



Restraint

General Information



Air bag deployment and disposal

WARNING

- 1) FAILURE TO FOLLOW ALL WARNINGS, CAUTIONS, NOTICES AND PROCEDURES COULD RESULT IN PERSONAL INJURY OR DEATH.
- 2) SURFACE OF A DEPLOYED AIR BAG MAY CONTAIN SMALL AMOUNTS OF SODIUM HYDROXIDE (NAOH). PREVENT CONTACT OF AIR BAG MODULE WITH LIQUIDS, COMBUSTIBLES, AND FLAMMABLE MATERIALS. IMMEDIATELY WASH HANDS AND EXPOSED SKIN AREAS WITH MILD SOAP AND WATER. FLUSH EYES WITH WATER IF EXPOSED TO BY PRODUCTS. FAILURE TO FOLLOWING THESE INSTRUCTIONS COULD RESULT IN CHEMICAL BURNS AND PERSONAL INJURY.
- 3) A LIVE (UNDEPLOYED) AIR BAG MODULE MAY ACCIDENTLY DEPLOY DURING HANDLING. WHEN CARRYING A LIVE AIR BAG MODULE, POINT TRIM COVER AWAY FROM YOUR BODY TO LESSEN CHANCE OF INJURY IN CASE OF ACCIDENTAL DEPLOYMENT. NEVER CARRY MODULE BY ITS WIRING OR CONNECTORS.
- 4) ALWAYS PLACE LIVE AIR BAG MODULES FACE UP TO LESSEN MOTION OF MODULE IN CASE OF ACCIDENTAL DEPLOYMENT. KEEP AREA CLEAR OF PARTS, TOOLS, AND DEATH.
- 5) NEVER PLACE ITEMS ON OR ABOVE TRIM COVER OF A LIVE AIR BAG MODULE IN CASE OF ACCIDENTAL DEPLOYMENT, SUCH ITEMS MAY CAUSE SERIOUS INJURY OR DEATH.
- 6) DAMAGED AIR BAG MODULES SHOULD BE STORED AWAY FROM ALL ACIDS, HALOGENS, HEAVY METALS, AND METAL SALTS. DAMAGED UNITS MAY PRODUCE HYDROZOIC ACID IF EXPOSED TO LIQUIDS. IF AN UNDEPLOYED OR TAMPERED WITH, REFER TO PARTICULAR MODULE'S MSDS (MATERIAL SAFETY DATA SHEET) FOR IMPORTANT INFORMATION CONCERNING CONSTITUENTS OF UNDEPLOYED MODULES. EXPOSURE TO HIGH CONCENTRATIONS OF PROPELLANT MIXTURE CAN CAUSE HEADACHES, NAUSEA, BLURRED VISION, FAINTNESS, CYANOSIS, LOWERING OF BLOOD PRESSURE OR TACHYCARDIA. FAILURE TO COMPLY WITH THIS WARNING CAN RESULT IN FIRE, NOXIOUS FUMES, SEVERE PERSONAL INJURY, OR DEATH.
- 7) AIR BAG MODULE COMPONENTS ARE VERY HOT AFTER DEPLOYMENT. UNITS SHOULD BE DEPLOYED OUTDOORS OR IN AN OPEN AREA TO PREVENT FIRES. ALLOW COMPONENTS AT LEAST TWENTY MINUTES TO THOROUGHLY COOL. COOLING MODULES SHOULD BE CONTINUOUSLY MONITORED TO ENSURE HOT COMPONENTS DO NOT CREATE FIRES WITH SPILLED LIQUIDS OR OTHER DEBRIS. FAILURE TO ALLOW UNIT TO COOL COULD RESULT IN BURNS, FIRES OR PERSONAL INJURY.
- 8) ALWAYS WEAR RUBBER GLOVES AND SAFETY GLASSES WHEN HANDLING A DEPLOYED AIR BAG AND MODULE.

CAUTION

Storage, transportation, disposal and recycling of air bag module and components must be performed in accordance with all applicable state and local regulations including, but not limited to, environmental protection, occupational health and safety, and transportation.

WARNING

FAILURE TO FOLLOW THE FOLLOWING PROCEDURES COULD RESULT IN PERSONAL INJURY OR DEATH.

1. Remove battery.
2. Wait 10 minutes before proceeding.

3. Disconnect appropriate Air Bag Module, and remove from vehicle. For Driver air bag module.
For passenger Air Bag Module.
4. Locate air bag in an area that will provide protection to personnel when it deploys. An example of a safe deployment site is a stack of used tires, 6-8 high, with undeployed bag located inside column of tires.
5. Cut the air bag connector wires and strip 25mm of insulator from the ends.
6. Obtain two wires at least 6mm long. Connect one end of wires to the air bag module wires.
7. Place the air bag with the trim cover facing upward on a flat surface in a remote area such as a parking lot or field.

