



# WINDSTAR

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Your satisfaction is our #1 goal. If you have questions or concerns with your vehicle, we suggest you follow these steps:

1. Contact your Sales Representative or Service Advisor at your selling/servicing dealership.
2. If the inquiry or concern remains unresolved, contact the Sales Manager or Service Manager at the dealership.
3. If the inquiry or concern cannot be resolved at the dealership level, please contact the Ford Customer Assistance Center.

In the United States:

**Ford Motor Company  
Customer Assistance Center  
300 Renaissance Center  
P.O. Box 43360  
Detroit, MI 48243  
1-800-392-3673 (FORD)  
TDD for the hearing impaired: 1-800-232-5952**

In Canada:

**Customer Assistance Centre  
Ford Motor Company of Canada, Limited  
P.O. Box 2000  
Oakville, Ontario L6J 5E4  
1-800-565-3673 (FORD)**

Outside the U.S. or Canada:

**FORD MOTOR COMPANY  
EXPORT OPERATIONS  
1555 Fairlane Drive  
Fairlane Business Park #3  
Allen Park, Michigan 48101  
Telephone: (313) 594-4857  
Fax: (313) 390-0804**

## Air Bag Supplemental Restraint System (SRS)

The driver and right front passenger air bags are Supplemental Restraint Systems (SRS), provided at these seating positions in addition to the lap/shoulder belt, and are designed to supplement the protection provided to properly belted occupants in moderate to severe frontal collisions. The supplemental air bag system does not provide restraint to the lower body.

### The Importance of Wearing Safety Belts

 <b>WARNING</b>
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<b>Safety belts must be worn by all vehicle occupants to be properly restrained and help reduce the risk of injury in a collision.</b>
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 <b>WARNING</b>
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<b>All occupants of the vehicle, including the driver, should always wear their safety belts, whether or not an airbag Supplemental Restraint System is also provided at their seating position. Failure to do so may increase the risk of severe injury or death in the event of a collision.</b>
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There are four very important reasons to use safety belts even with an air bag system. Use your safety belts to:

- help keep you in the proper position (away from the air bag) when it inflates
- reduce the risk of harm in rollover, side or rear impact collisions, because an air bag is not designed to inflate in such situations

- reduce the risk of harm in frontal collisions that are not severe enough to activate the supplemental air bag
- reduce the risk of being thrown from your vehicle

## The Importance of Being Properly Seated

In a collision, the air bag must inflate extremely fast to help provide additional protection for you. In order to do this, the air bag must inflate with considerable force. If you are not seated in a normal riding position with your back against the seatback, the air bag may not protect you properly and could possibly hurt you as it inflates.

 <b>WARNING</b>
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<b>If a passenger is not properly seated and restrained, an inflating air bag could cause serious injury.</b>
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Your vehicle is equipped with a right front passenger air bag. Air bags deploy with great force, faster than the blink of an eye. Front passengers, especially children and small adults, must never sit on the front edge of the seat, stand near the glove compartment of the instrument panel, or lean over near the air bag cover when the vehicle is moving. All occupants should sit with their backs against the seatback, move the seat to the most rearward position if possible and use the safety belts. Children weighing less than 40 lbs. (18 kg) always should use child or infant seats.

 <b>WARNING</b>
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<b>When using forward-facing child seats move the passenger seat as far back from the instrument panel as possible. NEVER SECURE REAR-FACING INFANT SEATS IN THE FRONT SEAT.</b>
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THE FORCE OF THE RAPIDLY INFLATING PASSENGER AIR BAG COULD PUSH THE TOP OF THE REAR-FACING SEAT AGAINST THE VEHICLE SEATBACK, ARMRESTS OR CONSOLE. REAR-FACING INFANT SEATS MUST ALWAYS BE SECURED IN THE REAR SEAT.

**⚠ WARNING**

**Do not place objects or mount equipment on or near the air bag cover on the steering wheel or in front seat areas that may come in contact with a deploying air bag. Failure to follow this instruction may increase the risk of personal injury in the event of a collision.**

For further information about the proper mounting of equipment in the front seat of this vehicle, please refer to Ford's brochure entitled *Some Important Information About Air Bag Supplemental Restraint System* which can be obtained by calling Helm Inc. at 1-800-782-4356. Ask for brochure FPS-8602.

For additional important safety information on the proper use of seat belts, child seats, and infant seats, please read the other sections of this part of the Owner Guide, especially sections entitled *Safety Belts for Children* and *Safety Seats for Children*.

## **How the Air Bag Supplemental Restraint System Operates**

The Air Bag Supplemental Restraint System consists of the driver and passenger air bags, impact sensors, a system diagnostic module, a readiness light and tone, and the electrical wiring which connects the components.

The driver air bag is in the center of the steering wheel and is indicated by the letters "SRS." The right front passenger seat air bag is in the upper right-hand section of the instrument panel ledge above the glove compartment. The letters "SRS" appear there. Both air bags are designed to stay out of sight until they are activated.

**⚠ WARNING**

**Do not attempt to service, repair, or modify the Air Bag Supplemental Restraint System or its fuses. See your Ford or Lincoln-Mercury dealer.**

If a collision occurs, the sensors sense the severity of the impact and activates the air bags if necessary. The air bag system is designed to deploy in frontal and front-angled collisions more severe than hitting a parked vehicle (of similar size and weight) head-on at about 28 mph (45 km/h). Because the system senses the crash severity rather than vehicle speed, some frontal collisions at speeds above 28 mph (45 km/h) will not inflate the air bag.

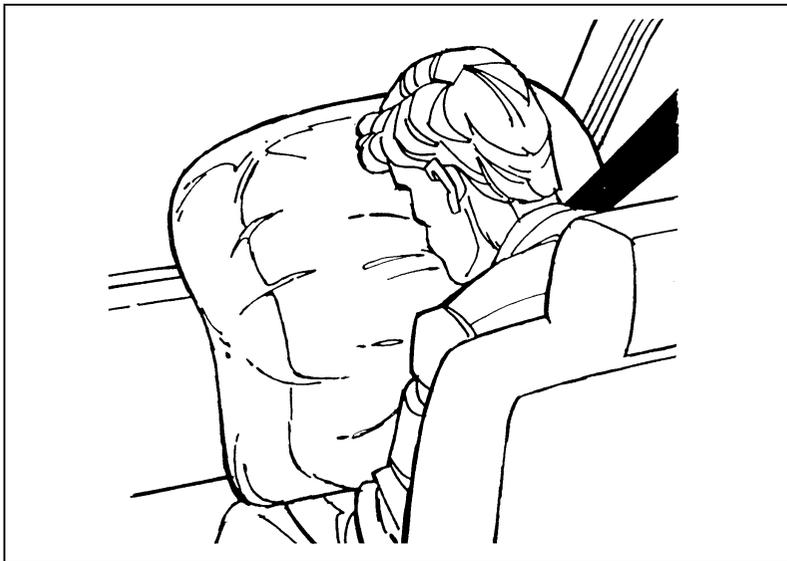
When the sensors activate the system, the air bags inflate rapidly, filling with non-toxic nitrogen gas in a fraction of a second. Immediately after inflation, the air bags deflate by releasing the nitrogen gas through vent holes. The whole process takes place in a matter of seconds.

**⚠ WARNING**

**Air bag system components get hot after inflation. Do not touch them after inflation.**



*Inflated driver-side air bag*



*Inflated passenger-side air bag*

**⚠ WARNING**

**If the air bag is inflated, THE AIR BAG WILL NOT FUNCTION AGAIN AND MUST BE REPLACED IMMEDIATELY. If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.**

To ensure that the air bag system will operate as intended in a crash, the system is equipped with a diagnostic module, which controls a readiness lamp and a warning tone. The diagnostic module monitors its own circuits, the air bag electrical system, the air bag readiness light, the air bag power, and the air bag inflators.

The air bag system uses a readiness light and a tone to indicate the condition of the system. The readiness light is in the instrument cluster. When you turn the ignition to the ON position, this light will illuminate for approximately six (6) seconds and then turn off. This indicates that the system is operating normally. **NOTE:** Maintenance of the air bag system is not required.

A problem with the system is indicated by one or more of the following:

- the readiness light will either flash or stay lit,
- or it will not light immediately after ignition is turned on,
- a group of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

If any of these things happen, even intermittently, have the air bag system serviced at your Ford or Lincoln-Mercury dealer immediately.

### ***Disposal of supplemental air bag equipped vehicles***

For disposal of air bags or air bag equipped vehicles, see your local Ford or Lincoln-Mercury dealer. Air bags **MUST** be disposed of by qualified personnel.

## **Safety Restraints for Children**

In the U.S. and Canada, you are required by law to use safety restraints for children. If small children ride in your vehicle — this generally includes children who are four years old or younger and who weigh 40 pounds (18 kg) or less — you must put them in safety seats that are made specially for children. Safety belts alone do not provide maximum protection for these children. Check your local and state laws for specific requirements.

## SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG SYSTEM)

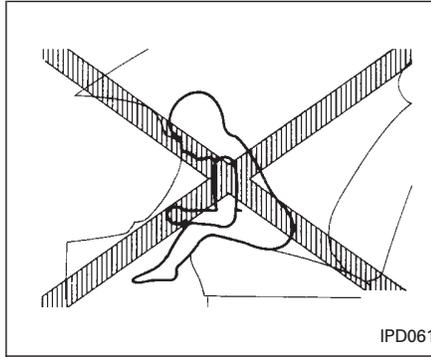
1996 Nissan Altima

This Supplemental Restraint System section contains important information concerning the driver and passenger air bags. The Supplemental Restraint System Air Bag can help reduce impact force to the driver and to the front passenger in certain frontal collisions. The air bags are designed to **supplement** the crash protection provided by the driver and front passenger seat belts and are **not a substitute** for them. The seat belts should always be correctly worn and the driver and front passenger seated a suitable distance from the steering wheel and instrument panel. (See "Seat belts" for instructions and precautions on seat belt usage.)

The supplemental air bags will operate only when the ignition switch is in the "ON" or "START" position.

### WARNING

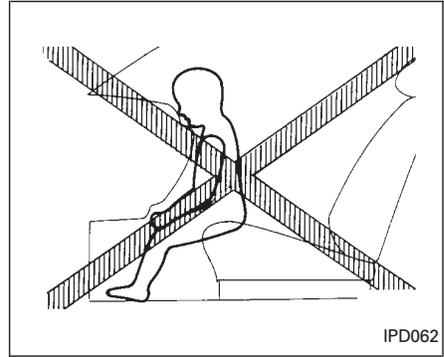
The supplemental air bags ordinarily will not inflate in the event of a side impact, rear impact, roll over, or lower severity frontal collision; so always wear your seat belts to help reduce the risk or severity of injury in various kinds of accidents.



IPD061

### WARNING

The seat belts and the supplemental air bags are most effective when you are sitting back and upright in the seat. Air bags inflate with great force. If you are unrestrained, leaning forward, sitting sideways or out of position in any way, you are at greater risk of injury or death in a crash and may also receive serious or fatal injuries from the supplemental air bag if you are up against it when it inflates. Always sit back against the seatback and use the seatbelts.

