

2004-05 RESTRAINTS**Kia Sedona - Air Bag Restraint Systems****DESCRIPTION & OPERATION**

WARNING: Accidental air bag deployment is possible. Personal injury may result. Read and follow all **WARNINGS** and **AIR BAG SAFETY PRECAUTIONS** before working on air bag system or related components.

Supplemental Restraint System (SRS), also known as air bag system, is designed to provide increased accident protection for driver and front seat passenger by deploying air bag modules and seat belt pretensioners during a frontal collision. The air bag system is designed to be used in conjunction with 3-point seat belts.

The air bag system includes the following components: Supplemental Restraint System Control Module (SRSCM), driver-side and passenger-side air bag modules, clockspring (spiral cable), driver and passenger front seat belt pretensioners, Passenger Presence Detection (PPD) sensor, AIR BAG warning light and associated wiring harnesses. See **COMPONENT LOCATIONS**.

COMPONENT LOCATIONS**COMPONENT LOCATIONS**

Component	Location
AIR BAG warning light	Instrument Panel Cluster (IPC)
Clockspring	In steering column
Driver-side air bag module	On steering wheel
Passenger Presence Detection (PPD) sensor	Under passenger's front seat cushion
Passenger-side air bag module	Passenger-side instrument panel
Seat belt pretensioners	Driver-side & passenger-side lower B-pillars
Supplemental Restraint System Control Module (SRSCM)	Under front of center console

SYSTEM OPERATION CHECK

Turn ignition on. AIR BAG warning light should flash 6 times and then turn off. If AIR BAG warning light stays illuminated, a failure has occurred in air bag system. See **RETRIEVING & ERASING DIAGNOSTIC TROUBLE CODES** under DIAGNOSTICS.

AIR BAG SAFETY PRECAUTIONS

Observe these precautions when servicing the air bag system:

- Disable air bag system before servicing any air bag system or steering column component. See **DISABLING & ACTIVATING AIR BAG SYSTEM**.
- When trouble shooting air bag system, always check Diagnostic Trouble Codes (DTCs) before disconnecting battery.
- After turning ignition switch off and disconnecting negative battery cable, wait at least 30 seconds before working on air bag system. Air bag system is equipped with a back-up power source that may allow air bag modules or seat belt pretensioners to deploy up to 30 seconds after negative battery cable is disconnected.
- When welding on vehicle, disconnect negative battery cable and all air bag module and seat belt pretensioner connectors before beginning work.
- During servicing of air bag system, store air bag modules where ambient temperature is less than 200°F (93°

C) and humidity and electrical noise are low.

- When placing a live air bag module on a bench or other surface, ensure trim cover is facing up, away from work surface. This will reduce motion of module if it is accidentally deployed.
- When carrying air bag module, point cover away from body to lessen chance of injury during accidental deployment.
- Because of critical system operating requirements, DO NOT attempt to service any SRS component. Corrections are made by replacement with new parts only. Never use parts from another vehicle.
- If any SRS component has been dropped or there are cracks, dents or other defects visible, replace with new part.
- DO NOT attempt to measure resistance across air bag module or seat belt pretensioner squib connector. Accidental component deployment is possible, which could cause personal injury.
- After deployment, air bag surface may contain deposits of sodium hydroxide from gas generant combustion which can irritate skin. Always wear safety glasses, rubber gloves and long-sleeved shirt during clean-up. Wash hands using mild soap and water.
- After work on air bag system is completed, ensure system is functioning properly. See **SYSTEM OPERATION CHECK** .

DISABLING & ACTIVATING AIR BAG SYSTEM

WARNING: Accidental air bag deployment is possible. Personal injury may result. After disabling air bag system, wait at least 30 seconds before servicing air bag system.

To disable air bag system, turn ignition switch to OFF position. Disconnect negative battery cable. Wait 30 seconds before servicing air bag system. To activate air bag system, ensure ignition switch is in OFF position. Reconnect negative battery cable. Perform **SYSTEM OPERATION CHECK** .

DISPOSAL PROCEDURES

DEPLOYED AIR BAG OR SEAT BELT PRETENSIONER

Wear gloves and safety glasses when handling deployed air bag modules or seat belt pretensioners. Seal component in a plastic bag and dispose of it as you would any other part.

UNDEPLOYED AIR BAG OR SEAT BELT PRETENSIONER

Disposing of an undeployed air bag module or seat belt pretensioner may violate federal, state and/or local laws. Undeployed components contain substances which can cause illness or injury if handled improperly. When scrapping a vehicle, air bags and seat belt pretensioners must be deployed. If components cannot be deployed using the following procedures, contact vehicle manufacturer for further instructions.

OFF-VEHICLE DEPLOYMENT

WARNING: Components are very hot after deployment. Personal injury may result. Wait at least 20 minutes before handling a deployed component.

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove vehicle battery. Remove appropriate component from vehicle. See **REMOVAL & INSTALLATION** . Connect Air Bag Deployment Tool (K95U-6000-BDY) to component connector. Place component inside a stack of 6-8 tires at least 20 feet (6 m) from any obstacle.
2. Position deployment tool and battery at least 20 feet (6 m) from tire stack. Connect Red deployment tool lead to positive battery terminal and Black deployment tool lead to negative battery terminal. Verify that

deployment tool Green POWER indicator is illuminated. Depress and hold READY button. Verify that deployment tool Yellow DEPLOY indicator is illuminated.

