

RANGE ROVER

OWNER'S HANDBOOK

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About this handbook

This handbook forms part of the Owner literature supplied with your new vehicle. Left hand drive and right hand drive conditions may be shown in the graphics and where information is specific to a particular country, it is indicated as such.

Please take the time to study the operating instructions with your vehicle as soon as you can.

Important

The information contained in this handbook covers all vehicle derivatives and optional equipment. Some of the options may not be fitted to your vehicle unless they formed part of the original vehicle specification. Therefore some parts of this handbook may not apply to your vehicle. Furthermore, due to printing cycles, it may include descriptions of options before they become generally available.

The options, hardware and software in your vehicle are from the available specifications for the market in which the vehicle was intended for sale. If your vehicle is to be used in another geographical area you may have to modify the vehicle specification to suit local conditions. Land Rover is not responsible for the cost of any modifications.

The information contained in this publication was correct when it went to print. Vehicle design changes may have been made after this handbook was printed. When this occurs a handbook supplement is added to the literature pack. Subsequent updates can be viewed on the Land Rover Internet site at; **www.ownerinfo.landrover.com**.

In the interest of development, the right is reserved to change specifications, design or equipment at any time without notice and without incurring any obligations. This publication, or part thereof, may not be reproduced nor translated without our approval. Errors and omissions excepted.

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WARNING LABELS ATTACHED TO THE VEHICLE



Warning labels attached to your vehicle bearing this symbol mean: Do not touch or adjust components until you have read the relevant instructions in the handbook.



Labels showing this symbol indicate that the ignition system utilises very high voltages. Do not touch any ignition components while the ignition is switched on.

Warning labels

Labels are attached to your vehicle at several positions. These are applied to draw your attention to important subjects, e.g. tyre pressures, tow bar use, airbags, roll-over risk, engine compartment hazards, etc.

It is important that you are familiar with these subjects to ensure that your vehicle and its features are used safely. Using the index at the back of this handbook, refer to the relevant topic for more information.

SYMBOLS GLOSSARY

The following warnings, cautions and symbols used within the handbook call your attention to specific types of information.

Warnings

WARNING

Safety warnings are included in this handbook. These indicate either a procedure which must be followed precisely, or information that should be considered with great care in order to avoid the possibility of personal injury.

Cautions

Caution: Cautions are included in this handbook. These indicate either a procedure which must be followed precisely, or information that should be considered with great care in order to avoid the possibility of damage to your vehicle.

Symbols



This recycling symbol identifies those items that must be disposed of safely in order to prevent unnecessary damage to the environment.



This symbol identifies those features that can be adjusted or disabled/enabled by a Land Rover Dealer/Authorised Repairer.

HEALTH AND SAFETY

WARNING

Your vehicle has a higher ground clearance and hence, a higher centre of gravity than ordinary passenger cars, to enable the vehicle to perform in a wide variety of off-road applications. An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems.

The vehicle is not designed for cornering at the same speed as conventional passenger cars any more than a low slung sports car is designed to perform satisfactorily under off-road conditions. If at all possible, avoid sharp turns or abrupt manoeuvres. As with other vehicles of this type, failure to operate the vehicle correctly may result in loss of control or vehicle roll-over.

The vehicle should not be parked over long dry grass or other combustible material, particularly during dry weather. As the heat generated by the exhaust and emission control systems may be sufficient to start a fire.

Before exiting the vehicle ensure that P (park) is selected and the park brake applied. When exiting the vehicle ensure that the remote control is removed from the vehicle.

Vehicle stability

WARNING

Utility vehicles have a significantly higher roll-over rate than other types of vehicles. Since these vehicles are deigned to be operated off-road, they have a higher ground clearance and hence a higher centre of gravity. Such a feature has been associated with an increased risk of vehicle roll-over.

Another factor shown to significantly increase rollover risk is unauthorised vehicle modifications such as fitting incorrect specification tires, oversize tires, body lifting, incorrect springs/dampers, incorrect vehicle loading/trailer towing.

Many vehicle rollovers occur when a driver attempts to bring a vehicle back onto the road after some or all of the wheels drift onto the shoulder of the road, especially when the shoulder is unpaved. If you find yourself in such a situation, do not initiate any sharp or abrupt steering and/or braking manoeuvres to re-enter the roadway. Instead, let the vehicle slow down as much as is safely possible before attempting to re-enter the roadway and keep your wheels as straight as possible while re-entering the roadway.

However, on-road crash data also indicates that driver behaviour is a greater factor than a high centre of gravity in determining a vehicle's overall rollover rate. The single most effective driver behaviour that can reduce the risk of injury or death in all crashes including roll-over is to ALWAYS WEAR YOUR SEAT BELT and to properly restrain all child passengers in the rear seat in an appropriate child safety seat. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

DATA RECORDING

Service data recording

Service data recorders in your vehicle are capable of collecting and storing diagnostic information about your vehicle. This potentially includes information about the performance or status of various systems and modules in the vehicle such as engine, throttle, steering or brakes.

In order to properly diagnose and service your vehicle, Land Rover and service and repair facilities may access vehicle diagnostic information through a direct connection to your vehicle.

Event data recording

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal;
- How fast the vehicle was travelling; and,
- The rotational position of the steering wheel.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur.

Note: *EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.*

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

DISABILITY MODIFICATIONS

Occupants with disabilities which may require modification of the vehicle must contact a Land Rover Dealer before any modifications are made.

PARTS AND ACCESSORIES

WARNING

The fitting of non-approved parts and accessories, or the carrying out of non-approved alterations or conversions, may be dangerous and could affect the safety of the vehicle and occupants and also invalidate the terms and conditions of the vehicle warranty.

Land Rover will not accept any liability for death, personal injury or damage to property which may occur as a direct result of fitment on non-approved accessories or the carrying out of non-approved conversions to Land Rover vehicles.

Land Rover strongly advise against making any modifications to the suspension or steering system. This could seriously affect the handling and stability of the vehicle leading to loss of control or roll-over.

The vehicle has been designed, built and tested to cope with a variety of off-road driving conditions, some of which can place the severest possible demands on control systems and components. As such, fitting replacement parts and accessories that have been developed and tested to the same stringent standards as the original components will safeguard the continued reliability, safety and performance of your vehicle.

To augment the vehicle's already impressive performance, a comprehensive range of Land Rover-approved spare parts and accessories is available, enabling the vehicle to fulfil a wide variety of roles, and enhancing and protecting the vehicle in the many tasks to which it can be applied.

Land Rover parts are the only parts built to original equipment specifications AND approved by Land Rover designers; this means that every single part and accessory has been rigorously tested by the same engineering team that designed and built the vehicle and can therefore be guaranteed for twelve months with unlimited mileage.

A full list and description of all accessories is available from your Land Rover Dealer/ Authorised Repairer.

After-sales service

The After Sales Parts service is of paramount importance, both in the UK and across the world. In the UK there are over 100 authorised Land Rover Dealer/Authorised Repairer, all computer linked for rapid ordering of parts and accessories.

In addition, with franchised representation in over 100 countries worldwide, Land Rover are able to support your vehicle wherever you go.

Travelling abroad

In certain countries, it is illegal to fit parts which have not been made to the vehicle manufacturers' specification.

Owners should ensure that any parts or accessories fitted to the vehicle while travelling abroad will also conform to the legal requirements of their own country when they return home.

Electrical equipment

WARNING

It is extremely hazardous to fit or replace parts or accessories, the installation of which requires the dismantling of, or addition to, either the electrical or fuel systems.

Always consult a Land Rover Dealer/Authorised Repairer before fitting any accessory.

Fitting inferior quality parts or accessories, may be dangerous and could invalidate the vehicle warranty. Refer to your Warranty Benefits book.

It is recommended that you always consult a Land Rover Dealer/Authorised Repairer for advice regarding the approval, suitability, installation and use of any parts or accessories before fitting.

Airbag SRS

WARNING

The components that make up the airbag system 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 module.

To prevent malfunction of the airbag system always consult your Dealer/Authorised Repairer before fitting any of the following:

- Electronic equipment such as a mobile phone, two-way radio or in-car entertainment system.
- Accessories attached to the front or side of the vehicle.
- Any modification to the front or side of the vehicle.
- Any modification involving the removal or repair of any wiring or component in the vicinity of any of the SRS components, including the steering wheel, steering column, seats, instrument and facia panels.
- Any modification to the seats, facia panels or steering wheel.

PRINCIPLE OF OPERATION

Caution: Remove all Smart Keys from the vehicle when it is left unattended. This will ensure the vehicle is left in a secure condition.

If a Smart Key is lost, a replacement can be obtained and programmed to the vehicle by your Dealer. Notify your Dealer as soon as a Smart Key is lost or stolen and have the remaining Smart Key(s) reprogrammed.

The security system and entry to the vehicle are controlled by the Smart Key. All doors and the luggage compartment can be locked and unlocked using the remote control buttons.

The Smart Key also allows the vehicle to be started without the use of a starter key.

Two handsets, incorporating an emergency key blade, are supplied.

The emergency key blade number is recorded on an attached label. Peel off the label and attach it to the designated area on the Security Card, supplied in the literature pack. Keep the Security Card safe, but not in the vehicle.

GENERAL INFORMATION ON RADIO FREQUENCIES

Note: *The radio frequency used by your remote control may be used by other devices. For example: amateur radios, medical equipment, wireless headphones, or other remote control devices. This may cause the frequency to be jammed, and prevent your remote control from operating correctly.*

Environmental conditions can affect the operation of remote controls and the operating range may vary considerably depending on the vehicle's location.

USING THE REMOTE CONTROL

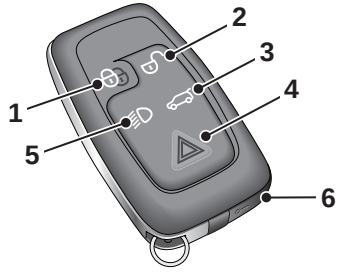
Smart Key

WARNING

Never leave the Smart Key in the vehicle if children or animals are also left in the vehicle. The vehicle's systems and remote control functions could be operated, which may result in injury.

Note: *The operational range of the Smart Key will vary considerably depending on atmospheric conditions and interference from other transmitting devices.*

Note: *Some features of the security system are market dependent or are options, so may not be present on your vehicle.*



LAN1913

1. Lock.
2. Unlock.
3. Tailgate release.
4. Panic alarm.
5. Approach lamps.
6. Emergency key blade.

Locking



Press to lock. See **LOCKING AND ARMING THE VEHICLE** (page 12).

Unlocking



Press to unlock. See **UNLOCKING AND DISARMING THE VEHICLE** (page 11).

Luggage compartment



Press to unlock, disarm and open the luggage compartment. The vehicle security system will remain active, but for the period the luggage compartment is open, the intrusion and inclination sensing systems will be inhibited. Door and bonnet security will remain active.

When the luggage compartment is subsequently closed, the hazard warning lamps will flash once to confirm that the vehicle has rearmed the full alarm system (if previously armed).

Approach lamps



Press to switch on the approach illumination. The headlamps will illuminate for a minimum of 30 seconds. Pressing the button again or operating the Engine START/STOP button, will turn the approach lamps off.

Note: *In some markets a second press of the button will turn on the headlamps and reversing lamps. A third press will be required to turn the lamps off.*

Panic button



Press and hold for three seconds, or press three times within three seconds, to activate the emergency alarm. The horn, siren and the hazard lamps will operate.

Once active for more than five seconds, the alarm can be cancelled by pressing the button and holding for three seconds, or pressing three times within three seconds.

The emergency alarm will also be cancelled if the Smart Key is held close to the instrument panel and the START/STOP button is pressed or if the vehicle detects a valid Smart Key when the START/STOP button is pressed.

Care of the Smart Key

Do not expose to extremes of heat, dust, humidity or allow contact with fluids. Do not leave the transmitter exposed to direct sunlight.

Irregular operation

If difficulty is experienced with remote keyless entry, keyless starting or Smart Key operation, it may be caused by:

- Internal battery low voltage. Replace the battery. See **CHANGING THE REMOTE CONTROL BATTERY** (page 15).
- High levels of localised external electrical interference, e.g. a radio transmitter.
- Until the battery can be replaced, or until the vehicle is outside the area of electrical interference, the Smart Key must be held close to the instrument panel. See **KEYLESS START BACKUP** (page 123).

UNLOCKING AND DISARMING THE VEHICLE



Your vehicle can be unlocked using either Single or Multi-point entry. Single-point entry is a security feature that unlocks only the driver's door when the unlock button is pressed.

To change from Single to Multi-point entry (or vice versa), press both the lock and unlock buttons simultaneously for three seconds. The hazard warning lamps will flash twice to confirm the change.

This change can also be made via the instrument panel menu.

Single-point entry

First press: Unlocks the driver's door, fuel filler door and enables the other doors to be opened from the inside (unless the child safety locks have been activated on the rear doors). The hazard warning lamps will flash twice, to indicate that the vehicle is unlocked and the alarm has been disarmed. The interior lamps will illuminate to assist entry to the vehicle.

Note: *In some markets, an audible warning will sound.*

Second press: Unlocks the passenger doors and the luggage compartment.

Multi-point entry

Press briefly to unlock all the doors and luggage compartment and to disarm the alarm. The hazard warning lamps will flash twice to indicate that the vehicle is unlocked and the alarm has been disarmed. The interior lamps will illuminate to assist entry to the vehicle.

Note: *In some markets, an audible warning will sound.*

Power-fold mirrors

If automatic power-fold is enabled, the door mirrors will unfold when the vehicle is unlocked. The power-fold feature can only be enabled/disabled by your Land Rover Dealer / Authorised Repairer.

Global opening

Press and hold the unlock button on the Smart Key for three seconds. The vehicle will unlock (either single or multi-point) and the alarm will be disarmed immediately. After the three seconds, all of the windows will open.

LOCKING AND ARMING THE VEHICLE

Note: *The vehicle will only lock, if all door, luggage compartment and bonnet apertures are closed. If a lock attempt is made when an aperture is open, the vehicle will not lock and two audible error warnings will sound.*



Press the lock button to secure the vehicle. The vehicle can be Single or Double locked, as follows:

Single locking

Press the lock button briefly. Single locking secures the vehicle and prevents the doors being opened from outside of the vehicle. The doors can be unlocked and opened from inside the vehicle. The hazard warning lamps will flash once as confirmation.

Note: *In some markets, an audible warning will sound.*

Double locking

WARNING

Never double lock the vehicle with people, children, or pets inside. In the event of an emergency they would be unable to escape, and the emergency services would be unable to release them quickly.

Press the lock button twice within three seconds. Double locking secures the vehicle and prevents the doors being unlocked or opened from inside or outside of the vehicle, except with the correct Smart Key. The hazard warning lamps will flash twice (with a long second flash) and in some markets an audible warning will also sound as confirmation (if enabled).

Double locking provides additional security if the vehicle is left unattended. The vehicle cannot be opened by breaking a window and operating the door locks from inside the vehicle.

Power-fold mirrors

If automatic power-fold is enabled, the door mirrors will fold in towards the vehicle body when the vehicle is locked. The power-fold feature can be enabled/disabled only by your Land Rover Dealer / Authorised Repairer.

Lock confirmation

If you are uncertain whether the vehicle is locked and armed (either by single or double locking), press the lock button again. The hazard warning lights will flash to indicate and confirm the current lock status.

Note: *If the vehicle is* ***not*** *already locked and armed, pressing the lock button will single lock the vehicle. Press again within three seconds to double lock.*

Global closing

WARNING

Ensure that no children, pets, or obstructions are in any open aperture before operating global closing. Safety mechanisms are in place to prevent serious injury, however, injuries can still occur.

Press and hold the lock button on the Smart Key for three seconds. The vehicle will single lock and the alarm will be fully armed immediately. After the three seconds, all the windows will close.

Automatic re-lock and arm

If the vehicle is unlocked using the Smart Key but none of the doors or the tailgate/loadspace is opened, the vehicle will automatically re-lock the doors and re-arm the alarm after 40 seconds.

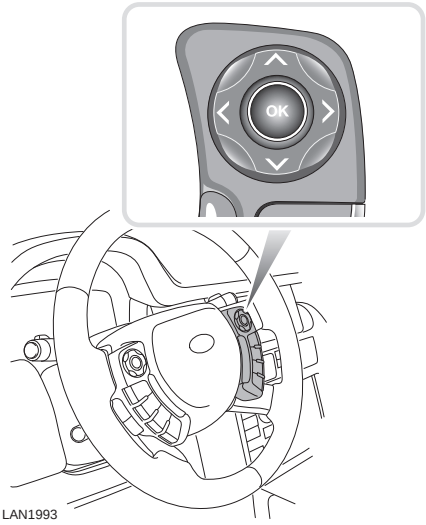
PROGRAMMING THE REMOTE CONTROL

The Smart Key and various features of the vehicle security system, can be programmed to your individual requirements by use of the instrument panel menu.

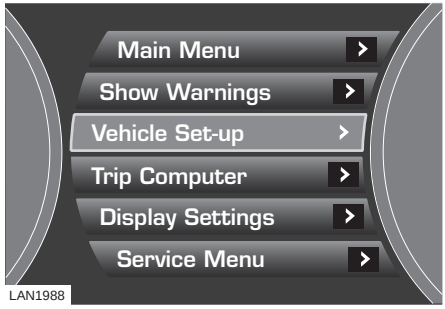
The programmable features are as follows:

- Drive-away locking (if enabled).
- Single or multi-point entry (2 stage unlocking).
- Alarm sensors override.

Selecting single (2 stage unlock) or multi-point entry



- Press the steering wheel right-hand control to access the menu.
- Select **Vehicle Set-Up**.



- Select: - **2-stage unlocking On** (for single-point entry) or **Off** (for multi-point entry).

Note: *This selection changes the setting for unlocking using the Smart Key.*

Selecting alarm sensor override

From the main menu:

- Select **Vehicle Set-Up**.
- Scroll to **Alarm sensors** and select OK to turn alarm sensors **On** or **Off**. A tick symbol indicates that the sensors are active.

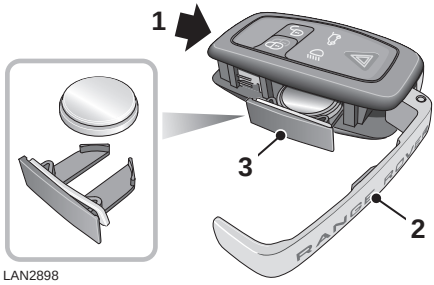
Selecting **Off** will override the interior and tilt sensors until the vehicle is locked and unlocked again. This facility is normally used for recovery of the vehicle or travelling on a ferry.

Selecting drive-away locking (if enabled)

From the main menu:

- Select **Vehicle Set-Up**.
- Select the arrow button to scroll down to **Drive away locking** and select either **On** or **Off**.

CHANGING THE REMOTE CONTROL BATTERY



LAN2898

When the battery needs renewing, there will be a significant decrease in the effective range of the Smart Key transmitter and the message **SMART KEY BATTERY LOW** is displayed in the message centre.