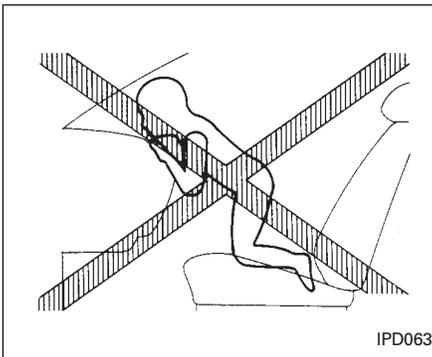


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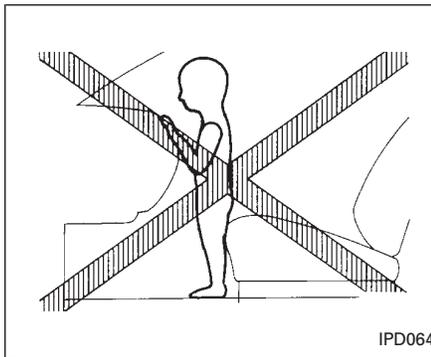
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1996 Nissan Altima



IPD063



IPD064

### WARNING

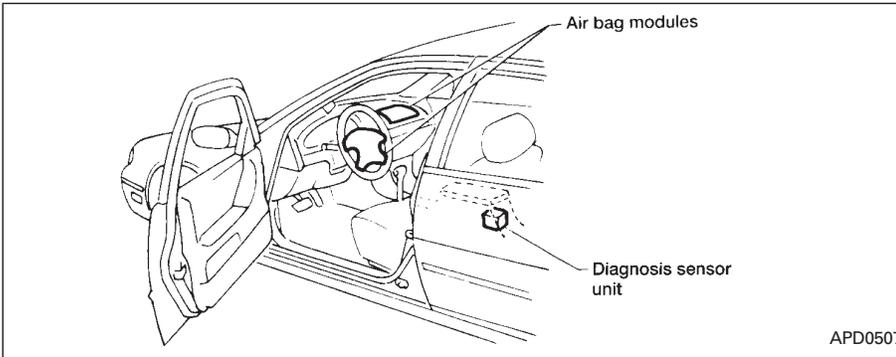
Never let children ride unrestrained as shown in the previous illustrations.

Children may be severely injured or killed when the supplemental air bag inflates if they are not properly restrained.

Also, never install a rear-facing child restraint in the front seat. See "Child restraints for infants and small children" for details.

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### Air bag system

The driver air bag is located in the center of the steering wheel; the front passenger air bag is mounted in the dashboard above the glove box. The supplemental air bag system is designed to inflate in higher severity frontal collisions, although it may inflate if the forces in another type of collision are similar to those of a higher severity frontal impact. It may not inflate in certain frontal collisions. Vehicle damage (or lack of it) is not always an indication of proper air bag operation.

When the supplemental air bag inflates, a fairly loud noise may be heard, followed by

release of smoke. This smoke is not harmful and does not indicate a fire, but care should be taken not to intentionally inhale it, as it may cause irritation and choking. Those with a history of breathing trouble should get fresh air promptly.

The supplemental air bags, along with the use of seat belts, help to cushion the impact force on the face and chest of the occupant. They can help save lives and reduce serious injuries. However, an inflating air bag may cause facial abrasions or other injuries. Air bags do not provide restraint to the lower body.

Seat belts should be correctly worn and the

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driver and passenger seated upright as far as practical away from the steering wheel or dashboard. Since the air bag inflates quickly in order to help protect the occupant, the force of the air bag inflating can increase the risk of injury if the occupant is too close to or is against the air bag module during inflation.

The supplemental air bag will deflate quickly after a collision.

**The supplemental air bags will operate only when the ignition switch is in the "ON" or "START" position.**

### **⚠ WARNING**

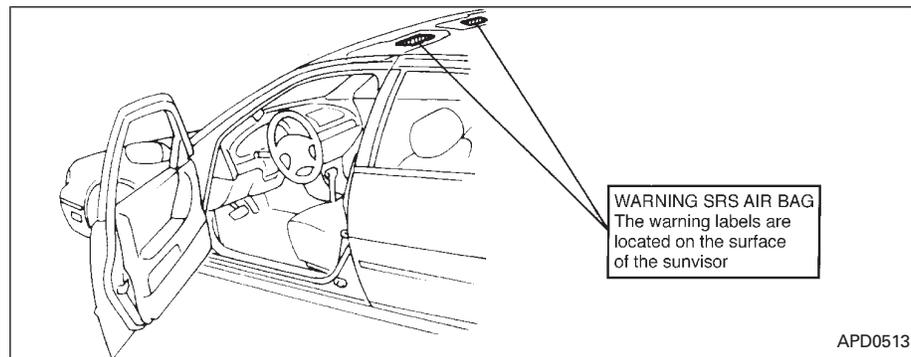
- **Right after inflation, several supplemental air bag system components will be hot. Do not touch them; you may severely burn yourself.**
- **No unauthorized changes should be made to any components or wiring of the supplemental air bag system. This is to prevent accidental inflation of the supplemental air bag or damage to the supplemental air bag system.**
- **Tampering with the supplemental air bag system may result in serious personal injury. Tampering includes**

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## WARNING LABELS

changes to the steering wheel and the instrument panel assembly by placing material over the steering wheel pad and above the dashboard, or by installing additional trim material around the supplemental air bag system.

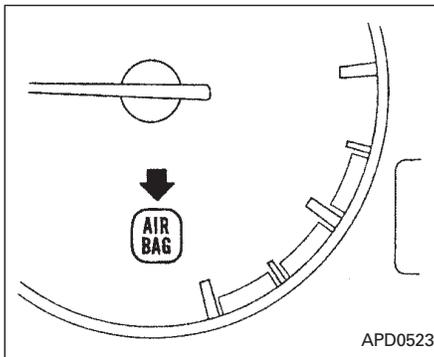
- **Do not place any objects on the steering wheel pad or on the instrument panel. Also, do not place any objects between any occupant and the steering wheel or instrument panel. Such objects may become dangerous projectiles and cause injury if the air bag inflates.**
- **Work around and on the supplemental air bag system should be done by an authorized NISSAN dealer. Installation of electrical equipment should also be done by an authorized NISSAN dealer. The yellow SRS wiring should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the supplemental air bag system.**



Warning labels about the supplemental air bag system are placed in the vehicle.

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The supplemental air bag light, displaying "AIR BAG" in the instrument panel, monitors the circuits of the air bag. The circuits monitored by the air bag light are the diagnosis sensor unit, air bag modules and all related wiring.

When the ignition key is in the "ON" or "START" position, the supplemental air bag light will illuminate for about 7 seconds and then turn off. This means the system is operational.

If any of the following conditions occur, the supplemental air bag needs servicing:

1. The supplemental air bag light does not come on for 7 seconds and then go off as described above.
2. The supplemental air bag light flashes intermittently or remains on.
3. The supplemental air bag light does not come on at all.

Under these conditions, the Supplemental Restraint System Air Bag will not operate properly. It must be checked and repaired. Take your vehicle to the nearest authorized NISSAN dealer.

### Repair and replacement procedure

The supplemental air bag system is designed to inflate on a one-time-only basis. As a reminder, unless it is damaged, the supplemental air bag light will remain illuminated after inflation has occurred. Repair and replacement of the supplemental air bag system should be done only by authorized NISSAN dealers. **To ensure long-term functioning, the system must be inspected 10 years after the date of manufacture as noted on the certification label located on the driver side front pillar.**

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When maintenance work is required on the vehicle, the supplemental air bag system and related parts should be pointed out to the person conducting the maintenance. The ignition key should always be in the "LOCK" position when working under the hood or inside the vehicle.

### **⚠ WARNING:**

- Once the supplemental air bag inflates, the air bag module will not function again and must be replaced. The supplemental air bag module cannot be repaired.
- After a supplemental air bag inflates, the front instrument panel assembly should be replaced by your NISSAN dealer if damaged.
- The supplemental air bag system should be inspected by an authorized NISSAN dealer if there is any damage to the front end portion of the vehicle or replaced if the supplemental air bag has inflated.
- When selling your vehicle, we request that you inform the buyer about the supplemental air bag system and guide the buyer to the appropriate sections in this Owner's Manual.

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## SEAT BELTS

- If you need to dispose of a supplemental air bag or scrap the vehicle, contact an authorized NISSAN dealer. Correct supplemental air bag disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.

### PRECAUTIONS ON SEAT BELT USAGE

If you are wearing your seat belt properly adjusted, your chances of being injured or killed in an accident and/or the severity of injury may be greatly reduced. NISSAN strongly encourages you and all of your passengers to buckle up every time you drive, even if your seating position includes an air bag.

**Some states, provinces or territories require that seat belts be worn at all times when a vehicle is being driven.**

### **⚠ WARNING**

- Every person who drives or rides in this vehicle should use a seat belt at all times. Children should be in appropriate child restraints.
- The belt should be properly adjusted to a snug fit. Failure to do so will reduce the effectiveness of the entire restraint system and increases the chance or severity of injury in an accident.

- Do not wear the belt inside out or twisted. Be sure the seat belt tongue is securely fastened to the proper buckle.
- Do not allow more than one person to use the same belt.
- All seat belt assemblies including retractors and attaching hardware should be inspected after any collision at your NISSAN dealer. NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Seat belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.
- Never carry more people in the vehicle than there are seat belts.

If the seat belt warning light glows continuously while the ignition is turned "ON" with all doors closed and all seat belts fastened, it may indicate a malfunction in the system. Have the system checked by your NISSAN dealer.

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The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it's more likely that the fetus won't be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

## Right Front Passenger Position

The right front passenger's safety belt works the same way as the driver's safety belt. See "Driver Position," earlier in this section.

When the lap portion of the belt is pulled out all the way, it will lock. If it does, let it go back all the way and start again.

If your vehicle has a center passenger position, be sure to use the correct buckle when buckling your lap-shoulder belt. If you find that the latch plate will not go fully into the buckle, see if you are using the buckle for the center passenger position.

## Supplemental Restraint System (SRS)

This part explains the Supplemental Restraint System (SRS) or air bag system.

Your Pontiac has two air bags -- one air bag for the driver and another air bag for the right front passenger.

Here are the most important things to know about the air bag system:

### CAUTION:

**You can be severely injured or killed in a crash if you aren't wearing your safety belt -- even if you have air bags. Wearing your safety belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Air bags are "supplemental restraints" to the safety belts. All air bags are designed to work with safety belts, but don't replace them. Air bags are designed to work only in moderate to severe crashes where the front of your vehicle hits something. They aren't designed to inflate at all in rollover, rear, side or low-speed frontal crashes. Everyone in your vehicle should wear a safety belt properly -- whether or not there's an air bag for that person.**

1997 Pontiac Bonneville

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### CAUTION:

**Air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, it could seriously injure you. Safety belts help keep you in position before and during a crash. Always wear your safety belt, even with air bags. The driver should sit as far back as possible while still maintaining control of the vehicle.**

### CAUTION:

**An inflating air bag can seriously injure small children. Always secure children properly in your vehicle. To read how, see the part of this manual called "Children" and the caution label on the right front passenger's safety belt.**



There is an air bag readiness light on the instrument panel, which shows AIR BAG.

The system checks the air bag electrical system for malfunctions. The light tells you if there is an electrical problem. See "Air Bag Readiness Light" in the Index for more information.

1997 Pontiac Bonneville

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## How the Air Bag System Works



### Where are the air bags?

The driver's air bag is in the middle of the steering wheel.



The right front passenger's air bag is in the instrument panel on the passenger's side.

1997 Pontiac Bonneville

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### CAUTION:

**If something is between an occupant and an air bag, the bag may not inflate properly or it might force the object into that person. The path of an inflating air bag must be kept clear. Don't put anything between an occupant and an air bag, and don't attach or put anything on the steering wheel hub or on or near any other air bag covering.**

### When should an air bag inflate?

An air bag is designed to inflate in a moderate to severe frontal or near-frontal crash. The air bag will inflate only if the impact speed is above the system's designed "threshold level." If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 9 to 15 mph (14 to 24 km/h). The threshold level can vary, however, with specific vehicle design, so that it can be somewhat above or below this range. If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The air bag is not designed to inflate in rollovers, side impacts or rear impacts, because inflation would not help the occupant.

