,

go to step 8 . If lumbar does not operate, go to next step.

7. Repair inoperative lumbar relay control circuit (Orange wire) for an open circuit or high resistance. See **WIRING DIAGRAMS** . After repair, go to step 11 . If wiring is okay, go to step 9 .
8. Replace power seat switch, then go to step 11 . See **POWER SEAT SWITCH** under **REMOVAL & INSTALLATION**.
9. Repair air lines and bladders for leaks or restrictions, then go to step 11 . If air lines and bladders are okay, go to next step.
10. Replace lumbar pump, then go to next step. See **SEAT CONTROL MODULE** under **REMOVAL & INSTALLATION**.
11. Operate seat and verify repair. If a malfunction is still present, go to step 3 .

## REMOVAL & INSTALLATION

**CAUTION:** When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See **COMPUTER RELEARN PROCEDURES** article in **GENERAL INFORMATION** before disconnecting battery.

### LUMBAR BLADDER

**NOTE:** Lumbar pump and seat control module are connected together by a common wiring harness and hose assembly.

#### Removal

1. Remove front seat. See **POWER SEAT** . Remove seat cushion cover. See **SEAT CUSHION COVER** . Remove seatback insert pillow. See **SEATBACK COVER** .
2. Peel foam pad from side bolsters to expose lumbar system. Remove lumbar system from seat. Remove lumbar pump/seat control module "J" strips from seat support wires. Reposition lumbar pump/seat control module on seat frame. It is not necessary to remove lumbar pump/seat control module from seat.
3. Mark hoses for upper/lower lumbar and bolster control. Cut all 3 lumbar air hoses approximately 3" (76.2 mm) from lumbar pump/seat control module. Remove tie straps attaching hoses to seat frame. Remove lumbar bladder assembly.

