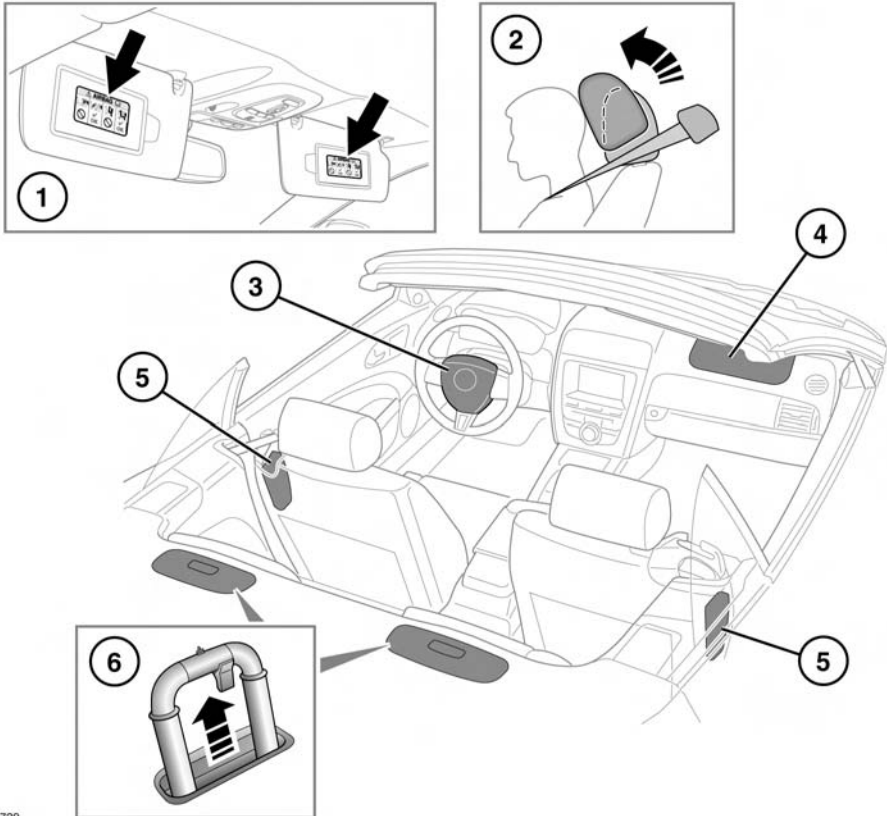


# Air bags

## AIR BAGS AND ACTIVE HEAD RESTRAINTS



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1. Air bag warning information is printed on the driver and passenger sun visors.
2. On some vehicles, both front seats are equipped with Active Head Restraints (AHR), which reduce the risk of neck and spinal injury (whiplash) in the event of a rear impact, by moving the head restraint upwards and forwards, supporting the occupant's head.
3. Driver's air bag.
4. Front passenger air bag.
5. Seat mounted combined head and thorax side air bags.
6. Rollover Protection Device (RPD), convertible vehicles only, see **37, ROLLOVER BARS** and **195, ROLLOVER BARS**.

After activation, the whiplash protection mechanism resets automatically and does not need to be replaced.

**Note:** The general location of air bags fitted to the vehicle are marked by the word AIRBAG.

Always contact your Dealer/Authorized Repairer if:

- An air bag inflates.
- The front or sides of the vehicle are damaged.
- Any part of the Air bag Supplementary Restraint System (SRS) shows signs of cracking or damage, including trim covering air bags.

## AIR BAG OPERATION

### **⚠WARNING**

**National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of 10 in (25 cm) between an occupants chest and the driver's air bag module.**

### **⚠WARNING**

**Air bags provide additional protection in certain types of collision only - they do not replace the need to wear a seat belt. All occupants, in all seating positions, should always wear their seat belt, whether or not an air bag is present in that seating position.**

### **⚠WARNING**

**Air bags inflate at high speeds. To minimize the risk of injury, ensure that all vehicle occupants wear correctly positioned seat belts, sit correctly in the seats, and position the seats as far back as practical.**

### **⚠WARNING**

**Air bag inflation takes place instantaneously, and cannot protect against the effects of secondary impacts. Under these circumstances the only protection will be provided by a correctly worn seat belt.**

### **⚠WARNING**

**Phone systems should only be installed by qualified persons familiar with the operation of, and requirements for, vehicles fitted with SRS. If you are in any doubt, seek advice from your Dealer/Authorized Repairer.**

The driver and front passenger air bags are designed to provide supplementary protection to full sized adult occupants that are correctly seated and belted.