In any particular crash, no one can say whether an air bag should have inflated simply because of the damage to a vehicle or because of what the repair costs were. Inflation is determined by the angle of the impact and how quickly the vehicle slows down in frontal or near-frontal impacts.

1997 Pontiac Bonneville

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### What makes an air bag inflate?

In an impact of sufficient severity, the air bag sensing system detects that the vehicle is in a crash. The sensing system triggers a release of gas from the inflator, which inflates the air bag. The inflator, air bag and related hardware are all part of the air bag modules inside the steering wheel and in the instrument panel in front of the right front passenger.

### How does an air bag restrain?

In moderate to severe frontal or near-frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. Air bags supplement the protection provided by safety belts. Air bags distribute the force of the impact more evenly over the occupant's upper body, stopping the occupant more gradually. But air bags would not help you in many types of collisions, including rollovers, rear impacts and side impacts, primarily because an occupant's motion is not toward those air bags. Air bags should never be regarded as anything more than a supplement to safety belts, and then only in moderate to severe frontal or near-frontal collisions.

### What will you see after an air bag inflates?

After an air bag inflates, it quickly deflates, so quickly that some people may not even realize the air bag inflated. Some components of the air bag module in the steering wheel hub for the driver's air bag, or the instrument panel for the right front passenger's bag, will be hot for a short time. The parts of the bag that come into contact with you may be warm, but not too hot to touch. There will be some smoke and dust coming from vents in the deflated air bags. Air bag inflation doesn't prevent the driver from seeing or from being able to steer the vehicle, nor does it stop people from leaving the vehicle.

#### CAUTION:

**When an air bag inflates, there is dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but can't get out of the vehicle after an air bag inflates, then get fresh air by opening a window or door.**

In many crashes severe enough to inflate an air bag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the right front passenger air bag.

- Air bags are designed to inflate only once. After they inflate, you'll need some new parts for your air bag system. If you don't get them, the air bag system won't be there to help protect you in another crash. A new system will include air bag modules and possibly other parts. The service manual for your vehicle covers the need to replace other parts.
- Your vehicle is equipped with a crash sensing and diagnostic module, which records information about the air bag system. The module records information about the readiness of the system, when the sensors are activated and driver's safety belt usage at deployment.
- Let only qualified technicians work on your air bag system. Improper service can mean that your air bag system won't work properly. See your dealer for service.

#### NOTICE:

**If you damage the covering for the driver's or the right front passenger's air bag, the bag may not work properly. You may have to replace the air bag module in the steering wheel or both the air bag module and the instrument panel for the right front passenger's air bag. Do not open or break the air bag coverings.**

### Servicing Your Air Bag-Equipped Pontiac

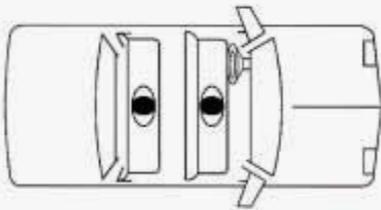
Air bags affect how your Pontiac should be serviced. There are parts of the air bag system in several places around your vehicle. You don't want the system to inflate while someone is working on your vehicle. Your Pontiac dealer and the Bonneville Service Manual have information about servicing your vehicle and the air bag system. To purchase a service manual, see "Service and Owner Publications" in the Index.

## CAUTION:

For up to 10 minutes after the ignition key is turned off and the battery is disconnected, an air bag can still inflate during improper service. You can be injured if you are close to an air bag when it inflates. Avoid wires wrapped with yellow tape or yellow connectors. They are probably part of the air bag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

The air bag system does not need regular maintenance.

## Center Passenger Position



## Lap Belt

If your vehicle has front and rear bench seats, someone can sit in the center positions.



When you sit in a center seating position, you have a lap safety belt, which has no retractor. To make the belt longer, tilt the latch plate and pull it along the belt.

The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it's more likely that the fetus won't be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

### Right Front Passenger Position

The right front passenger's safety belt works the same way as the driver's safety belt. See "Driver Position" earlier in this section.

When the shoulder belt is pulled out all the way, it will lock. If it does, let it go back all the way and start again.

### Supplemental Restraint System (SRS)

This part explains the Supplemental Restraint System (SRS) or air bag system.

Your Pontiac has two air bags -- one air bag for the driver and another air bag for the right front passenger.

Here are the most important things to know about the air bag system:

### CAUTION:

**You can be severely injured or killed in a crash if you aren't wearing your safety belt -- even if you have air bags. Wearing your safety belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Air bags are "supplemental restraints" to the safety belts. All air bags are designed to work with safety belts, but don't replace them. Air bags are designed to work only in moderate to severe crashes where the front of your vehicle hits something. They aren't designed to inflate at all in rollover, rear, side or low-speed frontal crashes. Everyone in your vehicle should wear a safety belt properly -- whether or not there's an air bag for that person.**

### CAUTION:

**Air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, it could seriously injure you. Safety belts help keep you in position before and during a crash. Always wear your safety belt, even with air bags. The driver should sit as far back as possible while still maintaining control of the vehicle.**

### CAUTION:

**An inflating air bag can seriously injure small children. Always secure children properly in your vehicle. To read how, see the part of this manual called "Children" and the caution label on the right front passenger's safety belt.**

AIRBAG

There is an air bag readiness light on the instrument panel, which shows the words AIR BAG.

The system checks the air bag electrical system for malfunctions. The light tells you if there is an electrical problem. See "Air Bag Readiness Light" in the Index for more information.

## How the Air Bag System Works



### Where are the air bags?

The driver's air bag is in the middle of the steering wheel.



The right front passenger's air bag is in the instrument panel on the passenger's side.

### CAUTION:

**If something is between an occupant and an air bag, the bag might not inflate properly or it might force the object into you and cause injury. The path of an inflating air bag must be kept clear. Don't put anything between an occupant and an air bag, and don't attach or put anything on the steering wheel hub or on or near any air bag cover.**

#### When should an air bag inflate?

An air bag is designed to inflate in a moderate to severe frontal or near-frontal crash. The air bag will inflate only if the impact speed is above the system's designed "threshold level." If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 9 to 15 mph (14 to 24 km/h). The threshold level can vary, however, with specific vehicle design, so that

it can be somewhat above or below this range. If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The air bag is not designed to inflate in rollovers, side impacts or rear impacts, because inflation would not help the occupant.

In any particular crash, no one can say whether an air bag should have inflated simply because of the damage to a vehicle or because of what the repair costs were. Inflation is determined by the angle of the impact and how quickly the vehicle slows down in frontal or near-frontal impacts.

#### What makes an air bag inflate?

In an impact of sufficient severity, the air bag sensing system detects that the vehicle is in a crash. The sensing system triggers a release of gas from the inflator, which inflates the air bag. The inflator, air bag and related hardware are all part of the air bag modules inside the steering wheel and in the instrument panel in front of the right front passenger.

## How does an air bag restrain?

In moderate to severe frontal or near-frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. Air bags supplement the protection provided by safety belts. Air bags distribute the force of the impact more evenly over the occupant's upper body, stopping the occupant more gradually. But air bags would not help you in many types of collisions, including rollovers, rear impacts and side impacts, primarily because an occupant's motion is not toward those air bags. Air bags should never be regarded as anything more than a supplement to safety belts, and then only in moderate to severe frontal or near-frontal collisions.

## What will you see after an air bag inflates?

After an air bag inflates, it quickly deflates, so quickly that some people may not even realize the air bag inflated. Some components of the air bag module -- the steering wheel hub for the driver's air bag, or the instrument panel for the right front passenger's bag -- will be hot for a short time. The parts of the bag that come into contact with you may be warm, but not too hot to touch. There will be some smoke and dust coming from vents in the deflated air bags. Air bag inflation doesn't prevent the driver from seeing or from being able to steer the vehicle, nor does it stop people from leaving the vehicle.

## CAUTION:

**When an air bag inflates, there is dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but can't get out of the vehicle after an air bag inflates, then get fresh air by opening a window or door.**

In many crashes severe enough to inflate an air bag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the right front passenger air bag.

- Air bags are designed to inflate only once. After they inflate, you'll need some new parts for your air bag system. If you don't get them, the air bag system won't be there to help protect you in another crash. A new system will include air bag modules and possibly other parts. The service manual for your vehicle covers the need to replace other parts.

- Your vehicle is equipped with a crash sensing and diagnostic module, which records information about the air bag system. The module records information about the readiness of the system, when the sensors are activated and driver's safety belt usage at deployment.
- Let only qualified technicians work on your air bag system. Improper service can mean that your air bag system won't work properly. See your dealer for service.

## NOTICE:

**If you damage the cover for the driver's or the right front passenger's air bag, the bag may not work properly. You may have to replace the air bag module in the steering wheel or both the air bag module and the instrument panel for the passenger's air bag. Do not open or break the air bag covers.**

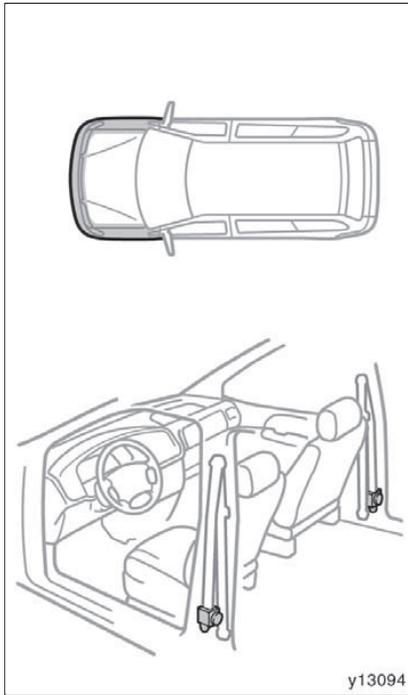
## Servicing Your Air Bag-Equipped Pontiac

Air bags affect how your Pontiac should be serviced. There are parts of the air bag system in several places around your vehicle. You don't want the system to inflate while someone is working on your vehicle. Your Pontiac dealer and the Trans Sport Service Manual have information about servicing your vehicle and the air bag system. To purchase a service manual, see "Service and Owner Publications" in the Index.

## CAUTION:

**For up to 10 minutes after the ignition key is turned off and the battery is disconnected, an air bag can still inflate during improper service. You can be injured if you are close to an air bag when it inflates. Avoid wires wrapped with yellow tape or yellow connectors. They are probably part of the air bag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.**

The air bag system does not need regular maintenance.

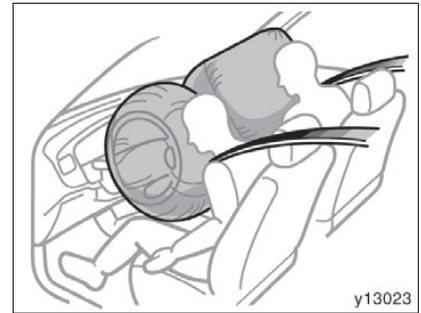


y13094

This front seat belt pretensioner system has a service reminder indicator to inform the driver of operating problems. If either of the following conditions occurs, this indicates a malfunction of the airbags or pretensioners. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the "ACC" or "ON" position, or remains on.
- The light comes on or flashes while driving.
- If either front seat belt does not retract or can not be pulled out due to a malfunction or activation of the pretensioner.
- The front seat belt pretensioner assembly or surrounding area has been damaged.
- The front part of the vehicle (shaded in the illustration) was involved in an accident not of the extent to cause the seat belt pretensioners to operate.
- The front seat belt pretensioner assembly is scratched, cracked, or otherwise damaged.