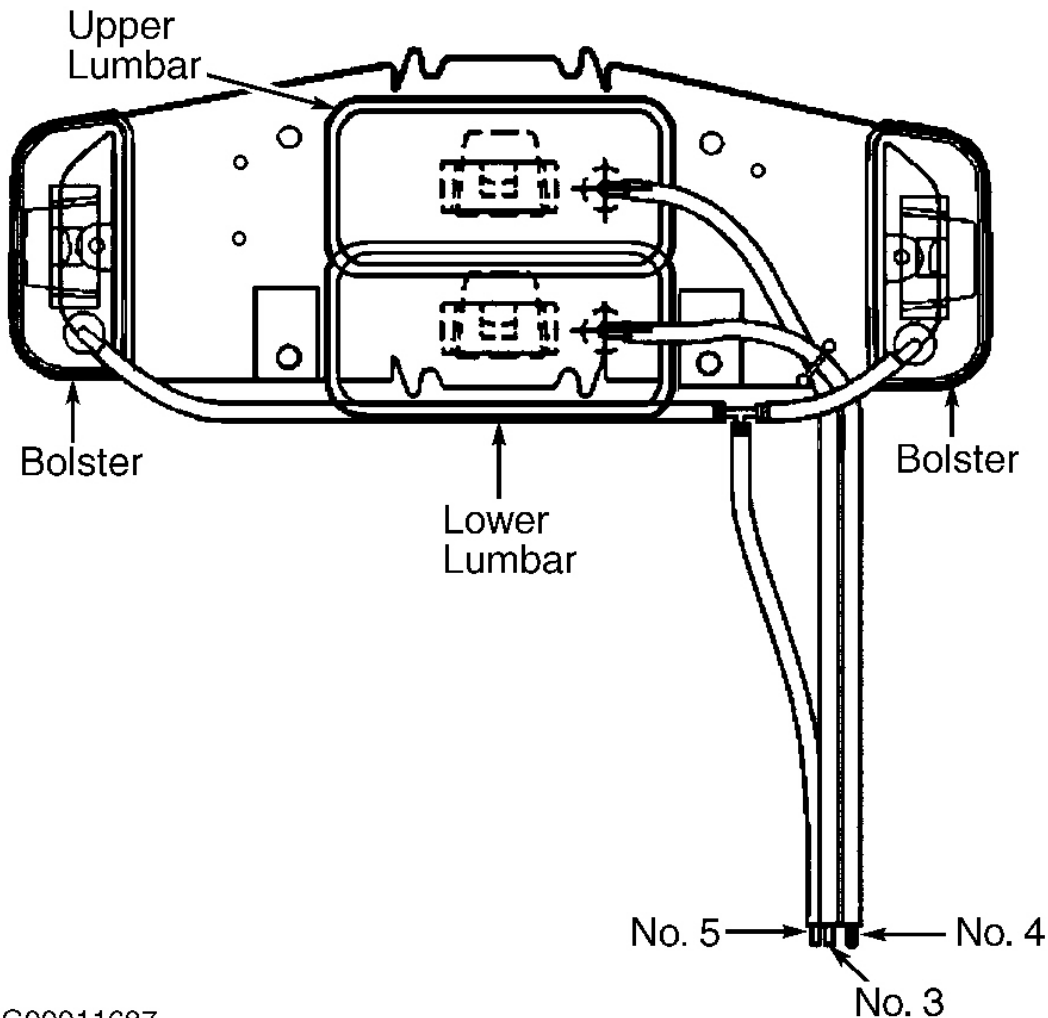
#### Installation



## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

1. Position lumbar bladder assembly into seat back. Insert tabs into seatback. Route hoses through pivot area of seat and tie strap to seat frame under seat back adjuster.
2. To connect hoses, use Loctite 406, or equivalent, glue the lumbar pump/seat control module hoses to the fittings on the bladder hoses. Upper lumbar control hose from lumbar pump/seat control module will connect to new lumbar bladder hose labeled No. 3. Lower lumbar control hose from lumbar pump/seat control module will connect to new lumbar bladder hose labeled No. 4. Bolster lumbar control hose from lumbar pump/seat control module will connect to new lumbar bladder hose labeled No. 5. See **Fig. 5** .
3. If hoses from lumbar pump/seat control module cannot be identified, reconnect seat switch and install seat, as is, into vehicle. Operate lumbar switch to identify controlled function of each hose. To complete installation, reverse removal procedure.



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**Fig. 5: Identifying Lumbar Bladder Assembly**  
 Courtesy of GENERAL MOTORS CORP.

#### SEAT CONTROL MODULE

**NOTE:** Lumbar pump and seat control module are connected together by a common wiring harness and hose assembly. After seat control module replacement, reprogram steering column soft stops. See **PROGRAMMING** in **STEERING COLUMN SWITCHES - CORVETTE** article.

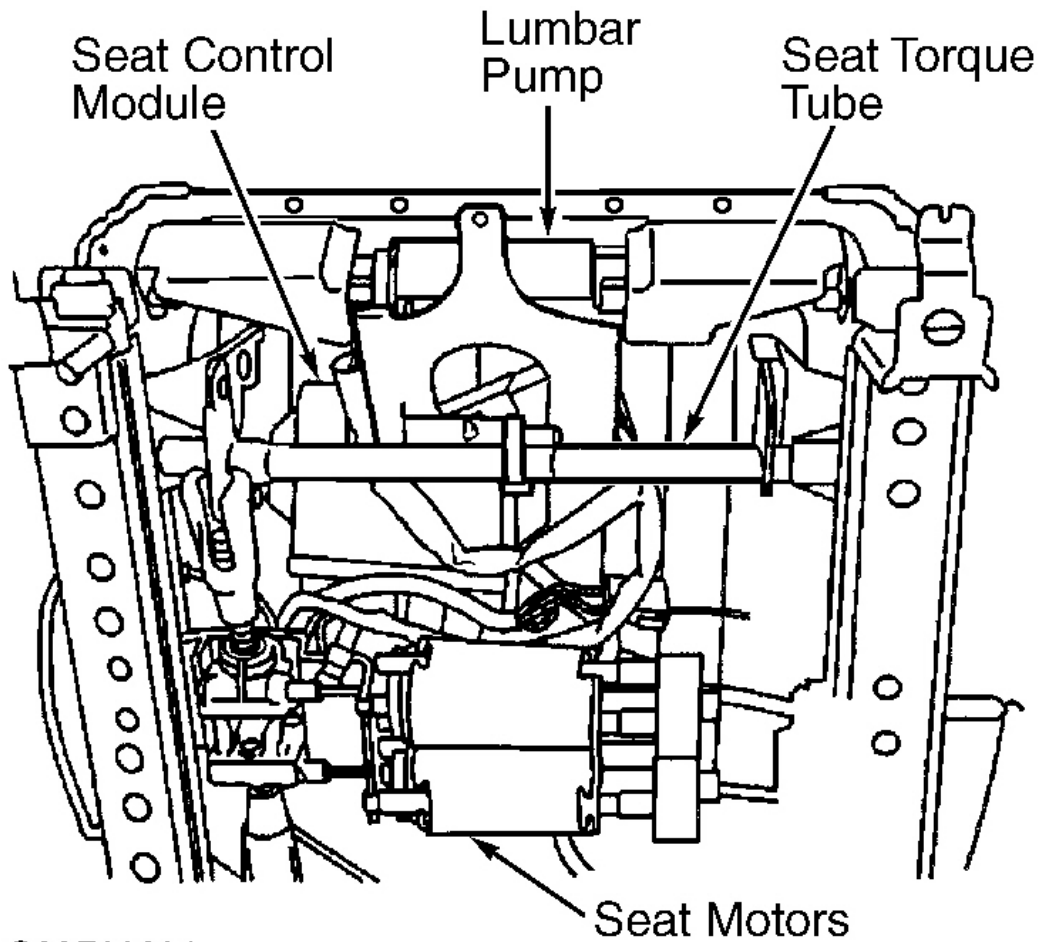
## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