WARNING

DO NOT PLACE THE AIR BAG WITH THE TRIM COVER FACING DOWN, AS THE FORCE OF THE DEPLOYING AIR BAG CAUSE IT TO RICOCHET AND CAUSE PERSONAL INJURY.

8. Remaining at least 6m away from the air bag, deploy the air bag by touching the other ends of the two wires to the terminals of a 12 volt vehicle battery.
9. If air bag successfully deployed, allow minimum of twenty minutes for bag to cool before handling. Monitor bag throughout cool-down period to ensure that hot components do not start a fire.
10. If air bag did not deploy, keep area around deployment site clear of personnel for a minimum of 30 minutes.
11. Remove the air bag from the stack of tires carefully, wearing rubber gloves and eye/face protection to protect yourself from possible chemical exposure.
12. Dispose of the complete air bag assembly. No part of the air bag may be reused. Place the air bag into a sturdy plastic bag and seal securely. Dispose of the deployed air bag according to each region regulations.





Description and operation

Air Bag-Supplemental restraint system

Air Bag-Supplemental Restrain System (SRS) is designed to supplement driver seat belts during front end collisions, reducing risk of serious injury or death.

Two collision-sensitive sensors are located in Air bag Diagnostic Unit (ADU). These two sensors (Safing sensor and G-sensor) are electrically connected in series with air bag and battery.

In case of the frontal crash, the G-sensor gets the collision deceleration. The collision deceleration information is converted in to digital data and compares them with designed data to decide whether it has to send a signal to deploy the air bag module or not. If the calculation result by the CPU is correspond to the designed data, it decides to send a deployment signal.

At the same moment, the safing sensor, which is linked linearly on deployment circuit, checks whether the deceleration is happened by actual physical collision, or by other electronic waves and mal effect. So, only when both the signal of deployment from the CPU and closing of safing sensor switch come together, the air bag can be deployed.

Driver is protected by a steering wheel mounted air bag. Air bag-Supplemental Restraint System consists of Air Bag Module, Air Bag Diagnostic Unit, and wire harness & clock-spring assembly.

Service warnings(Personal safety)

Failure to follow all warnings, cautions, notices and procedures could result in personal injury or death.

Power supply deactivation

Air bag-SRS diagnostic unit contains a backup power supply. Before disconnecting air bag-SRS components, turn ignition switch to LOCK, disconnect battery (negative terminal first), and wait 10 minutes for backup power supply to discharge.

Failure to follow this procedure could cause air bag modules to deploy during service procedures, which may cause serious injury.

Safety equipment

- Always wear safety glasses when handling air bag modules.
- Always wear rubber gloves when handling deployed or damaged air bag modules.

Wiring and electrical components

Never service wiring or electrical components when any air bag is connected. When a procedure directs use of a multimeter to probe pins of a connector, insert prbes into back of connector where possible.

If you must probes front face (terminal side), be certain to use a probe whose tip will not damage terminals when it is inserted.

Component disassembly

Do not disassembly any air bag-SRS components.

Disassembly can render system inoperative, which may result in serious injury or death in event of an accident. Never attempt to disassemble or repair air bag modules. Any attempt to adapt, re-use, or install an air bag module or its components in another vehicle may result in serious injury or death to vehicle occupants in event of an accident.

Air bag diagnostic unit (ADU)

Do not connect ADU connector unless ADU is securely installed. Shock of installation or pinching wiring harness between module and its mounting points can cause air bags to deploy, which may cause serious injury.

Air bag module inspection

Do not probe or inspect air bag modules or any of their connectors with an ohmmeter. Inspecting air bag module with an ohmmeter, which supplies current, can cause air bags to deploy, resulting in serious injury.

Air bag module connector

Do not cut or otherwise remove the air bag module connector. Connector contains a safety shunt which, if disabled, could cause an unintended deployment. This may cause severe personal injury or death.

Air bag module handling

A live (undeployed) air bag may accidentally deploy during handling. When carrying a live air bag module, point plastic trim cover away from your body to lessen chance of injury in case of accidental deployment. Never carry module by its wiring or connectors.

Securing modules

Always place live air bag modules face up (plastic trim side up) to lessen motion of the module in case of accidental deployment. Keep the area clear of tools and other debris. Never place items on or above the trim cover of a live air bag module. In case of accidental deployment, such items may cause serious injury or death.

Live air bag module storage

Live air bag modules contain solid flammable material.

Store in a cool, dry, secure area. Do not expose them to open flame or temperatures in excess of 300° F.

Do not cut, drill, braze, solder or weld an air bag module or any of its components. Never expose the module or any of its components to electricity. Failure to comply with this warning can lessen the integrity of the module, causing fires, chemical exposure, or unintended deployment, which may cause serious injury or death.