### SRS driver and front passenger airbags



y13023

**The SRS (Supplemental Restraint System) airbags are designed to provide further protection for the driver and front passenger when added to the primary protection provided by the seat belts.**

In response to a severe frontal impact, the SRS airbags work together with the seat belts to help prevent or reduce injury by inflating, in order to decrease the likelihood of the driver's or front passenger's head or chest directly hitting the steering wheel or dashboard. The passenger airbag is activated even with no passenger in the front seat.

Be sure to wear your seat belt.

#### CAUTION

A driver or front passenger too close to the steering wheel or dashboard during airbag deployment can be killed or seriously injured. Toyota strongly recommends that:

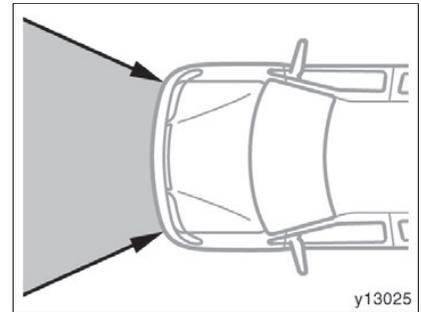
- The driver sit as far back as possible from the steering wheel while still maintaining control of the vehicle.
- The front passenger sit as far back as possible from the dashboard.
- All vehicle occupants be properly restrained using the available seat belts.



y13024

This indicator comes on when the ignition key is turned to the "ACC" or "ON" position. It goes off after about 6 seconds. This means the SRS airbags are operating properly.

The SRS airbag warning light system monitors the airbag sensor assembly, inflators, warning light, interconnecting wiring and power sources. (For details, see "Service reminder indicators and warning buzzers" in Chapter 1-5.)



y13025

**The SRS airbag system is designed to activate in response to a severe frontal impact within the shaded area between the arrows in the illustration.**

There may be the case that the SRS airbags will not activate with such an impact in which the occupant wearing the seat belt correctly would not get serious injury.

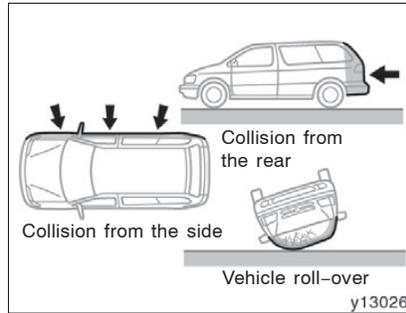
The SRS airbags will deploy if the severity of the impact is above the designed threshold level, comparable to an approximate 24 km/h (15 mph) collision when impacting straight into a fixed barrier that does not move or deform.

If the severity of the impact is below the above threshold level, the SRS airbags may not deploy.

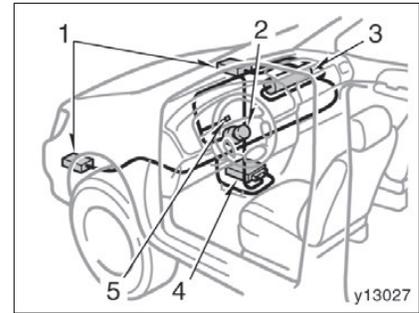
However, this threshold velocity will be considerably higher if the vehicle strikes an object, such as a parked vehicle or sign pole, which can move or deform on impact, or if it is involved in an underride collision (e.g. a collision in which the nose of the vehicle "underrides", or goes under, the bed of a truck).

It is possible with collision severity at the marginal level of airbag sensor detection and activation that only one of your vehicle's two airbags will deploy.

For the safety of all occupants, be sure to always wear seat belts.



**The SRS airbags are not designed to inflate if the vehicle is subjected to a side or rear impact, if it rolls over, or if it is involved in a low-speed frontal collision.**



The SRS airbag system mainly consists of the following components and their locations are shown in the illustration.

1. Front airbag sensor
2. Airbag module for driver (airbag and inflator)
3. Airbag module for passenger (airbag and inflator)
4. Airbag sensor assembly
5. SRS airbag warning light

The airbag sensor assembly consists of a safing sensor and airbag sensor.

In a severe frontal impact, sensors detect deceleration and the system triggers the airbag inflators. Then a chemical reaction in the inflators momentarily fills the airbags with non-toxic gas to help restrain the forward motion of the occupants.

When the airbags inflate, they produce a fairly loud noise and release some smoke along with non-toxic gas. This does not indicate a fire. Be sure to wash off any residue as soon as possible to prevent minor skin irritation.

Deployment of the airbags happen in a fraction of a second, so the airbags must inflate with considerable force. While the system is designed to reduce serious injuries, it may also cause minor burns or abrasions and swellings.

Parts of the airbag module (steering wheel hub, dashboard) may be hot for several minutes, but the airbags themselves will not be hot. The airbags are designed to inflate only once.

A crash severe enough to inflate the airbags may break the windshield as the vehicle buckles. In vehicles with a passenger airbag the windshield may also be damaged by absorbing some of the force of the inflating airbag.

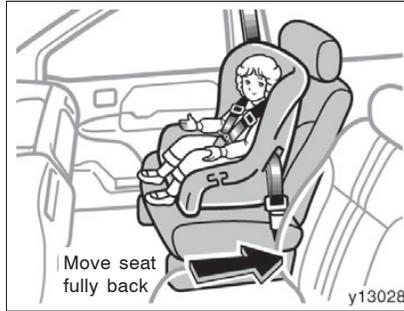
**CAUTION**

● The SRS airbag system is designed only as a supplement to the primary protection of the driver side and front passenger side seat belt systems. The front seat occupants can be killed or seriously injured by an inflating airbag if they do not wear the available seat belts. During sudden braking just before a collision, an unrestrained driver or front passenger can move forward into direct contact with or close proximity to the airbag which may then deploy during the collision. To obtain maximum protection in an accident, the driver and all passengers in the vehicle must wear their seat belts. Wearing a seat belt during an accident reduces the chances of death or serious injuries or being thrown out of the vehicle. For instructions and precautions concerning the seat belt system, see "Seat belts" in this chapter.

● Improperly seated and/or restrained infants and children can be killed or seriously injured by a deploying airbag. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. Toyota strongly recommends that all infants and children be placed in the rear seat of the vehicle and properly restrained. The rear seat is the safest for infants and children. For instructions concerning the installation of a child restraint system, see "Child restraint" in this chapter.



- Never put a rear-facing child restraint system on the front seat because the force of the rapid inflation of the passenger airbag can cause death or serious injury to the child.



- A forward-facing child restraint system should be allowed to put on the front seat only when it is unavoidable. Always move the seat as far back as possible, because the force of a deploying airbag could cause death or serious injury to the child.

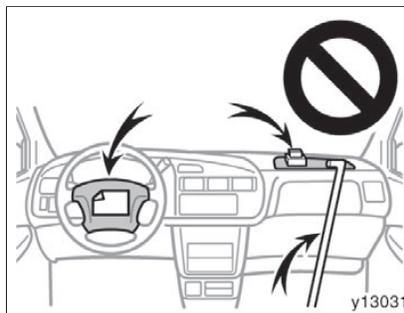
For instructions concerning the installation of a child restraint system, see "Child restraint" in this chapter.



- Do not sit on the edge of the seat or lean over the dashboard when the vehicle is in use. The airbags inflate with considerable speed and force; you may be killed or seriously injured. Sit up straight and well back in the seat, and always use your seat belt.



- Do not allow a child to stand up, or to kneel on the front passenger seat. The airbag inflates with considerable speed and force; the child may be killed or seriously injured.
- Do not hold a child on your lap or in your arms. Use a child restraint system in the rear seat. For instructions concerning the installation of a child restraint system, see "Child restraint" in this chapter.



- Do not put objects or your pets on or in front of the dashboard or steering wheel pad that houses the airbag system. They might restrict inflation or cause death or serious injury as they are projected rearward by the force of the deploying airbags. Likewise, the driver and front passenger should not hold things in their arms or on their knees.

- Do not modify or remove any wiring. Do not modify, remove, strike or open any components such as the steering wheel column cover, front passenger airbag cover, front passenger airbag or airbag sensor assembly. Doing any of these may cause sudden SRS airbag inflation or disable the system, which could result in death or serious injury.

Failure to follow these instructions can result in death or serious injuries.

**NOTICE**

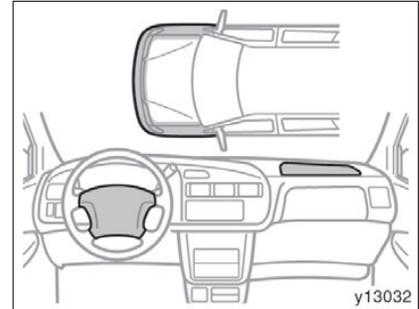
**Do not perform any of the following changes without consulting your Toyota dealer. Such changes can interfere with proper operation of the SRS airbag system in some cases.**

- ◆ **Installation of electronic items such as a mobile two-way radio, cassette tape player or compact disc player**
- ◆ **Modification of the suspension system**
- ◆ **Modification of the front end structure**
- ◆ **Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end**
- ◆ **Repairs made on or near the front fenders, front end structure, console, steering column, steering wheel or dashboard near the front passenger airbag**



This SRS airbag system has a service reminder indicator to inform the driver of operating problems. If either of the following conditions occurs, this indicates a malfunction of the airbags. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the "ACC" or "ON" position, or remains on.
- The light comes on or flashes while driving.



In the following cases, contact your Toyota dealer as soon as possible:

- The SRS airbags have been inflated.
- The front part of the vehicle (shaded in the illustration) was involved in an accident not of the extent to cause the SRS airbags to inflate.
- The pad section of the steering wheel or front passenger airbag cover (shaded in the illustration) is scratched, cracked, or otherwise damaged.

**NOTICE**

**Do not disconnect the battery cables before contacting your Toyota dealer.**

The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it's more likely that the fetus won't be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

### Right Front Passenger Position

To learn how to wear the right front passenger's safety belt properly, see "Driver Position" earlier in this section.

The right front passenger's safety belt works the same way as the driver's safety belt -- except for one thing. If you ever pull the shoulder portion of the belt out all the way, you will engage the child restraint locking feature. If this happens, just let the belt go back all the way and start again.

### Supplemental Restraint System (SRS)

This part explains the Supplemental Restraint System (SRS) or air bag system.

Your vehicle has air bags -- one air bag for the driver and another air bag for the right front passenger.

Frontal air bags are designed to help reduce the risk of injury from the force of an inflating air bag. But these air bags must inflate very quickly to do their job and comply with federal regulations.

Here are the most important things to know about the air bag system:

#### CAUTION:

**You can be severely injured or killed in a crash if you aren't wearing your safety belt -- even if you have air bags. Wearing your safety belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Air bags are designed to work with safety belts, but don't replace them. Air bags are designed to work only in moderate to severe crashes where the front of your vehicle hits something. They aren't designed to inflate at all in rollover, rear or low-speed frontal crashes, or in many side crashes. And, for some unrestrained occupants, air bags may provide less protection in frontal crashes than more forceful air bags have provided in the past. Everyone in your vehicle should wear a safety belt properly -- whether or not there's an air bag for that person.**

#### CAUTION:

**Air bags inflate with great force, faster than the blink of an eye. If you're too close to an inflating air bag, as you would be if you were leaning forward, it could seriously injure you. Safety belts help keep you in position before and during a crash. Always wear your safety belt, even with air bags. The driver should sit as far back as possible while still maintaining control of the vehicle.**

#### CAUTION:

**Anyone who is up against, or very close to, any air bag when it inflates can be seriously injured or killed. Air bags plus lap-shoulder belts offer the best protection for adults, but not for young**

**CAUTION: (Continued)**

#### CAUTION: (Continued)

**children and infants. Neither the vehicle's safety belt system nor its air bag system is designed for them. Young children and infants need the protection that a child restraint system can provide. Always secure children properly in your vehicle. To read how, see the part of this manual called "Children."**



There is an air bag readiness light on the instrument panel, which shows the air bag symbol.