3. Depress and hold DEPLOY button. If component deploys, go to next step. If component does not deploy, verify that Red DEPLOY indicator is illuminated. Release both buttons. Verify that both READY and DEPLOY indicators are not illuminated. Disconnect deployment tool power leads. Wait at least 30 minutes before approaching component. Contact manufacturer for additional instructions.
4. After deployment, component will be extremely hot. Allow component to cool for 20 minutes before handling. Wear safety glasses and rubber gloves when handling component. Place component in a strong plastic bag, seal tightly and dispose of in same manner as any other scrap part.

ON-VEHICLE DEPLOYMENT

WARNING: After deployment, components are very hot. Personal injury may result. Wait at least 20 minutes before handling a deployed component.

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Open all doors and windows on vehicle. Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove vehicle battery.
2. Remove center console side cover. Disconnect Supplemental Restraint System Control Module (SRSCM) connector. Disconnect all air bag system component electrical connectors. Selecting one component at a time, connect Air Bag Deployment Tool (0957A-34100-A) using appropriate adapter to selected component connector.
3. Position deployment tool and battery as far from vehicle as possible. Connect Red deployment tool lead to positive battery terminal and Black deployment tool lead to negative battery terminal. Verify that deployment tool Green POWER indicator is illuminated. Depress and hold READY button. Verify that deployment tool Yellow DEPLOY indicator is illuminated.
4. Depress and hold DEPLOY button. If selected component does deploy, go to next step. If component does not deploy, verify that Red DEPLOY indicator is illuminated. Release both buttons. Verify that both READY and DEPLOY indicators are not illuminated. Disconnect deployment tool power leads. Wait at least 30 minutes before approaching component. Contact manufacturer for additional instructions.
5. After deployment, deployed component will be extremely hot. Allow 20 minutes for each component to cool for before handling. Wear safety glasses and rubber gloves when handling components.

POST-COLLISION INSPECTION

When a vehicle has been involved in a collision, certain components of the passive restraint system must be inspected or replaced. See **AIR BAG/SRS COMPONENT INSPECTION & REPLACEMENT TABLES** article in the GENERAL INFORMATION section.

REMOVAL & INSTALLATION

WARNING: Accidental air bag deployment is possible. Personal injury may result. Read and follow all service precautions. See **AIR BAG SAFETY PRECAUTIONS .**

CLOCKSPRING

Removal & Installation

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** . Remove steering wheel nut. Remove steering wheel. See **Fig. 1** . Remove upper and lower steering column covers. See **Fig. 2** . Disconnect clockspring connectors. Remove clockspring from steering

column.

2. To install, reverse removal procedure. Tighten steering wheel nut to specification. See **TORQUE SPECIFICATIONS** . Activate air bag system.

