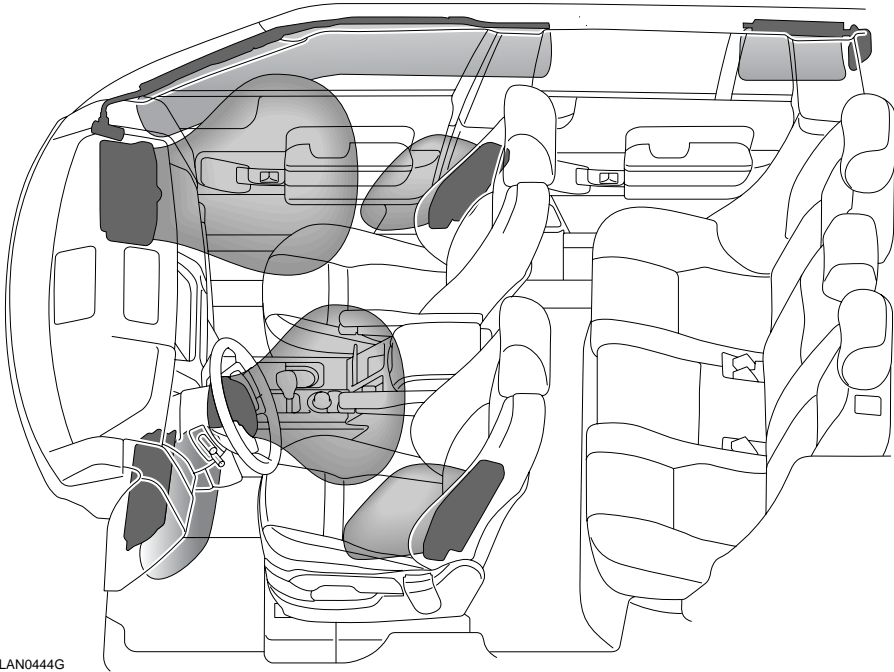


Airbags

INTRODUCTION



LAN0444G

WARNING

The airbag is a supplementary restraint system that provides additional protection in a severe impact only - it does not replace the need to wear a seat belt. To reduce the risk of severe injury or death in the event of a crash, all occupants in all seating positions, including the driver, should always wear their seat belt, whether or not an airbag is present at that seating position.

An inflating airbag can cause facial abrasions and other injuries. Minimise the risk of injury by ensuring that front seat occupants are wearing their seat belts and are seated correctly, with the seat as far back as is practical.

WARNING

Ensure that a gap is maintained between the side of the vehicle and the head and torso, to enable unobstructed inflation of the head and seat-mounted side airbags.

Do not lean out of the window.

The airbag supplementary restraint system (SRS) incorporates a knee-bolster airbag for the driver, front airbags, seat-mounted side airbags and head airbags for the front seat occupants, and head airbags for the outer rear passengers (see illustration for airbag locations). These are indicated by the word **AIRBAG** on the trim.

Airbags

Provided the occupants are correctly seated, with seat belts properly worn; in the event of a severe frontal impact, the airbags will provide additional protection to the legs, chest and face of the driver and the chest and face of the front seat passenger.

In the event of a severe side collision, airbags provide additional protection to the side of the head and body facing the impact for front seat occupants and to the side of the head facing the impact for outer rear seat occupants.

Note: *Inflation and deflation of the front and seat-mounted side airbags takes place very quickly and will not protect against the effects of secondary impacts that may occur. Head airbags deflate at a slower rate and therefore do offer some additional protection in the event of a secondary impact.*

Airbag SRS warning indicator



A warning indicator in the instrument panel will alert you to any malfunction of the airbag SRS.

The airbag SRS should always be checked by a Land Rover Dealer/Authorised Repairer if any of the following symptoms occur:

- The warning indicator fails to illuminate when the starter switch is turned to the second position.
- The warning indicator fails to extinguish within approximately four seconds after the starter switch is turned to the second position.
- The warning indicator illuminates after the engine is started, or while the vehicle is being driven.

WARNING

If the warning indicator signals that a fault is present in the system, do not use a child restraint on the front passenger seat. Doing so will increase the risk of death or serious injury to the child.

When the starter switch is turned to the second position, the diagnostic control unit monitors the readiness of the system's electrical circuits.

Airbags

HOW THE AIRBAG SRS WORKS

In the event of a collision, the airbag control unit monitors the rate of deceleration caused by the collision. This information is then used to determine whether airbags should be deployed.