The system checks the air bag electrical system for malfunctions. The light tells you if there is an electrical problem. See "Air Bag Readiness Light" in the Index for more information.

## How the Air Bag System Works



### Where are the air bags?

The driver's air bag is in the middle of the steering wheel.



The right front passenger's air bag is in the instrument panel on the passenger's side.

### CAUTION:

**If something is between an occupant and an air bag, the bag might not inflate properly or it might force the object into that person causing severe injury or even death. The path of an inflating air bag must be kept clear. Don't put anything between an occupant and an air bag, and don't attach or put anything on the steering wheel hub or on or near any other air bag covering.**

### When should an air bag inflate?

An air bag is designed to inflate in a moderate to severe frontal or near-frontal crash. The air bag will inflate only if the impact speed is above the system's designed "threshold level." If your vehicle goes straight into a wall that doesn't move or deform, the threshold level is about 9 to 14 mph (14 to 23 km/h). The threshold level can vary, however, with specific vehicle design, so that it can be somewhat above or below this range. If your vehicle strikes something that will move or deform, such as a parked car, the threshold level will be higher. The air bag is not designed to inflate in rollovers, rear impacts, or in many side impacts because inflation would not help the occupant.

In any particular crash, no one can say whether an air bag should have inflated simply because of the damage to a vehicle or because of what the repair costs were. Inflation is determined by the angle of the impact and how quickly the vehicle slows down in frontal or near-frontal impacts.

### What makes an air bag inflate?

In an impact of sufficient severity, the air bag sensing system detects that the vehicle is in a crash. The sensing system triggers a release of gas from the inflator, which inflates the air bag. The inflator, air bag and related hardware are all part of the air bag modules inside the steering wheel and in the instrument panel in front of the right front passenger.

### How does an air bag restrain?

In moderate to severe frontal or near-frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. Air bags supplement the protection provided by safety belts. Air bags distribute the force of the impact more evenly over the occupant's upper body, stopping the occupant more gradually. But air bags would not help you in many types of collisions, including rollovers, rear impacts and many side impacts, primarily because an occupant's motion is not toward those air bags. Air bags should never be regarded as anything more than a supplement to safety belts, and then only in moderate to severe frontal or near-frontal collisions.

### What will you see after an air bag inflates?

After an air bag inflates, it quickly deflates, so quickly that some people may not even realize the air bag inflated. Some components of the air bag module -- the steering wheel hub for the driver's air bag, or the instrument panel for the right front passenger's bag -- will be hot for a short time. The parts of the bag that come into contact with you may be warm, but not too hot to touch. There will be some smoke and dust coming from vents in the deflated air bags. Air bag inflation doesn't prevent the driver from seeing or from being able to steer the vehicle, nor does it stop people from leaving the vehicle.

#### CAUTION:

**When an air bag inflates, there is dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but can't get out of the vehicle after an air bag inflates, then get fresh air by opening a window or door.**

In many crashes severe enough to inflate an air bag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the right front passenger air bag.

- Air bags are designed to inflate only once. After they inflate, you'll need some new parts for your air bag system. If you don't get them, the air bag system won't be there to help protect you in another crash. A new system will include air bag modules and possibly other parts. The service manual for your vehicle covers the need to replace other parts.
- Your vehicle is equipped with a crash sensing and diagnostic module, which records information about the air bag system. The module records information about the readiness of the system, when the system commands air bag inflation and driver's safety belt usage at deployment.
- Let only qualified technicians work on your air bag system. Improper service can mean that your air bag system won't work properly. See your dealer for service.

#### NOTICE:

**If you damage the covering for the driver's or the right front passenger's air bag, the bag may not work properly. You may have to replace the air bag module in the steering wheel or both the air bag module and the instrument panel for the right front passenger's air bag. Do not open or break the air bag coverings.**

## Servicing Your Air Bag-Equipped Vehicle

Air bags affect how your vehicle should be serviced. There are parts of the air bag system in several places around your vehicle. You don't want the system to inflate while someone is working on your vehicle. Your dealer and the service manual have information about servicing your vehicle and the air bag system. To purchase a service manual, see "Service and Owner Publications" in the Index.



### CAUTION:

**For up to 10 minutes after the ignition key is turned off and the battery is disconnected, an air bag can still inflate during improper service. You can be injured if you are close to an air bag when it inflates. Avoid yellow connectors. They are probably part of the air bag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.**

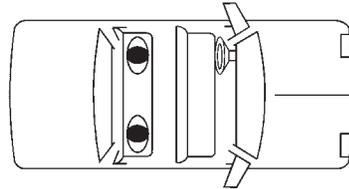
The air bag system does not need regular maintenance.

## Rear Seat Passengers

It's very important for rear seat passengers to buckle up! Accident statistics show that unbelted people in the rear seat are hurt more often in crashes than those who are wearing safety belts.

Rear passengers who aren't safety belted can be thrown out of the vehicle in a crash. And they can strike others in the vehicle who are wearing safety belts.

## Rear Seat Outside Passenger Positions



### Lap-Shoulder Belt

The positions next to the windows have lap-shoulder belts. Here's how to wear one properly.

**Seat Belts And Pregnant Women**

We recommend that pregnant women use the seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

**Seat Belt Extender**

If a seat belt is too short even when fully extended and when the adjustable upper shoulder belt anchorage (if equipped) is in its lowest position, your authorized dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and store it.

**WARNING!**

Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use when the seat belt is not long enough when it is worn low and snug and in the recommended seating positions. Remove and store the extender when not needed.

**Supplemental Restraint System (SRS) — Air Bags**

This vehicle has Advanced Front Air Bags for both the driver and front passenger as a supplement to the seat belt restraint systems. The driver’s Advanced Front Air Bag is mounted in the center of the steering wheel. The passenger’s Advanced Front Air Bag is mounted in the instrument panel, above the glove compartment. The words SRS AIRBAG are embossed on the air bag covers.

In addition, the vehicle is equipped with a Supplemental Driver Side Knee Air Bag mounted in the instrument panel below the steering column.

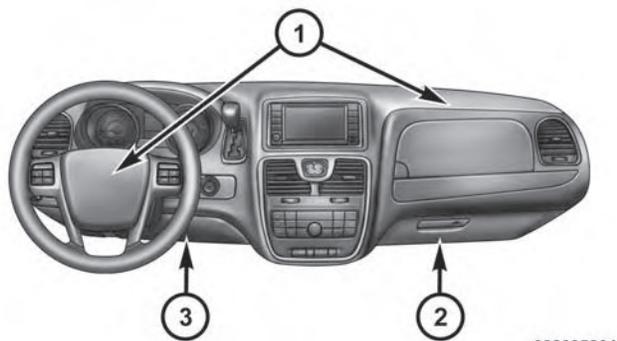
**NOTE:** These air bags are certified to the new Federal regulations for Advanced Air Bags.

The Advanced Front Air Bags have a multistage inflator design. This allows the air bag to have different rates of inflation based on the severity and type of collision.

This vehicle may be equipped with driver and/or front passenger seat track position sensors that may adjust the inflation rate of the Advanced Front Air Bags based upon seat position.

This vehicle is equipped with a driver and/or front passenger seat belt buckle switch that detects whether the driver or front passenger seat belt is fastened. The seat belt buckle switch may adjust the inflation rate of the Advanced Front Air Bags.

This vehicle is equipped with Supplemental Side Air Bag Inflatable Curtains (SABIC) to protect the driver, front,



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**Advanced Front Air Bag And Knee Bolster Locations**

- 1 — Driver And Passenger Advanced Front Air Bags
- 2 — Knee Bolster
- 3 — Supplemental Driver Side Knee Air Bag

and rear passengers sitting next to a window. The SABIC air bags are located above the side windows and their covers are also labeled: SRS AIRBAG.

This vehicle is equipped with Supplemental Seat-Mounted Side Air Bags (SAB) to provide enhanced protection for an occupant during a side impact. The SABs are located in the outboard side of the front seats.

**NOTE:**

- Air Bag covers may not be obvious in the interior trim, but they will open during air bag deployment.
- After any collision, the vehicle should be taken to an authorized dealer immediately.

**Air Bag System Components**

Your vehicle may be equipped with the following air bag system components:

- Occupant Restraint Controller (ORC)

- Air Bag Warning Light
- Steering Wheel and Column
- Instrument Panel
- Supplemental Driver Side Knee Air Bag
- Knee Impact Bolster
- Driver Advanced Front Air Bag
- Passenger Advanced Front Air Bag
- Supplemental Seat-Mounted Side Air Bags (SAB)
- Supplemental Side Air Bag Inflatable Curtains (SABIC)
- Front and Side Impact Sensors
- Front Seat Belt Pretensioners, Seat Belt Buckle Switch, and Seat Track Position Sensors

**Advanced Front Air Bag Features**

The Advanced Front Air Bag system has multistage driver and front passenger air bags. This system provides output appropriate to the severity and type of collision as determined by the Occupant Restraint Controller (ORC), which may receive information from the front impact sensors.

The first stage inflator is triggered immediately during an impact that requires air bag deployment. This low output is used in less severe collisions. A higher energy output is used for more severe collisions.

**WARNING!**

- No objects should be placed over or near the air bag on the instrument panel, because any such objects could cause harm if the vehicle is in a collision severe enough to cause the air bag to inflate.
- Do not put anything on or around the air bag covers or attempt to open them manually. You may damage the air bags and you could be injured because the air bags may no longer be functional. The protective covers for the air bag cushions are designed to open only when the air bags are inflating.
- Do not drill, cut or tamper with the knee bolster in any way.
- Do not mount any accessories to the knee bolster such as alarm lights, stereos, citizen band radios, etc.

improved protection for the driver and front passenger. Side air bags also work with seat belts to improve occupant protection.

### Air Bag Deployment Sensors And Controls

#### Occupant Restraint Controller (ORC)

The ORC is part of a Federally regulated safety system required for this vehicle.

The ORC determines if deployment of the front and/or side air bags in a frontal or side collision is required. Based on the impact sensor's signals, a central electronic ORC deploys the Advanced Front Air Bags, SABIC air bags, SABs, Supplemental Driver Side Knee Air Bag, and front seat belt pretensioners, as required, depending on several factors, including the severity and type of impact.

Advanced Front Air Bags and Supplemental Driver Side Knee Air Bag are designed to provide additional protection by supplementing the seat belts in certain frontal

collisions depending on several factors, including the severity and type of collision. Advanced Front Air Bags are not expected to reduce the risk of injury in rear, side, or rollover collisions.

The Advanced Front Air Bags and Supplemental Driver Side Knee Air Bag will not deploy in all frontal collisions, including some that may produce substantial vehicle damage — for example, some pole collisions, truck underrides, and angle offset collisions. On the other hand, depending on the type and location of impact, Advanced Front Air Bags may deploy in crashes with little vehicle front-end damage but that produce a severe initial deceleration.

The side air bags will not deploy in all side collisions. Side air bag deployment will depend on the severity and type of collision.

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Because air bag sensors measure vehicle deceleration over time, vehicle speed and damage by themselves are not good indicators of whether or not an air bag should have deployed.

Seat belts are necessary for your protection in all collisions, and also are needed to help keep you in position, away from an inflating air bag.

The ORC monitors the readiness of the electronic parts of the air bag system whenever the ignition switch is in the START or ON/RUN position. If the key is in the OFF position, in the ACC position, or not in the ignition, the air bag system is not on and the air bags will not inflate.

The ORC contains a backup power supply system that may deploy the air bags even if the battery loses power or it becomes disconnected prior to deployment.