Damaged live air bag module storage

Damaged live air bag modules should be stored away from all acids, halogens, heavy metals and metal salts. Damaged units may produce hydrozoic acid if exposed to liquids. If an undeployed air bag module or inflator is ruptured or tampered with, refer to the material Safety Data Sheet (MSDS) for the particular module for important information concerning the constituents of undeployed modules. Exposure to high concentrations of propellant mixture can cause headaches, nausea, blurred vision, faintness, cyanosis, lowering of blood pressure or tachycardia. Failure to comply with this warning can result in fire, noxious fumes, severe personal injury or death.

Out-of-vehicle deployment

Out-of-vehicle deployment should be performed in an open area, away from other personnel. Verify that there is no loose debris or flammable liquid near the air bag assembly. All personnel should be behind protective cover (i.e., wall, vehicle) to shield their bodies from potential projectiles. Do not attempt to deploy a ruptured air bag module. Failure to comply with this warning may result in severe injury or death. Refer to Air Bag Deployment and Disposal.

Danger of fire

Air bag module components are very hot after deployment. Units should be deployed outdoors or in open areas to prevent fires. Allow components at least twenty minutes to thoroughly cool. Cooling modules should be continuously monitored to ensure hot components do not create fires with spilled liquids or other debris. Failure to allow the unit to cool could result in burns, fires or personal injury.

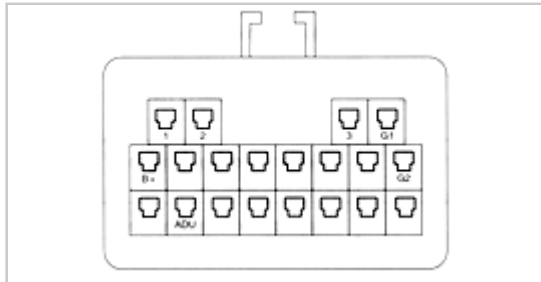
Storage/Transportation/Disposal/Recycling

Storage, transportation, disposal and recycling of air bag module and components must be performed in accordance with each region's regulations.



Air bag system

1. Turn ignition switch to ON.
2. The air bag indicator should illuminate. If it does not, see Air bag indicator Service.
3. The Air Bag Indicator should go out within 4~6 seconds. If it stays out, system is OK.
4. If Air Bag Indicator remains illuminated, there is a problem in Air Bag-Supplemental Restraint System (SRS).
5. Turn ignition switch to LOCK.
6. Locate Data Link Connector (DLC) in engine compartment and install Hi-Scan Pro tool.
7. Turn ignition switch to ON and record any Diagnostic Trouble Codes displayed by Hi-Scan Pro Tool.
8. Refer to Air Bag Diagnostic Troubles Codes Chart, for fault description and actions.



WARNING

SERVICING AIR BAG SYSTEM IMPROPERLY MAY CAUSE IT TO DEPLOY, WHICH CAUSE SERIOUS INJURY OR DEATH. MUST READ AND FOLLOW ALL SERVICE WARNINGS, BEFORE SERVICING.

CAUTION

Never service wiring or electrical components when air bag is connected.

General procedure(Before servicing)

1. Turn the ignition switch to LOCK.
2. Disconnect the battery.
3. Wait 10 minutes for the backup power to discharge completely.

After servicing

1. Reconnect the battery.
2. Turn the ignition switch to ON.
3. Verify that air bag indicator illuminates for 4-6 seconds and then goes off.

Air bag indicator service

Step	Inspection		Action
1	Does indicator illuminate for a period of 4-6 seconds when ignition switch is turned to ON, and then go off?	Yes	Go to step 8.
		No	Go to next step.

2	Use fuse extraction tool in passenger compartment fuse box to extract meter fuse. Is it open?	Yes	Replace it with another 10A fuse and check for short circuits in its associated wiring harnesses. Repair as necessary and then go to step 8.
		No	Go to next step.
3	Follow general procedures(see above). Remove instrument cluster and check connector C-01. Are pins secure and is connector continuity exist?	Yes	Go to next step.
		No	Repair malfunction and then reinstall cluster. Go to step 8.
4	Perform general procedures(see above). Remove instrument cluster and check connector C-01. Are pins secure and is connector locked in placed?	Yes	Lamp is good. Go to next step.
		No	Lamp is burnt. Replace it, reinstall instrument cluster and go to step 8.
5	Connect battery. Verify battery voltage(approximately 12V). Turn the ignition switch to ON. Is there approximately 12V at pin 1L of connector C-01?	Yes	Go to next step.
		No	Check harness for opens or a short to ground between meter fuse and instrument cluster. Repair as necessary. Go to step 8.
6	Connect a voltmeter between pin 1L and pin 1I of C-01. Is 12V present for 4-6 seconds when the ignition switch is turned to ON?	Yes	Go to step 8.
		No	Check harness for an open or a short to ground between instrument cluster and Air Bag Diagnostic Unit(ADU). Repair as necessary. Go to step 7.
7	Does indicator illuminate for a period of 4-6 seconds when ignition switch is turned to ON?	Yes	Go to step 8.
		No	Replace ADU. Go to next step. See Air Bag Diagnostic Unit(ADU).
8	Does indicator illuminate constantly after initial 4-6 second period?	Yes	Refer to Diagnostic Trouble Code Troubleshooting.
		No	Air Bag Indicator is OK?