Air bag deployment is dependent on the rate at which the passenger compartment changes velocity following the collision. Circumstances affecting different collisions (vehicle speed, angle of impact, type and size of object hit, etc.), vary considerably and will affect the rate of deceleration accordingly.

The Supplementary Restraint System (SRS) components include:-

- SRS warning indicator.
- Rotary coupler.
- Air bag modules.
- Seat belt pre-tensioners (front seat belts).
- Air bag diagnostic control unit.
- Crash sensors.
- Air bag wiring harnesses.
- Seat occupancy sensor.
- Front passenger belt tension sensor.

The SRS is not designed to operate as a result of:

- Rear impacts.
- Minor front impacts.
- Minor side impacts.
- Heavy braking.
- Driving over bumps and pot holes.

Therefore, it follows that considerable superficial damage to the vehicle can occur, without causing the air bags to deploy.

# Air bags

## AIR BAG OBSTRUCTION

### **⚠️ WARNING**

Ensure that a gap is maintained between the side of the vehicle, and the head and torso. This will enable unobstructed inflation of the seat mounted side air bags.

### **⚠️ WARNING**

Do not place objects between the air bag module and the seat occupant.

### **⚠️ WARNING**

Do not use non-approved seat covers/ accessory seat covers that have not been designed for use with air bags. If in doubt, consult your Dealer/Authorized Repairer.

### **⚠️ WARNING**

Do not obstruct the operation of the air bags by placing any part of your person or any objects in contact with, or close to, an air bag module. If the air bag inflates, objects or any part of your person could interfere with the inflation of the air bag or be propelled inside the vehicle, causing injury to the occupants.

Do not allow passengers to obstruct the operation of the air bags by placing feet, knees or any other part of the body, or any other objects in contact with, or in close proximity to, an air bag module.

Do not place objects between the air bag module and the seat occupant.

### **⚠️ WARNING**

Do not attach or position items on, or close to, the front seatbacks, or air bag covers which could interfere with the inflation of the air bag or be propelled inside the vehicle causing injury to the occupants.

Air bags cannot deploy correctly if they are obstructed. Examples of obstructions are:

- Any parts of an occupant's body in contact with, or close to, an air bag cover.
- Objects placed on, or close to, an air bag cover.
- Clothing, cushions or other material covering seat mounted air bags.
- Seat covers which are not approved by Jaguar or specifically designed for us with seat mounted air bags.

This list is not exhaustive. It remains the responsibility of the occupants to ensure that the air bags are not obstructed in any way.

**Note:** Any unauthorized modification of the vehicle or parts may invalidate the vehicle warranty.

**Note:** Side air bags will not inflate as a result of frontal or rear impacts alone.

## FRONT AIR BAGS

The front passenger and driver air bags are able to deploy in two stages, depending on the severity of the frontal impact. In a severe impact, the air bags inflate fully to stage two giving maximum protection. In a lesser impact, full inflation may not be required, so the air bags will only inflate to stage one.

## SEAT MOUNTED SIDE AIR BAGS

These are designed to protect the head and thorax region of the torso and will deploy only in the event of a side impact and then, only on the side of the impact.

## AIR BAG DEPLOYMENT EFFECTS

### **⚠ WARNING**

When an air bag inflates, a fine powder is released. This is normal and not an indication of a malfunction. The powder may cause irritation to the skin and should be thoroughly flushed from eyes and any cuts or abrasions. This powder can cause breathing difficulties for asthma sufferers or other people with respiratory problems. If this occurs, get out of the vehicle as soon as it is safe to do so or get fresh air by opening a window. If breathing problems persist, seek medical attention.

### **⚠ WARNING**

Air bag deployment is accompanied by a very loud noise which may cause discomfort and temporary loss of hearing.

After inflation, the front and seat mounted air bags deflate immediately. This provides a gradual cushioning effect for the occupants and also ensures that the driver's forward vision is not obscured.

## OCCUPANT SENSING

### **⚠ WARNING**

When checking the operational status of the front passenger air bag, ensure that the ignition is switched on.

### **⚠ DANGER**

Crash statistics show that the safest when properly restrained in a child restrained system appropriate for their age and weight and secured in a rear seating position.