1. Remove front seat. See **POWER SEAT** . Remove seat cushion cover. See **SEAT CUSHION COVER** . Remove tie straps attaching pump to seat torque tube. See **Fig. 6** . Remove seat control module by unhooking "J" clips from seat cushion springs. Disconnect harness connectors. Cut control module-to-air bladder hoses approximately 3" (76.2 mm) from control module. Remove lumbar pump/seat control module. See **Fig. 7** .
2. To identify hoses for lumbar bladders, see **Fig. 5** . Use Loctite 406 or equivalent to attach lumbar hoses to new seat control module.

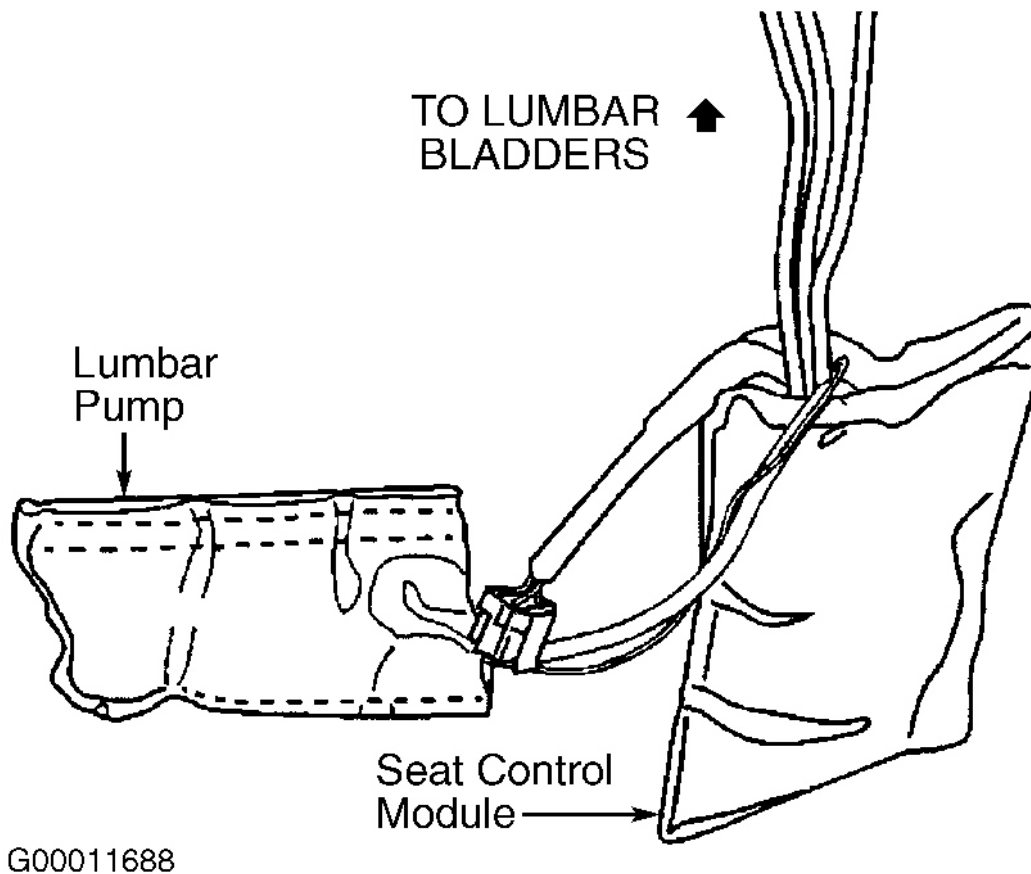
**CAUTION: Use care not to use excessive air pressure to inflate air bladders or damage to bladders and/or seat may occur.**

3. Use a very small amount of air from air hose and blow into air bladder lines to locate upper lumbar bladder. Connect upper lumbar bladder to hose on new module labeled No. 3.
4. Use a very small amount of air from air hose and blow into air bladder lines to locate lower lumbar bladder. Connect lower lumbar bladder to hose on new module labeled No. 4.
5. Use a very small amount of air from air hose and blow into air bladder lines to locate side bolster bladders. Connect side bolster bladder to hose on new module labeled No. 5.
6. To complete installation, reverse removal procedure.



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**Fig. 6: Locating Lumbar Pump/Seat Control Module (Installed)**  
Courtesy of GENERAL MOTORS CORP.