Note: *It is recommended that a Land Rover Dealer/Authorised Repairer should replace the remote control battery.*

To renew the battery, follow the procedure below:

1. Open the side cover on the Smart Key by pressing the release button.
2. Swing out the arm to expose the battery drawer.
3. Remove the battery drawer and prise out the battery.

Fit a new battery, type CR2032 (available from your Dealer/Authorised Repairer), with the positive (+) downwards, in the battery receptacle. Avoid touching the new battery, as moisture/oil from the fingers can reduce battery life and corrode the contacts.

Refit the parts in the reverse order, ensuring that they click securely into place.

Battery disposal



Used batteries must be disposed of correctly, as they contain a number of harmful substances. Seek advise on disposal from your Dealer/ Authorised Repairer and/or your local authority.

EMERGENCY KEY BLADE



LAN2731

To open: Press and hold the release button, and pull out the key blade compartment to unfold the key blade.

To close: Fold down the key blade whilst pressing the release button and close the compartment.

The key blade operates the left-hand front door lock.

USING THE EMERGENCY KEY BLADE

The emergency key blade will be needed to unlock the vehicle, if the Smart Key has a discharged battery or is damaged. Withdraw the key blade from the Smart Key for use.

Locking and unlocking the doors

Remove the front left-hand door lock cover as follows:

1. Insert the emergency key blade into the slot on the underside of the cover.
2. Gently but firmly lever the key blade upwards towards you.
3. Carefully twist the key blade, to lever the cover off the retaining clips.

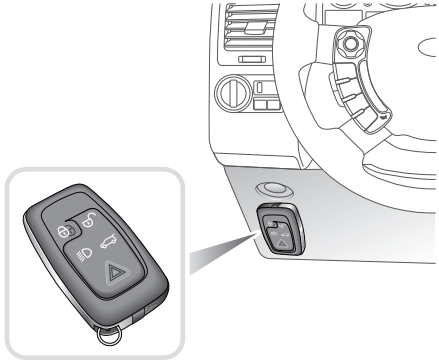
Insert the key blade into the exposed lock to operate.

Note: *To refit the door lock cover, push it firmly back into place until it clicks into position. Ensure that all three locating tabs have locked into position.*

To unlock: Turn the key blade towards the front of the vehicle and release. Whether the security system is armed or disarmed, only the front left-hand door will unlock. When the door is opened the interior lighting will be switched on at reduced level for two minutes.

If the vehicle is unlocked using the emergency key blade with the security system armed, the alarm will sound when a door is opened. To deactivate the alarm, press the unlock button on the Smart Key or press the engine START/STOP button with the Smart Key inside the vehicle.

If the message **Smart Key Not Found, Refer To Handbook** is displayed in the message centre, position the Smart Key against the underside of the facia, on the outboard side of the steering column, with the buttons facing downwards.



LAN2496

The message centre will indicate that the Smart Key has been recognised.

Now press the START/STOP button.

To lock: Ensure all other doors are closed and locked, then with the key in the lock turn the remote control towards the rear of the vehicle and release. This will lock the front left-hand side door but will not arm the alarm.

LOCKING AND UNLOCKING

WARNING

Never double lock the vehicle with people, children or pets inside. In the event of an emergency they would be unable to escape, and the emergency services would be unable to release them quickly.

When the vehicle is double-locked the doors cannot be opened, either from inside or outside the vehicle.

Breaking a window will not allow a door to be opened.

Locking and unlocking from outside the vehicle

Locking and unlocking the vehicle using the Smart Key, is explained earlier in this handbook.

Luggage compartment

Note: *If the luggage compartment is opened after the driver and passenger doors are locked, ensure that the Smart Key remains outside the vehicle when it is closed again. If the Smart Key is inadvertently left inside the luggage compartment, an audible warning will sound and the luggage compartment will re-open after three seconds.*

Note: *If the Smart Key is placed within a metal box, it will not be detected by the vehicle security system.*

The luggage compartment can be opened at any time, using the appropriate button on the Smart Key. It can also be opened using the exterior release, provided the doors are unlocked.

Provided the vehicle is not locked or alarmed via the Smart Key, the luggage compartment can also be opened using the interior release button.

Drive-away locking

This feature locks all unsecured locks when the vehicle reaches a designated speed of 8 km/h (5 mph).

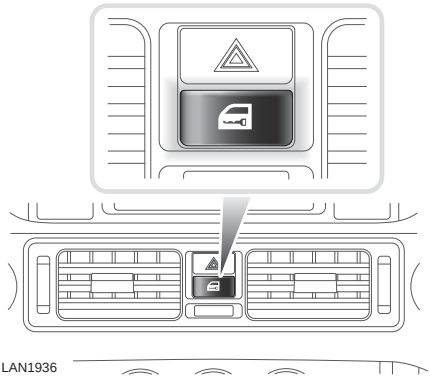
Door lock buttons and release levers

1. Press the lock button on the selected door to lock the door.
2. Pull the interior release lever once to unlock the door; pull the interior release handle once more to open the door.

Note: *If the car was locked using the Smart Key, operating the interior door release lever will only unlock that door. If the door is opened the alarm will sound.*

Note: *If the vehicle has been double locked, the interior door release levers will not operate. The vehicle must be unlocked using the Smart Key.*

Facia locking button



LAN1936

Locking: With all the doors closed, press the button to lock all doors and the luggage compartment.

Note: *The facia locking button will not function unless all the doors are closed.*

Unlocking: Press to unlock all doors and the luggage compartment.

Mislock

If one of the doors, the bonnet, or the luggage compartment are not shut fully when the vehicle is locked using the Smart Key, the vehicle will not lock and two warning tones will sound. Check that all doors, the bonnet and the luggage compartment are closed properly and lock the vehicle again.

If one or more of the doors fails to lock properly when a lock attempt is made using the Smart Key, two warning tones will sound and one or more of the doors may not be locked.

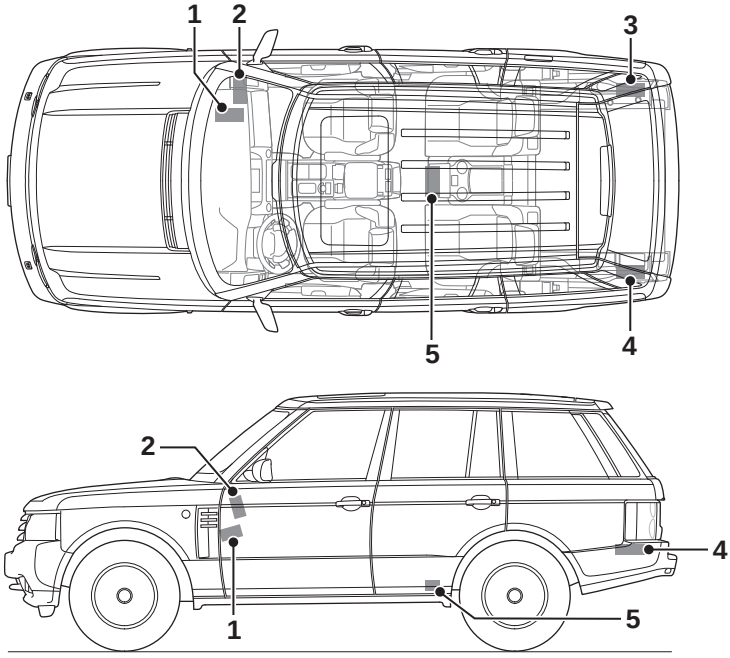
Automatic re-lock and arm

If the vehicle is unlocked using the Smart Key but none of the doors or the tailgate/loadspace is opened, the vehicle will automatically re-lock the doors and re-arm the alarm after 40 seconds.

VALET MODE

Valet mode allows the vehicle to be locked or unlocked by a parking attendant, without giving access to the luggage compartment and glove compartment. Valet mode also prevents operation of the touch-screen, to prevent access to telephone numbers or navigation addresses. See **VALET MODE** (page 270).

SMART KEY SYSTEM TRANSMITTERS



LAN2031

1. Keyless start transmitter.
2. Cabin front transmitter.
3. Loadspace right-hand transmitter.
4. Loadspace left-hand transmitter.
5. Cabin rear transmitter.

WARNING

Any person fitted with an implanted medical device should ensure that the device is kept at a distance of at least 22 cm (8.7 inches) away from any transmitter mounted in the vehicle. This is to avoid any possibility of interference between the system and device.

STEERING COLUMN LOCK

Caution: During vehicle recovery, the Smart Key must remain inside the vehicle, so that the steering column remains unlocked.

Your vehicle is fitted with an electronic steering column lock. The column unlocks when the vehicle is unlocked.

The steering column automatically locks when the vehicle is locked.

Any malfunction of the steering column lock will be indicated by the message **STEERING COLUMN LOCKED** displaying in the message centre. If this occurs:

1. Press the Engine START/STOP button to return to the convenience mode.
2. Try again to unlock the steering column lock, by turning the steering wheel gently to the left and right.
3. If the malfunction still persists, seek qualified assistance as soon as possible.

GLOBAL OPENING AND CLOSING

WARNING

Accidental closing of an electrically operated window on fingers, hands or any vulnerable part of the body, can result in serious injury. Always observe the following precautions: Ensure that you have a clear view of all open apertures on the vehicle and that all apertures are unobstructed before activating global closing.

Ensure children are kept clear whilst raising or lowering windows.

Ensure that all adult passengers are familiar with the controls and the potential dangers of electrically operated windows.

Global opening



Press and hold the unlock button on the Smart Key for at least three seconds. The alarm will disarm, all doors and the luggage compartment will unlock and all the windows and the sunroof will open.

Note: *The windows will continue to open when the unlock button is released.*

Global closing (not all markets)



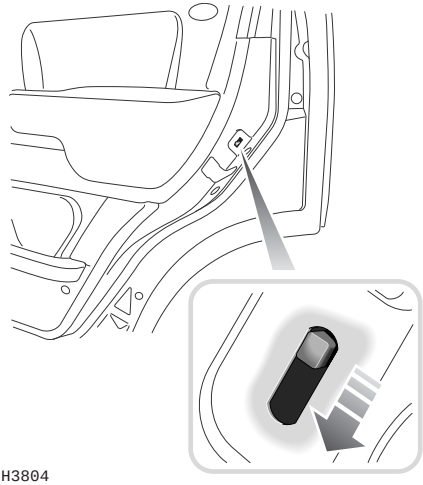
Press and hold the lock button on the Smart Key. The alarm will arm, all doors and the luggage compartment will lock and, after three seconds, all open windows and sunroof will close.

Note: *The windows and sunroof will continue to close when the lock button is released.*

Cancelling global opening/closing

To stop the windows and sunroof from opening/closing, during the global opening/closing operation, press any of the buttons on the Smart Key or operate the driver's window switch. To stop a particular window from opening, operate the relevant window switch.

CHILD-PROOF LOCKS



H3804

WARNING

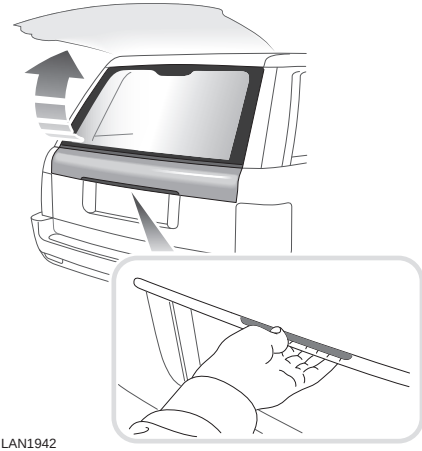
Never leave children unsupervised in the vehicle. Doing so increases the risk of death or serious injury.

Move the locking levers on the rear doors down to engage the child locks.

With the child-proof locks engaged, the rear doors cannot be opened from inside the vehicle, thereby avoiding the risk of a door being opened accidentally while the vehicle is moving.

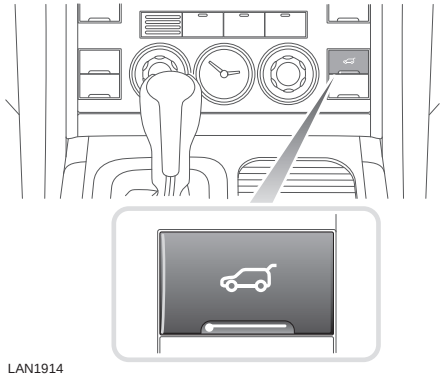
TAILGATE

Opening the upper tailgate



LAN1942

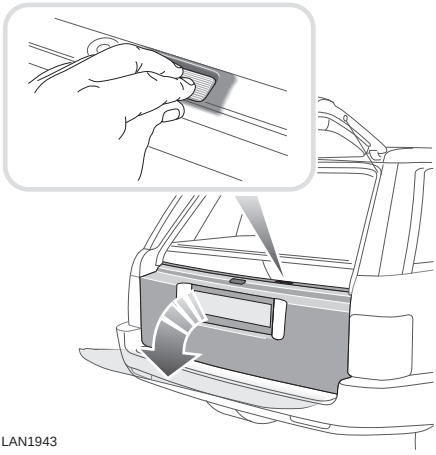
With all doors unlocked, press the switch on the bottom edge of the upper tailgate and lift to open.



LAN1914

Press the interior tailgate release button.

Opening the lower tailgate

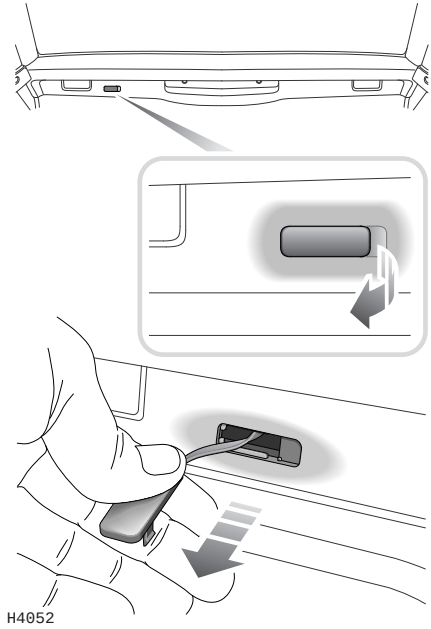


LAN1943

With the upper tailgate open, press the release switch on the top of the lower tailgate (see inset), then lower the tailgate.

Emergency manual operation

Upper tailgate:

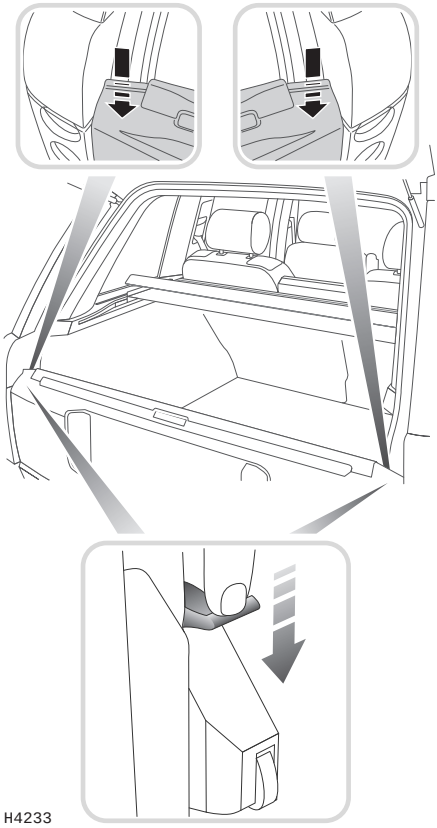


H4052

If the battery has been disconnected or has discharged, the tailgate can be opened manually as follows:

- Fold the rear loadspace cover.
- From the rear loadspace, lever out the plastic tab (see inset).
- Pull the tab to release the upper tailgate.
- Raise the upper tailgate.

Lower tailgate:



H4233

With the upper tailgate open, push down on the two hidden catches (see insets), either side of the tailgate. The catches can be operated either one at a time, or simultaneously.

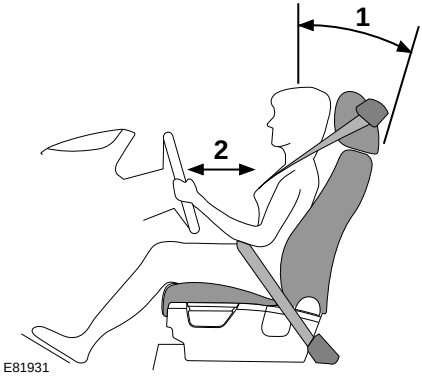
FRONT SEATS

WARNING

Do not adjust the seat while the vehicle is moving. Doing so could cause loss of vehicle control and personal injury.

An inflating airbag can cause facial abrasions and other injuries. Injuries caused by airbag inflation can be minimised by ensuring that the driver and front passenger are seated correctly (seat back upright, seat positioned as far back as practical, and seat belt worn correctly).

Sitting in the correct position



The seat, head restraint, seat belt and airbags, all contribute to the protection of the user. Correct use of these components will give you greater protection, therefore observe the following points:

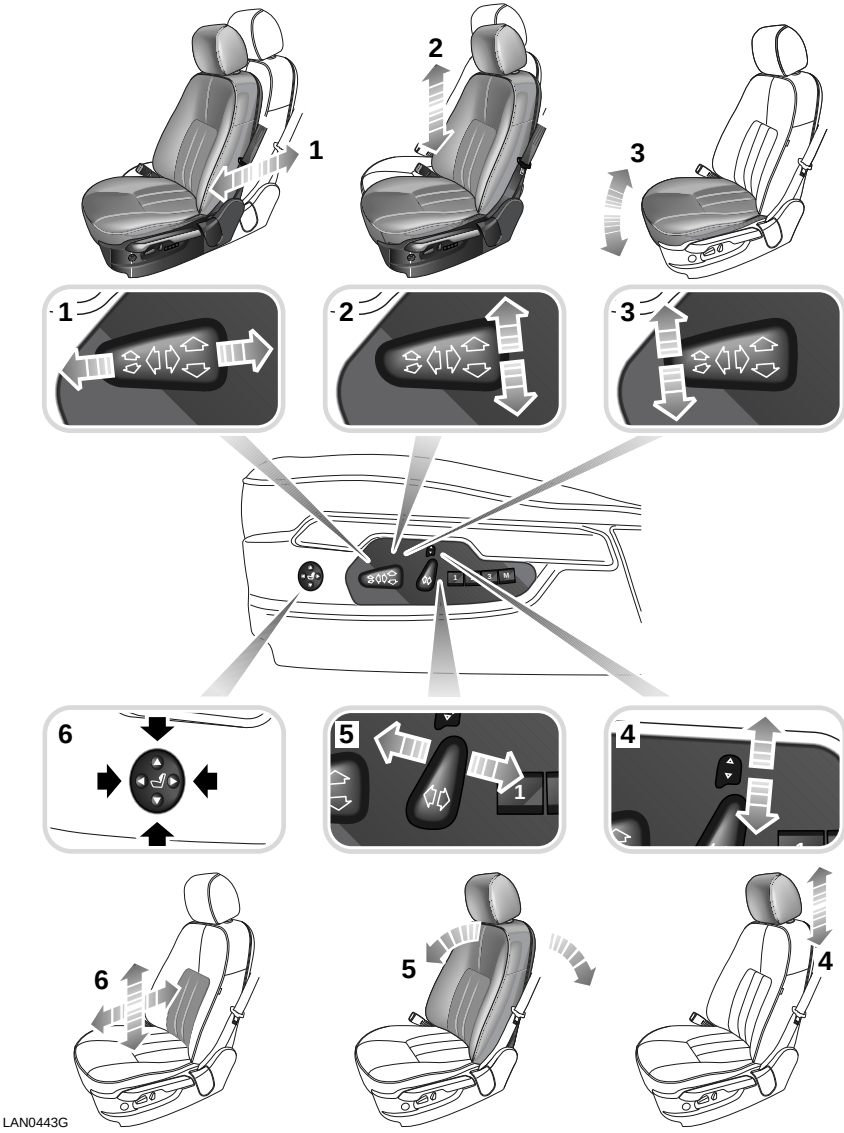
1. Sit in an upright position with the base of your spine as far back as possible and the seatback reclined no more than 30 degrees.
2. Do not move the driver's seat too close to the steering wheel. Ideally, a minimum distance of 254 mm (10 inches) is recommended between the breastbone and the steering wheel airbag cover. Hold the steering wheel in the correct position with your arms slightly bent. Bend your legs slightly so that the pedals can be pressed fully to the floor.