Mechanical specifications

Item	Specifications
Driver air bag installation bolts	69~104 lb-in (8~12 N·m, 80~120 kg-cm)
Passenger air bag installation bolts	69~104 lb-in (8~12 N·m, 80~120 kg-cm)
Steering wheel installation nut	29~36 lb-ft (39~49 N·m, 4.0~5.0 kg-m)
ADU installation nuts	69~120 lb-in (8~14 N·m, 80~140 kg-cm)

Connector pin

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16

No.	Description	No.	Description
1	-	16	Short bar (harness side)
2	-	17	Short bar (harness side)
3	-	18	Short bar (harness side)
4	-	19	Short bar (harness side)
5	Supply Power (IG1) +	20	-
6	Ground (Air bag warning light LOW)	21	Short bar (harness side)
7	Air bag warning light	22	Short bar (harness side)
8	-	23	-
9	Communication (K-line)	24	-
10	Driver air bag module +	25	Short bar (harness side)
11	Driver air bag module -	26	Short bar (harness side)
12	-	27	-
13	Passenger air bag module +	28	Short bar (harness side)
14	Passenger air bag module -	29	Short bar (harness side)
15	-	30	-

*There is a short bar between terminal 6 and 7.



Restraint

Supplemental Restraint System Control Module
(SRnodeM)



Air bag diagnostic trouble code (DTC) chart

Diagnostic Trouble Code	Fault Description	Possible Cause	Warning Light Mode	Corrective Action
01~03 10~15	ADU Fault	Internal Fault	1	Replace Air Bag Diagnostic Unit (ADU)
18~29 31~32	ADU Fault	Internal Fault	1	Replace Air Bag Diagnostic Unit (ADU)
33	Power Supply Low	Power supply voltage below 8.0 volts	5	Repair or replace battery or harness
34	Power Supply High	Power supply High voltage above 16 volts	5	Repair or replace battery or harness harness
35	Warning Light Short	Warning Light damaged, or short circuit in harness	5	Repair or replace warning light or harness
36	Warning Light Open	Driver Module damaged, or circuit shorted to ground	5	Repair or replace warning light or harness
53	Driver Module Short to ground	Driver Module damaged, or circuit shorted to battery	5	Repair or replace warning light or harness
54	Driver Module Short to battery	Driver Module damaged, or circuit shorted to harness	5	Repair or replace warning light or harness
55	Driver Module Short	Driver Module damaged, or circuit shorted to harness	5	Repair or replace warning light or harness
56	Driver Module Open	Driver Moudule damaged, or circuit shorted to harness	5	Repair or replace warning light or harness
57	Passenger Module Short to ground	Passenger Module damaged, or circuit shorted to ground	5	Repair or replace warning light or harness
58	Passenger Module Short to battery	Passenger Module damaged, or circuit shorted to battery	5	Repair or replace warning light or harness
59	Passenger Module Short	Passenger Module damaged, or circuit shorted to harness	5	Repair or replace warning light or harness
60	Passenger Module Open	Passenger Module damaged, or circuit shorted to harness	5	Repair or replace warning light or harness
78	ADU Inconsistency(exclusive of PAB)	ADU unmatching, PAB Installed in DAB-only ADU vehicle	5	Replace Air Bag Diagnostic Unit (ADU)

Warning light operating modes:

Mode 1 : Warning Light be illuminated for reminder ON cycle, but it will not be illuminated after next ignition ON cycle if fault has self-corrected.

Mode 5 : Warning Light will be illuminated for reminder of ignition ON cycle, but it will go out approximately 10 seconds later if fault has corrected at the same ignition ON cycle.

Air bag diagnostic trouble code troubleshooting

WARNING

SERVICING AIR BAG SYSTEM INPROPERLY MAY CAUSE IT TO DEPLOY, WHICH CAUSE SERIOUS INJURY OR DEATH.MUST READ AND FOLLOW ALL SERVICE WARNINGS, BEFORE SERVICING.

CAUTION

Never service wiring or electrical components when air bag is connected.

Air bag diagnostic trouble code erasure

NOTICE

Disconnecting battery will not erase Air Bag Diagnostic Trouble Codes. This procedures can only be performed using Hi-Scan Pro tool equipped with appropriate software.



Removal

air bag diagnostic unit (ADU)

WARNING

IMPROPER HANDLING OF ADU MAY RESULT IN UNEXPECTED AIR BAG DEPLOYMENT, WHICH CAN CAUSE SERIOUS INJURY. READ ALL SERVICE WARNINGS BEFORE PERFORMING SERVICE.