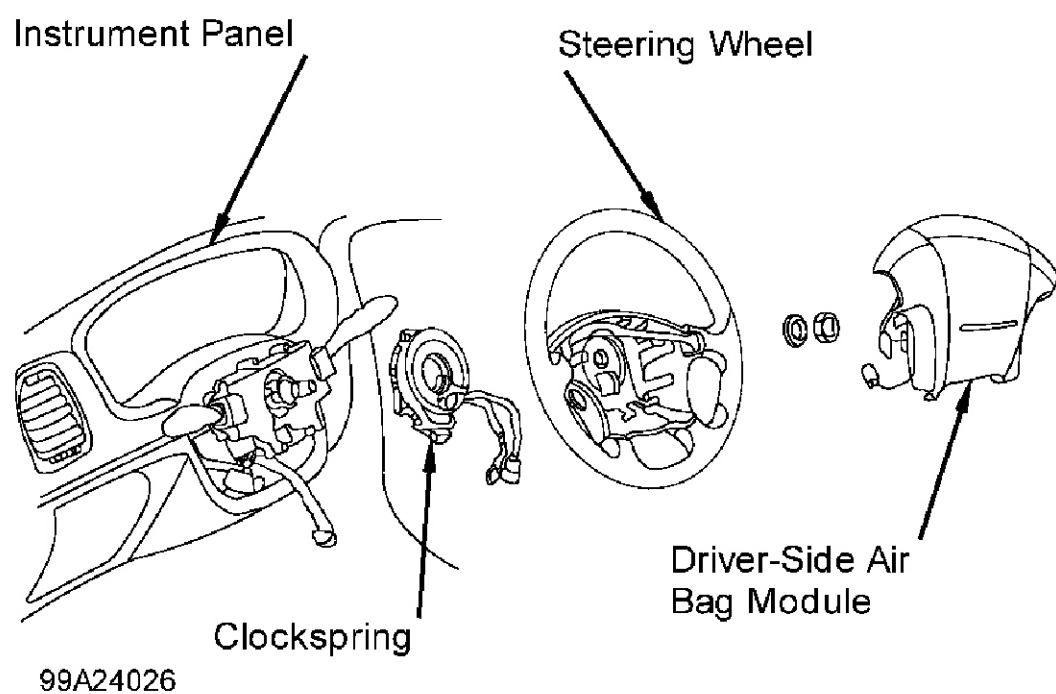
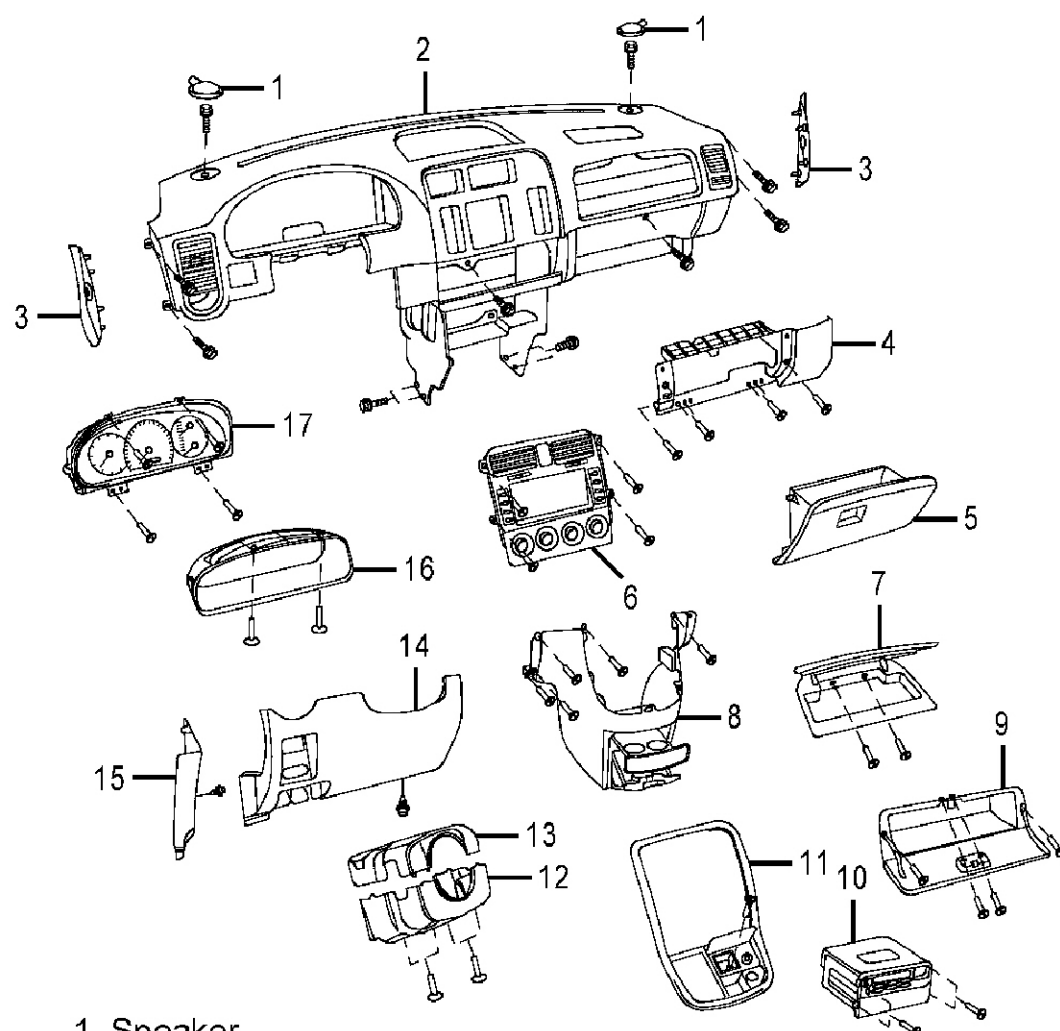


Fig. 1: Identifying Clockspring & Driver-side Air Bag Module
Courtesy of KIA MOTORS AMERICA, INC.



- | | |
|------------------------------|---------------------------------|
| 1. Speaker | 10. Radio Assembly |
| 2. Instrument Panel | 11. Audio Trim Panel |
| 3. Instrument Trim | 12. Lower Steering Column Cover |
| 4. Right Lower Panel | 13. Upper Steering Column Cover |
| 5. Glove Box | 14. Left Lower Panel |
| 6. Ventilation Control Panel | 15. Lower A-Pillar Trim |
| 7. Center Upper Tray | 16. Instrument Cluster Trim |
| 8. Center Console | 17. Instrument Cluster |
| 9. Multi-Tray | |

99H25301

Fig. 2: Identifying Instrument Panel Components
 Courtesy of KIA MOTORS AMERICA, INC.

DRIVER-SIDE AIR BAG MODULE

Removal & Installation

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove driver-side air bag module bolts from left and right sides of steering wheel. Remove driver-side air bag module from steering wheel. See **Fig. 1** .
2. To install, reverse removal procedure. Activate air bag system.

INSTRUMENT PANEL

Removal & Installation

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove driver-side air bag module. See **DRIVER-SIDE AIR**

BAG MODULE . Remove steering wheel. Remove upper and lower steering column covers. See **Fig. 2** . Remove turn signal assembly from steering column. Remove upper A-pillar trim panels.

2. Remove Instrument Panel Cluster (IPC) trim. Remove 4 screws from IPC. Pull IPC away from instrument panel. Disconnect electrical connector from rear of IPC. Remove IPC.
3. Remove left and right lower A-pillar trim panels. Remove hood release handle from left lower trim panel. Remove left lower trim panel. Remove multi-tray. Remove audio trim panel. Remove ventilation control panel. Remove radio assembly.
4. Remove center console. Remove speaker assemblies. Remove instrument panel trim. Remove instrument panel mounting bolts. Disconnect instrument panel wiring connectors. Remove instrument panel. To install, reverse removal procedure. Tighten instrument panel bolts to specification. See **TORQUE SPECIFICATIONS** . Activate air bag system.