- Adjust the head restraint so that the top of it is above the centre line of the head.
- Position the seat belt so that it is mid-way between your neck and your shoulder. Fit the strap tightly across your hips, not across your stomach.
- Ensure that your driving position is comfortable and enables you to maintain full control of the vehicle.

Note: *For information on adjusting the steering column, See* ***STEERING WHEEL ADJUSTMENT*** *(page 58).*

FRONT SEAT ADJUSTMENT

All control options included



The seat adjustment controls are situated on the outboard side of the seat base

WARNING

Do not adjust any part of a seat while the vehicle is in motion. Vehicle movement may cause the seat to suddenly shift, potentially causing injury.

1. Forward/backward adjustment

Push and hold the switch forwards or backwards to move the seat to the desired position.

2. Seat cushion height adjustment

Push the rear of the switch up or down to raise or lower the cushion.

3. Seat cushion angle adjustment

Push the front of the switch up or down to tilt the front edge of seat cushion to the desired position.

Note: *The front and rear of the switch work independently - the front tilting the front of the cushion, the rear of the switch adjusts the height of the seat cushion.*

4. Head restraint adjustment

Push the switch up or down to adjust the head restraint. The top of the head restraint should be above the centre line of the head.

Note: *The powered front head restraints are not designed to be removed.*

WARNING

Head restraints are designed to support the head, not the back of the neck. The restraint must be positioned correctly to restrain rearward movement of the head in a collision. An incorrectly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

WARNING

Adjust the head restraint so that the top of the head restraint is above the centre line of the head.See Sitting in the correct position (page 25).

Do not drive or carry passengers with the head restraints removed from occupied seats. The absence of a correctly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

Never adjust the head restraints while the vehicle is in motion.

5. Seat back adjustment

Twist the switch forward or backward until the desired seat back angle is achieved.

WARNING

Do not travel with the seat backs reclined steeply rearwards. Optimum benefit is obtained from the seat belt with the seat back angle set to no more than 30 degrees from the upright (vertical).

Failure to maintain the correct seat back angle will reduce the effectiveness of the seat belts and increase the risk of serious injury or death in a crash.

6. Lumbar support adjustment

Press the right or left of the switch to increase or decrease support to the lumbar region of the back. Press the top or bottom of the switch to increase support at the top or bottom of the seat back.

MANUAL FRONT HEAD RESTRAINTS

WARNING

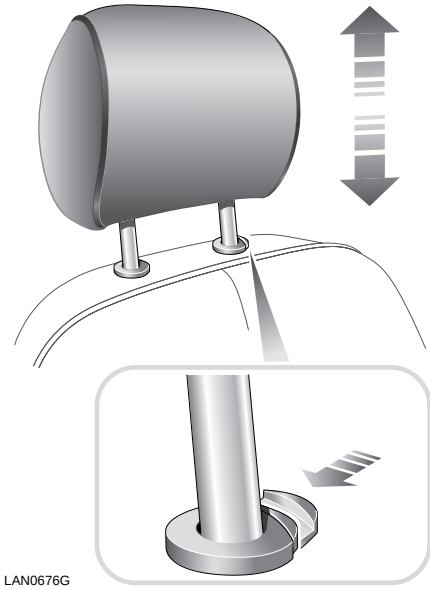
Head restraints are designed to support the head, not the back of the neck. The restraint must be positioned correctly to restrain rearward movement of the head in a collision. An incorrectly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

Adjust the head restraint so that the top of the head restraint is above the centre line of the head. See Sitting in the correct position, page 25.

Do not drive, or carry passengers with the head restraints removed from occupied seats. The absence of a correctly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

Never adjust the head restraints while the vehicle is in motion.

Head restraint adjustment - without tilt adjust



LAN0676G

To raise the head restraint, pull the restraint upwards.

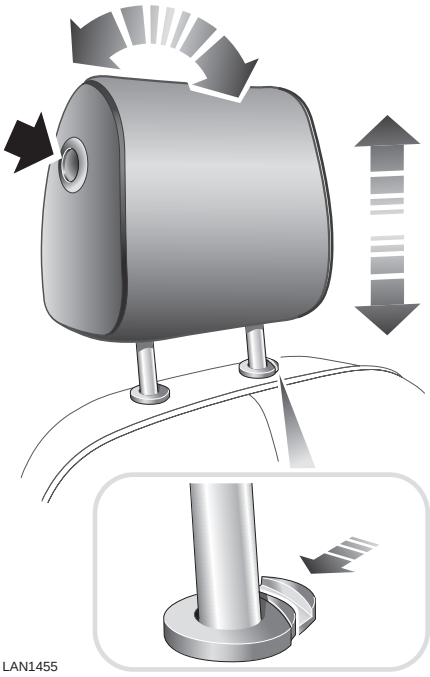
To lower the restraint, depress the locking button (see inset) and push down on the restraint.

To remove the head restraint, depress the locking button while lifting the restraint clear of the seat.

To refit the head restraint, engage the guide posts into the collars and press the restraint downwards until a click is heard. Ensure that the restraint is fitted the correct way round.

Caution: Do not attempt to remove a front head restraint fitted with a display screen or an electrically operated head restraint. This may damage electrical connections.

Head restraint adjustment - with tilt adjust



To adjust the angle of the head restraint, depress the locking button located on the side of the restraint (solid arrow in illustration) and move to the desired position. Release the button to lock in place.

The head restraint should be tilted so that it is in close proximity to the back of the head when seated in the normal driving position.

To raise the head restraint, pull the restraint upwards.

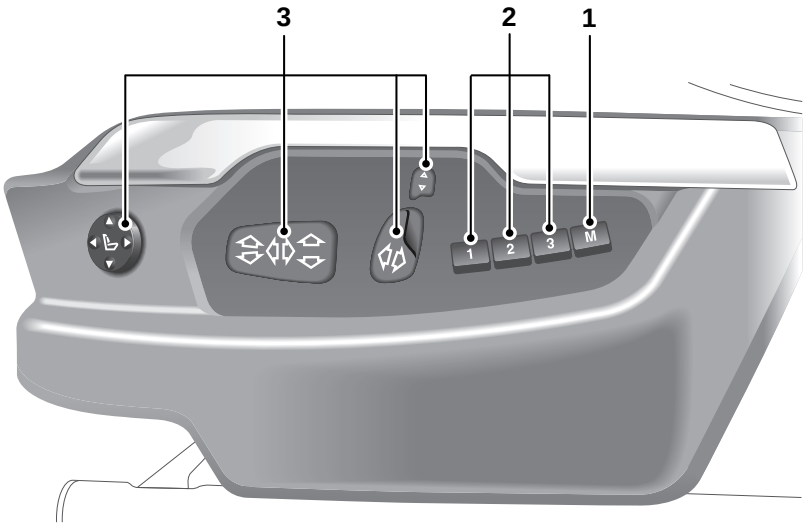
To lower the head restraint, depress the locking button (see inset) and push down on the restraint.

To remove the head restraint, depress the locking button while lifting the restraint clear of the seat.

To refit the head restraint, engage the guide posts into the collars and press the restraint downwards until a click is heard. Ensure that the restraint is fitted the correct way round.

Caution: Do not attempt to remove a front head restraint fitted with a display screen. This may damage electrical connections.

SEAT MEMORY FACILITY



LAN0602G

WARNING

Before activating the seat memory, ensure that the area immediately surrounding the seat is clear of obstructions and that all occupants are clear of moving parts.

1. Memory store button
2. Memory pre-set buttons
3. Seat adjustment controls. See **FRONT SEAT ADJUSTMENT** (page 26).

The seat memory facility can store up to three different seat positions in each front seat. For the driver's seat it will also store the associated mirror and steering wheel positions. This enables different users to achieve optimum comfort at the touch of a button.

Setting the memory pre-sets

If a pre-set is not pressed within five seconds of the memory store (M) button being activated, the memory store function will cancel.

1. Adjust the seat to the desired position. When adjusting the driver's seat also adjust external mirrors and steering column to the desired position.
2. Press the memory store button. The indicator will illuminate.
3. Press the desired memory pre-set button to store a setting.
4. The indicator will extinguish. When adjusting the driver's seat, a chime will indicate that the settings have been stored. A message will be displayed confirming that the settings have been stored.

Recalling a stored seat position

Press the desired pre-set button. The seat will move to the previously stored position. When adjusting the driver's seat, mirrors and steering column will also move to the position stored in that pre-set. A message will be displayed confirming that the settings have been recalled.

Note: *To stop the seat movement at any time when recalling a memory setting, press any seat adjustment control.*

HEATED AND CLIMATIC SEATS

Information on operating the front and rear seat heaters or the climatic seats can be found later in this handbook. See **SEAT HEATERS** (page 98). See **CLIMATIC SEATS** (page 99).

REAR SEAT ENTERTAINMENT

Caution: When rear seat passengers are entering or leaving the vehicle it is important that they do not hold the head restraint to ease entry/exit. This may damage the display screens.

The video display screens fitted to the rear of the front seat head restraints are not touch-screens. Avoid contact with the screen wherever possible.

Do not attempt to remove a front head restraint fitted with a display screen. This may damage electrical connections.

Only clean the screens using the Land Rover approved cleaning materials available from your Land Rover Dealer/Authorised Repairer.

WARNING

The display screens contain toxic substances including mercury. These substances can cause severe illness and possibly death.

In the event that a display screen is damaged, avoid all contact with it, and contact your Dealer/Authorised Repairer as soon as possible.

EASY ENTRY/EXIT

Easy entry/exit provides automatic movement of the steering column and seat making it easier to enter or leave the vehicle.

Easy entry/exit is selected using the settings menu in the instrument pack.

Note: *If the steering column or seat are manually adjusted during the entry or exit operation, automatic movement will stop.*

Exit

When the driver's door is opened the steering column and seat will move to allow easier exit.

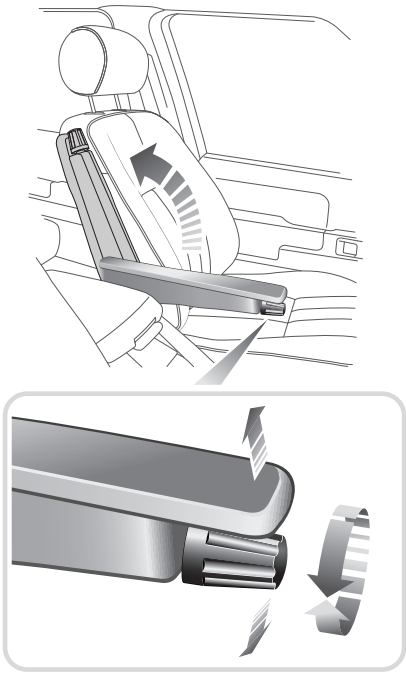
Note: *There will be no automatic movement if the steering column is already close to the entry/exit positions.*

Entry

When the driver's door is closed and the ignition switched on, the steering column and seat will return to the previous positions.

FOLDING ARMRESTS

Front

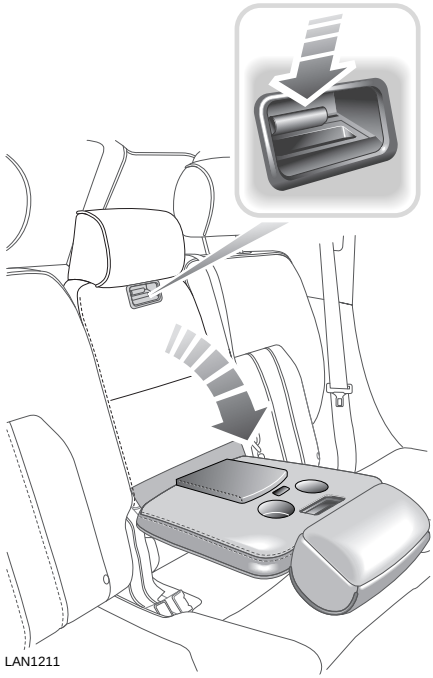


H6550R

The adjustable front seat armrests can either be stowed vertically in line with the seat backrest when not required or folded horizontally to serve as an arm/elbow rest.

The set height/angle of each armrest can be adjusted by turning the knob set into the end of the armrest: Clockwise, to raise, and anticlockwise to lower (see inset).

Rear



LAN1211

To fold down the armrest, press the catch beneath the centre rear seat head restraint.

Note: *The rear armrest cannot be used if a passenger is seated in the centre rear seat.*

REAR HEAD RESTRAINTS

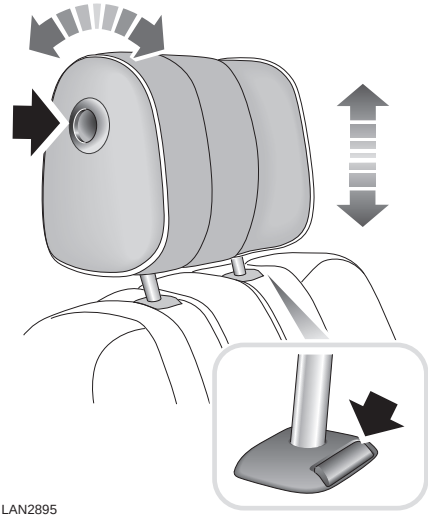
WARNING

Head restraints are designed to support the head, not the back of the neck. The restraint must be positioned correctly to restrain rearward movement of the head in a collision. An incorrectly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

Adjust the head restraint so that the top of the head restraint is above the centre line of the head.

Do not drive, or carry passengers with the head restraints removed from occupied seats. The absence of a correctly adjusted head restraint increases the risk of death or serious injury in the event of a collision.

Never adjust the head restraints while the vehicle is in motion.



LAN2895

Adjustment

To adjust the angle of the head restraint, depress the locking button located on the side of the restraint and move to the desired position. Release the button to lock in place.

The head restraint should be tilted so that it is in close proximity to the back of the head when seated in the normal driving position.

To raise the head restraint, pull the restraint upwards.

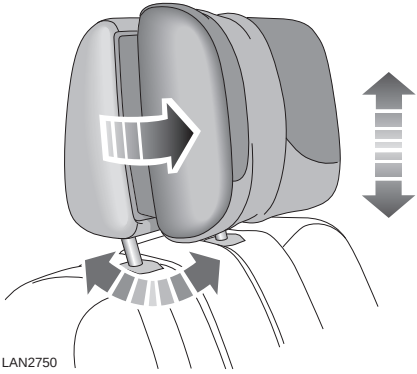
To lower the head restraint, depress the collar locking button (see inset) and push down on the restraint.

Removal

Remove the head restraint by pressing the collar button while lifting the restraint clear of the seat.

To refit the head restraint, engage the guide posts into the collars and press the restraint downwards until a click is heard. Ensure that the restraint is fitted the correct way round.

WINGED HEAD RESTRAINT ADJUSTMENT



To enhance user comfort, the winged head restraint soft face ends have two open positions. Each wing can be opened individually. Pull a wing forward until it clicks into the first position. Pull forward again to set the second position.

To adjust the angle of the head restraint, pull or push the lower edge to the desired position. The internal friction mechanism will maintain its position.

To raise the height position of the head restraint, pull the restraint upwards to the next stop point.

To lower the head restraint, depress the locking button and push down on the restraint.

To remove the head restraint, depress the locking collar button while lifting the restraint clear of the seat.

To refit the head restraint, engage the guide posts into the collars and press the restraint downwards until a click is heard. Ensure that the restraint is fitted the correct way round.

REAR SEATS

WARNING

Always ensure that objects carried within the vehicle are secured properly. Unsecured items can cause death or serious injury in the event of an impact or sudden manoeuvre.

Never allow passengers to travel in the load space under any circumstances. All vehicle occupants should be seated correctly, and wear a seat belt at all times when the vehicle is in motion. Failure to do so will greatly increase the risk of death and serious injury in the event of an accident or heavy braking.

Do not adjust any part of a seat while the vehicle is in motion. Vehicle movement may cause the unlatched seat to suddenly shift, and may cause injuries.

Folding down the seats

One or both parts of the split rear seat can be either partially or fully folded, to further increase the rear loadspace.

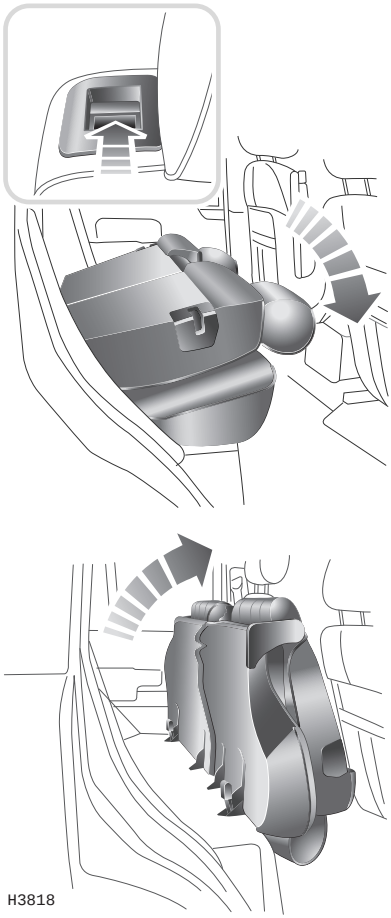
Ensure the head restraints are fully lowered and the armrest is stowed.

To release either part of the backrest, lift the lever on the top of the backrest shown in the inset. Then fold the backrest onto the seat base.