### **⚠ DANGER**

Do not use a child restraint on a seat protected by an operational air bag in front of it. Doing so presents a high risk of death or serious injury to the child in the event of an accident.

The front passenger seat is fitted with an occupancy sensor system that determines if the seat is unoccupied, occupied by a person of low weight, a child seat or object, or is occupied by a heavier person or object.

The occupancy sensor system operates as follows:

Front passenger seat occupancy status	Frontpassenger air bag status	Indicator active
Completely empty	Deactivated	No*
Low weight object/occupant	Deactivated	Yes**
Heavy object/occupant	Activated	No
Child restraint fitted ***	Deactivated	Yes

\* It is possible to receive an intermittent indicator illumination with an empty seat. This is part of the systems adaptive behaviour and does not affect the status of the front passenger air bags. However, if the indicator becomes permanently illuminated when the seat is empty and the seat belt is unbuckled, contact your Dealer/Authorized Repairer immediately.

\*\* In some cases, a small child placed in a child seat may not activate the deactivation indicator. If this occurs, the front passenger air bag status will be as described for an empty seat.

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The front passenger air bag is designed to provide supplementary protection to full sized adult occupants that are correctly seated and belted.

\*\*\* (USA and Canada only) Belt Tension Sensor (BTS): If a child restraint is fitted in the front passenger seat using the seat belt's automatic locking device, then the front passenger air bag is deactivated.

Deployment of the front passenger air bag is not always beneficial for small/lower weight occupants and could be harmful to children/infants in restraint systems. Jaguar vehicles are fitted with a sensing system (conforming to FMVSS 208) that automatically detects when deployment of the front passenger air bag would be unnecessary or potentially harmful. If the seat is occupied by a lower weight adult and air bag deployment is judged by the system to be unnecessary, the passenger air bag will be deactivated and the **PASS. AIR BAG OFF** symbol on the center console will be illuminated (see **36, AIR BAG DEACTIVATION INDICATOR**). An occupant weighing approximately 100 lbs (45.4 kg) is classified as a lower weight occupant, although, at this weight, with occupant movements and vehicle motion, the air bag activation/deactivation should be expected to switch states occasionally. This is not necessarily indicative of a system fault.

## AIR BAG DEACTIVATION INDICATOR



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Whenever the air bag deactivation indicator is illuminated, the front passenger air bag will not be deployed in the event of an impact.

**Note:** The air bag deactivation indicator will illuminate for approximately 6 seconds as a bulb check when the ignition is switched on.

## AIR BAG WARNING LAMP



The air bag warning lamp is displayed in the instrument pack and will illuminate as a bulb check when the ignition is turned on.

## **⚠** WARNING

**Even with advanced air bags, children can be seriously injured or killed. Never place a child in any type of restraint or booster seat in the front passenger seat. Children under the age of 13 should always ride in the rear.**

If any of the following warning indicator conditions occur, the vehicle should be checked by your Dealer/Authorized repairer immediately.

- The warning indicator fails to illuminate when the START/STOP button is initially switched on.
- The warning indicator fails to extinguish within six seconds of the START/STOP button being switched on.
- The warning indicator illuminates at any time other than during the bulb check.

## ROLLOVER BARS

### **⚠WARNING**

Do not place any objects on top of the Rollover Protection Device (RPD) system trim covers behind the rear passenger head restraints as they could prevent correct deployment of the system.

### **⚠WARNING**

Do not let anyone sit on the top cover.

*Note: If the convertible roof is closed when the RPD is deployed, the bars are designed to break through the rear screen.*

## AIR BAG SERVICE INFORMATION

### **⚠WARNING**

Do not attempt to service, repair, replace, modify, or tamper with, any part of the SRS. This includes wiring or components in the vicinity of SRS components. Doing so may cause the system to trigger, or render the system inoperative, either of which may result in serious injury or death.

### **⚠WARNING**

Do not use any electrical test equipment or devices in the vicinity of SRS components or wiring. Doing so may cause the system to trigger, or render the system inoperative.

All of the following operations should only be carried out by a Dealer/Authorized Repairer, or suitably qualified person:-

- Removal or repair of any wiring or component in the vicinity of any SRS components.
- Installation of electrical, or electronic, equipment and accessories.
- Modification to the front or sides of the vehicle exterior.

- Attachment of accessories to the front or sides of the vehicle.