Airbag deployment is dependent on the rate at which the passenger compartment changes speed following the collision. The 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 light.
- Rotary coupler.
- Airbag modules.
- Seat belt pre-tensioners.
- Airbag diagnostic control unit.
- Crash sensors.
- Airbag wiring harnesses.
- Seat occupancy sensor.

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

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

It follows, therefore, that significant superficial damage can occur without the airbags deploying or, conversely, that a relatively small amount of structural damage may cause the airbags to be deployed.

WARNING

High speed impacts may cause serious injury or death irrespective of safety features fitted to a vehicle. Always drive with caution and consideration for the vehicle's characteristics, road and weather conditions, and do not exceed any speed limits in force.

Seat belts should be worn at all times, by the driver and passengers in all seating positions. The airbag SRS cannot provide protection in some types of impact. Under these circumstances the only protection will be provided by a correctly worn seat belt.

Airbags inflate at high speeds, and can cause injuries. To minimise 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.

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

Airbags

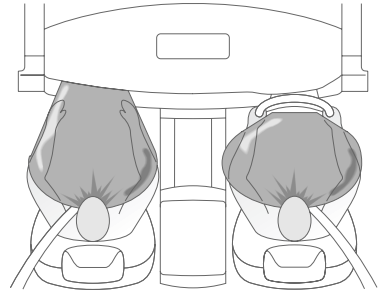
Airbag inflation takes place instantaneously and cannot protect against the effects of secondary impacts. Under these circumstances the only protection will be provided by a correctly worn seat belt.

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/Authorised Repairer.

For the airbags to operate correctly the roof lining and door post trims must be in good condition, correctly fitted, and free from obstruction. Any damage, wear or incorrect fitment should be referred to your Dealer/Authorised repairer as soon as possible for examination and repair.

Do not allow passengers to obstruct the operation of the airbags by placing any part of their person, or any objects, in contact with, or close to, an airbag module. Airbags deploy at very high speeds and can cause death or serious injury if objects or occupants are within the area of deployment.

Front airbag deployment



H3985

Depending on the severity of the frontal collision, the unit will deploy the front airbags in two stages:

- In a moderately severe frontal impact, the airbags inflate sufficiently to protect the front seat passengers and reduce the risk of injury.
- In a severe frontal impact, the airbags will fully inflate thereby providing maximum protection.

Airbag inflation is virtually instantaneous and occurs with considerable force, accompanied by a loud noise. The inflated bag, together with the seat belt restraint system, limit the movement of an occupant, thereby reducing the risk of injury to the head and upper torso.

In the case of a severe frontal collision, both front airbags and the driver's knee bolster airbag will be deployed. In the case of a severe side collision, only the side and head airbags on the impacted side of the vehicle will inflate.

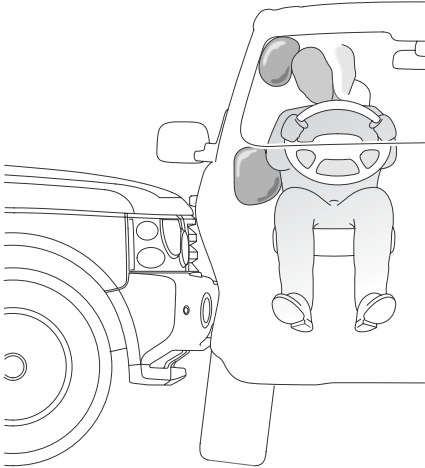
However, there may also be impact conditions whereby one set of side and all front airbags deploy at the same time, or where front and side airbags respond separately as a result of a secondary impact occurring after the initial collision has taken place.

Airbags

Seat-mounted side airbags

WARNING

Ensure that a gap is maintained between the side of the vehicle and the head and torso, to enable unobstructed inflation of the head and seat-mounted side airbags.



H6684R

Side airbags are designed to protect the side of the body and will only deploy in the event of a severe side impact. They will not inflate as a result of frontal or rear impacts only.

In the event of a severe side collision, the airbags on the impacted side of the vehicle deploy from the side of the seat-back, rapidly inflating to form a cushion between the front seat occupants and the side of the vehicle. The airbags on the non-impacted side of the vehicle will not be deployed.

Head airbags

WARNING

For the head airbags to deploy correctly, the roof lining and A post trim must be undamaged and fitted correctly. Any damage or suspect fitting should be referred to a Land Rover Dealer/Authorised Repairer for examination.

Head airbags are designed to protect the head in the event of a severe side impact only. They will not inflate as a result of frontal or rear impacts alone.