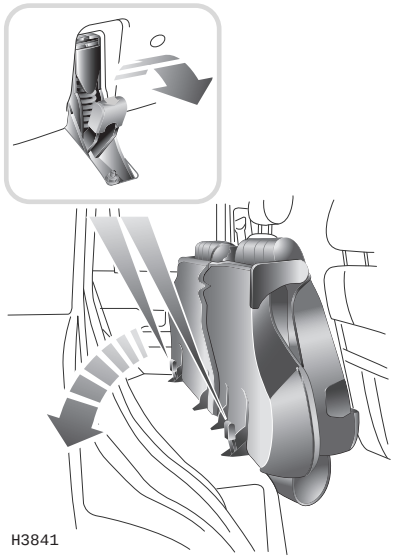
To fold the whole assembly forward, lift the rear of the seat base upwards until it locks in the upright position.

WARNING

It is extremely dangerous to ride in the cargo area. In a collision, people riding in this area are more likely to be injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure that everyone in your vehicle is in a seat and using a safety belt properly.

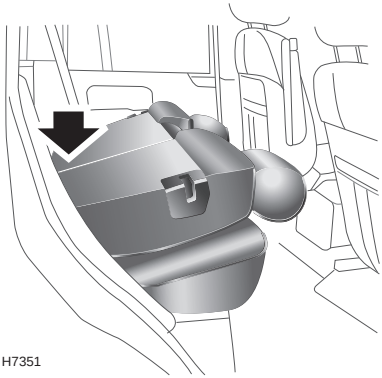


Returning the seat to the upright position



Pull the release lever (see inset) rearwards, then push the seat assembly back onto the floor - the floor catches should latch with the base of the seat. Then raise the backrest.

If the backrest cannot be raised easily, do not force it. This indicates that the seat base has not fully engaged with the floor catches (note that the seat assembly is designed to prevent the backrest from being raised unless the seat is properly secured to the floor).


H7351

To make sure the seat base is fully engaged with the floor catches, press down on the seat where arrowed in the illustration.

With the seat base secure, the backrest can be raised and locked in position (the red markers on the release levers should not be visible when the backrest is correctly latched).

WARNING

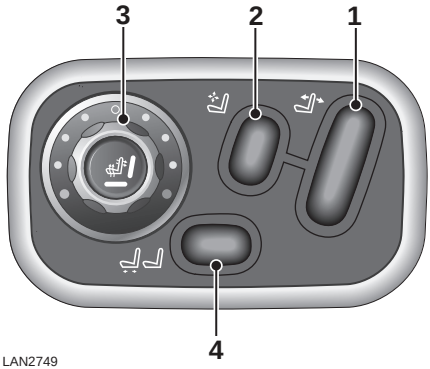
Ensure that when the seat back is raised the locking mechanism is fully engaged. Failure to do so can increase the risk of death or serious injury in the event of an accident or sudden manoeuvre or heavy braking.

Ensure that the head restraint is adjusted correctly for each passenger (the top of the head restraint should be above the centre line of the head).

RECLINING REAR SEATS

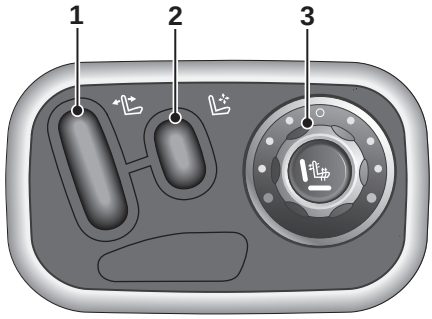
Note: *This feature will not operate if the rear window isolation switch has been activated.*

Seat control behind front passenger seat



LAN2749

Seat control behind driver seat



LAN2748

Note: *The above graphics show left-hand drive condition.*

1. Twist the switch forward or backward until the desired seat back angle is achieved.

2. Push the switch forward or backward to increase or decrease support to the lumbar region of the back. Push the switch up or down to adjust the height of the lumbar support.
3. With the engine running, climatic seats can be operated as follows:

Caution: Climatic seats consume considerable power from the battery. For this reason, they can be operated only while the engine is running.

- Rotate the control from the **0** position clockwise to increase temperature of the ventilated air (red indicators around the control will illuminate). Rotate the control counterclockwise to decrease temperature of the ventilated air (blue indicators around the control will illuminate).
- Repeatedly press the centre of the control to select either the seat back or both seat back and seat cushion. The relevant indicator(s) will illuminate.
- To turn off, rotate the control to the **0** position. The indicator(s) will extinguish

  The seat heaters are thermostatically controlled and once selected, will operate continuously to maintain a predetermined temperature.

4. Push and hold the switch forwards or backwards to move the front passenger seat, creating a more comfortable reclining position.

   Note: *This feature will not operate if the rear window isolation switch has been activated.*

SEAT BELTS

The use of front and rear seat belts is mandatory in most countries. Using seat belts saves lives. They should be worn by all occupants whenever the vehicle is in use, for maximum protection.

Inertia reel seat belts are provided for both front seat occupants and all rear seat positions. The inertia reel operating mechanisms of the seat belts, allow the wearers to move their upper bodies to reach various controls. The seat belts lock automatically with accelerated body movement or in the event of emergency braking.

The front seat belts include a buckle sensor to detect when the buckle is latched.

The front seat belt assemblies are fitted with pre-tensioners. The pre-tensioners operate with the airbags as part of the Airbag Supplementary Restraint System (SRS). See **HOW THE AIRBAG SRS WORKS** (page 50).

Seat belt warning indicator



Driver and front seat passenger Beltminder commences when the ignition is switched on and either the driver's or an occupied front passenger's seat belt is unbuckled.

The visual and audible warnings applicable to Beltminder, are market dependent to meet individual market requirements. The warning signals given may also change, depending on whether the vehicle is stationary or when the vehicle speed exceeds a pre-determined threshold. See **AUDIBLE WARNINGS** (page 78).

Note: *Objects placed on the front passenger seat may activate the seat belt reminder warning chime and indicator. Any objects placed on the front passenger seat must be secured by use of the seat belt.*

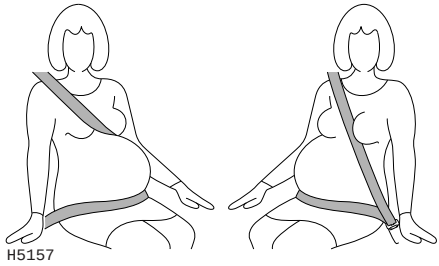


Although not advisable, it is possible to disable the Beltminder function. Please see a Land Rover Dealer/Authorised Repairer to disable or reinstate the function.

SEAT BELT USE DURING PREGNANCY

WARNING

Position the seat belt correctly for the safety of the mother and unborn child. Never wear just the lap strap and never sit on the lap strap while using just the shoulder strap. Both of these actions are extremely dangerous and may increase your risk of serious injury in the event of an accident or during emergency braking.



Position the lap strap comfortably across the hips, beneath the abdomen. Place the diagonal part of the seat belt between the breasts and to the side of the abdomen. Ensure that the seat belt is not slack or twisted.

WARNING

Never place anything between you and the seat belt in an attempt to cushion the impact in the event of an accident. It can be dangerous and reduce the effectiveness of the seat belt in preventing injury.

SEAT BELT SAFETY

WARNING

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water.

The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Do not carry hard, fragile, or sharp items between your person and the seat belt. In an impact the pressure from the seat belt on such items can cause them to break, which in turn may cause death or serious injury.

WARNING

Belts should not be worn with the straps twisted.

Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

The occupants of the front seats should not travel with the seat back at more than 30 degrees from upright. Doing so will reduce the protection afforded by the seat belt.

Seat belts should be worn by all vehicle occupants, for every journey no matter how short. Failure to do so will greatly increase the risk of death or serious injury in the event of an accident.

Never wear just the lap belt or just the shoulder belt of a diagonal seat belt. Both of these actions are extremely dangerous and may increase your risk of injury.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly being adjusted to remove slack. A slack seat belt offers a greatly reduced level of occupant protection in an impact.

If any damage, wear, cuts, defects, or impaired operation are noted with the seat belts, the vehicle should be taken to your Dealer/Authorised Repairer for immediate attention. Do not use the vehicle if the seat belts cannot be operated correctly.

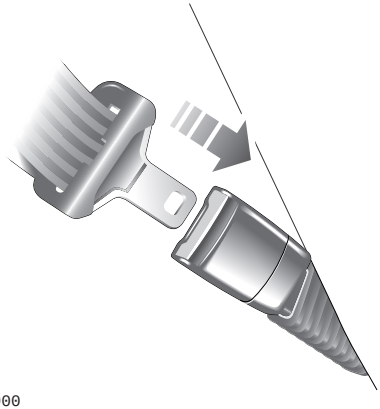
When using seat belts to restrain items other than occupants, take care to ensure that the belts are not damaged or exposed to sharp edges.

WARNING

Care must be taken to avoid contaminating the seat belt webbing, and seat belt mechanisms with any chemicals, liquids, grit, dirt or cleaning products. If the seat belts do become contaminated they should be replaced immediately. Contaminated seat belts may not operate correctly in an impact and cannot be relied upon.

FRONT SEAT BELTS

Fastening the seat belts



H3900

1. Draw the belt out smoothly, ensuring that the belt height, the seat position and your position on the seat are correct. The belt should lay flat across the pelvis, chest and mid-point of the collar bone between the neck and shoulder.
2. With the belt correctly positioned, place the metal tongue into the buckle nearest to you. Press it in until a click is heard.

WARNING

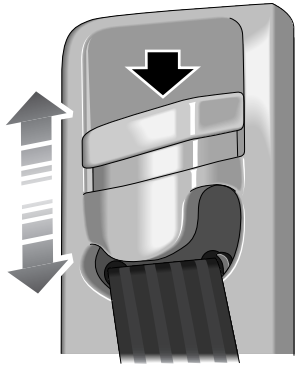
Never wear just the lap strap of a diagonal seat belt and never sit on the lap strap using just the shoulder strap. Both of these actions are extremely dangerous and may increase your risk of serious injury.

Releasing the belt

Note: *When releasing the belt it is advisable to hold it near the buckle before pressing the release button. This will prevent the belt from retracting too quickly.*

To release the seat belt, press the red button.

Upper anchorage adjustment



H3803

The height of the seat belt upper anchorage can be adjusted for comfort and safety on both front seats. Press down (solid arrow) to release the catch, then lift or push down to adjust the height of the anchorage. For safety, the seat belt should always be worn with the webbing crossing the shoulder midway between the neck and the edge of the shoulder.

Ensure the anchorage has clicked into one of the locked positions before driving.

Where possible, rear seat passengers should adjust their position on the seat to enable the seat belt webbing to cross the shoulder without pressing on the neck.

WARNING

Correct seat belt adjustment is essential for safety and comfort. Ensure that the height is correctly adjusted and the mechanism is locked in place before driving the vehicle. Do not attempt to adjust the seat belt height once the vehicle is in motion. Doing so may cause you to lose control of the vehicle, or incorrectly adjust the seat belt.

SEAT BELT PRE-TENSIONERS

The seat belt pre-tensioners activate in conjunction with the airbag SRS and provide additional protection in the event of a severe frontal impact on the vehicle. See **HOW THE AIRBAG SRS WORKS** (page 50). The pre-tensioners automatically retract the seat belts fitted to the front seats. This reduces any slack in both the lap and diagonal portions of the belts, thereby reducing forward movement of the belt wearer in the event of a severe frontal collision.

The airbag SRS warning indicator on the instrument pack will alert you to any malfunction of the seat belt pre-tensioners.

If the pre-tensioners have been activated, the seat belts will still function as restraints, and must be worn in the event that the vehicle remains in a driveable condition.

Note: *The seat belt pre-tensioners will be activated in major side and frontal impacts and in roll-overs.*

WARNING

The seat belt pre-tensioners will only be activated once and then must be replaced by a Land Rover Dealer/Authorised Repairer. Failure to replace the pre-tensioners will reduce the efficiency of the vehicle's front restraint systems.

After any impact, always have the seat belts and pre-tensioners checked and, if necessary, replaced by a Land Rover Dealer/Authorised Repairer.

In the interests of safety, it is recommended that removal or replacement of the front seats and seat belts should only be carried out by a Land Rover Dealer/Authorised Repairer.

CARING FOR SEAT BELTS

The seat belts should be inspected regularly to check for fraying, cuts, wear to the webbing and the condition and security of the mechanism, buckles, adjusters and mounting points.

Do not bleach or dye the webbing and avoid contaminating the webbing with polish, oil or chemicals. See **CLEANING THE INTERIOR** (page 227).

Seat belt checks

WARNING

Always replace a seat belt that shows signs of webbing damage or has withstood the strain of a severe vehicle impact.

- With the seat belt fastened, give the webbing near the buckle a quick upward pull. The buckle must remain securely locked.

- With the seat belt unfastened, unreel the seat belt to the limit of its travel. Check that it unreels smoothly with no snatches or snags. Allow the belt to fully retract, again checking for smooth operation.
- Partially unreel the seat belt, then hold the tongue plate and give a quick forward pull. The mechanism must lock and prevent any further unreeling.

If any of the seat belts fail to meet those criteria, immediately contact your Dealer/Authorised Repairer.

Note: *If the vehicle is parked on an incline, the seat belt mechanism may lock. This is not a fault and the belt should be gently eased out from the upper anchorage.*

Service information

WARNING

Do not attempt to service, repair, replace, modify or tamper with any part of the pre-tensioner and airbag SRS, or wiring in the vicinity of a pre-tensioner or airbag SRS component; this could cause the system to activate, resulting in personal injury.

In addition, always contact your Land Rover Dealer/Authorised Repairer if:

- An airbag inflates.
- A pre-tensioner activates.
- The front or side of the vehicle is damaged, even if the pre-tensioner has not activated.

CHILD SAFETY SEATS

WARNING

Do not use a child restraint on a seat with an operational airbag in front of it. There is a risk of death or serious injury when the airbag deploys.

Crash statistics show that children are safest when properly restrained in a child or infant restraint system that is secured in a rear seating position.

Do not use a forward facing child seat until the child using it is above the minimum weight of 9 kg (20 lb.) and able to sit up unaided. Up to the age of 18 months, a child's spine and neck are not sufficiently developed to avoid injury in a frontal impact.

Do not use a rear facing child seat in any front passenger seat location. If the passenger air bag inflates, a child in a rear facing child restraint could sustain serious injury or death.

Do not allow a baby or infant to be held or carried on the lap. The force of a crash can increase effective body weight by as much as thirty times, making it impossible to hold onto the child.

Children typically require the use of a booster seat appropriate to their age and size, thereby enabling the seat belts to be properly fitted, reducing the risk of injury in a crash.

Children could be endangered in a crash if their child restraints are not properly secured in the vehicle.

Do not use a child seat that hooks over the seat back. This type of seat cannot be satisfactorily secured and is unlikely to be safe for your child.

The seat belts fitted to your vehicle are designed for adults and larger children. It is very important for all infants and children under 12 years of age to be restrained in a suitable child safety seat appropriate to their age and size.

Only fit a child safety seat of a type approved for the specific seating positions in your vehicle (see table), and ensure the seat manufacturer's fitting instructions are followed exactly.

For optimum safety, children should travel in the rear of the vehicle at all times, front passenger seat travel is not recommended. However, if it is essential that a child travel in the front, set the seat fully rearward.

Note: *In some countries legislation prohibits children travelling in the front of a vehicle. Ensure that you are familiar with the legislation in force where the vehicle is being used and are in full compliance.*

Holding a baby or child in a person's arms is not a substitute for a child restraint system.

In an accident, a baby or a child held in a person's arms can be crushed between the vehicle's interior and a restrained person.



This symbol is affixed to the end of the facia on the passenger side. Its purpose is to warn against the use of a rear facing child seat when the front passenger airbag is fitted and operational.

WARNING

Original text according to ECE R94.01.

Extreme Hazard! Do not use a rearward facing child restraint on a seat protected by an airbag in front of it!

Child Restraints

Child safety seating and positions (Europe only)

Note: *The information contained in the following table may not be applicable to all countries. If you are in any doubt regarding the type and fitment of child seats seek advice from a qualified source.*

The following table shows the suitability of each passenger seat position for the carriage of children up to 12 years of age or 1.5 metres (5 feet) tall and the installation of suitable child restraint systems.

Mass Group **As indicated on child restraint packaging.**	**Seating Positions**		
	Front Passenger	**Rear Outboard**	**Rear Centre**
0 = Up to 10 kg (22.05 lb) (0-9 months)	U†	U	U
0+ = Up to 13 kg (28.66 lb) (0-18 months)	U†	U	U
I = 9 to 18 kg (20 to 40 lb) (9 months - 4 years)	UF	U	U
II III =15 to 36 kg (33 to 79 lb) (4-12 years)	U	U	U

U = Suitable for Universal category restraints approved for this mass group.
UF = Suitable for forward facing Universal category restraints approved for this mass group.
X = Seat position not suitable for children in this mass group.
† = Never install a child restraint, approved for this mass group, in the front passenger seating position, unless the airbag has been disabled. See **PASSENGER AIRBAG DISABLING SWITCH** (page 54).

Caution: Information given in the table is correct at the time of going to press. However, availability of child restraints may change. Please refer to your Land Rover Dealer/Authorised Repairer for the latest recommendation.

Note: *The legislation which governs how and where children should be carried when travelling in a vehicle is subject to change. It is the responsibility of the driver to comply with all regulations in force.*

Booster seats

In a situation where a child is too large to fit into a child safety seat but is still too small to safely use just the three point belt, a booster seat is recommended for maximum safety. Follow the manufacturer's instructions for fitting and use, and then adjust the seat belt to suit.

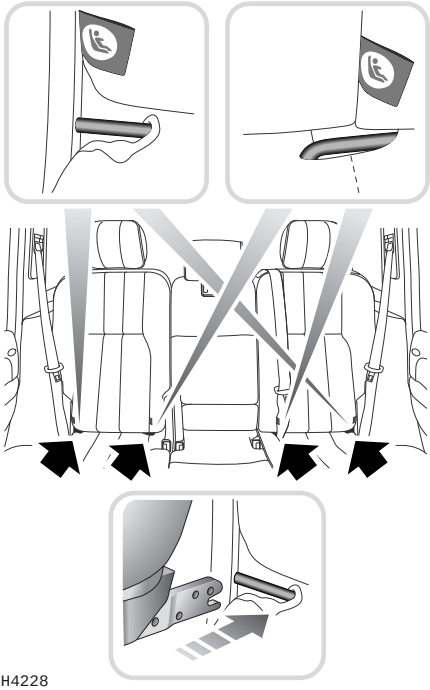
ISOFIX CHILD RESTRAINTS

Note: *Not applicable in Australia.*

In some markets, child restraint systems complying with International Standard Organisation regulations and approved for fitting in your vehicle may be available. These restraints are different to conventional child seats, requiring anchor bars built into the vehicle seat in order to accept the ISOFIX locking mechanism.