Also, the ORC turns on the Air Bag Warning Light in the instrument panel for approximately four to eight seconds for a self-check when the ignition is first turned on. After the self-check, the Air Bag Warning Light will turn off. If the ORC detects a malfunction in any part of the system, it turns on the Air Bag Warning Light, either momentarily or continuously. A single chime will sound if the light comes on again after initial startup.

It also includes diagnostics that will illuminate the instrument cluster Air Bag Warning Light if a malfunction is noted that could affect the air bag system. The diagnostics also record the nature of the malfunction.

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**WARNING!**

Ignoring the Air Bag Warning Light in your instrument panel could mean you won't have the air bags to protect you in a collision. If the light does not come on as a bulb check when the ignition is first turned on, stays on after you start the vehicle, or if it comes on as you drive, have an authorized dealer service the air bag system immediately.

**Driver And Passenger Advanced Front Air Bag Inflator Units**

The Driver and Passenger Advanced Front Air Bag Inflator Units are located in the center of the steering wheel and on the right side of the instrument panel. When the ORC detects a collision requiring the Advanced Front Air Bags, it signals the inflator units. A large quantity of non-toxic gas is generated to inflate the Advanced Front Air Bags. Different air bag inflation rates

are possible, based on several factors, including the collision type and severity. The steering wheel hub trim cover and the upper right side of the instrument panel separate and fold out of the way as the air bags inflate to their full size. The air bags fully inflate in about 50 to 70 milliseconds. This is about half of the time it takes to blink your eyes. The air bags then quickly deflate while helping to restrain the driver and front passenger.

The Advanced Front Air Bag gas is vented through the vent holes in the sides of the air bag. In this way, the air bags do not interfere with your control of the vehicle.

**Supplemental Driver Side Knee Air Bag Inflator Unit**

The Supplemental Driver Side Knee Air Bag unit is located in the instrument panel trim beneath the steering column. When the ORC detects a collision requiring the Advanced Front Air Bags, it signals the inflator units. A large quantity of non-toxic gas is generated to inflate the

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Supplemental Driver Side Knee Air Bag. The trim cover separates and folds out of the way allowing the air bag to inflate to the full size. The air bag fully inflates in about 15 to 20 milliseconds. The Supplemental Driver Side Knee Air Bag gas is vented through small vent holes in the side of the air bag.

**Supplemental Seat-Mounted Side Air Bag (SAB) Inflator Units**

The Supplemental Seat-Mounted Side Air Bags (SAB) are designed to activate only in certain side collisions.

The ORC determines if a side collision requires the side air bags to inflate, based on the severity and type of collision.

Based on the severity and type of collision, the side air bag inflator on the crash side of the vehicle may be triggered, releasing a quantity of non-toxic gas. The inflating SAB exits through the seat seam into the space

between the occupant and the door. The SAB fully inflates in about 10 milliseconds. The side air bag moves at a very high speed and with such a high force that it could injure you if you are not seated properly, or if items are positioned in the area where the side air bag inflates. This especially applies to children.

**Supplemental Side Air Bag Inflatable Curtain (SABIC) Inflator Units**

During collisions where the impact is confined to a particular area of the side of the vehicle, the ORC may deploy the SABIC air bags, depending on the severity and type of collision. In these events, the ORC will deploy the SABIC only on the impact side of the vehicle.

A quantity of non-toxic gas is generated to inflate the side curtain air bag. The inflating side curtain air bag pushes the outside edge of the headliner out of the way and covers the window. The air bag inflates in about 30 milliseconds (about one-quarter of the time that it takes

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to blink your eyes) with enough force to injure you if you are not belted and seated properly, or if items are positioned in the area where the side curtain air bag inflates. This especially applies to children. The side curtain air bag is only about 3-1/2 in (9 cm) thick when it is inflated.

Because air bag sensors estimate deceleration over time, vehicle speed and damage are not good indicators of whether or not an air bag should have deployed.

**NOTE:** In a rollover the pretensioners and/or SAB and SABIC air bags may deploy on both sides of the vehicle.

#### **Front And Side Impact Sensors**

In front and side impacts, impact sensors can aid the ORC in determining appropriate response to impact events.

#### **Enhanced Accident Response System**

In the event of an impact causing air bag deployment, if the communication network remains intact, and the power remains intact, depending on the nature of the event the ORC will determine whether to have the Enhanced Accident Response System perform the following functions:

Cut off fuel to the engine.

Flash hazard lights as long as the battery has power or until the ignition key is turned off.

Turn on the interior lights, which remain on as long as the battery has power or until the ignition key is removed.

Unlock the doors automatically.

In order to reset the Enhanced Accident Response System functions after an event, the ignition switch must be changed from IGN ON to IGN OFF.

**Seat Belts And Pregnant Women**

We recommend that pregnant women use the seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

**Seat Belt Extender**

If a seat belt is too short even when fully extended and when the adjustable upper shoulder belt anchorage (if so equipped) is in its lowest position, your authorized dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and store it.

**WARNING!**

Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use when the seat belt is not long enough when it is worn low and snug and in the recommended seating positions. Remove and store the extender when not needed.

**Supplemental Restraint System (SRS) — Air Bags**

This vehicle has Advanced Front Air Bags for both the driver and front passenger as a supplement to the seat belt restraint systems. The driver’s Advanced Front Air Bag is mounted in the center of the steering wheel. The passenger’s Advanced Front Air Bag is mounted in the instrument panel, above the glove compartment. The words SRS AIRBAG are embossed on the air bag covers.

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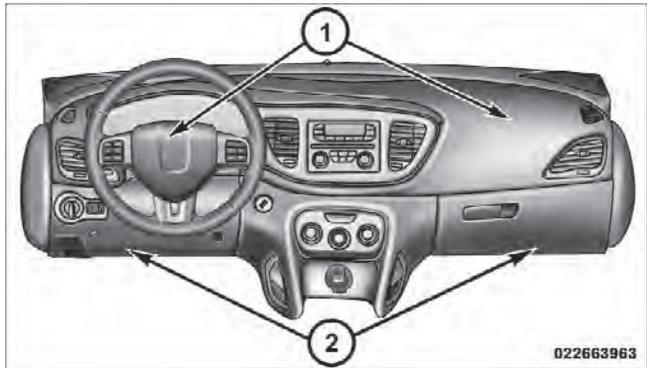
In addition, the vehicle is equipped with Supplemental Knee Air Bags mounted in the instrument panel below the steering column and below the glove compartment.

**NOTE:** The Driver and Passenger Advanced Front Air Bags are certified to new Federal regulations.

The Advanced Front Air Bags have a multistage inflator design. This allows the air bag to have different rates of inflation based on several factors, including the severity and type of collision.

This vehicle may be equipped with driver and/or front passenger seat track position sensors that may adjust the inflation rate of the Advanced Front Air Bags based upon seat position.

This vehicle may be equipped with a driver and/or front passenger seat belt buckle switch that detects whether the driver or front passenger seat belt is fastened. The seat belt buckle switch may adjust the inflation rate of the Advanced Front Air Bags.



**Advanced Front Air Bag And Knee Bolster Locations**

- 1 — Driver And Passenger Advanced Front Air Bags
- 2 — Supplemental Driver And Passenger Side Knee Air Bags

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This vehicle may be equipped with a front passenger occupant classification system (OCS) that may adjust the inflation rate of the Advanced Front Airbags based upon occupant weight.

This vehicle is equipped with Supplemental Side Air Bag Inflatable Curtains (SABIC) to protect the driver, front, and rear passengers sitting next to a window. The SABIC air bags are located above the side windows and their covers are also labeled: SRS AIRBAG.

This vehicle is equipped with Supplemental Seat-Mounted Side Air Bags (SAB) to provide enhanced protection for an occupant during a side impact. The Supplemental Seat-Mounted Side Airbags are located in the outboard side of the front seats and the rear seats (if equipped).

**NOTE:**

- Air Bag covers may not be obvious in the interior trim, but they will open during air bag deployment.
- After any accident, the vehicle should be taken to an authorized dealer immediately.

**Air Bag System Components**

Your vehicle may be equipped with the following air bag system components:

- Occupant Restraint Controller (ORC)
- Air Bag Warning Light 
- Steering Wheel and Column
- Instrument Panel
- Supplemental Driver Side Knee Air Bag

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- Supplemental Passenger Side Knee Air Bag
- Knee Impact Bolster
- Driver Advanced Front Air Bag
- Passenger Advanced Front Air Bag
- Supplemental Seat-Mounted Side Air Bags (SAB)
- Supplemental Side Air Bag Inflatable Curtains (SABIC)
- Front and Side Impact Sensors
- Front Seat Belt Pretensioners, Seat Belt Buckle Switch, and Seat Track Position Sensors
- Occupant Classification System (OCS)

**Advanced Front Air Bag Features**

The Advanced Front Air Bag system has multistage driver and front passenger air bags. This system provides output appropriate to the severity and type of collision as determined by the Occupant Restraint Controller (ORC), which may receive information from several air bag system components, including the front impact sensors.

The first stage inflator is triggered immediately during an impact that requires air bag deployment. This low output is used in less severe collisions. A higher energy output is used for more severe collisions.

<b>WARNING!</b>
<ul style="list-style-type: none"> <li>• No objects should be placed over or near the air bag on the instrument panel, because any such objects could cause harm if the vehicle is in a collision severe enough to cause the air bag to inflate.</li> </ul>

*(Continued)*

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**WARNING! (Continued)**

- Do not put anything on or around the air bag covers or attempt to open them manually. You may damage the air bags and you could be injured because the air bags may no longer be functional. The protective covers for the air bag cushions are designed to open only when the air bags are inflating.
- Do not drill, cut or tamper with the knee bolster in any way.
- Do not mount any accessories to the knee bolster such as alarm lights, stereos, citizen band radios, etc.

**Supplemental Seat-Mounted Side Air Bags (SAB)**  
 Supplemental Seat-Mounted Side Air Bags (SAB) may provide enhanced protection to help protect an occupant during a side impact. The SAB is marked with an air bag label sewn into the outboard side of the front and rear seats.

When the air bag deploys, it opens the seam between the front and side of the seat’s back trim cover (front seats) or between the top and side seat’s cushion trim cover (rear seat). Each air bag deploys independently; a left side impact deploys the left air bags only and a right-side impact deploys the right air bags only.

**Supplemental Side Air Bag Inflatable Curtain (SABIC)**

SABIC air bags may offer side-impact protection to front and rear seat outboard occupants in addition to that provided by the body structure. Each air bag features inflated chambers placed adjacent to the head of each outboard occupant that reduce the potential for side-impact head injuries. The SABIC deploy downward, covering both windows on the impact side.

turns on the Air Bag Warning Light, either momentarily or continuously. A single chime will sound if the light comes on again after initial startup.

It also includes diagnostics that will illuminate the instrument cluster Air Bag Warning Light if a malfunction is noted that could affect the air bag system. The diagnostics also record the nature of the malfunction.

**WARNING!**

**Ignoring the Air Bag Warning Light in your instrument panel could mean you won’t have the air bags to protect you in a collision. If the light does not come on as a bulb check when the ignition is first turned on, stays on after you start the vehicle, or if it comes on as you drive, have an authorized dealer service the air bag system immediately.**

**Occupant Classification System (OCS) — Front Passenger Seat**

The OCS is part of a Federally regulated safety system for this vehicle.

The Occupant Classification System (OCS) consists of the following:

- Occupant Restraint Controller (ORC)
- Occupant Classification Module (OCM) located in the front passenger seat
- OCS Sensor located in the front passenger seat
- Air Bag Warning Light 

**66 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE**

The OCS will NOT prevent deployment of the passenger Advanced Front Air Bag. The OCS may reduce the inflation rate of the passenger Advanced Front Air Bag if the sensors estimate that:

- The front passenger seat is unoccupied or has very light objects in it; or
- The front passenger seat is occupied by a small passenger, including a child; or
- The front passenger seat is occupied by a rearward facing infant seat; or
- The front passenger is not properly seated or his or her weight is taken off of the seat for a period of time.