The head airbag modules are located behind the roof lining and A post trim above the doors. In the event of a severe side collision, the airbag pushes out from behind the roof lining and A post trim as it inflates. The head airbag remains inflated for longer than the other airbags, to provide additional head protection in the event of a secondary impact.

Deployment effects

WARNING

When an airbag inflates, a fine powder is released. This is normal and not an indication of a malfunction. However, the powder may cause irritation to the skin and should be thoroughly flushed from eyes and any cuts or abrasions.

The fine powder may cause breathing difficulties for asthma sufferers or other people with respiratory problems. If an airbag is activated, any occupant who suffers from breathing difficulties should; either leave the vehicle as quickly as possible, or obtain fresh air by fully opening the windows or doors.

After inflation some airbag components are at high temperatures. To prevent injury, do not touch the airbag components until they have cooled.

Airbags

In order to react with sufficient speed, airbags are deployed by an explosive charge. Consequently airbag deployment is accompanied by a very loud noise which may cause discomfort and temporary loss of hearing.

Even with airbag SRS equipment fitted, seat belts must always be worn because:

- An airbag will only provide additional protection in certain types of frontal or side collisions. No protection is afforded against the effects of rear impacts, or minor frontal impacts.
- Inflation and deflation take place instantaneously and will not provide protection against the effects of secondary impacts that can occur during multiple vehicle collisions.

After inflation, front and side airbags deflate immediately (head airbags deflate slowly). This provides a gradual cushioning effect for the occupant and also ensures that the driver's forward vision is not obscured.

Disability modifications

Occupants with disabilities that may require the vehicle to be modified must contact a Land Rover Dealer/Authorised Repairer before any modifications are made.

Obstruction of airbags

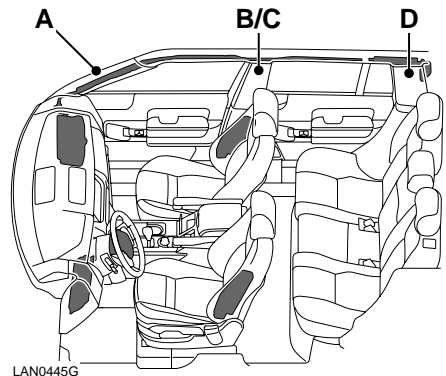
WARNING

Do not allow passengers to obstruct the operation of the airbags by placing feet, knees or any other part of the person, or any other objects in contact with, or in close proximity to, an airbag module.

Do not attach or position items (including accessory items) on or in close proximity to any airbag module, these could interfere with the inflation of the airbag or, if the airbag inflates, be propelled inside the vehicle causing injury to the occupants.

Never place your arm over an airbag cover as a deploying airbag can cause serious fractures or other injuries.

The front passenger's seating position is equipped with a knee bolster, to provide knee protection in the event of an impact. Do not modify the bolster, or mount after-market equipment on or behind it.



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Note: The illustration shows the location of the airbags relative to the A, B/C and D posts.

Airbags

To ensure correct deployment of the airbags, it is essential that obstructions are not allowed to intervene between an airbag and the occupant.

The following are examples of the type of obstructions that could either, impede correct operation of the airbags, or jeopardise personal safety in the event of an airbag deployment:

- Accessories attached to or obscuring an airbag cover, including: the roof lining, A and B/C post finishers, the front seat backrests and the lower fascia on the driver's side.
- Items of hand luggage, or other objects placed on an airbag cover.
- Feet, knees or any other part of the anatomy in contact with, or in close proximity to, an airbag cover.
- Head, arms or any part of the anatomy in contact with, or in close proximity to, a seat-mounted side airbag.
- Items of clothing hanging from the grab handle attached to the roof.
- Items of clothing or cushions, draped over the part of the front seat containing the airbag.
- Non-approved seat covers/accessory seat covers over a front seat; in particular, seat covers that have not been designed for use with seat-mounted side airbags. If in doubt, consult your Land Rover Dealer/Authorised Retailer.

Caution: If a non-approved phone system is to be fitted, ensure that the installer is aware of the SRS system.

Note: Unauthorised modification of the vehicle or parts may invalidate the vehicle's warranty.

PASSENGER AIRBAG DISABLING SWITCH

Note: The passenger airbag should be disabled only when a rearward facing child restraint is fitted to the front passenger seat.



If it becomes necessary to fit a child restraint on the front passenger seat, the airbag must be disabled using the switch located on the end of the instrument panel, on the passenger's side. Access to the switch can only be obtained with the passenger's door open.