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**Fig. 7: Identifying Lumbar Pump/Seat Control Module (Removed)**  
 Courtesy of GENERAL MOTORS CORP.

## POWER SEAT

### Removal & Installation

1. On coupes, remove roof lift off panel. On convertibles, lower top. On all models, tilt steering wheel full up. Move seat to full rear position. Remove push pins, covers and nuts from front of adjuster legs attaching adjuster to floor. See **Fig. 8** . Move seat to full forward position.
2. Gain access to rear adjuster nuts. If rear adjuster nuts attaching adjuster to floor are not accessible due to inoperative power seat motor, go to next step. If rear adjuster nuts attaching adjuster to floor are not accessible due to inoperative power seat switch, go to step 4 . If rear adjuster nuts are accessible, remove nuts securing rear adjuster legs. Lift front of

## 2001 Chevrolet Corvette

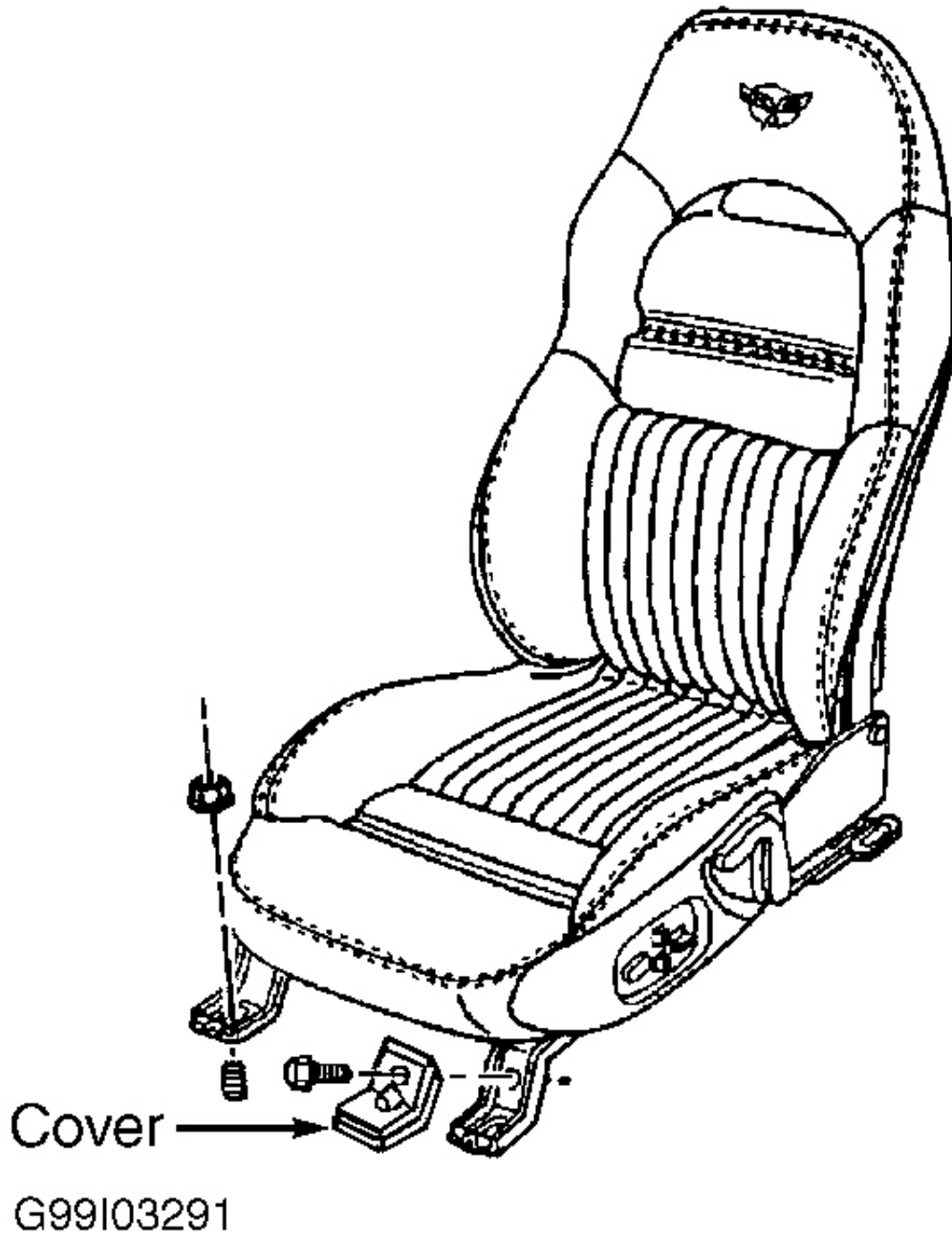
### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

seat and/or adjuster. Disconnect harness connector. Remove seat from vehicle. DO NOT lift seat using lumbar pump.