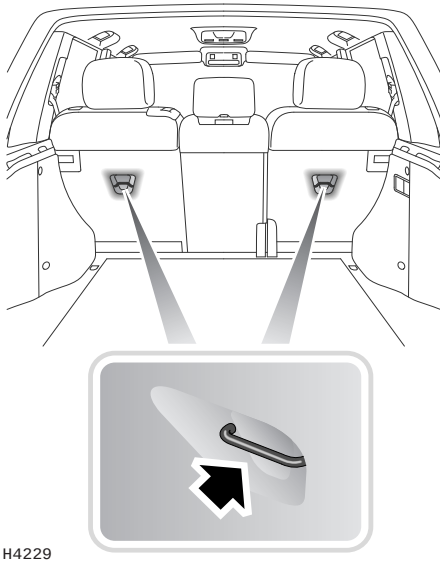
This symbol on the label sewn into the seats indicates the location of the ISOFIX lower anchorages.



H4228

Both outer, rear (second row) seating positions in your vehicle are equipped to accept ISOFIX restraints.

Two lower (first illustration) and one upper tether anchorages (second illustration) are provided at each seating position equipped to accept Isofix child restraints.



H4229

Note: *Always ensure that if an upper tether is provided, it is fitted and tightened correctly.*

WARNING

Do not attempt to fit ISOFIX restraints to the centre seating position. The anchor bars are not designed to hold an ISOFIX restraint in this position.

If removing a head restraint in order to fit a child restraint, always secure the head restraint when storing it. If left loose in the vehicle it may cause death or serious injury during sudden braking or an impact.

Fitting ISOFIX child restraints

ISOFIX child restraints should only be fitted in the two outer seating positions of the second row seats. Anchor bars built into the rear seat frame (arrowed in first illustration on previous page), enable the ISOFIX restraints to be securely attached to the vehicle seat in these positions only.

In addition, two tether anchor bars are fitted to the back of the rear seats (see second illustration on previous page), to secure child restraint anchor straps.

Always ensure that, if an upper tether is provided, it is secured and tightened properly as this provides the maximum protection for your child.

When fitting ISOFIX child restraints, always follow the instructions supplied by the manufacturer of the restraint.

Once the ISOFIX restraint is installed, you are recommended to test the security of the installation before seating the child. Attempt to twist the restraint from side to side and to pull the restraint away from the vehicle seat; then check that the anchors are still securely in place.

WARNING

If the restraint is not correctly anchored, there is a significant risk of injury to the child in the event of a collision or emergency braking.

Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.

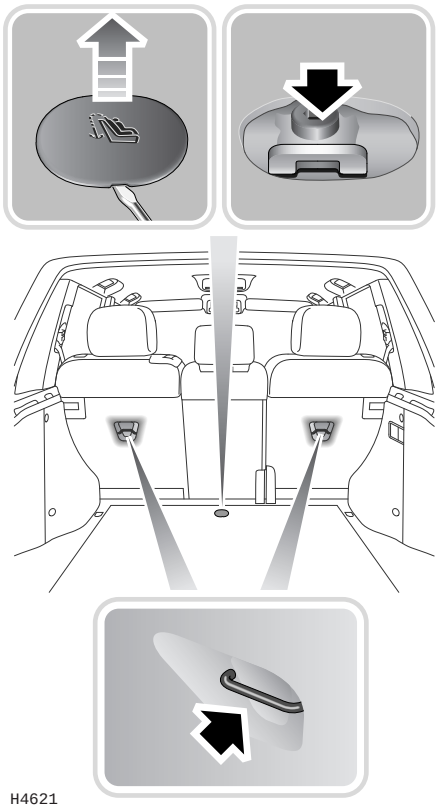
Note: *The information contained in the following table may not be applicable to all countries. If you are in any doubt regarding the type and fitment of child seats seek advice from your Dealer/Authorised Repairer.*

Mass Group **As indicated on child safety seat packaging.**	**Seating Positions**		
	Front Passenger	**Rear Outboard**	**Rear Centre**
0 = Up to 10 kg (22.05 lb) (0-9 months)	X	ISO	X
I = 9 to 18 kg (20 to 40 lb) (9 months - 4 years)	X	ISO	X
ISO = Suitable for ISOFIX category restraints approved for this mass group. X = Seat position not suitable for ISOFIX category restraints. Group **0** - Britax Cosy-Tot Isofix/Römer Babysafe Isofix child safety seat. Group **I** - Britax/Römer Duo Plus Isofix child safety seat.			

TETHER STRAP ANCHORAGES (Australia only)

WARNING

Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.



H4621

Provision is made in the rear seats for the fitting of up to three child seats, of the type that requires tether strap anchorage points.

There are three tether strap anchorage points. These should be used to attach tether straps from child seats or restraint systems.

Two anchorage points are fitted to the back of the second row seat, these should be used for the two outer seating positions.

A third, single anchorage point is located in the floor panel behind the centre rear seat, for attaching a tether strap from the centre seat position.

Using a small flat-bladed screwdriver, remove the circular cover to reveal the child seat anchorage point (see left inset).

Attaching tether straps

1. Install the child restraint securely in one of the rear seating positions.
2. Pass the tether strap over the back of the vehicle seat and under the head restraint.
3. Attach the tether strap hook to the tether anchor on the back of the vehicle seat. Ensure that the tether strap hook is facing the correct direction. See illustration.
4. Tighten the tether strap according to the manufacturer's instructions to remove any slack in the webbing.

WARNING

Always follow the child seat or restraint system manufacturer's instructions when fitting tether straps.

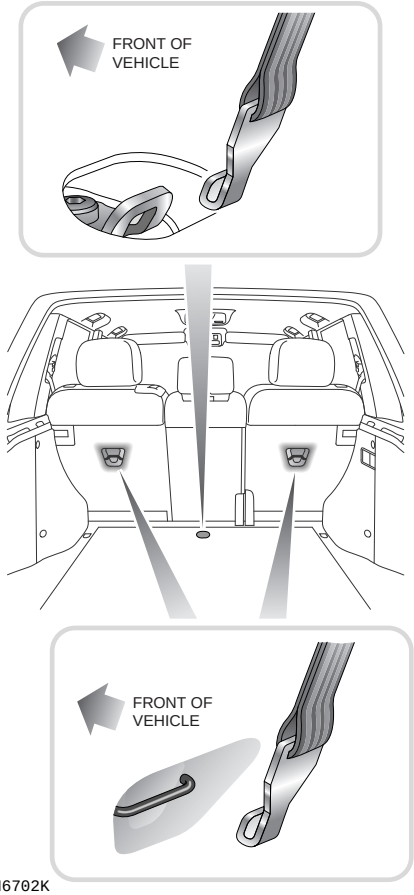
When fitting a child seat or restraint system, always pass the tether strap over the top of the seat back and under the head restraint.

Child Restraints

WARNING

If a child seat or restraint system is to be fitted to the centre seating position, the centre armrest must be in the stowed position (folded into the seat).

Note: *A tether anchorage is provided for the centre seat position. Do not use this anchor position with an ISOFIX child seat.*



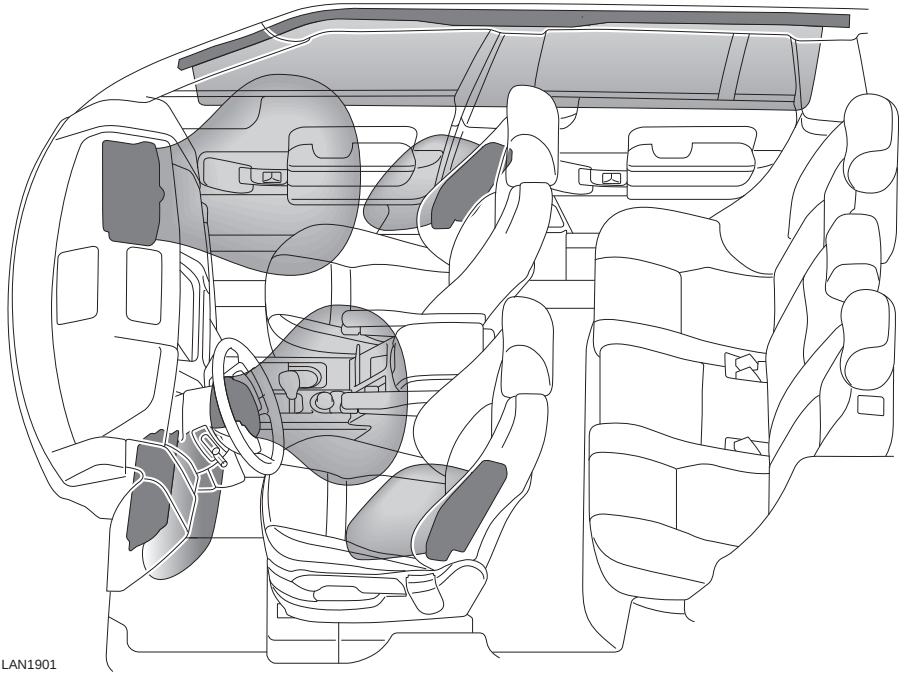
H6702K

CHILD RESTRAINT CHECK LISTS

Every time a child travels in the vehicle observe the following:

- Always use the appropriate child restraints and adjust harnesses for every child, every trip.
- Make sure that a child falls into the correct weight range for the seat.
- Carefully follow the instructions provided by the manufacturer of the restraint system.
- Ensure that all slack is removed from the adult seat belt.
- When installing an ISOFIX seat, always attach the top tether. Always give the ISOFIX seat a final pull to ensure that the lower anchors are secure.
- Regularly check the fit of a child seat and replace seats or harnesses that show signs of wear.
- Avoid dressing a child in bulky clothing and do not place any objects between the child and the restraint system.
- No child seat is completely child-proof. Encourage a child not to play with the buckle or harness.
- Never leave a child unsupervised in the vehicle.
- Activate the rear door child safety locks. See **CHILD-PROOF LOCKS** (page 22).
- Ensure that a child does not exit the vehicle from the side where there is traffic.
- Set a good example - always wear your seat belt.

INTRODUCTION



LAN1901

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.

WARNING

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.

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.

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.

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. Side 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 ignition is switched on.
- The warning indicator fails to extinguish within approximately four seconds after the ignition is switched on.
- 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 ignition is switched on, the diagnostic control unit monitors the readiness of the system's electrical circuits.

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.*
- *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 head and seat mounted side airbags.

WARNING

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

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.

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.

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.

Curtain 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.

Curtain 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 curtain 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 curtain 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.

WARNING

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

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

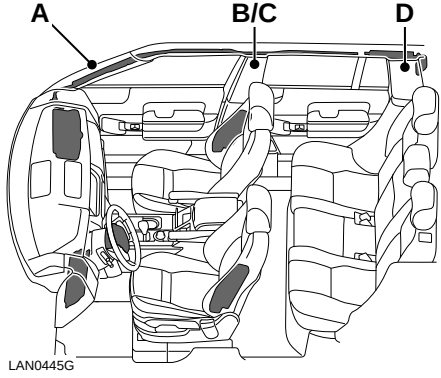
WARNING

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.



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

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 facia 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.*

Airbag switched off



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 emergency key blade.

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

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.

WARNING

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.

Do not use a rear facing child seat in any front passenger seat location. If the passenger air bag inflates, a child in a rear facing child restraint could sustain serious injury or death.

Children could be endangered in a crash if their child restraints are not properly secured in the vehicle. Be sure to install child restraints according to the manufacturer's instructions.

Always transport children 12 years and under in the second row of seats and always properly use appropriate child restraints.

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

WARNING

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



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 ignition is switched on.

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 ignition is switched on, 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.

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

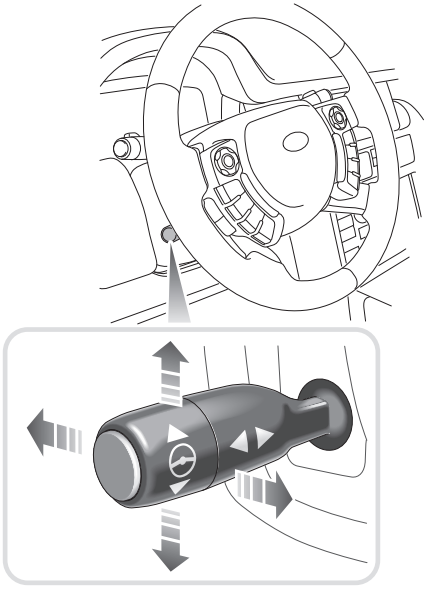
If you sell your vehicle, be sure to inform the new owner that the vehicle has an airbag SRS.

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.

STEERING WHEEL ADJUSTMENT

WARNING

Never adjust the steering wheel position whilst the vehicle is in motion. Doing so will reduce control of the vehicle, and may cause unpredictable steering movements.



LAN1916

The steering wheel position can be adjusted in four directions, corresponding with the movement of the adjustment lever, to suit your driving position.

With the vehicle stationary, move the lever up or down to adjust the height of the steering wheel.

Move the lever forwards or rearwards, to move the steering wheel further away from, or closer to, the body.

STEERING WHEEL POSITION MEMORY

The steering wheel position can be stored in the system's memory.

Note: *Up to three different sets of steering wheel positions can be stored and recalled.*

Any of the previously stored positions can be over written with a new position.

See ***SEAT MEMORY FACILITY*** *(page 30).*

To store a new position along with the current seat and mirror positions, in place of your previously stored settings.

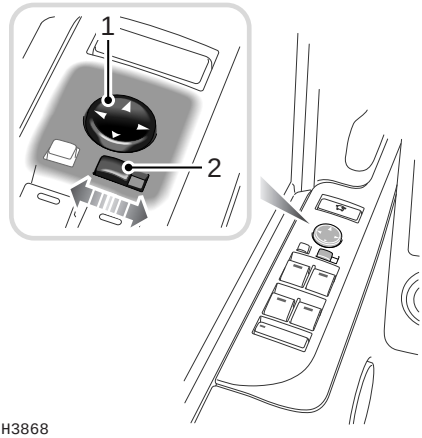
1. Press the memory store button (M) on the side of the seat switch pack.
2. Within five seconds, press the memory pre-set button (1, 2 or 3), corresponding to your current seating position.

The new settings are now stored on the chosen memory pre-set button.

EXTERIOR MIRRORS

Caution: Objects viewed in exterior mirrors may appear further away than they actually are.

Mirror adjustment



H3868

- Move the lower control (**2**) to the left or right-hand position to select either the left or right hand-mirror.
- With the ignition switched on, push the appropriate arrow on the mirror adjust control (**1**) to tilt the mirror glass up/down/left or right.

The door mirrors have integral heating elements which disperse ice or mist from the glass. These will operate automatically with the ignition is switched on, depending on external temperature.

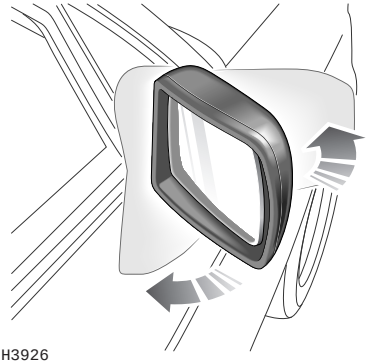
Note: *Up to three different sets of exterior mirror positions can be stored and recalled. See* ***SEAT MEMORY FACILITY*** *(page 30).*

To store a new position along with the current seat and steering column positions, in place of your previously stored settings.

1. Press the memory store button (M) on the side of the seat switch pack.
2. Within five seconds, press the memory pre-set button (1, 2 or 3), corresponding to your current seating position.

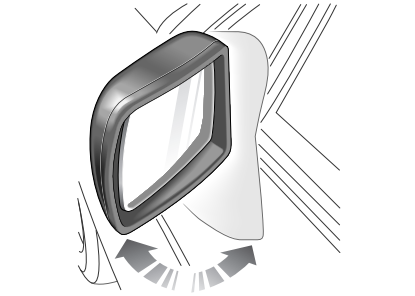
The new settings are now stored on the chosen memory pre-set button.

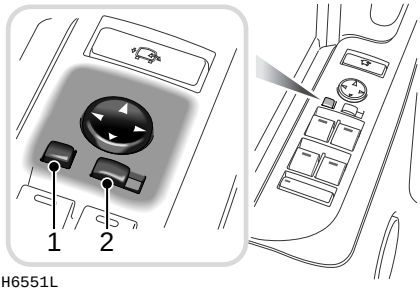
Folding the mirror body


H3926

The door mirrors are designed to fold forwards or rearwards on impact. They can also be folded back towards the side windows into a park position to enable the vehicle to negotiate narrower openings.

Door Mirrors





H6551L

Press the mirror-fold button (1) once to fold the mirrors into the side windows. Press again to return the mirrors to the driving position.

If the mirrors are accidentally knocked out of position (i.e. with one mirror extended and the other in the parked position), an additional operation of the switch will re-synchronise them.

Automatic folding

The mirrors will fold automatically when the vehicle is locked and unfold when it's unlocked.

Mirror dip when reversing

The door mirrors can be set to dip automatically when reverse gear is selected to provide an improved viewing angle for reversing. This feature is selected via the settings menu on the instrument panel.

Once the feature is set, select reverse gear to dip the mirrors. Whilst the mirrors are in the dipped position they can be adjusted to your requirements using the mirror adjuster in the normal way. The next time reverse gear is selected the mirrors will return to the positions you have selected.

When the gear selector is moved out of reverse, or the vehicle speed exceeds 12 km/h (7.5mph) in reverse, the mirrors will return to their normal driving positions.

Automatic dimming

On some models, the mirrors are equipped with an electrochromatic dimming function that dims the mirror to reduce glare from the headlamps of following vehicles at night.

BLIND SPOT MONITOR

WARNING

The Blind Spot Monitor (BSM) system is a supplement to, not a replacement for, a safe driving style and use of the exterior and rear-view mirrors. It remains the driver's responsibility to detect other vehicles, and their relative distance and speed, when deciding whether or not it is safe to change lanes.

Please note that BSM may not be able to give adequate warning of vehicles approaching very quickly from behind or vehicles that are being overtaken rapidly.

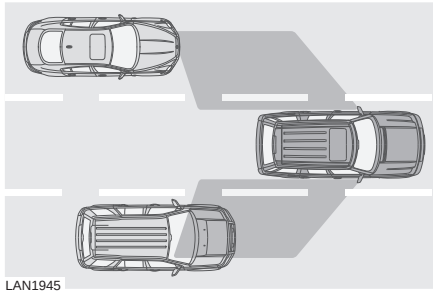
The radar sensors may be impaired by rain, snow or road spray. This may affect the system's ability to reliably detect a vehicle/object within the blind spot. In such conditions, take extra care when changing lanes.

WARNING

BSM may not be able to detect all vehicles and may also detect objects, such as roadside barriers, etc.

Caution: Ensure that the warning indicators in the exterior mirrors are not obscured by stickers or other objects.

Caution: Do not attach stickers or objects to the rear bumpers, that may interfere with the radar sensors.