PASSENGER-SIDE AIR BAG MODULE

Removal & Installation

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** .
2. Remove glove box. Disconnect passenger-side air bag module connector. Remove instrument panel. See **INSTRUMENT PANEL** . Remove passenger-side air bag module from rear of instrument panel. To install, reverse removal procedure. Activate air bag system.

SEAT BELT PRETENSIONER

Removal & Installation

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove appropriate seat belt pretensioner anchor bolt from floorboard mounted end of seat belt. Allow seat belt to retract as far as possible.
2. Remove upper seat belt pretensioner anchor bolt cover. Remove upper seat belt pretensioner anchor bolt. Remove B-pillar trim. Disconnect seat belt pretensioner electrical connector. Remove sheet metal screw and anchor bolt from seat belt pretensioner. Remove seat belt pretensioner.
3. To install, reverse removal procedure. Tighten seat belt pretensioner anchor bolts to specification. See **TORQUE SPECIFICATIONS** . Activate air bag system.

SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)

Removal & Installation

Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM** . Remove center console. Disconnect SRSCM connector. Remove SRSCM fasteners. Remove SRSCM. To install, reverse removal procedure. Activate air bag system.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Seat belt pretensioner anchor bolts	21-30 (29-40)
Steering wheel nut	30-37 (40-50)
	INCH Lbs. (N.m)
Instrument panel bolts	71-106 (8-12)

DIAGNOSTICS

WARNING: Accidental air bag deployment is possible. Personal injury may result. Read and follow service precautions. See AIR BAG SAFETY PRECAUTIONS .

SRSCM DIAGNOSTIC CHECK

1. Before proceeding, see AIR BAG SAFETY PRECAUTIONS . Disconnect SRSCM connector. See SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM) under REMOVAL & INSTALLATION. Remove driver-side air bag module. Disconnect passenger-side air bag module connector and seat belt pretensioner connectors.
2. Install jumper wires on harness side of connectors for all disconnected SRS components. Connect SRSCM connector. Install scan tool to Data Link Connector (DLC), located under driver side instrument panel.
3. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear Diagnostic Trouble Codes (DTCs). Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If any DTCs are displayed, replace SRSCM. If no DTCs are displayed, SRSCM is okay.

RETRIEVING & ERASING DIAGNOSTIC TROUBLE CODES

1. Retrieving and erasing air bag Diagnostic Trouble Codes (DTCs) is performed using a serial data port located within the Data Link Connector (DLC), located under left side of instrument panel. Retrieving and erasing DTCs can only be accomplished using a scan tool equipped with proper software. Disconnecting battery will not erase DTCs.
2. To retrieve DTCs, turn ignition switch to LOCK position. Connect scan tool to DLC. Turn ignition on. Turn scan tool on. Request DTCs. Diagnose displayed DTCs. See FAULT CODES table. When diagnosis and repairs are complete, erase DTCs using scan tool.

FAULT CODES

Fault Code	Description
<u>B1111</u>	Battery voltage too high
<u>B1112</u>	Battery voltage too low
<u>B1346</u>	Driver-side air bag module resistance high
<u>B1347</u>	Driver-side air bag module resistance low
<u>B1348</u>	Driver-side air bag module short to ground
<u>B1349</u>	Driver-side air bag module short to voltage
<u>B1352</u>	Passenger-side air bag module resistance high
<u>B1353</u>	Passenger-side air bag module resistance low
<u>B1354</u>	Passenger-side air bag module short to ground
<u>B1355</u>	Passenger-side air bag module short to voltage
<u>B1361</u>	Driver seat belt pretensioner resistance high
<u>B1362</u>	Driver seat belt pretensioner resistance low
<u>B1363</u>	Driver seat belt pretensioner short to ground
<u>B1364</u>	Driver seat belt pretensioner short to voltage
<u>B1367</u>	Passenger seat belt pretensioner resistance high
<u>B1368</u>	Passenger seat belt pretensioner resistance low
<u>B1369</u>	Passenger seat belt pretensioner short to ground
<u>B1370</u>	Passenger seat belt pretensioner short to voltage
<u>B1406</u>	PPD defect
<u>B1407</u>	PPD communication error
<u>B1511</u>	Driver seat belt buckle short to voltage/open

2005 Kia Sedona EX

2004-05 RESTRAINTS Kia Sedona - Air Bag Restraint Systems

B1512	Driver seat belt buckle short to ground
B1513	Passenger seat belt buckle short to voltage
B1514	Passenger seat belt buckle short to ground
B1620	Internal fault
B1650	Crash recorded front air bag
B1657	Ignition recorded belt pretensioner
B1661	ECU mismatching
B2500	AIR BAG warning lamp failure

DIAGNOSTIC TESTS

DTC B1111: BATTERY VOLTAGE HIGH

- Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Connect negative battery cable. Turn ignition on. Measure voltage between ground and SRSCM connector terminal No. 5 (Green wire). See **Fig. 3** . If battery voltage (10.0-16.5 volts) is present, go to step 3 . If battery voltage is not present, go to next step.
- Check wire harness between SRSCM terminal No. 5 and AIR BAG fuse for an open, short to ground or loose connection. Repair as necessary.
- Turn ignition switch to LOCK position. Connect seat belt pretensioner and passenger-side air bag module connectors. Install driver-side air bag module. Connect SRSCM connector. Turn ignition on. If AIR BAG warning light goes off after flashing 6 times, system is okay. If AIR BAG warning light does not go off after flashing 6 times, retrieve DTCs using scan tool and diagnose displayed DTCs. See **FAULT CODES** table. If DTC B1111 or B1112 is displayed, replace SRSCM.