3. Raise front of seat to gain access to forward motor bracket. Remove rivet retaining lumbar pump (if equipped). Cut tie strap attaching adjuster motor to torque tube, bend bracket ends inward and slide bracket off adjuster motors. Disconnect forward motor cables. Insert one end of cable into low-speed drill, and other end into adjuster. Using drill, move adjuster forward (alternating sides) until rear adjuster nuts are exposed. Remove rear adjuster nuts. Lift front of seat and/or adjuster. Disconnect harness connector. Remove seat from vehicle. DO NOT lift seat using lumbar pump.
4. Remove power seat switch. See **POWER SEAT SWITCH** . Cut tie string under bottom front center of seat cushion. Lift seat cover and foam, and remove 4 seat cushion-to-frame attaching bolts. Disconnect lumbar pump hose connectors (if equipped). Remove seat control module. Disconnect seat belt harness rosebud clip (driver's seat). Remove seat from vehicle. To install, reverse removal procedure. Tighten adjuster nuts to 37 ft. lbs. (50 N.m).

2001 Chevrolet Corvette

2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette



**Fig. 8: Removing Power Seat Front Covers & Nuts**  
Courtesy of GENERAL MOTORS CORP.

## POWER SEAT ADJUSTER

### Removal & Installation

1. Remove front seat. See **POWER SEAT** . Remove seat cushion cover. See **SEAT CUSHION COVER** . Remove seat cushion foam. Remove lumbar pump/seat control module from seat frame and reposition on seat frame (if equipped).
2. Remove seat belt harness from seat frame (driver's seat). Remove seat control module (if equipped). See **SEAT CONTROL MODULE** under REMOVAL & INSTALLATION. Remove buckle side of seat belt. Remove bolts (design No. 1) or nuts (design No. 2) mounting seat to adjuster. Remove power seat adjuster.
3. Transfer parts over to new adjuster as necessary. To install, reverse removal procedure. Tighten seat frame to adjuster mounting bolts/nuts to 18 ft. lbs. (24 N.m). Tighten seat belt buckle side mounting nut to 37 ft. lbs. (50 N.m).

## POWER SEAT SWITCH

### Removal & Installation

Remove recliner handle. See **SEATBACK RECLINER HANDLE** . Remove screws attaching seat side trim panel. Rock panel side to side working the barrel post clip out of seat frame. Reposition seat side trim panel. Disconnect harness connector. Remove power seat switch. To install, reverse removal procedure. If necessary, remove front seat to install front trim panel screw. See **POWER SEAT** .

## SEAT ADJUSTER MOTORS

### Removal

1. Remove front seat. See **POWER SEAT** . Remove lumbar pump (if equipped). See **SEAT CONTROL MODULE** . Slide front motor bracket to one side, and disconnect drive cable from adjuster. Slide bracket from adjuster motor. Slide bracket in opposite direction. Disconnect drive cable and remove bracket from that adjuster motor.
2. Position bracket outward. Disconnect harness connectors. Remove front adjuster motor. Mark location and position of rear adjuster motors for installation reference. Remove rear motors with wiring harness.

### Installation

1. Position adjuster motor and wiring harness to seat frame. Reconnect drive cables to 2 rear motors and adjuster. Install rear motor mounting screws. Install front motor to bracket. Reconnect harness connectors.



## 2001 Chevrolet Corvette

### 2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

2. Position bracket onto one adjuster motor. Insert drive cable into motor, and then into transmission (turn cable as necessary to allow cable to slide into transmission).
3. Repeat previous step to install other adjuster motor. Bend bracket ends outward enough to prevent bracket from sliding off transmissions. To complete installation, reverse removal procedure.

#### SEATBACK COVER

##### Removal & Installation (Base Seat)

Remove front seat. See **POWER SEAT** . Move seat to full forward position. Tilt seat back forward. Unzip seat back cover. Unhook seat back cover lower "J" strips by sliding cover sideways. Carefully slide and pull cover material out from under seat back release lever bezel. Carefully remove cover by unhooking hook and loop fasteners from foam pad. Remove the upper fasteners attaching foam pad (if removing the pad). Remove the foam pad (if necessary). To install, reverse removal procedure.

##### Removal & Installation (Sport Seat)

**NOTE:** There are 2 sizes of fir tree fasteners used. If head of fastener is 0.75" (19 mm) it is possible to remove the trim by slightly raising fir tree fasteners and then sliding seat back cover tab over head of fastener. If head of fir tree fastener is 1" (25 mm) it is necessary to remove fastener.