LAN1945

The Blind Spot Monitor (BSM) system monitors a zone that covers the area adjacent to the vehicle, that is not easily visible by the driver and is designed to identify any object overtaking the vehicle. The system uses a radar on each side of the vehicle to identify any overtaking vehicle/object within the blind spot area of the vehicle, while disregarding other objects which may be stationary or travelling in the opposite direction, etc.

The radar monitors the area extending from the exterior mirror rearwards, to a maximum of 6 metres (19.7 feet) behind the rear wheels and up to 2.5 metres (8.2 feet) from the side of the vehicle (the width of a typical carriageway lane).

Note: *This radar sensor is approved in all RTTE countries.*

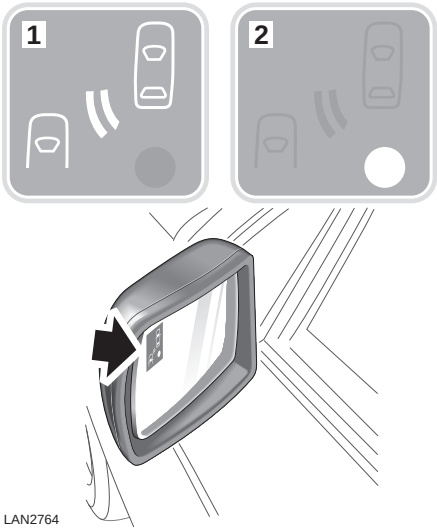
BSM is active when the vehicle is travelling in a forward direction at greater than 16 km/h (10 mph).

Note: *The system covers an area of a fixed lane width. If the lanes are narrower than a typical carriageway lane, objects travelling in non-adjacent lanes may be detected.*

At engine start up the BSM system initiates a self check. The warning icons in the mirrors will illuminate alternately for a short period.

Warning icon (**2**) will remain illuminated while the vehicle is travelling at less than 16km/h (10 mph) in a forward direction.

BSM can be turned on or off via the instrument panel menu. See **Instrument Panel Menu** (page 67).



BSM is designed to work most effectively when driving on multi-lane highways.

If an object is identified by the system as being an overtaking vehicle/object, an **amber** warning icon (**1**) illuminates in the relevant exterior mirror, to alert the driver that there is a potential hazard in the vehicle's blind spot and therefore, that a lane change might be dangerous.

Note: *If an overtaking vehicle is detected on both sides of the vehicle simultaneously, the warning icons in both mirrors will illuminate.*

Note: *BSM is automatically turned off when reverse (**R**) gear is selected, when the vehicle is in park (P), the vehicle is travelling below 16 km/h (10 mph) and also when the electrical connector for the trailer socket is plugged in on vehicles with a factory-fitted towing bracket. When in these conditions, the amber warning icon (**2**) is displayed.*

Sensor blockage

The BSM system will automatically disable if either of the sensors become completely obscured, the amber warning indicator dot is displayed in the exterior mirror and the message **BSM sensor blocked** appears in the message centre.

If the sensors become blocked, then please check that there is nothing obscuring the rear bumper and that it is clear from ice, frost and dirt.

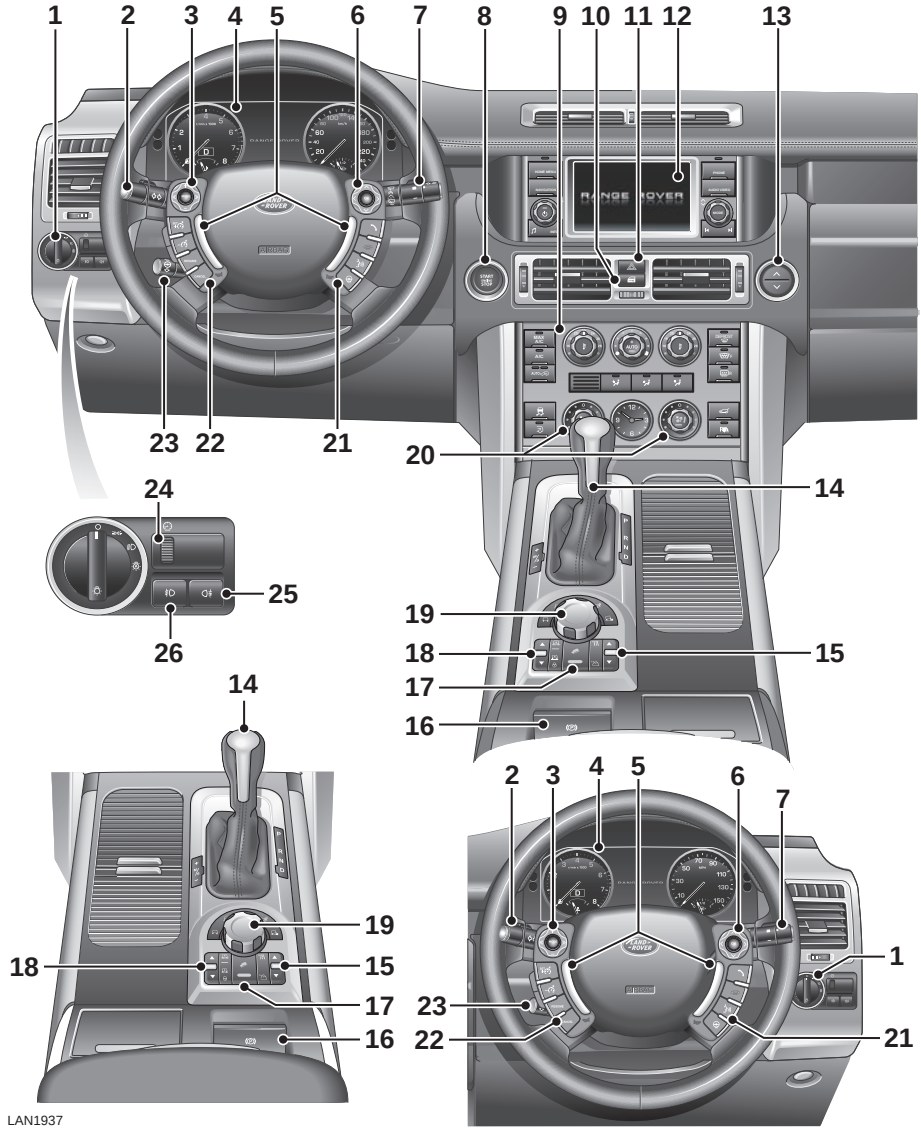
System fault

If a fault with one of the radar sensors is detected, the amber warning indicator dot is displayed in the exterior mirror and the message **BSM not available** is displayed in the message centre.

Note: *Even if the detected fault only affects the radar sensor on one side of the vehicle, the whole system is disabled. If the fault is temporary, the system will operate correctly once the engine has been switched off and then on again.*

If a fault in the system occurs, consult your Dealer/Authorised Repairer.

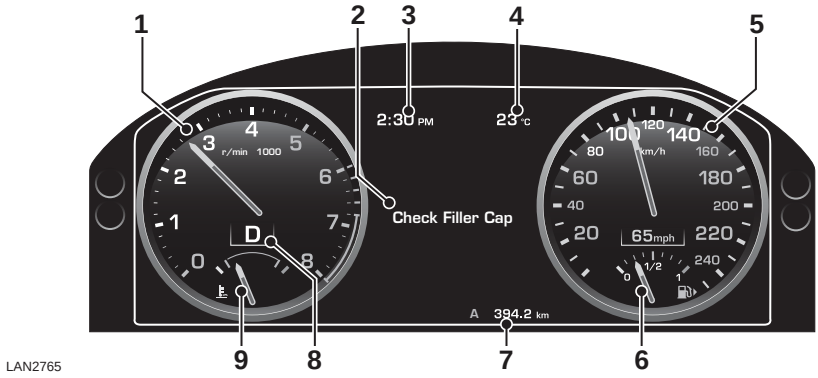
FACIA OVERVIEW



Facia

1. Lamps master switch
2. Headlamps and direction indicator controls
3. Audio control switch
4. Instrument pack
5. Horn switches
6. Multi-function control switch
7. Windscreen wiper/washer controls
8. Engine START/STOP switch
9. Heater/air conditioning controls
10. Master locking switch
11. Hazard warning lamp switch
12. Touch screen
13. Glove box switch
14. Main gear selector
15. Transfer gear switch
16. Electronic parking brake
17. Hill descent control switch
18. Air suspension controls
19. Terrain response control
20. Climatic seat controls
21. Phone/Voice controls
22. Cruise control switches and Adaptive Cruise Control gap setting switches
23. Steering column adjuster
24. Instrument illumination control
25. Rear fog lamps
26. Front fog lamps

INSTRUMENT PANEL



1. Tachometer

Indicates engine speed in revolutions per minute.

2. Main message centre

Displays warning and information messages in addition to other vehicle information.
See **MENU** (page 67).

3. Clock

For information on how to set the time
See **CLOCKS** (page 104).

4. External temperature

Indicates current external temperature.

5. Speedometer

Indicates road speed in miles or kilometres per hour.

6. Fuel gauge

The pointer indicates the level of fuel in the tank.

The small arrow visible in the fuel pump symbol on the gauge indicates the side of the vehicle on which the fuel filler is located.

Caution: Never allow vehicles to run out of fuel (the resultant misfire may destroy the catalytic converter).

7. Trip distance recorder

Displays the total distance travelled by the vehicle and individual journey distance.
See **TRIP/DISTANCE RECORDER** (page 75).

8. Gear selector position display

This shows the current gear lever position.
See **GEAR SELECTOR DISPLAY** (page 77).

9. Temperature gauge

Once the engine coolant has reached its normal operating temperature, the pointer will move to a position midway between the red and blue segments of the gauge (the precise position will vary according to climatic conditions).

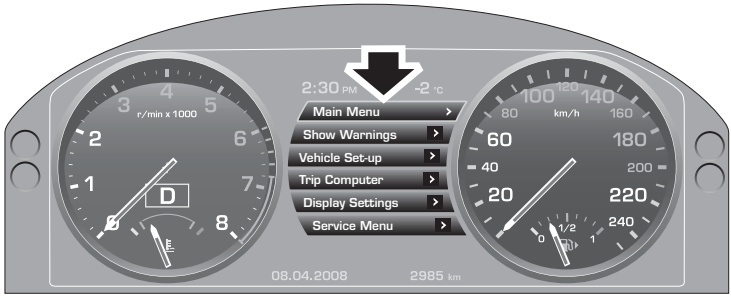
If the pointer moves towards the red segment, this indicates that the engine coolant is becoming too hot. Should the pointer move into the red segment severe engine damage could occur (under these circumstances, the air conditioning may switch off and engine performance may reduce in order to minimise engine load).

Stop the vehicle as soon as safety permits and allow the engine to idle until the pointer returns to the normal operating position. If the problem persists, seek qualified assistance before continuing.

Instrument Display

The instrument has a range of display styles and settings which are controlled via the instrument panel menu. See **Instrument Panel Menu** (page 67).

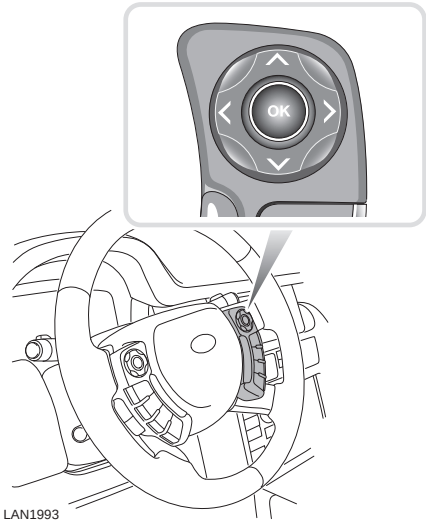
MENU



LAN2119

Opening the menu

The instrument cluster menu is only visible when activated. To display the menu press any part of the instrument pack menu control.



LAN1993

Instrument pack menu control.

Closing the menu

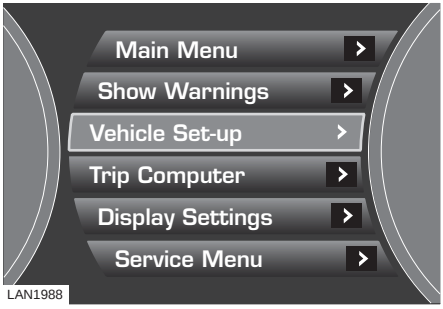
To close a menu press the left button on the menu control.

The menu will close automatically if:-

- no action is taken with the main menu within 10 seconds.
- action is taken with the main menu and it is then left for 30 seconds.

Note: *If a further action is taken within the four minute period, the timer will reset and a further four minutes will elapse before the menu closes automatically.*

USING THE MENU



Main menu options.

Menu selections are made using the menu control to move to the required menu option. Once the required option has been highlighted press the **OK** button to select that option.

The screen will then display a sub-menu, or activate the selected item where applicable.

Scroll arrows to the left of a menu indicate that there are further menu items not in the current view. Use the steering wheel control to scroll up or down.

Note: *If a scroll arrow is displayed brightly there are additional menu items available in the direction of the arrow pointer.*

Service Menu

The service menu can only be accessed whilst the ignition is on and the engine is not running.

Instrument Panel Menu

Overview of menu

The following is an overview of the possible menu options and what they do. Not all options are available in all markets.

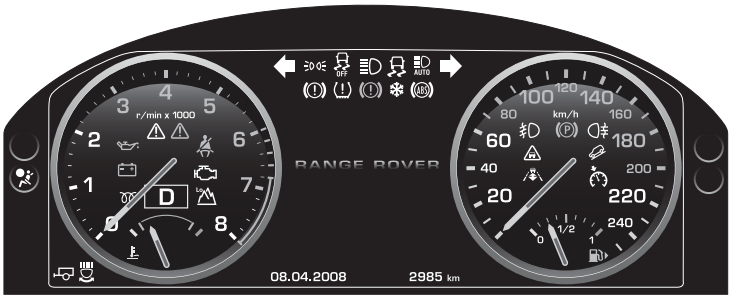
Main Menu	**-**	Close the vehicle set-up and information menu.
Show Warnings	**-**	Display all active warning messages.
Vehicle Set-up	**Forward Alert**	Enable/disable forward alert.
	Blind Spot Monitor	Enable/disable the blind spot monitoring system.
	Speed Warning	Enable/disable over speed warning and set the monitored speed.
	High Beam Assist	Enable/disable the operation of the auto high beam feature. Configure the system for driving on the alternate side of road. ***Note:*** *The headlamps still need to be manually adjusted. See* ***HEADLAMPS - DRIVING ABROAD*** *(page 81).*
	Alarm Sensors	Temporarily disable the interior space protection and tilt sensor for the next time the vehicle is locked. This setting is automatically enabled when the vehicle is unlocked with the Smart Key.
	Reverse-dip Mirror	Enable/disable automatic dipping of exterior mirrors when reverse gear is selected.
	Drive-away Locking	Enable/disable automatic locking off the doors when the vehicle speed exceeds 8 km/h (5 mph).
	Easy Entry / Exit	Enable/disable automatic movement of steering column and driver's seat.
	2-Stage Unlocking	Enable/disable the single-point entry door unlocking feature.
	Headlamp Delay	Enable/disable the headlamp delay feature. Configure the amount of time the headlamps will remain on.
	TPM Load Setting	Change the monitored tyre pressures for the vehicle loading conditions.

Trip Computer	**Trip A**	Enable/disable display of Trip A readings.
	Trip B	Enable/disable display of Trip B readings
	Trip Auto	Enable/disable display of Trip Auto readings
	Units	Select the distance units to be displayed by the trip computer.
Display Settings	**Language**	Select the language for text displayed in the message centre.
	Temperature	Select the units for the external temperature reading.
	Appearance	Change the appearance of the instrument panel display.
Service Menu	**VIN Display**	Display the Vehicle Identification Number.
	Oil Level Display	Display the oil level.

EXITING OR MOVING BACK WITHOUT MAKING A SELECTION

To exit the current menu, or move back without making a change or selection, press the left arrow on the menu control.

WARNING INDICATORS



LAN2766

Caution: RED warning indicators are of particular importance; their illumination invariably indicates that a fault exists. If a RED warning indicator illuminates, action must be taken.

The location and specification of the warning indicators may vary according to model and market requirements.

Critical warning message- RED

Illuminates when a critical warning message is available in the message centre.

Low oil pressure - RED (diesel only)

Illuminates as a bulb check when the ignition is switched on, and extinguishes when the engine is started. If the indicator remains on, flashes on and off, or illuminates whilst driving, stop the vehicle as soon as safety permits and **switch off the engine immediately**. Seek qualified assistance before driving. Always check the oil level when this indicator illuminates.

Brake system - RED

Illuminates briefly as a bulb check when the ignition is switched on.

The indicator should extinguish shortly after the ignition is switched on. If the indicator does not extinguish, or illuminates whilst driving, a fault with the brake systems is indicated. Stop the vehicle gently, as soon as safety permits and seek qualified assistance before continuing.

The indicator may be accompanied by the message **CHECK BRAKE PADS** or **CHECK BRAKE FLUID**. If the message **CHECK BRAKE FLUID** is displayed, check the brake fluid level and top-up if necessary. If the indicator remains illuminated after the fluid is at the correct level, seek qualified assistance before continuing.

Warning Indicators

Parking brake system - RED or YELLOW



Illuminates red when the parking brake is applied with the ignition is switched on. If the indicator flashes red or illuminates yellow, a fault with the Electronic Parking Brake (EPB) system is indicated, seek qualified assistance before continuing.

When parking the vehicle in this condition, ensure that the vehicle is secured stationary without reliance on the parking brake.

Battery charging - RED



Illuminates as a bulb check when the ignition is switched on, and extinguishes once the engine is running. If it remains on, or illuminates whilst driving, a fault is indicated. Seek qualified assistance urgently.

Seat belt - RED



Illuminates when the ignition is switched on, and extinguishes after approximately sixty seconds. In some markets illumination of the indicator will be accompanied by a warning chime if the seatbelts of occupied front seats remain unfastened. See **AUDIBLE WARNINGS** (page 78).

Note: *In certain markets, the indicator will remain illuminated until the seatbelts of occupied front seats are fastened correctly.*

Warning / information message- AMBER



Illuminates when a non-critical warning message or an information message is available in the message centre.

Check engine - AMBER



Illuminates as a bulb and system check when the ignition is switched on and extinguishes as soon as the engine is started. Illumination at any other time indicates an engine fault - if the indicator illuminates or flashes while driving, avoid high speeds and seek qualified assistance urgently.

Dynamic stability control (DSC) - AMBER



Illuminates briefly as a bulb check when the ignition is switched on.

The indicator will flash rapidly when the system becomes active and will remain flashing until the system is no longer needed.

If the indicator illuminates continuously, a fault has been detected in the system. If there is a fault, DSC will be inactive - drive with care and seek qualified assistance as soon as possible.



Illuminates when the DSC switch is pressed, indicating that DSC has been switched off.

Deactivating DSC also reduces the level of Electronic Traction Control intervention and may lead to an increase in wheel spin.

Emergency brake assist - AMBER



Illuminates briefly as a bulb check when the ignition is switched on.