Front Passenger Seat Occupant Status	Front Passenger Air Bag Classification
Rearward-facing infant seat*	Reduced-power deployment
Child, including a child in a forward-facing child restraint or booster seat*	Full-power deployment OR reduced-power deployment
Properly seated adult	Full-power deployment OR reduced-power deployment
Unoccupied seat	Reduced-power deployment

\* It is possible for a child to be classified as an adult, allowing a full-power front passenger air bag deployment. Never allow children to ride in the front passenger seat and never install a child restraint system, including a rearward-facing infant seat, in the front passenger seat.

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**THINGS TO KNOW BEFORE STARTING YOUR VEHICLE 67**

**WARNING!**

- **Never place a rear facing infant seat in front of an air bag. A deploying passenger Advanced Front Air Bag can cause death or serious injury to a child 12 years or younger, including a child in a rearward facing infant seat.**
- **Children 12 years or younger should always ride buckled up in a rear seat in an appropriate child restraint.**

The OCM works with the OCS sensor to determine the front passenger seat occupant's most probable classification. The OCS sensor estimates the weight on the front passenger seat and where that weight is located. The OCM communicates the classification status to the ORC.

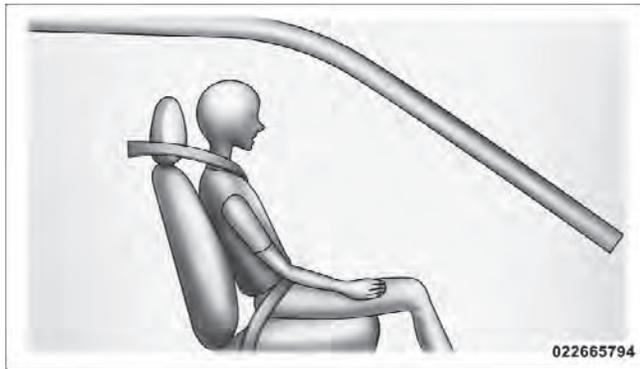
The ORC uses the classification to determine whether the passenger Advanced Front Air Bag inflation rate should be modified.

In order for the OCS to operate as designed, it is important for the front passenger to be seated properly and properly wearing the seat belt. Properly seated passengers are:

- Sitting upright
- Facing forward
- Sitting in the center of the seat with their feet comfortably on or near the floor
- Sitting with their back against the seat back and the seat back in an upright position

**2**

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Seated Properly

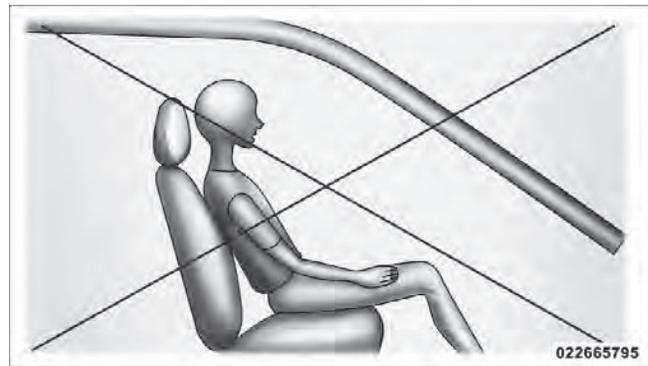
**WARNING!**

Occupants in the front passenger seat sitting improperly may cause the OCS to not classify the passenger's weight accurately. This may result in serious injury or death in a collision. Always wear your seat belt and sit properly, with the seat back in an upright position, your back against the seat back, sitting upright, facing forward, in the center of the seat, with your feet comfortably on or near the floor. Do not carry or hold any objects (e.g., backpacks, boxes, etc.) while seated in the front passenger seat. Holding an object may cause the OCS to not classify the passenger's weight accurately, which may result in serious injury or death in a collision.

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The OCS may not classify the front passenger properly if:

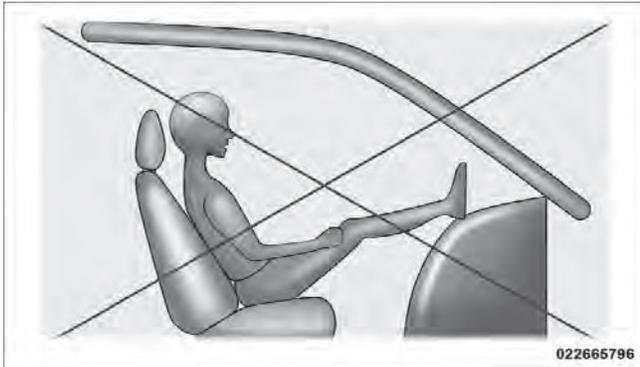
- The front passenger's weight is transferred to another part of the vehicle (like the door, arm rest or instrument panel)
- The front passenger leans forward, sideways or turns around
- The front passenger seatback is not in the full upright position
- The front passenger carries or holds an object while seated (e.g., backpack, box, etc.)



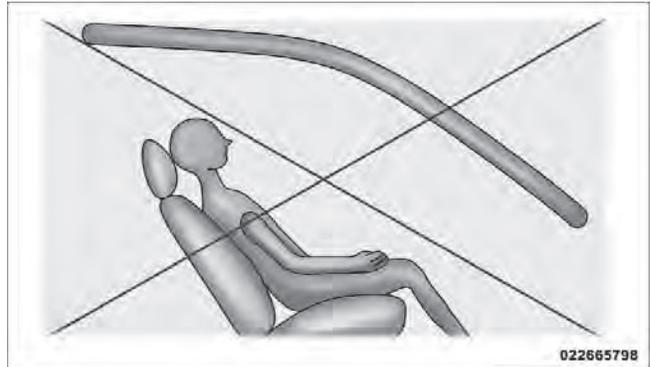
Not Seated Properly

2

2013 Dodge Dart

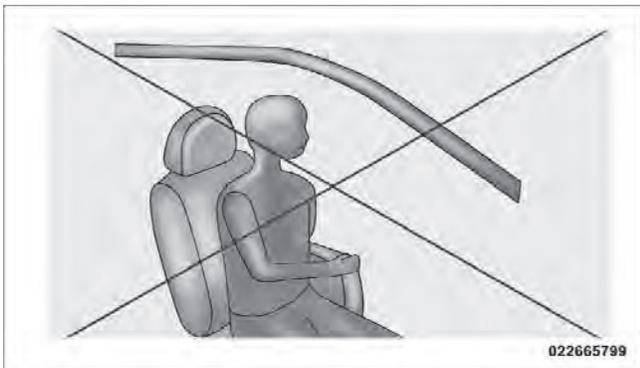


Not Seated Properly

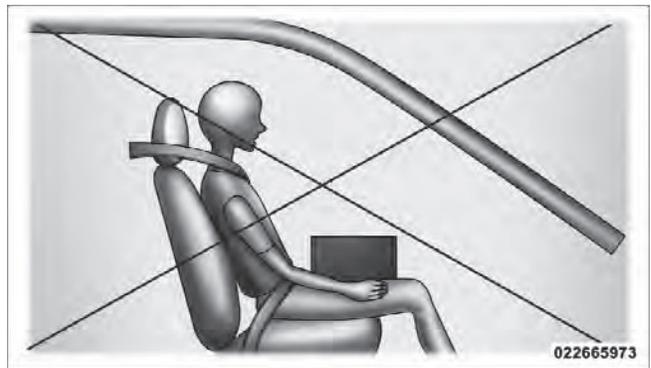


Not Seated Properly

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Not Seated Properly



Not Seated Properly

2013 Dodge Dart

**WARNING!**

**Placing an object on the floor under the front passenger seat may prevent the OCS from working properly, which may result in serious injury or death in a collision. Do not place any objects on the floor under the front passenger.**

The Air Bag Warning Light  will turn on whenever the OCS is unable to classify the front passenger seat status. A malfunction in the OCS may affect the operation of the air bag system.

If the Air Bag Warning Light  does not come on, or stays on after you start the vehicle, or it comes on as you drive, take the vehicle to an authorized dealer for service immediately.

The front passenger seat is equipped with Flip 'n Stow™ Front Passenger Seat Storage (refer to "Understanding

The Features Of Your Vehicle" for additional information). Make sure that objects inside the Flip 'n Stow™ Front Passenger Seat Storage bin do not interfere with the latch before closing the seat. In addition, after closing the Front Passenger Seat Storage bin make sure the front passenger seat cushion is pushed downward and fully latched to the base. Over-stuffing the storage bin may result in misclassification of the front passenger's weight.

The passenger seat assembly contains critical components that may affect front passenger Advanced Air Bag inflation. In order for the OCS to properly classify a front seat passenger, the OCS components must function as designed. Do not make any modifications to the front passenger seat components, assembly, or to the seat cover. If the seat, trim cover, or cushion needs service for any reason, take the vehicle to your authorized dealer. Only Chrysler Group LLC approved seat accessories may be used.

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**WARNING!**

**Make sure that objects inside the Flip 'n Stow™ Front Passenger Seat Storage bin do not interfere with the latch before closing the seat. In addition, after closing the Front Passenger Seat Storage bin, make sure the front passenger seat cushion is pushed downward and fully latched to the base. Over-stuffing the storage bin, or a not fully latched passenger seat cushion, may result in misclassification of the front passenger's weight. This may result in serious injury or death in a collision.**

The following requirements must be strictly followed:

- Do not modify the front passenger seat assembly or components in any way.
- Do not use prior or future model year seat covers or cushions not designated by Chrysler Group LLC for the specific model being repaired. Always use the correct seat cover and cushion specified for the vehicle.
- Do not replace the seat cover or cushion with an aftermarket seat cover or cushion.
- Do not add a secondary seat cover or mat.
- At no time should any supplemental restraint system (SRS) component or SRS related component or fastener be modified or replaced with any part except those which are approved by Chrysler Group LLC.

2

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**Seat Belts And Pregnant Women**

We recommend that pregnant women use the seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

**Supplemental Restraint System (SRS) — Air Bags**

This vehicle has Advanced Front Air Bags for both the driver and front passenger as a supplement to the seat belt restraint systems. The driver’s Advanced Front Air Bag is mounted in the center of the steering wheel. The passenger’s Advanced Front Air Bag is mounted in the instrument panel, above the glove compartment. The words SRS AIRBAG are embossed on the air bag covers.

In addition, the vehicle is equipped with a Supplemental Driver Side Knee Air Bag mounted in the instrument panel below the steering column.



**Advanced Front Air Bag And Knee Bolster Locations**

- 1 — Driver And Passenger Advanced Front Air Bags
- 2 — Knee Bolster
- 3 — Supplemental Driver Side Knee Air Bag

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**NOTE:** The Driver and Passenger Advanced Front Air Bags are certified to new Federal regulations for Advanced Air Bags.

The Advanced Front Air Bags are designed to allow the air bags to have different inflation levels based on several factors, including the severity and type of collision.

This vehicle may be equipped with driver and/or front passenger seat track position sensors that may adjust the inflation level of the Advanced Front Air Bags based upon seat position.

This vehicle may be equipped with a driver and/or front passenger seat belt buckle switch that detects whether the driver or front passenger seat belt is fastened. The seat belt buckle switch may adjust the inflation level of the Advanced Front Air Bags.

This vehicle is equipped with Supplemental Side Air Bag Inflatable Curtains (SABIC) to protect the driver, front,

and rear passengers sitting next to a window. The SABIC are located above the side windows. The trim covering the SABIC is labeled SRS AIRBAG.