1. Remove front seat. See **POWER SEAT** . Unzip zipper at top of insert pillow. Tilt seat back forward. Undo "J" strip at bottom of insert pillow. Move insert pillow upward to expose 2 upper fir tree fasteners that attach insert pillow to seat frame. Check size of fir tree fastener heads. Raise or remove upper fir tree (push-in) fasteners and detach seat back cover and insert pillow from seat frame. Remove insert pillow.
2. Unzip seat back cover upper zipper. Carefully slide and pull cover material out from under seat back release lever bezel. Pull seat back cover from bolsters. Remove fir tree fasteners from foam pad upper retaining straps (if replacing seat back pad). Remove foam pad (if replacing pad). To install, reverse removal procedure. Ensure fir tree fasteners are pushed in tight.

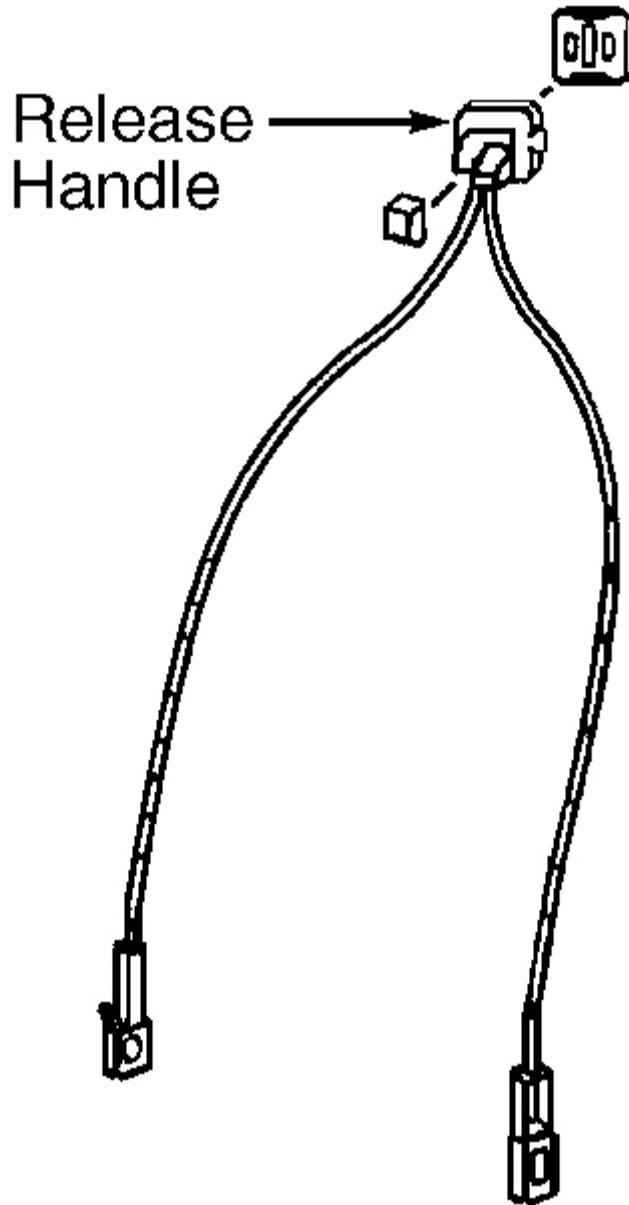