25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26

○ : SHORTING BAR

99G25300

Fig. 3: Identifying Supplemental Restraint System Control Module (SRSCM) Connector Terminals
Courtesy of KIA

DTC B1112: BATTERY VOLTAGE LOW

- Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Connect negative battery cable. Turn ignition on. Measure voltage between ground and SRSCM connector terminal No. 5 (Green wire). See **Fig. 3** . If battery voltage (10.0-16.5 volts) is present, go to step 3 . If battery voltage is not present, go to next step.
- Check wire harness between SRSCM terminal No. 5 and AIR BAG fuse for an open, short to ground or loose connection. Repair as necessary.
- Turn ignition switch to LOCK position. Connect seat belt pretensioner and passenger-side air bag module

connectors. Install driver-side air bag module. Connect SRSCM connector. Turn ignition on. If AIR BAG warning light goes off after flashing 6 times, system is okay. If AIR BAG warning light does not go off after flashing 6 times, retrieve DTCs using scan tool and diagnose displayed DTCs. See **FAULT CODES** table. If DTC B1111 or B1112 is displayed, replace SRSCM.

DTC B1346: DRIVER-SIDE AIR BAG MODULE RESISTANCE HIGH

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Install Load Resistor (0957A-38200) on upper clockspring connector. Measure resistance between SRSCM connector terminals No. 10 (Brown wire) and No. 11 (Green wire). See **Fig. 3** . If resistance is 1.7-2.3 ohms, go to next step. If resistance is not 1.7-2.3 ohms, go to step 4 .
3. Ensure ignition is off. Remove load resistor from upper clockspring connector. Reconnect all SRS connectors. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1346 is retrieved, replace driver-side air bag module. If DTC B1346 is not retrieved, system is okay.
4. Disconnect lower clockspring connector. Remove load resistor from upper clockspring connector. Install load resistor on harness side of lower clockspring connector. Measure resistance between SRSCM connector terminals No. 10 and No. 11. If resistance is 1.7-2.3 ohms, replace clockspring. If resistance is not 1.7-2.3 ohms, replace wire harness between SRSCM and clockspring.

DTC B1347: DRIVER-SIDE AIR BAG MODULE RESISTANCE LOW

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Install Load Resistor (0957A-38200) on upper clockspring connector. Measure resistance between SRSCM connector terminals No. 10 (Brown wire) and No. 11 (Green wire). See **Fig. 3** . If resistance is 1.7-2.3 ohms, go to next step. If resistance is not 1.7-2.3 ohms, go to step 4 .
3. Ensure ignition is off. Remove load resistor from clockspring connector. Reconnect all SRS connectors. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1346 is retrieved, replace driver-side air bag module. If DTC B1346 is not retrieved, system is okay.
4. Disconnect lower clockspring connector. Install load resistor on harness side of lower clockspring connector. Measure resistance between SRSCM connector terminals No. 10 and No. 11. If resistance is 1.7-2.3 ohms, replace clockspring. If resistance is not 1.7-2.3 ohms, replace wire harness between SRSCM and clockspring.

DTCB1348: DRIVER-SIDE AIR BAG MODULE SHORT TO GROUND

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Measure resistance between upper clockspring connector terminals and ground. If resistance is infinite, go to next step. If resistance is not infinite, go to step 4 .

NOTE: DTCs other than DTC B1348 may be retrieved by scan tool. They are not relevant to this test.

3. Connect driver-side air bag module. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC

B1348 is retrieved, replace driver-side air bag module. If DTC B1348 is not retrieved, system is okay.

4. Disconnect lower clockspring connector. Measure resistance between lower clockspring connector terminals and ground. If resistance is not infinite at both terminals, replace clockspring. If resistance is infinite, replace wire harness between SRSCM and clockspring.

DTCB1349: DRIVER-SIDE AIR BAG MODULE SHORT TO VOLTAGE

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Connect negative battery cable. Turn ignition on. Measure voltage between upper clockspring connector terminals and ground. If voltage is not detected at either terminal, go to next step. If voltage is detected at either terminal, go to step 4 .

NOTE: DTCs other than DTC B1349 may be retrieved by scan tool. They are not relevant to this test.

3. Turn ignition off. Disconnect negative battery cable. Connect driver-side air bag module. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1349 is retrieved, replace driver-side air bag module. If DTC B1349 is not retrieved, system is okay.
4. Turn ignition off. Disconnect lower clockspring connector. Turn ignition on. Measure voltage between lower clockspring connector terminals and ground. If voltage is detected, replace clockspring. If voltage is not detected, replace wire harness between SRSCM and clockspring.