This vehicle is equipped with Supplemental Seat-Mounted Side Air Bags (SAB). The SAB are marked with an air bag label sewn into the outboard side of the front seats.

**NOTE:**

- Air Bag covers may not be obvious in the interior trim, but they will open during air bag deployment.
- After any collision, the vehicle should be taken to an authorized studio immediately.

**Air Bag System Components**

Your vehicle may be equipped with the following air bag system components:

- Occupant Restraint Controller (ORC)

2013 Fiat 500

- Air Bag Warning Light
- Steering Wheel and Column
- Instrument Panel
- Supplemental Driver Side Knee Air Bag
- Knee Impact Bolster
- Driver Advanced Front Air Bag
- Passenger Advanced Front Air Bag
- Supplemental Seat-Mounted Side Air Bags (SAB)
- Supplemental Side Air Bag Inflatable Curtains (SABIC)
- Front and Side Impact Sensors
- Front Seat Belt Pretensioners, Seat Belt Buckle Switch, and Seat Track Position Sensors

**Advanced Front Air Bag Features**

The Advanced Front Air Bag system provides output appropriate to the severity and type of collision as determined by the Occupant Restraint Controller (ORC), which may receive information from the front impact sensors.

<b>WARNING!</b>
<ul style="list-style-type: none"> <li>• No objects should be placed over or near the air bag on the instrument panel, because any such objects could cause harm if the vehicle is in a collision severe enough to cause the air bag to inflate.</li> </ul>

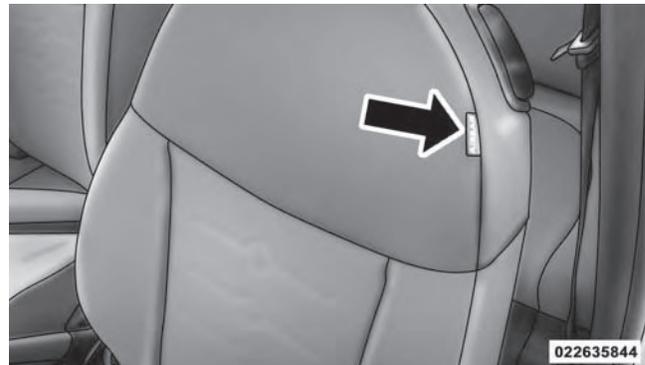
*(Continued)*

2013 Fiat 500

<b>WARNING! (Continued)</b>
<ul style="list-style-type: none"> <li>• Do not put anything on or around the air bag covers or attempt to open them manually. You may damage the air bags and you could be injured because the air bags may no longer be functional. The protective covers for the air bag cushions are designed to open only when the air bags are inflating.</li> <li>• Do not drill, cut or tamper with the knee bolster in any way.</li> <li>• Do not mount any accessories to the knee bolster such as alarm lights, stereos, citizen band radios, etc.</li> </ul>

**Supplemental Seat-Mounted Side Air Bags (SAB)**

Supplemental Seat-Mounted Side Air Bags (SAB) provide enhanced protection to help protect an occupant during a side impact. The SAB are marked with an air bag label sewn into the outboard side of the front seats.



Supplemental Seat-Mounted Side Air Bags (SAB) Label

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When the air bag deploys, it opens the seam between the front and side of the seat's trim cover. Each air bag deploys independently; a left side impact deploys the left air bag only and a right-side impact deploys the right air bag only.

**Supplemental Side Air Bag Inflatable Curtain (SABIC)**

Supplemental Side Air Bag Inflatable Curtains (SABIC) may offer side-impact protection to front and rear seat outboard occupants in addition to that provided by the body structure. Each air bag features inflated chambers, placed adjacent to the head of each outboard occupant, that reduce the potential for side-impact head injuries. The SABIC deploy downward, covering both windows on the impact side.



**Supplemental Side Air Bag Inflatable Curtain (SABIC) Label Location**

**NOTE:** Air Bag covers may not be obvious in the interior trim, but they will open during air bag deployment.

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The system includes side impact sensors that are calibrated to deploy the Seat-Mounted Side Air Bags (SAB) and SABIC during impacts that require air bag occupant protection.

**WARNING!**

- Your vehicle is equipped with left and right SABIC, do not stack luggage or other cargo up high enough to block the location of the SABIC. The area where the side curtain air bag is located should remain free from any obstructions.
- Do not use accessory seat covers or place objects between you and the SAB; the performance could be adversely affected and/or objects could be pushed into you, causing serious injury.

*(Continued)*

**WARNING! (Continued)**

- Your vehicle is equipped with SABIC air bags, do not have any accessory items installed which will alter the roof, including adding a sunroof to your vehicle. Do not add roof racks that require permanent attachments (bolts or screws) for installation on the vehicle roof. Do not drill into the roof of the vehicle for any reason.

**Supplemental Driver Side Knee Air Bag**

The Supplemental Driver Side Knee Air Bag provides enhanced protection and works together with the Driver Advanced Front Air Bag during a frontal impact.

**Knee Impact Bolster**

The Knee Impact Bolster helps protect the knees of the front passenger, and position the front occupant for the best interaction with the Advanced Front Air Bag.

2013 Fiat 500

Along with seat belts and pretensioners, Advanced Front Air Bags work with the Supplemental Driver Side Knee Air Bag and the passenger side knee bolster to provide improved protection for the driver and front passenger. Side air bags also work with seat belts to improve occupant protection.

**Air Bag Deployment Sensors And Controls**

**Occupant Restraint Controller (ORC)**

The ORC is part of a Federally regulated safety system required for this vehicle.

The ORC determines if deployment of the front and/or side air bags in a frontal or side collision is required. Based on the impact sensor’s signals, a central electronic ORC deploys the Advanced Front Air Bags, Supplemental Driver Side Knee Air Bag, Supplemental Side Air Bag Inflatable Curtain (SABIC), Supplemental Seat-Mounted

Side Air Bags (SAB), and front seat belt pretensioners, as required, depending on several factors, including the severity and type of impact.

Advanced Front Air Bags and Supplemental Driver Side Knee Air Bag are designed to provide additional protection by supplementing the seat belts in certain frontal collisions depending on several factors, including the severity and type of collision. Advanced Front Air Bags are not expected to reduce the risk of injury in rear or side collisions.

The Advanced Front Air Bags and Supplemental Driver Side Knee Air Bag will not deploy in all frontal collisions, including some that may produce substantial vehicle damage — for example, some pole collisions, truck underrides, and angle offset collisions. On the other hand, depending on the type and location of impact, Advanced Front Air Bags may deploy in crashes with little vehicle front-end damage but that produce a severe initial deceleration.

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The side air bags will not deploy in all side collisions. Side air bag deployment will depend on the severity and type of collision.

Because air bag sensors measure vehicle deceleration over time, vehicle speed and damage by themselves are not good indicators of whether or not an air bag should have deployed.

Seat belts are necessary for your protection in all collisions, and also are needed to help keep you in position, away from an inflating air bag.

The ORC monitors the readiness of the electronic parts of the air bag system whenever the ignition switch is in the ON/RUN or START position. If the key is in the OFF/LOCK position, or not in the ignition, the air bag system is not on and the air bags will not inflate.

The ORC contains a backup power supply system that may deploy the air bags even if the battery loses power or it becomes disconnected prior to deployment.



Also, the ORC turns on the Air Bag Warning Light in the instrument panel for approximately four to eight seconds for a self-check when the ignition is first turned on. After the self-check, the Air Bag Warning Light will turn off. If the ORC detects a malfunction in any part of the system, it turns on the Air Bag Warning Light, either momentarily or continuously. A single chime will sound if the light comes on again after initial startup.

It also includes diagnostics that will illuminate the instrument cluster Air Bag Warning Light if a malfunction is noted that could affect the air bag system. The diagnostics also record the nature of the malfunction.

2013 Fiat 500

**WARNING!**

Ignoring the Air Bag Warning Light in your instrument panel could mean you won't have the air bags to protect you in a collision. If the light does not come on as a bulb check when the ignition is first turned on, stays on after you start the vehicle, or if it comes on as you drive, have an authorized studio service the air bag system immediately.

**Driver And Passenger Advanced Front Air Bag Inflator Units**

The Driver and Passenger Advanced Front Air Bag Inflator Units are located in the center of the steering wheel and on the right side of the instrument panel. When the ORC detects a collision requiring the Advanced Front Air Bags, it signals the inflator units. A large quantity of non-toxic gas is generated to inflate the Advanced Front Air Bags. Different air bag inflation rates

are possible, based on several factors, including the collision type and severity. The steering wheel hub trim cover and the upper right side of the instrument panel separate and fold out of the way as the air bags inflate to their full size. The air bags fully inflate in about 50 to 70 milliseconds. This is about half of the time it takes to blink your eyes. The air bags then quickly deflate while helping to restrain the driver and front passenger.

The Advanced Front Air Bag gas is vented through the vent holes in the sides of the air bag. In this way, the air bags do not interfere with your control of the vehicle.

**Supplemental Driver Side Knee Air Bag Inflator Unit**

The Supplemental Driver Side Knee Air Bag unit is located in the instrument panel trim beneath the steering column. When the ORC detects a collision requiring the Advanced Front Air Bags, it signals the inflator units. A large quantity of non-toxic gas is generated to inflate the

Supplemental Driver Side Knee Air Bag. The trim cover separates and folds out of the way allowing the air bag to inflate to the full size. The air bag fully inflates in about 15 to 20 milliseconds. The Supplemental Driver Side Knee Air Bag gas is vented through small vent holes in the side of the air bag.

**Supplemental Seat-Mounted Side Air Bag (SAB) Inflator Units**

The Supplemental Seat-Mounted Side Air Bags (SAB) are designed to activate only in certain side collisions.

The ORC determines if a side collision requires the side air bags to inflate, based on the severity and type of collision.

Based on the severity and type of collision, the side air bag inflator on the crash side of the vehicle may be triggered, releasing a quantity of non-toxic gas. The inflating SAB

exits through the seat seam into the space between the occupant and the door. The SAB fully inflates in about 10 milliseconds. The side air bag moves at a very high speed and with such a high force that it could injure you if you are not seated properly, or if items are positioned in the area where the side air bag inflates. This especially applies to children.

**Supplemental Side Air Bag Inflatable Curtain (SABIC) Inflator Units**

During collisions where the impact is confined to a particular area of the side of the vehicle, the ORC may deploy the Supplemental Side Air Bag Inflatable Curtain (SABIC), depending on several factors, including the severity and type of collision. In these events, the ORC will deploy the SABIC only on the impact side of the vehicle.

A quantity of non-toxic gas is generated to inflate the side curtain air bag. The inflating side curtain air bag pushes the outside edge of the headliner out of the way and covers the window. The air bag inflates in about 30 milliseconds (about one-quarter of the time that it takes to blink your eyes) with enough force to injure you if you are not belted and seated properly, or if items are positioned in the area where the side curtain air bag inflates. This especially applies to children. The side curtain air bag is about 3-1/2 in (9 cm) thick when it is inflated.

Because air bag sensors estimate deceleration over time, vehicle speed and damage are not good indicators of whether or not an air bag should have deployed.

#### **Front And Side Impact Sensors**

In front and side impacts, impact sensors can aid the ORC in determining appropriate response to impact events.

#### **Enhanced Accident Response System**

In the event of an impact causing air bag deployment, if the communication network remains intact, and the power remains intact, depending on the nature of the event, the ORC will determine whether to have the Enhanced Accident Response System perform the following functions:

- Cut off fuel to the engine.
- Flash hazard lights as long as the battery has power or until the ignition key is turned off.
- Turn on the interior lights, which remain on as long as the battery has power or until the ignition key is removed.
- Unlock the doors automatically.