1. Follow General Procedures.
2. Remove ashtray.
3. Remove center panel trim.
4. Remove condole mouting screws(one each at lower front) and one console mounting screw at center.
5. Remove console box and remove two mounting bolts in console box.
6. Remove console.
7. Disconnect ADU connector.
8. Remove three mounting nuts.
9. Lift the ADU up and back and remove ADU from vehicle.

NOTICE

Removing ADU may require loosening of two nuts that secure automatic shift cable housing to tunnel.

WARNING

- 1) DO NOT DISASSEMBLE ANY AIR BAG-SRS COMPONENTS. DISASSEMBLY CAN RENDER SYSTEM INOPERATIVE, WHICH MAY RESULT IN SERIOUS INJURY OR DEATH IN EVENT TO DISASSEMBLE OR REPAIR AIR BAG MODULES.
- 2) NAY ATTEMPT RO ADAPT, RE-USE OR INSTALL AN AIR BAG MODULE OR ITS COMPONENTS IN ANOTHER VEHICLE MAY RESULT IN SERIOUS INJURY OR DEATH TO VEHICLE OCCUPANTS IN EVENT OF AN ACCIDENT.

Installation

Air bag diagnostic Unit (ADU)

WARNING

DO NOT CONNECT ADU CONNECTOR BEFORE INSTALLING ADU SECURELY. SHOCK OF INSTALLATION OR PINCHING WIRING HARNESS BETWEEN ADU AND ITS MOUNTING POINTS CAN CAUSE AIR BAGS TO DEPLOY, WHICH MAY CAUSE SERIOUS INJURY.

1. Install ADU on three mounting studs. Install three nuts and torque to specification.

Tightening torque: 69~120 lb-in (8~14 N·m, 80~140 kg-cm)

2. Connect wiring harness connector(s) to ADU.
3. Install console and its five mounting screws and two bolts.
4. Install center panel trim.
5. Perform diagnosis. Refer to Diagnostic Trouble Codes and Associated Procedures.



Restraint

Airbag Module



Restraint

Airbag Module - Driver Airbag (DAB) Module and
Clock Spring



Removal

Driver air bag module

WARNING

HANDLING AIR BAG IMPROPERLY MAY CAUSE IT TO DEPLOY, WHICH MAY CAUSE SERIOUS INJURY. READ ALL SERVICE WARNINGS, BEFORE SERVICING.

CAUTION

- Never service wiring or electrical components when any air bag is connected.
- Follow General Procedures before removal.