DTC B1352: PASSENGER-SIDE AIR BAG MODULE RESISTANCE HIGH

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Install Load Resistor (0957A-38200) on passenger-side air bag module harness-side connector. Measure resistance between SRSCM connector terminals No. 13 (Yellow wire) and No. 14 (Red wire). See **Fig. 3** . If resistance is 1.7-2.3 ohms, go to next step. If resistance is not 1.7-2.3 ohms, replace wire harness between SRSCM and passenger-side air bag module.

NOTE: DTCs other than DTC B1352 may be retrieved by scan tool. They are not relevant to this test.

3. Remove load resistor from harness-side connector. Connect passenger-side air bag module connector. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1352 is retrieved, replace passenger-side air bag module. If DTC B1352 is not retrieved, system is okay.

DTC B1353: PASSENGER-SIDE AIR BAG MODULE RESISTANCE LOW

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Install Load Resistor (0957A-38200) on passenger-side air bag module harness-side connector. Measure resistance between SRSCM connector terminals No. 13 (Yellow wire) and No. 14 (Red wire). See **Fig. 3** . If resistance is 1.7-2.3 ohms, go to next step. If resistance is not 1.7-2.3 ohms, replace wire harness between SRSCM and passenger-side air bag module.

NOTE: DTCs other than DTC B1353 may be retrieved by scan tool. They are not relevant to this test.

3. Remove load resistor from harness-side connector. Connect passenger-side air bag module connector. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1353 is retrieved, replace passenger-side air bag module. If DTC B1353 is not retrieved, system is okay.

DTC B1354: PASSENGER-SIDE AIR BAG MODULE SHORT TO GROUND

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS**. Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Measure resistance between ground and SRSCM connector terminals No. 13 (Yellow wire) and No. 14 (Red wire). See **Fig. 3**. If resistance is infinite, go to next step. If resistance is not infinite, replace wire harness between SRSCM and passenger-side air bag module.

NOTE: DTCs other than DTC B1354 may be retrieved by scan tool. They are not relevant to this test.

3. Connect passenger-side air bag module connector. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1354 is retrieved, replace passenger-side air bag module. If DTC B1354 is not retrieved, system is okay.

DTC B1355: PASSENGER-SIDE AIR BAG MODULE SHORT TO VOLTAGE

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS**. Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Connect negative battery cable. Turn ignition on. Measure voltage between ground and SRSCM connector terminals No. 13 (Yellow wire) and No. 14 (Red wire). See **Fig. 3**. If no voltage is detected, go to next step. If voltage is measured at either terminal, replace wire harness between SRSCM and passenger-side air bag module.

NOTE: DTCs other than DTC B1355 may be retrieved by scan tool. They are not relevant to this test.

3. Turn ignition off. Disconnect negative battery cable. Connect passenger-side air bag module connector. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1355 is retrieved, replace passenger-side air bag module. If DTC B1355 is not retrieved, system is okay.

DTC B1361: DRIVER SEAT BELT PRETENSIONER RESISTANCE HIGH/OPEN

Diagnostic procedure is not available.

DTC B1362: DRIVER SEAT BELT PRETENSIONER RESISTANCE LOW/SHORT

Diagnostic procedure is not available.

DTC B1363: DRIVER SEAT BELT PRETENSIONER SHORT TO GROUND

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Measure resistance between ground and SRSCM connector terminals No. 1 (Orange wire) and No. 2 (Light Green wire). See **Fig. 3** . If resistance is infinite at both terminals, go to next step. If resistance is not infinite at both terminals, replace wire harness between SRSCM and driver seat belt pretensioner.

NOTE: DTCs other than DTC B1363 may be retrieved by scan tool. They are not relevant to this test.

3. Connect driver seat belt pretensioner connector. Connect SRSCM connector. Connect negative battery cable. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1363 is retrieved, replace driver seat belt pretensioner. If DTC B1363 is not retrieved, system is okay.

DTC B1364: DRIVER SEAT BELT PRETENSIONER SHORT TO VOLTAGE

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Connect negative battery cable. Turn ignition on. Measure voltage between ground and SRSCM connector terminals No. 1 (Orange wire) and No. 2 (Light Green wire). See **Fig. 3** . If voltage is not measured at either terminal, go to next step. If voltage is measured at either terminal, replace wire harness between SRSCM and driver seat belt pretensioner.

NOTE: DTCs other than DTC B1364 may be retrieved by scan tool. They are not relevant to this test.

3. Turn ignition off. Disconnect negative battery cable. Wait at least 30 seconds. Connect driver seat belt pretensioner connector. Connect SRSCM connector. Connect negative battery cable. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1364 is retrieved, replace driver seat belt pretensioner. If DTC B1364 is not retrieved, system is okay.

DTC B1367: PASSENGER SEAT BELT PRETENSIONER RESISTANCE HIGH/OPEN

Diagnostic procedure is not available.

DTC B1368: PASSENGER SEAT BELT PRETENSIONER RESISTANCE LOW/SHORT

Diagnostic procedure is not available.

DTC B1369: PASSENGER SEAT BELT PRETENSIONER SHORT TO GROUND

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Measure resistance between ground and SRSCM connector terminals No. 3 (White wire) and No. 4 (Black wire). See **Fig. 3** . If resistance is infinite at both terminals, go to next step. If resistance is not infinite at both terminals, replace wire harness between SRSCM and passenger seat belt pretensioner.