This switch is operated using the starter key.

When using a child restraint in the front, make sure that the switch is turned to the OFF position.

Airbags

WARNING

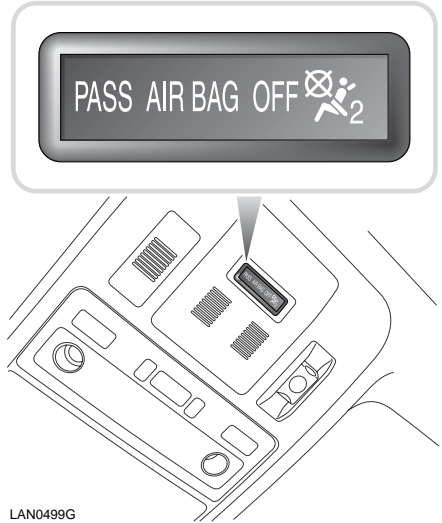
Crash test data and statistics show that the safest place for a child to be restrained is in a child seat correctly fitted to the vehicle's rear seat.

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

Do not fit a child restraint to the front passenger seat if the SRS warning light illuminates continuously with the ignition on.

As soon as a child seat is removed from the front passenger seat the airbag must be turned on. Failure to do so will put a front seat passenger at greater risk of death or serious injury in the event of a frontal impact.

Operational status indicator



LAN0499G

The passenger airbag operational status indicator, located in the overhead control panel, illuminates when the passenger airbag disabling switch has been turned to the **OFF** position, to disable the passenger airbag.

After the airbag has been disabled, the indicator does not illuminate until the starter switch has been turned to the second position.

WARNING

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

Airbags

Airbag switched off



H6037G

In order to fit a child restraint to the front passenger seat, use the starter key to turn the airbag disabling switch to the **OFF** position.

Check that when the starter switch is turned to the second position, the operational status indicator on the overhead control panel is illuminated, indicating that the passenger airbag is not operational.

If the airbag SRS warning indicator in the instrument cluster illuminates continuously, it means that there is a malfunction of the system. See **Warning Indicators, 109**. Remove the child restraint from the front seat and consult your Land Rover Dealer/Authorised Repairer.

WARNING

When checking the status of the airbag using the operational status indicator, always ensure that the starter key is in the second position.

To avoid the risk of injury, never use a child restraint in the front of the vehicle, unless the passenger airbag has been switched off.

Airbag switched on



H6038G

When an adult is seated in the front passenger seat of your vehicle, ensure that the airbag disabling switch is turned to the **ON** position.

This will ensure that the airbag will perform as intended in the event of a crash.

Check that when the starter switch is turned to the second position, the operational status indicator on the overhead control panel is not illuminated, indicating that the passenger airbag is operational.

WARNING

To ensure that the adult restraint system performs as intended, make sure that the passenger airbag is switched on.

The safest place in your vehicle for a child, is in a rear seating position.

Airbags

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 death or serious injury.

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, either of which may result in death or serious injury.

Any notable damage to SRS components or covers, e.g. tears, burns, holes, chemical/detergent damage or previous accidental damage, etc., however produced, may cause the SRS module(s) to fail. Ensure that any damaged components are repaired or replaced by a Land Rover Dealer/Authorised Repairer.

Always contact your Land Rover Dealer/Authorised Repairer if;

- an airbag inflates.
- the front or side of the vehicle is damaged, even if the airbag has not inflated.
- any part of an airbag module cover shows signs of cracking or damage.

Caution: The components that make up the airbag SRS are sensitive to electrical or physical interference, either of which could easily damage the system and cause inadvertent operation or a malfunction of the airbag.

WARNING

For your safety it is recommended that you seek the assistance of a Land Rover Dealer/Authorised Repairer to carry out any of the following:

- Removal or repair of any wiring or component in the vicinity of any of the SRS components, including the steering wheel, steering column, front seats, roof lining, instrument and facia panels.
- Installation of electronic equipment such as a mobile phone, two-way radio or in-car entertainment system.
- Modification to the front or side of the vehicle, including the bumper and chassis.
- Attachment of accessories to the front or side of the vehicle.

Disposing of vehicles

If you sell your vehicle, be sure to inform the new owner that the vehicle has an airbag SRS.

If your vehicle is to be scrapped; uninflated airbags are potentially very dangerous and must be safely deployed in a controlled environment by qualified personnel, before a vehicle is scrapped.