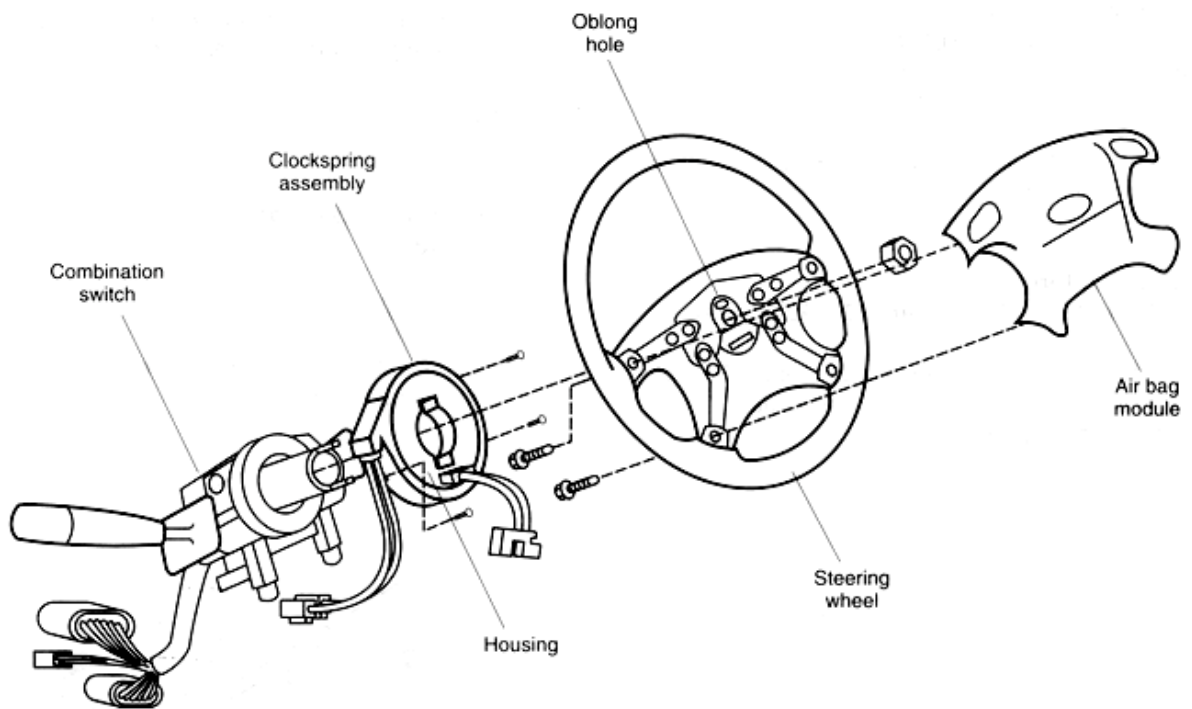
NOTICE

Orange and blue connectors are exclusive to air bag-SRS harness. Connector half with female pins consists of two separate shells; one for air bag SRS, other for horn. These two shells are mechanically configured to provide blue air bag SRS shell with two retention latches, reducing possibility of an unwanted separation during a collision. Blue air bag-SRS shell also contains a safety feature that shunts its two pins together when it is disconnected. This feature helps prevent unintentional air bag deployment.

When disconnecting two shells, it is necessary to remove orange shell first. Reconnection is reverse order of disconnection.

WARNING

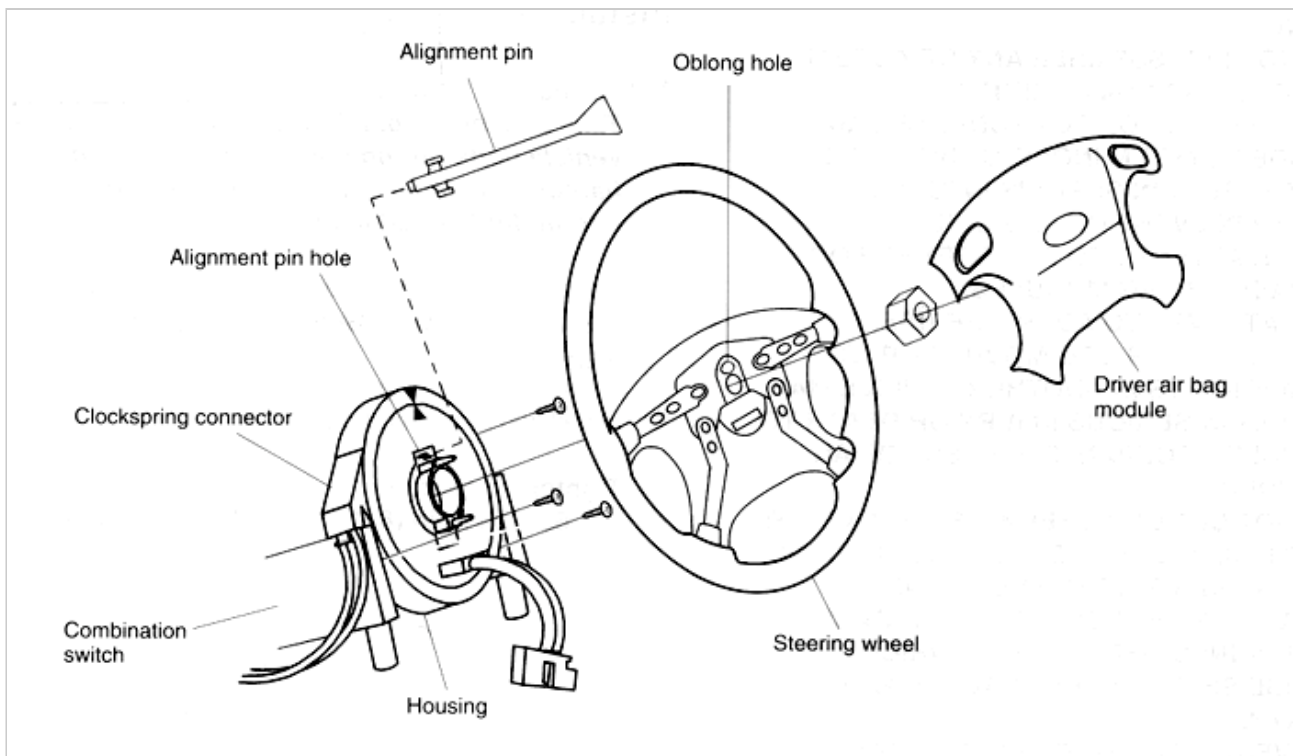
- 1) DISASSEMBLY OF COMPONENTS CAN RENDER SYSTEM INOPERATIVE, WHICH MAY RESULT IN SERIOUS INJURY OR DEATH IN EVENT OF AN ASSIDENT. NEVER ATTEMPT TO DISASSEMBLE OR REPAIR AIR BAG MODULES.
- 2) ANY ATTEMPT TO ADAPT, RE-USE, OR INSTALL AN AIR BAG MODULE OR ITS COMPONENTS IN ANOTHER VEHICLE MAY RESULT IN SERIOUS INJURY OR DEATH TO VEHICLE OCCUPANTS IN EVENT OF AN ACCIDENT.
- 3) DO NOT CUT OR OTHERWISE REMOVE AIR BAG MODULE CONNECTOR. CONNECTOR CONTAINS A SAFETY SHUNT AND DISABLING THAT SHUNT COULD CAUSE UNPLANNED DEPLOYMENT, WHICH MAY CAUSE SEVERE PERSONAL INJURY OR DEATH.
- 4) A LIVE (UNDEPLOYED) AIR BAG MAY ACCIDENTLY DEPLOY DURING HANDLING WHEN CARRYING A LIVE AIR BAG MODULE, POINT TRIM COVER AWAY FROM YOUR BODY TO LESSEN CHANCE OF INJURY IN CASE OF ACCIDENTAL DEPLOYMENT. NEVER CARRY MODULE BY ITS WIRING OR CONNECTORS.
- 5) ALWAYS PLACE LIVE AIR BAG MODULES FACE UP TO LESSEN MOTION OF MODULE IN CASE OF ACCIDENTAL DEPLOYMENT. KEEP AREA CLEAR OF PARTS, TOOLS AND DEBRIS.
- 6) NEVER PLACE ITEMS ON OR ABOVE TRIM COVER OF A LIVE AIR BAG MODULE. IN CASE OF A LIVE AIR BAG MODULE. IN CASE OF ACCIDENTAL DEPLOYMENT. SUCH ITEMS MAY CAUSE SERIOUS INJURY OR DEATH.