NOTE: DTCs other than DTC B1369 may be retrieved by scan tool. They are not

relevant to this test.

3. Connect passenger seat belt pretensioner connector. Connect SRSCM connector. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1369 is retrieved, replace passenger seat belt pretensioner. If DTC B1369 is not retrieved, system is okay.

DTC B1370: PASSENGER SEAT BELT PRETENSIONER SHORT TO VOLTAGE

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS**. Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.
2. Connect negative battery cable. Wait at least 30 seconds. Measure voltage between ground and SRSCM connector terminals No. 3 (White wire) and No. 4 (Black wire). See **Fig. 3**. If voltage is not measured at either terminal, go to next step. If voltage is measured at either terminal, replace wire harness between SRSCM and passenger seat belt pretensioner.

NOTE: DTCs other than DTC B1370 may be retrieved by scan tool. They are not relevant to this test.

3. Turn ignition off. Disconnect negative battery cable. Connect passenger seat belt pretensioner connector. Connect SRSCM connector. Connect negative battery cable. Turn ignition on. Wait at least 30 seconds. Using scan tool, clear DTCs. Turn ignition off. Wait at least 30 seconds. Turn ignition on. Wait at least 30 seconds. Using scan tool, retrieve DTCs. If DTC B1370 is retrieved, replace passenger seat belt pretensioner. If DTC B1370 is not retrieved, system is okay.

DTC B1406: PPD DEFECT

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS**. Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM**. Disconnect Passenger Presence Detection (PPD) connector, located under passenger's front seat. Disconnect SRSCM connector. Go to next step.
2. Check continuity of all wires between PPD sensor and PPD interface unit and between PPD Interface unit and SRSCM. See **WIRING DIAGRAMS**. If continuity does not exist in all circuits, replace appropriate wire harness. Go to next step.
3. Measure resistance change of PPD sensor. Resistance of PPD should be 50 K/ohms or less when a weight of 33 pounds (15 kg) or more is placed on PPD. Resistance of PPD should be greater than 50 K/ohms when a weight of 1.3 pounds (0.6 kg) or less is placed on PPD. If resistance is not as specified, replace PPD. If resistance is as specified, go to next step.

NOTE: DTCs other than DTC B1406 may be retrieved by scan tool. They are not relevant to this test.

4. Connect SRSCM connector. Connect negative battery cable. Wait 30 seconds. Turn ignition on. Wait 30 seconds. Using scan tool, clear all DTCs. Turn ignition off. Wait 30 seconds. Turn ignition on. Wait 30 seconds. Using scan tool, retrieve DTCs. If DTC B1406 is retrieved, replace PPD. If DTC B1406 is not retrieved, system is okay.

DTC B1407: PPD COMMUNICATION ERROR

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS**. Disable air bag system. See **DISABLING & ACTIVATING AIR BAG SYSTEM**. Disconnect Passenger Presence Detection (PPD) connector, located under passenger's front seat. Disconnect SRSCM connector. Go to next step.
2. Check continuity of all wires between PPD sensor and PPD interface unit and between PPD Interface unit

and SRSCM. See **WIRING DIAGRAMS** . If continuity does not exist in all circuits, replace appropriate wire harness. Go to next step.

3. Measure resistance change of PPD sensor. Resistance of PPD should be 50 K/ohms or less when a weight of 33 pounds (15 kg) or more is placed on PPD. Resistance of PPD should be greater than 50 K/ohms when a weight of 1.3 pounds (0.6 kg) or less is placed on PPD. If resistance is not as specified, replace PPD. If resistance is as specified, go to next step.

NOTE: DTCs other than DTC B1407 may be retrieved by scan tool. They are not relevant to this test.

4. Connect SRSCM connector. Connect negative battery cable. Wait 30 seconds. Turn ignition on. Wait 30 seconds. Using scan tool, clear all DTCs. Turn ignition off. Wait 30 seconds. Turn ignition on. Wait 30 seconds. Using scan tool, retrieve DTCs. If DTC B1407 is retrieved, replace PPD. If DTC B1407 is not retrieved, system is okay.

DTC B1511: DRIVER SEAT BELT BUCKLE SWITCH SHORT TO VOLTAGE/OPEN

Diagnostic procedure is not available.

DTC B1512: DRIVER SEAT BELT BUCKLE SWITCH SHORT TO GROUND/SHORT

Diagnostic procedure is not available.

DTC B1513: PASSENGER SEAT BELT BUCKLE SWITCH SHORT TO VOLTAGE/OPEN

Diagnostic procedure is not available.

DTC B1514: PASSENGER SEAT BELT BUCKLE SWITCH SHORT TO GROUND/SHORT

Diagnostic procedure is not available.

DTCB1620: INTERNAL FAULT

There is no inspection or service possible for this DTC. Replace SRSCM. See **SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)** under REMOVAL & INSTALLATION.

DTCB1650: CRASH RECORDED FRONT AIRBAG

There is no inspection or service possible for this DTC. Replace SRSCM. See **SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)** under REMOVAL & INSTALLATION.

DTC B1657: IGNITION RECORDED BELT PRETENSIONER

There is no inspection or service possible for this DTC. Replace SRSCM. See **SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)** under REMOVAL & INSTALLATION.