If the indicator remains amber after starting, or illuminates whilst driving, a fault with the EBA system is indicated. Drive with care, avoiding heavy brake application, and seek qualified assistance urgently.

Warning Indicators

Anti-lock braking system - AMBER



Illuminates as a bulb check when the ignition is switched on. If the indicator remains on or illuminates whilst driving, a fault with the ABS system is indicated. Drive with care, avoiding heavy brake application, and seek qualified assistance urgently.

Airbag SRS - AMBER



Illuminates when the ignition is switched on, and extinguishes after about 4 seconds. If the indicator illuminates at any other time, the system is faulty - seek qualified assistance urgently.

Adaptive Front lighting System (AFS) - AMBER



Illuminates when a fault occurs with the Adaptive Front Lighting System. Seek qualified assistance.

Adaptive Cruise Control (ACC) - AMBER



Illuminates when Adaptive Cruise Control is operating in Follow mode.

Rear fog lamps - AMBER



Illuminates when the rear fog lamps are switched on.

Glow plug - AMBER (diesel only)



Illuminates when the ignition is switched on.

Tyre pressure monitoring- YELLOW



Illuminates as a bulb check when the ignition is switched on. If the indicator stays on or illuminates during driving, one or more tyres is significantly under-inflated. Stop and check as soon as is safely possible and inflate to the recommended pressure.

Headlamp main beam - BLUE



Illuminates when the headlamps are switched to main beam.

Auto high beam - GREEN



Illuminates when auto high beam is enabled.

Direction indicators - GREEN



An indicator flashes in time with the corresponding left or right direction indicator lamps whenever they are operated. If the indicator fails to flash, or flashes very rapidly, this may indicate a bulb failure in one of the direction indicator lamps.

If the hazard switch is pressed, both warning indicators will flash in conjunction with the direction indicator lamps.

Hill descent control (HDC) information - GREEN



Illuminates briefly as a bulb and system check when the ignition is switched on, and also illuminates when HDC is selected.

If HDC is selected and the vehicle is within the operating speed range of up to 50 km/h (30 mph), the indicator will illuminate continuously.

If HDC is selected and the vehicle is driven faster than the operating speed range, the indicator will flash and the message **HDC NOT AVAILABLE SPEED TOO HIGH** is displayed.

The indicator will also flash during HDC fade-out.

If a fault with the HDC system occurs, HDC will fade-out and then deselect, or immediately deselect (depending on the type of fault and whether or not HDC is in operation). The green indicator will extinguish and the message **HDC NOT AVAILABLE SYSTEM FAULT** will appear in the message centre.

Front fog lamps - GREEN



Illuminates when the front fog lamps are switched on.

Low gear range - GREEN



Illuminates when Low range has been selected; flashes during range change.

Side lamps on - GREEN



Illuminates when the side lamps are turned on, either manually or by the automatic lighting control.

Cruise control active - GREEN



Illuminates when cruise control is operating.

Forward Alert - GREEN



Illuminates when Forward Alert is active.

Trailer - GREEN



Illuminates as a bulb check when the ignition is switched on, and extinguishes when the engine is started.

If a trailer is attached to the vehicle and the direction indicators are used, this indicator will flash in synchronisation with the direction indicator lamps. If it does not flash, this indicates that a trailer bulb is defective.

Trip Computer

TRIP/DISTANCE RECORDER

The information available from the trip computer is displayed in the following order:-

1. Date and Odometer
2. Trip distance
3. Trip average speed
4. Trip average fuel consumption
5. Instantaneous (short term average) fuel consumption
6. Range available from remaining fuel
7. Blank display

To scroll through the options press the trip button repeatedly.



LAN2793

Trip button and display.

TRIP SETTINGS

There are three trip recordings available, A, B, and Auto. Each will record the distance covered, average fuel consumption, and average speed.

Use the instrument pack menu to select the required trip (A, B, or Auto.)

Trip Auto

The Auto trip is always available and resets each time the engine is started and the vehicle begins to move.

If you wish to add trips together to form a continuous recording, press and release the trip button when the trip Auto information is displayed. The message centre will display **Adding last journey**. While this message is shown press the trip button until the message disappears. The last trip information will be added and the cumulative total displayed. This may be used to give a total journey reading following a fuelling stop for example.

If you wish to delete a previously added trip, press and release the trip button when the trip Auto information is displayed. The message centre will display **Deleting last journey**. While this message is shown press the trip button until the message disappears. The last trip information will be deleted and the previous trip total displayed.

Trip distance A and B

Press the trip button repeatedly to access the appropriate trip distance display. Keep the trip button pressed for two seconds to reset to zero.

Note: *Resetting trip A will not affect the information for trip B and vice versa.*

INFORMATION MESSAGES

Caution: Never ignore warning messages and always take the appropriate action immediately. Failure to do so may result in damage to the vehicle. If you are uncertain about any message, stop the vehicle and seek qualified assistance.



LAN2796

Warning and information messages are displayed in the main message centre when a fault is detected or an alert state is triggered.

There are three categories of messages that may be displayed in the message centre:

- Critical - accompanied by a warning icon and if appropriate, an audible alert.
- Warning - accompanied by a warning icon.
- Information.

Note: *If more than one message is active, each is displayed for two seconds in order of importance.*

Critical and warning messages

Critical and warning messages are displayed in the message centre until either the fault condition that caused the message has been rectified or the message is suppressed by pressing the **OK** button on the steering wheel.

If display of a message has been suppressed, the red or amber warning icon will remain illuminated to indicate that a problem exists.

You can redisplay any active messages that have been suppressed by selecting **Show Warnings** on the instrument panel menu.

If more than one message is active, display of the messages will alternate at two second intervals.

Information messages

After switching the ignition off, information messages will be displayed when the ignition is switched on again if an alert state is still active. For example, **WASHER FLUID LOW** will display if it was previously displayed and the reservoir has not yet been topped up. Information messages are displayed for four seconds before being cleared.

SERVICE INTERVAL INDICATOR



LAN2897

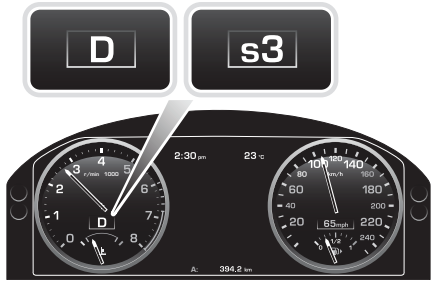
The service interval message will appear when a pre-determined distance or time before service is reached.

The mileage countdown is controlled by the engine management system and is adjusted to allow for driving style and conditions, to gauge when the appropriate service becomes necessary.

Note: *After the completion of each service, the Land Rover Dealer/Authorised Repairer will reset the distance display to commence the countdown to the next service.*

If the service/inspection date is passed without the service being carried out, or the service indicator being reset, the message **SERVICE REQUIRED** will be displayed.

GEAR SELECTOR DISPLAY



LAN2795

This shows the current gear lever position (**P**, **R**, **N**, **D** or **S**). In addition, the display indicates which gear has been selected when the gearbox is in manual mode (**6**, **5**, **4**, **3**, **2** or **1**).

AUDIBLE WARNINGS

The market specification will determine which of the following audible warnings are appropriate to your vehicle.

Lamps on reminder

If the exterior lamps are left on after the ignition is switched off, a warning chime will sound when the driver's door is opened. The chime will cease as soon as the lights are switched off or when the driver's door is closed.

Electronic air suspension warnings

Automatic height changes are inhibited whilst in **Crawl mode**, provided the vehicle does not exceed 40 km/h (25 mph). If vehicle speed exceeds 30 km/h (20 mph), a warning chime will sound. See **Crawl (locked at Access height)** (page 175).

Dynamic stability control (DSC) warning

If a fault with the DSC system is detected, a warning chime will sound once and the DSC warning indicator will illuminate. The vehicle may still be driven with care, but seek qualified assistance at the earliest opportunity.

Seat belt reminder

In some markets, a warning chime will sound (one second frequency):

- If the driver's seat belt has not been fastened when the ignition is switched on. The chime operates in conjunction with the seat belt warning indicator and sounds for 6 seconds, or until the seat belt is fastened (whichever occurs first).

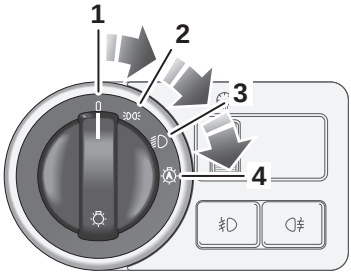
If the seat belt remains unfastened, there will be an interval of 15 seconds then the warning chime will sound again.

External temperature warning

If the external temperature drops to 4°C (39°F) or less, a warning chime sounds, accompanied by a warning in the message centre. Take appropriate measures to defrost the vehicle and be aware that there may be ice on the roads.

EXTERIOR LAMPS

Lamps master switch



LAN1939

1. Side lamps and headlamps off.
2. Side lamps on.
3. Headlamps on.
4. Automatic control on.

Side lamps

The front and rear side lamps, along with licence plate lamps, illuminate when the lamps master switch is turned to positions **2** or **3**, regardless of the ignition being on or off.

Note: *A warning indicator on the instrument panel illuminates when the lamps are turned on, either manually or by automatic control.*

Automatic control lamps

With the lamps master switch in position **4** and the ignition switched on, the side lamps, low beam headlamps and license plate lamps will illuminate automatically when the ambient light falls below a pre-defined level.

All of the lamps will go out when the ambient light rises above that level.

Auto high beam

This function automatically selects high beam, if ambient light levels are sufficiently low and no oncoming or preceding vehicles are within operational range.

Note: *It is recommended not to use auto high beam whilst driving off-road.*

This function is only active if the lamps master switch is in the AUTO position and the stalk is in the central position.

The system will only activate when the vehicle reaches 25 mph (40 km/h). The system will deactivate when the vehicle's speed drops below 15 mph (24 km/h).

Note: *Auto high beam does not operate when reverse gear is selected.*

Auto high beam can only be considered as a convenience feature and in certain circumstances the driver will be required to intervene.

To manually over-ride the feature to high beam, move the stalk to the high beam position as normal. To over-ride the feature to low beam (from high beam only) operate the stalk to the 'flash' position and the feature will be cancelled. To re-enable the feature operate the stalk to high beam and back to the central position.



An indicator in the instrument panel illuminates when auto high beam is enabled.

Note: *The following circumstances could affect the auto high beam function:*

- *Highly reflective road signs.*
- *Vehicles with dim lamps. e.g. bicycles, etc.*
- *Adverse weather conditions.*
- *Dirty sensor.*
- *Dirty, damaged or misted windscreen.*

It remains the driver's responsibility to ensure correct use of the headlamps at all times.

To turn off the auto high beam feature, move the lamps master switch from the AUTO position to the headlamps on position.

Note: *The auto high beam feature is controlled by a sensor in the rear-view mirror. Ensure that the sensor is not blocked by objects or stickers placed on the windscreen.*

Daytime running lamps

If daytime running lamps are enabled, the headlamp low beams will illuminate when the engine is running and the lamps master switch is turned off.

Note: *The functionality and operation of daytime running lamps will vary according to market requirements.*

The instrument pack illumination remains off.

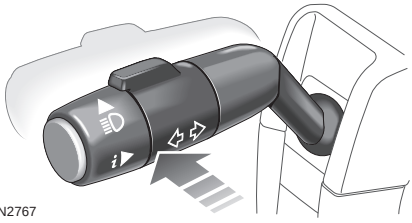
Unless they are required or prohibited by law, daytime running lamps can be disabled or enabled by your Dealer.

Condensation

In certain circumstances, misting may occur on the inside of a lamp lens. This is caused by natural changes in environmental conditions.

This misting is not detrimental to lamp performance and will clear during normal usage.

Headlamp high and low beams



LAN2767

Push the stalk away from the steering wheel to change headlamps to high beam (Blue warning indicator illuminates). Pull the stalk back towards the steering wheel to change back to low beam headlamps.

To flash the headlamps, pull the stalk towards the steering wheel and release.

Note: *Do not use main beam where it may dazzle other road users.*

Headlamp courtesy delay

The headlamps can be set to remain on for a selected period after the vehicle is parked. This feature can be used to illuminate your way when you leave the vehicle.

Select the required illumination period using the instrument pack menu.

1. Select **Vehicle Set-up**.
2. Select **Headlamp Delay**.
3. Scroll to the desired length of headlamp delay, then press OK.

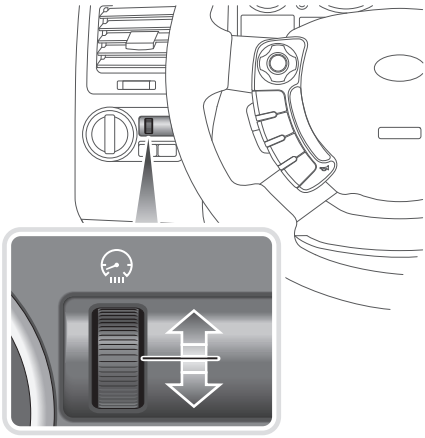
Remote headlamps

With the ignition switched off the headlamps can be switched on using the remote button.

The headlamps will remain on until the button is pressed again, the time period expires, or the ignition is switched on.

Note: *In some markets a second press of the button will turn on the headlamps and reversing lamps. A third press will be required to turn the lamps off.*

Instrument illumination control



LAN1941

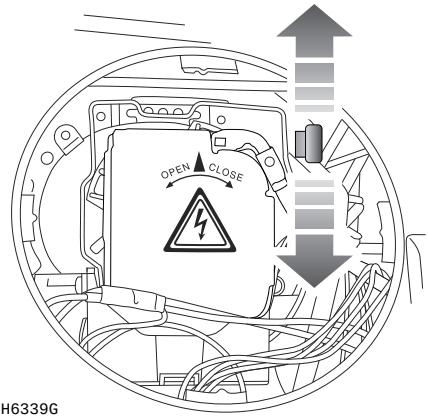
Rotate the control upwards to increase, or down to decrease, the intensity of the instrument panel illumination.

The illumination control also adjusts the intensity of all switch illumination forward of the driver.

HEADLAMPS - DRIVING ABROAD

When touring in a country where traffic drives on the opposite side of the road to where you normally drive, use the tourist lever mechanism within each headlamp unit to alter the beam pattern. This enables the vehicle to be driven without having to stick blanking decals onto the headlamp lens.

Position of the lever illustrated will vary depending on type of headlamps and side of vehicle. It may be on either side of the headlamp bulb aperture.



H6339G

Remove the headlamp rear access cover. See **Bulb access** (page 245). Move the lever to adjust the beam.

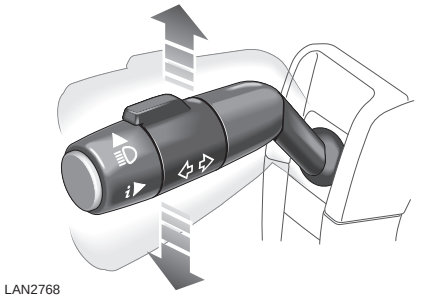
Repeat the process for the other headlamp unit.

Note: *Remember to switch the headlamp beams back over when you return from your journey.*

Default lever positions

Xenon headlamps	
Right-hand headlamp	Up
Left-hand headlamp	Up

DIRECTION INDICATORS



LAN2768

Move the stalk down to indicate a left turn and up to indicate a right turn. The appropriate green warning indicator in the instrument pack will flash.

When the stalk is held against spring pressure the relevant indicator flashes until the stalk is released.

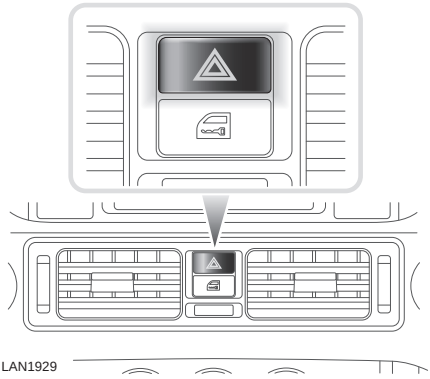
Note: *If a direction indicator bulb fails the warning indicator will flash at double speed.*

Lane change flash

If the stalk is briefly pushed up or down then released, the relevant indicator will flash three times.

Lane change flash can be disabled/ enabled by a Land Rover Dealer/ Authorised Repairer.

HAZARD WARNING LAMPS



LAN1929

Press the switch to turn the hazard warning lamps on. When the hazard warning lamps are operating, the indicator warning lamps will flash in time with the hazard warning lamps.

Note: *Hazard warning lamps can be used when the ignition is on or off.*

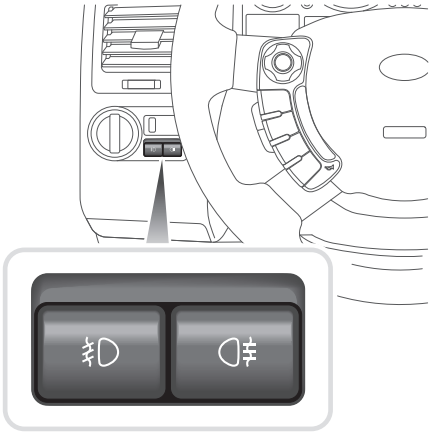
FOG LAMPS

WARNING

Use fog lamps only when visibility is severely restricted. As soon as conditions clear, switch off fog lamps to prevent dazzling other road users.

Note: *If the Automatic control lamps have been selected and the ambient light falls below a pre-defined level, then the front and rear fog lamps can be activated.*

If the ambient light rises above that level, then the fog lamps will extinguish, along with the other external lamps. If the ambient light then falls below this level again, the external lamps will illuminate, but the fog lamps will need to be reselected.



LAN1940

Front fog lamps

Press to operate, press a second time to switch off (the warning indicator in the instrument panel illuminates when the fog lamps are switched on).

The fog lamps can only be operated when the ignition is switched on, and the side or headlamps are also switched on.

The fog lamps extinguish automatically when the ignition or the side lamps are switched off, and need to be reselected when the ignition is switched back on.

Always remember to switch the fog lamps off as soon as visibility permits.

Rear fog lamps

Press to operate, press a second time to switch off (an indicator in the switch illuminates when the lamps are switched on). The rear fog lamps illuminate only when the ignition is switched on, and the headlamps (or front fog lamps) are also switched on. Switching off the headlamps, or front fog lamps, or switching the ignition off will automatically extinguish the rear fog lamps (the lamps will not illuminate again unless switched on).

Always remember to switch the fog lamps off as soon as visibility permits.

OPERATING

The wipers and washers will only operate when the ignition is switched on.

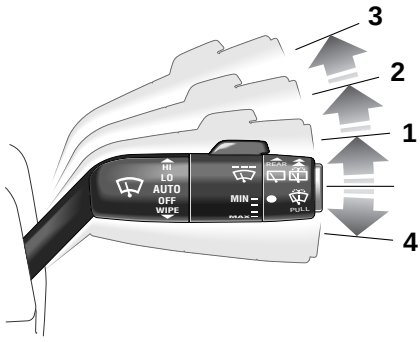
Caution: Do not operate the wipers on a dry screen. The drag on the wiper mechanism may cause damage.