1. Remove four air bag module retaining bolts from backside of steering wheel.
2. Pull air bag module away from steering wheel.
3. Disconnect air bag module connector from clockspring assembly and remove driver air bag module from vehicle.
4. If necessary, dispose of air bag module. Refer to Air Bag Deployment and Disposal.

Removal

Clockspring assembly



NOTICE

Clockspring connectors is part of combination switch and is not serviced as a separate part.

1. Remove driver air bag module.
2. Remove steering wheel nut. Mark steering wheel and steering shaft so that their relative positions will be known during re-installation.
3. Using a suitable wheel puller, remove steering wheel.
4. Remove three clockspring assembly retaining screws, disconnect three connectors and remove clockspring assembly.

Installation

Drive air bag module

1. Ensure that front wheels are pointing stright ahead.
2. Holding surface of air bag away from you, couple blue air bag-SRS connectors, then couple the orange home connectors.

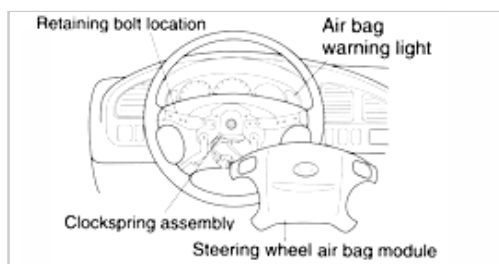
NOTICE

Orange and blue connectors are keyed to fit only one(1) way. When properly assembled, they will slip into place (using slight pressure) with an audible "click". Do not force. If undue force is required, connectors are not aligned properly.

3. Set module into steering wheel, taking care not to pinch wiring harness.
4. Install four retaining bolts.

Tightening torque: 69~104 lb-in (8~12N·m, 80~120 kg-cm)

5. Verify that no trouble codes are present. Refer to Diagnostic Trouble Codes and Associated Procedures.



NOTICE

If clockspring assembly has been removed, please refer to page 60-1-18 for proper assembly.

Installation

Clockspring assembly

1. Temporarily install steering wheel and turn front wheel so that front wheels are pointing straight ahead.

NOTICE

An alignment pin is used to aid in alignment of clockspring connector when installing steering wheel onto steering column. An alignment pin is provided with a new combination switch, but a substitute pin will be needed when re-aligning an original clockspring. Substitute pin should be 3mm(0.12in) in diameter and at least 76mm (3.0in) long.

2. Install clockspring assembly and retain with three screws. Connect three clockspring assembly connectors.

Tightening torque: 8 lb-in (0.92N·m, 9.3 kg-cm)

3. Rotate center portion of clockspring connector clockwise until it stops. Proceed to rotate center counterclockwise 2 3/4 turns and align arrow on center decal with arrow on housing.
4. While holding arrows aligned, insert alignment pin into hole on front face of center portion until it engages in hole located on back side of housing.
5. Re-install steering wheel by lining up marks applied during removal. Alignment pin passes through oblong hole in steering wheel that is located immediately above hole for steering shaft. Install steering wheel nut finger tight.
6. Remove alignment pin and tighten nut.