DTCB1661: ECU MISMATCHING

There is no inspection or service possible for this DTC. Replace SRSCM. See **SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)** under REMOVAL & INSTALLATION.

DTCB2500: WARNING LAMP FAILURE

1. Before proceeding, see **AIR BAG SAFETY PRECAUTIONS** . Remove driver-side air bag module. See **DRIVER-SIDE AIR BAG MODULE** under REMOVAL & INSTALLATION. Disconnect passenger-side air bag module and seat belt pretensioner connectors. Disconnect SRSCM connector. Go to next step.

2. Remove and inspect AIR BAG and METER fuses, located in junction block behind left side of instrument panel. Replace fuses if blown or damaged, reinstall fuses if okay. Go to next step.
3. Connect negative battery cable. Turn ignition on. Measure voltage on harness side of SRSCM connector terminal No. 7 (Blue wire). See **Fig. 3**. If voltage is 10.0-16.5 volts, go to next step. If voltage is not 10.0-16.5 volts, inspect and repair AIR BAG warning light circuit and/or warning light bulb.
4. Visually inspect AIR BAG warning light operation. If AIR BAG warning light is functioning correctly, system is okay. If AIR BAG warning light is not functioning correctly, replace SRSCM. See **SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)** under REMOVAL & INSTALLATION.

WIRING DIAGRAMS

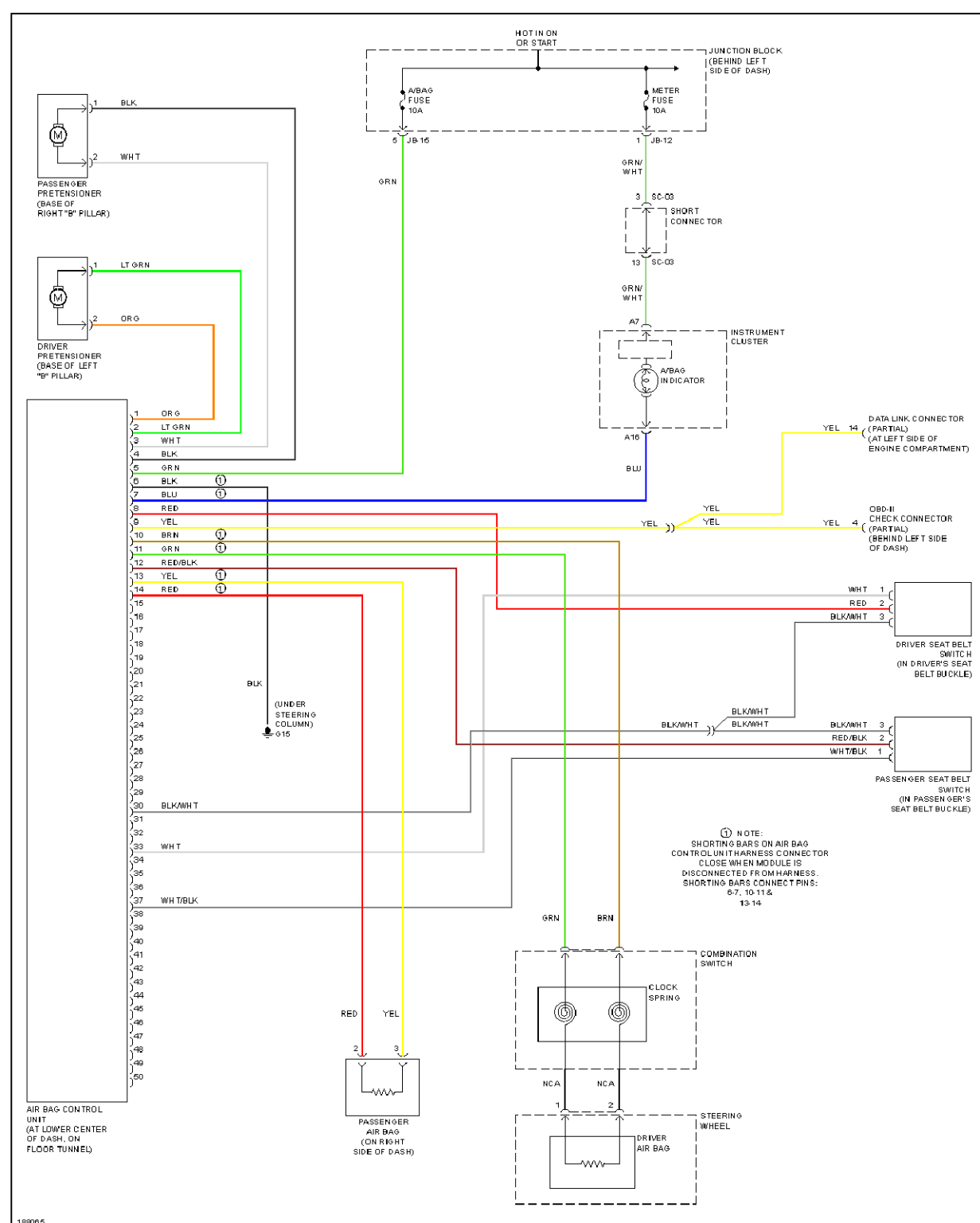


Fig. 4: Air Bag System Wiring Diagram (Sedona)

2005 Kia Sedona EX
2004-05 RESTRAINTS Kia Sedona - Air Bag Restraint Systems

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