#### SEATBACK RELEASE MECHANISM

##### Removal & Installation

1. Remove front seat. See **POWER SEAT** . Remove seatback cover. See **SEATBACK**

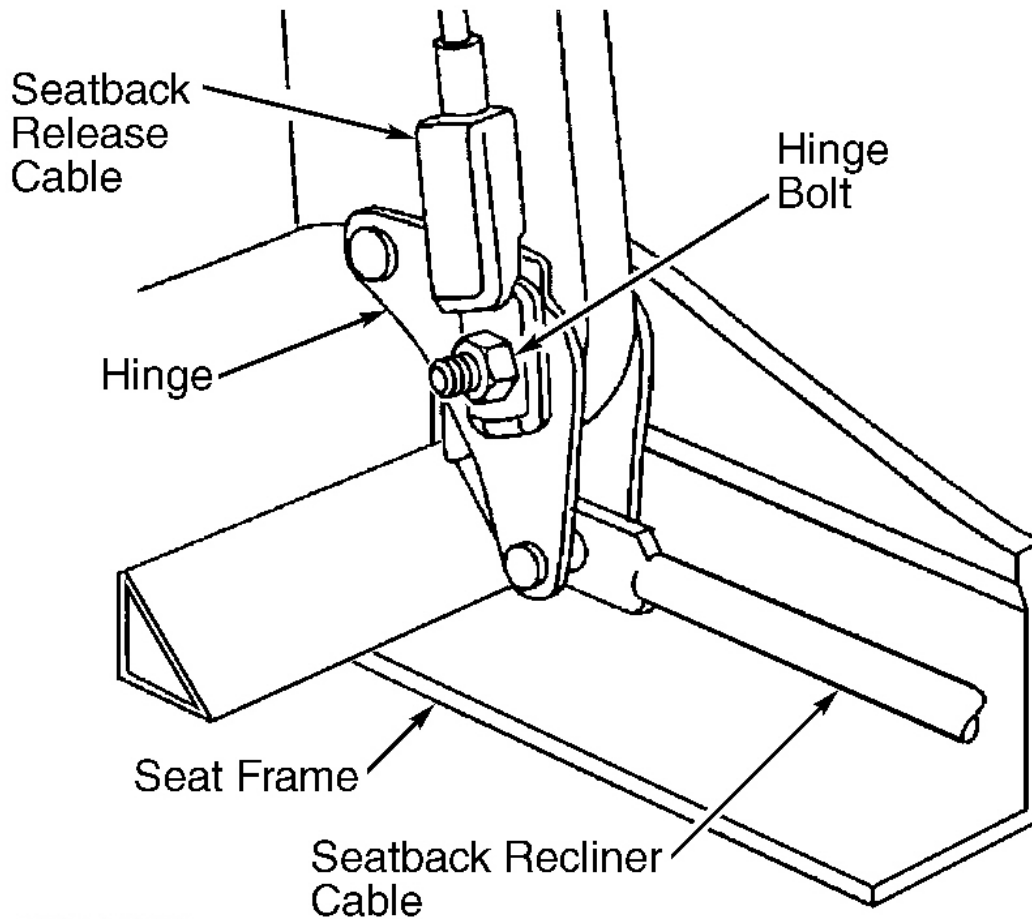
**COVER** .

2. Remove bezel from release lever by spreading bezel lock tabs. Remove seatback cover from release mechanism. See **Fig. 9** .
3. Press down on seat cushion to expose lower release cable mechanism hinge bolts. See **Fig. 10** . Remove hinge bolts and release cables from hinges. Remove release cable mechanism by pushing release tabs on release lever from upper seatback and remove from seatback frame. To install, reverse removal procedure.



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**Fig. 9: Removing Seatback Release Mechanism**  
Courtesy of GENERAL MOTORS CORP.



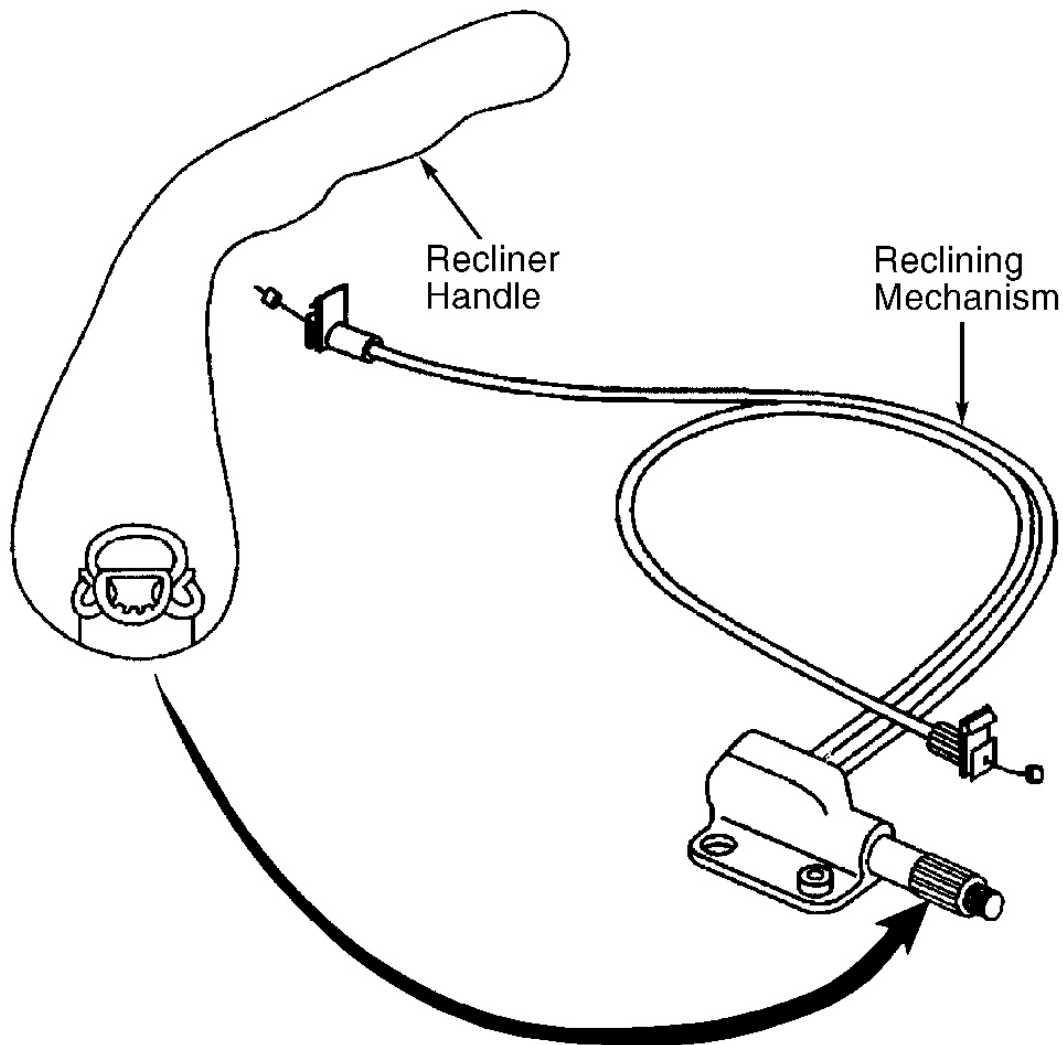
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**Fig. 10: Locating Seatback Release & Recliner Release Lever Cables**  
Courtesy of GENERAL MOTORS CORP.