Tightening torque: 29~36 lb-ft (39~49N·m, 4.0~5.0 kg-m)

7. Re-install driver air bag module. Refer to Driver Air Bag Module Installation.



Restraint

Airbag Module - Passenger Airbag (PAB) Module



Removal

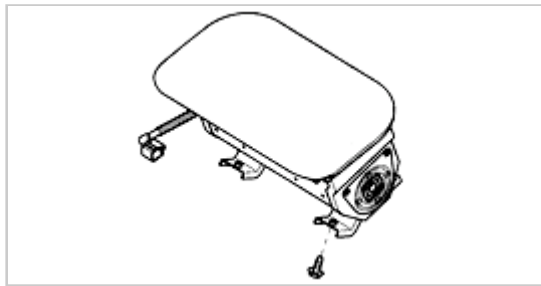
WARNING

HANDLING AIR BAG IMPROPERLY MAY CAUSE IT TO DEPLOY, WHICH MAY CAUSE SERIOUS INJURY. READ SERVICE WARNINGS. BEFORE SERVICING.

CAUTION

- Never service wiring or electrical components when any air bag is connected.
- Follow General Procedures guidelines on page.

1. Remove glove box.
2. Remove two mounting bolts.
3. Disconnect passenger air bag module connector from wiring harness.



NOTICE

Orange and blue connectors are exclusive to air bag-SRS harness. Connector half with female pins consists of two separate shells; one for air bag SRS, other for horn. These two shells are mechanically configured to provide blue air bag possibility of and unwanted separation during a collision. Blue air bag-SRS shell also contains a safety feature that shunts two pins together when it is disconnected. This feature helps prevent unintentional air bag deployment. When disconnecting two shells, it is necessary to remove orange shell first. Reconnection is reverse order of disconnection.

WARNING

- 1) DO NOT DISASSEMBLE ANY OF ACTUAL AIR BAG-SRS COMPONENTS. DISASSEMBLY OF COMPONENTS CAN RENDER SYSTEM INOPERATIVE, WHICH MAY RESULT IN SERIOUS INJURY OR DEATH IN EVENT OF AN ACCIDENT. NEVER ATTEMPT TO DISASSEMBLE OR REPAIR AIR BAG MODULES.
- 2) ANY ATTEMPT TO ADAPT, RE-USE, OR INSTALL AN AIR BAG MODULE OR ITS COMPONENTS IN ANOTHER VEHICLE MAY RESULT IN SERIOUS INJURY OR DEATH TO VEHICLE OCCUPANTS IN EVENT OF AN ACCIDENT.
- 3) DO NOT CUT OR OTHERWISE REMOVE AIR BAG MODULE CONNECTOR. CONNECTOR CONTAINS A SAFETY SHUNT AND DISABLING THAT SHUNT COULD CAUSE UNPLANNED DEPLOYMENT, WHICH MAY CAUSE SEVERE PERSONAL INJURY OR DEATH.
- 4) A LIVE (UNDEPLOYED) AIR BAG MAY ACCIDENTLY DEPLOY DURING HANDLING. WHEN CARRYING A LIVE AIR BAG MODULE, POINT TRIM COVER AWAY FROM YOUR BODY TO LESSEN CHANCE OF INJURY IN CASE OF ACCIDENTAL DEPLOYMENT. NEVER CARRY MODULE BY ITS WIRING OR CONNECTORS.
- 5) ALWAYS PLACE LIVE AIR BAG MODULES FACE UP TO LESSEN MOTION OF MODULE IN CASE OF ACCIDENTAL DEPLOYMENT.

KEEP AREA CLEAR OF PARTS, TOOLS AND DEBRIS.

6) NEVER PLACE ITEMS ON OR ABOVE TRIM COVER OF A LIVE AIR BAG MODULE. IN CASE OF ACCIDENTAL DEPLOYMENT, SUCH ITEMS MAY CAUSE SERIOUS INJURY OR DEATH.

4. Remove module from instrument panel.
5. If necessary, dispose of air bag module. Refer to Air Bag Deployment and Disposal.

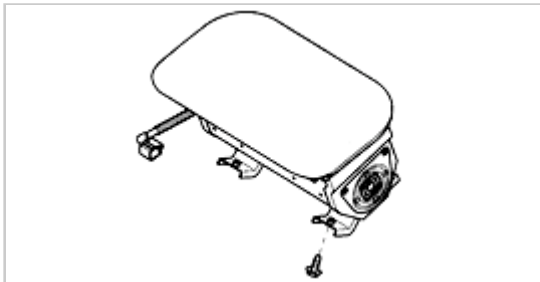
Installation

CAUTION

Take care not to pinch wiring harness with other vehicle parts during reassembly. Kinks in harness will fatigue wires and may lead to intermittent circuit failure.

1. Couple air bag connector to vehicle wiring harness. Refer to notice in Passenger Air Bag Removal.
2. Install passenger air bag module.
3. Install two mounting bolts.

Tightening torque: 69~104 lb-in (8~12 N·m, 80~120 kg-cm)



4. Install glove box.
5. Perform diagnosis. Refer to Diagnostic Trouble Codes and Associated Procedures.