### SEATBACK RECLINER HANDLE

#### Removal & Installation

Push seat cushion in to expose handle to shaft retaining clip. Insert blunt-ended tool between cushion and recliner handle. Push recliner handle retaining spring clip down, and pull handle from shaft. See **Fig. 11** . To install, position handle retaining spring clip into lock position and snap handle onto reclining mechanism shaft.



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**Fig. 11: Identifying Recliner Mechanism Components**

**Courtesy of GENERAL MOTORS CORP.**

**SEATBACK RECLINER ACTUATOR**

**NOTE:** This is a manual recliner mechanism. Do not lubricate seatback recliner mechanism.

**Removal**

Remove power seat adjuster. See **POWER SEAT ADJUSTER** . Remove nuts and release

cables from hinge bolts. See **Fig. 10** . Remove hinge bolts. Lay seatback down. Remove front actuator "E" clip and pin. Disconnect recliner cable from actuator. Remove "E" clip from rear pin. Raise seatback, and remove rear pin. Remove seatback recliner actuator. See **Fig. 11** .

**Installation**

Position hinge on actuator with arrow on hinge pointed forward. Install rear pin and "E" clip. Connect recliner cable with tab up. To complete installation, reverse removal procedure.

**SEAT CUSHION COVER****Removal**

1. Remove front seat. See **POWER SEAT** . Remove seatback recliner handle. See **SEATBACK RECLINER HANDLE** . Remove power seat switch. See **POWER SEAT SWITCH** .
2. Remove hog rings from rear flap. Unfasten draw string, and remove hog rings attaching rear corners of seat cushion cover. Remove seat cushion cover.

**Installation**

1. Ensure recliner mechanism cable retention clips are securely snapped into actuators. If draw string was not cut in removal of seat cushion cover go to next step. If draw string was cut to assist in removing a non movable seat, go to step 3 .
2. With seat cushion cover properly positioned over foam and seat frame, tighten draw string at rear of seat and tie securely. Install hog rings attaching rear side corners of seat cushion cover. Install hog rings attaching rear center flap. To complete installation, reverse removal procedure.
3. Remove hog rings attaching seat cushion cover rear flap. Untie draw string. Make a very small 2 in (100 mm) cut on each side of cushion cover just in front of where draw string receded when it was cut. Pull draw string out enough to securely tie ends together. With seat cushion cover properly positioned over foam and seat frame, tighten draw string at rear of seat and tie securely. Install hog rings attaching rear side corners of seat cushion cover. Wrap front seat material around draw string and hog ring material to string. Ensure no sharp points of hog rings are pointed down. Install hog rings attaching rear center flap. To complete installation, reverse removal procedure.

**WIRING DIAGRAMS**

**2001 Chevrolet Corvette**

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**2001 Chevrolet Corvette**

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**Fig. 12: Power Lumbar Seats System Wiring Diagram (Corvette)**



**2001 Chevrolet Corvette**

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**2001 Chevrolet Corvette**

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**Fig. 13: Power Seats System Wiring Diagram (Corvette)**

**2001 Chevrolet Corvette**

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**2001 Chevrolet Corvette**

2001 ACCESSORIES & EQUIPMENT Power Seats - Corvette

**Fig. 14: Power Memory Seats & Mirror System Wiring Diagram (Corvette)**