Before operating in freezing or very hot conditions, ensure that the wipers have not stuck to the glass. The drag on the wiper mechanism may cause damage.

Remove any snow, ice or frost, from the screen, around the wiper arms, the wiper blades and from the screen scuttle before operating the wipers. Snow and ice can cause damage to the wiper mechanism if left unclear.

Note: *If the wiper blades do become stuck or jammed, an electronic cut-out may temporarily halt operation of the wipers. If this happens, switch off the wipers and the ignition. Clear any obstructions and free the wiper blades before attempting to switch on the ignition.*

WINDSCREEN WIPERS



LAN1140

Rain sensor variable delay or intermittent variable delay

Push the stalk up to position 1.

Normal speed wipe

Push the stalk up to position 2.

Fast speed wipe

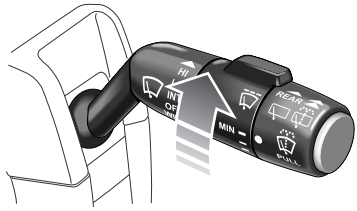
Push the stalk up to position 3.

Single wipe

Pull the stalk down to position 4 and release immediately.

Note: *With the stalk held down, the wipers will operate at normal speed until the stalk is released.*

Intermittent variable delay



LAN1139

With the stalk in position 1, rotate the switch clockwise to increase and anticlockwise to decrease the frequency of the intermittent wipe.

Road speed sensor

The frequency of wiper operation is also adjusted automatically according to road speed. As the speed of the vehicle increases, the wiper frequency increases accordingly to help maintain optimum visibility. This feature is automatic and cannot be adjusted by the driver.

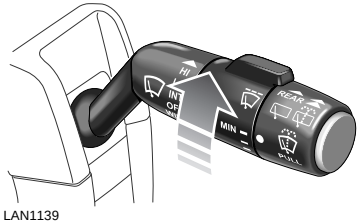
Speed sensitive wiper operation can be disabled by a Land Rover Dealer/ Authorised Repairer.

Speed step-down

If the vehicle comes to a halt with the wipers operating, the wipe frequency automatically reduces. If the wipers are set to high speed, they will switch to normal speed, if normal speed is selected, the wipers will switch to intermittent wipe. When the vehicle starts moving again, the original speed setting is restored automatically.

Rain sensor variable delay

Caution: Ensure that the wipers are switched off before entering a car wash. If the rain sensitive wipers operate during the car washing process damage may occur to the wiper mechanism.



LAN1139

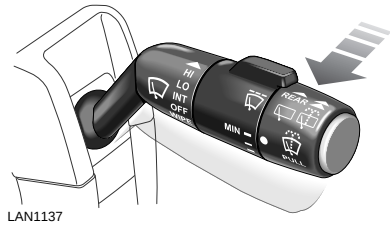
Your vehicle is equipped with an optical rain sensor fitted to the inside of the windscreen, immediately to the front of the rear view mirror. The sensor is able to detect varying amounts of dirt or water on the outside of the screen. With the wiper switch in the first position, the variable delay adjusts automatically according to the information supplied by the rain sensor, to increase or decrease the frequency of wiper operation. You can increase or decrease the sensitivity of the rain sensor and therefore the frequency of wiper operation, by rotating the control - either clockwise to increase or anticlockwise to decrease sensitivity.

If the sensor detects constant rain, the wipers automatically operate continuously at normal or fast speed wipe as conditions require.

Lights on with wipers

When Auto lamps has been selected, the headlamps will come on automatically when the wipers are switched on for 20 seconds. The headlamps will switch off automatically 2 minutes after the wipers are switched off.

WINDSCREEN WASHER



LAN1137

Pull the stalk towards the steering wheel. The windscreen wipers will operate in conjunction with the washers for as long as the stalk is held in this position (maximum 10 seconds). The wipers will continue for a further 3 wipes after the stalk is released.



LAN1138

This feature can also be activated by pressing the button on the end of the stalk.

WARNING

Some screen wash products are flammable: do not allow screen wash to come into contact with sources of ignition.

Caution: Only screen wash products which are approved for automotive use should be used and then only in accordance with the manufacturers instructions.

HEADLAMP POWER WASH

If the headlamps are on, and there is sufficient liquid in the washer reservoir, operating the screen washer will also power-wash the headlamps.

The headlamp power wash will operate on every fifth operation of the screen washer, provided the headlamps are still switched on and 10 minutes (5 minutes in some markets) have elapsed since the headlamp wash.

Switching the headlamps or ignition off and back on again will reset the cycle.

Note: *If the fluid level sensor in the screen washer reservoir detects a low level, the headlamp power wash is inhibited.*

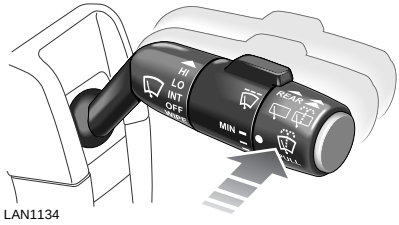
Heated washer jets

If the ambient temperature falls to a point where icing of the washer jets could occur, power is applied to heat the jets provided that the ignition is switched on.

An approved screenwash is necessary to prevent freezing in very cold weather.
See **LUBRICANTS AND FLUIDS** (page 252).

REAR WINDOW WIPER AND WASHER

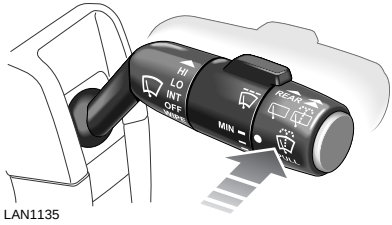
Rear window wash/wipe



LAN1134

Push the stalk forward to the first position, then forward again and hold against spring pressure for the required duration of window washing. The wiper operates automatically during washing and continues for a further 3 wipes after the switch is released.

Rear window wiper - intermittent operation



LAN1135

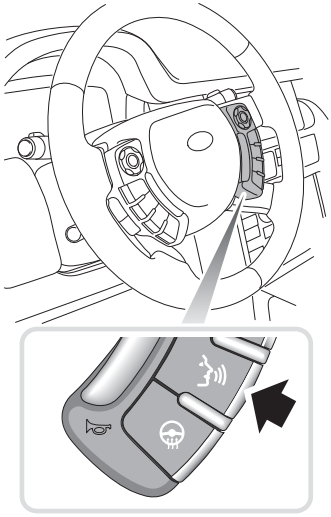
Push the stalk forward to the first position to operate, the wiper operates intermittently until switched off. The frequency of wipes will increase as the vehicle's speed increases.

If reverse gear is selected whilst the front wipers are active, the rear wipers will operate continuously.

The rear wiper can be configured to operate continuously by a Land Rover Dealer/Authorised Repairer.

USING NOTEPAD

Notepad is a feature for recording short messages as memory aids or reminders.



LAN2113

You can record up to 10 notes for up to a maximum of 30 seconds each in length.

Momentarily press the Voice button shown in the illustration, then give the relevant command after the beep(see table below).

To stop voice recording at any time, press and hold the Voice button again.

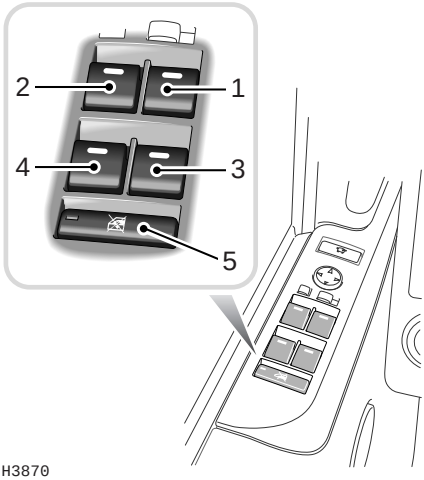
Deleting a note

To delete an individual note, momentarily press and release the Voice button during playback of the note to be deleted and say **DELETE**.

To delete all notes stored on the system, momentarily press and release the Voice button and say **CLEAR NOTEPAD**.

COMMAND	SYSTEM RESPONSE	ACTION
Record Note.	The system gives a beep to indicate the start of recording.	You may start your recording after the beep.
Play Notepad.	Notepad audio will read out each note in turn. You can say **Replay**, **Delete** or **Cancel** after each beep, or remain silent to hear the next note.	Saying **Replay** will replay the previous message. Saying **Delete** will delete the previous message. Saying **Cancel** will end the notepad session.
Clear Notepad.	Do you want to clear the notepad?	Say **Yes** to delete all stored notes. Say **No** to cancel the command.
Notepad help.	The system will read out Notepad information and all the commonly used commands.	

ELECTRIC WINDOWS



H3870

The switches on the driver's door operate the windows as follows:

1. Right-hand front window.
2. Left-hand front window.
3. Right-hand rear window.
4. Left-hand rear window.
5. Isolating switch for rear door window switches.

Note: *Rear windows can also be operated by the individual switches mounted on each rear door. The rear window switches will not operate if the isolation switch has been activated.*

Operating the windows

WARNING

Closing of an electrically operated window on fingers, hands or any vulnerable part of the body, can result in serious injury. Always observe the following precautions:

Isolate the rear window switches when carrying children.

Ensure that children are kept clear whilst raising or lowering windows.

Ensure that all adult passengers are familiar with the controls and the potential dangers of electrically operated windows.

Do not allow passengers to extend any part of their bodies through a window aperture while the vehicle is moving - injury from flying debris, branches of trees or other obstructions could occur.

It is recommended that the Smart Key be removed when leaving the vehicle.

The electric windows can be operated when the ignition is switched on, and for up to 5 minutes after the ignition is turned off (provided any of the doors are not opened).

Press lightly and hold the top of a switch to lower and lift lightly and hold the top of a switch to raise. The window will stop moving as soon as the switch is released.

Electric Windows

One-touch operation

WARNING

Ensure that you remove the remote control when leaving occupants in the vehicle. This will prevent unsupervised operation of the windows, which may result in injury.

By pressing firmly (and then releasing) the top of a switch, a window will open fully at a single touch. Window movement can be stopped at any time by briefly pressing the top of the switch.

To close the window at a single touch, firmly lift and release the top of a switch. Window movement can be stopped at any time by briefly lifting the top of the switch.

To stop window movement during a one-touch open or close operation, operate the switch in the opposite direction to which the window is travelling.

Rear window isolation switch

WARNING

If children are carried in the rear seats, the isolator switch should be used to prevent operation of the windows. If the windows are operated by young children there is a risk of death or serious injury.

Press once to isolate the window switches in the rear doors (the indicator light in the switch illuminates), press a second time to restore independent control.

Anti-trap mechanism

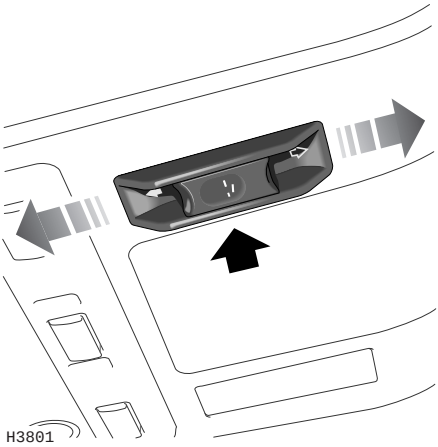
WARNING

The windows have an anti-trap protection system. However, before closing a window care must be taken to ensure that none of the occupants have any part of their body in a position where it could be trapped. Even with an anti-trap system death or serious injury can occur.

If the anti-trap sensor detects an obstruction during window closing, the closing operation is interrupted and the window backs off. This is a safety feature designed to prevent inadvertent closing of a window on vulnerable parts of the body or other obstructions. Remove any obstruction and then close the window.

If, for any reason it is required to override the anti-trap mechanism, lift and hold the relevant window switch until the window has closed.

SUNROOF OPERATION



The electric sunroof can be operated when the ignition is switched on and for up to 16 minutes after the ignition is switched off (provided a front door is not opened).

- **To tilt the roof:** Press the centre part of the switch - the rear edge of the roof automatically rises to the fully tilted position.
- **To open the roof:** Push the switch rearwards to the first position, the sunroof slides open until the switch is released - push the switch rearwards to the second position and release, to fully open the roof in one operation.
- **To close the roof:** With the roof open or tilted, push the switch forwards to the first position - the roof closes until the switch is released.

  To fully close the roof in one operation, push the switch forwards to the second position and release.

Anti-trap mechanism

If the roof encounters resistance during closing, the closing operation is interrupted and the roof opens slightly. This is a safety feature designed to prevent inadvertent closing of the roof on vulnerable parts of the body or other obstructions. Remove any obstruction and then close the roof.

WARNING

Accidental closure of a sunroof on fingers, hands or any vulnerable part of the body, can result in serious personal injury. Always observe the following precautions:

Ensure that children are kept clear and that the sunroof is not obstructed when opening or closing.

Ensure that all adult passengers are familiar with the controls and the potential dangers of operating an electrically operated sunroof.

Do not allow passengers to extend any part of their bodies through the sunroof aperture while the vehicle is moving - injury from flying debris, branches of trees or other obstructions could occur.

Always close the roof when the vehicle is unattended.

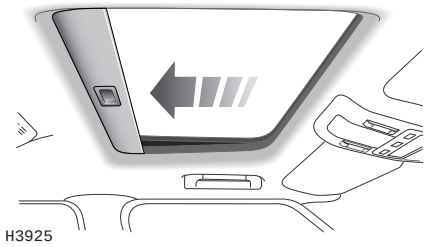
Never leave children alone in the vehicle as this could result in serious injury or death.

It is recommended that the Smart Key be removed when leaving the vehicle.

Driving with the sunroof open

If, when driving with the sunroof open, unwanted drafts are experienced, open the front facia air vents, and increase the blower speed if necessary. Do not operate the air conditioning.

Sunroof blind



Pull the sunroof blind across the sunroof aperture to open and close.

Note: *The sunroof blind can be opened and closed manually, but will retract automatically when the sunroof is opened, and will open slightly if the roof is tilted.*

Caution: It is not possible to fully close the sunroof blind with the sunroof in the tilt position. Attempts to close the blind may damage the sunroof mechanism.

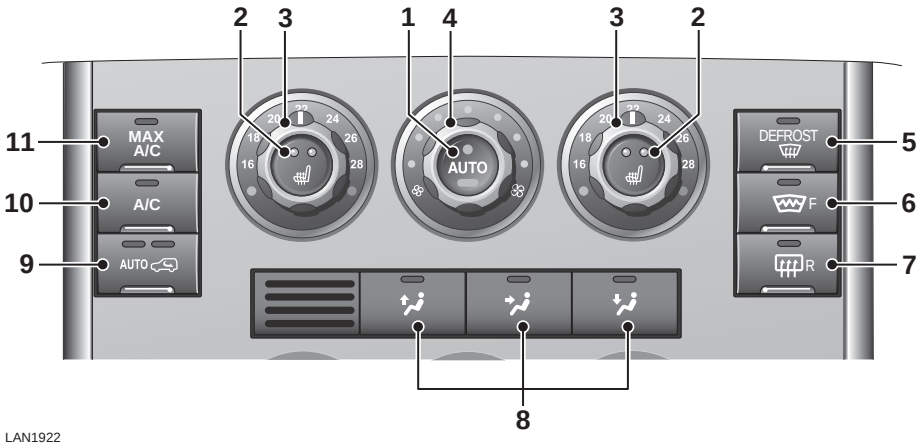
Operation after power supply interruption

If the vehicle power supply is interrupted, the sunroof will need to be recalibrated as follows:

- With the power supply reconnected, fully tilt the sunroof open.
- Continue to push the switch in the tilt position for approximately 20 seconds.

The sunroof can now be operated as normal.

CLIMATE CONTROL PANEL



LAN1922

The air conditioning system features automatic temperature and air distribution control, which is programmed to maintain optimum levels of comfort within the vehicle.

While the controls can be adjusted manually to satisfy individual requirements, allowing the system to function automatically (in Auto mode) is by far the simplest method of operation for the owner and is preferable in most operating conditions.

1. Auto mode

In Auto mode, air conditioning, air distribution, blower speeds, vent temperature and air recirculation are adjusted automatically to achieve and then maintain the desired driving environment.

- Press **AUTO** (1) for fully automatic operation (both indicator lights in the switch illuminate).
- Rotate the temperature controls (3) to select the required temperature.
- It is recommended that the system is initially set to 22°C (72°F) and then adjusted to personal preference, once the system has stabilised at this temperature.
- Allow the climate control system to achieve the selected settings and stabilise, before making further adjustments.
- Let the automatic temperature control system do the rest.

Both the air distribution and blower controls can be operated independently to override the automatic setting. In this case, the appropriate indicator in the **AUTO** switch extinguishes (the circular indicator represents the blower, the rectangular indicator represents air distribution). Press **AUTO** again to re-establish automatic operation.

Note: *If the air distribution and blower controls are manually selected, the system may not be able to achieve or maintain the required temperature settings.*

2. Front seat heaters



Press once to operate at a high level, press twice to heat the seats at a lower level. For further information concerning the operation of both front and rear seat heaters, See **SEAT HEATERS** (page 98). For further information concerning the operation of front climatic seats, See **CLIMATIC SEATS** (page 99).

3. Temperature controls

Rotate the appropriate control to set the required temperature for the corresponding side of the passenger compartment.

Temperatures above 28°C (82°F) and below 16°C (61°F) cannot be set.

The indicated control temperatures are relative and are not reflective of any specific temperature measured within the vehicle.

Note: *The system will not achieve control temperatures on one side of the vehicle, that differ by more than 3°C (6°F) from the temperature set for the other side.*

4. Blower control

Rotate clockwise to increase and counterclockwise to decrease airflow from the vents.

If the control is turned fully counterclockwise, the climate control system will be turned off. Press **AUTO** to restart.

5. Programme defrost mode



If the windscreen is misted or covered in ice, press to activate the automatic defrost programme; the system will immediately direct its output to achieve maximum screen clearing by:

- Setting the blower speed and temperature to optimum levels.
- Distributing air flow to the screen only.
- This mode also deactivates the rear blower.

In addition, the rear and front screen heaters will be switched on (or their timed operating cycle will recommence if they are already switched on).

Press the button a second time (or select **AUTO** or any air distribution control) to leave the Defrost mode.

6. Heated front screen



Press to operate; the indicator in the switch will illuminate whenever the screen heater is on. The heater only operates with the engine running and switches off after a preset interval.

7. Heated rear screen



Press to operate; the indicator in the switch illuminates whenever the screen heater is on. The heater only operates with the engine running and switches off after a preset interval.

Caution: Do not stick labels over the heating elements on the rear screen, and do not scrape or use abrasive materials to clean the inside of the rear screen.

8. Air distribution control

Press the appropriate button to select the desired distribution setting.



Foot level vents

Front face level vents

Windscreen and side window vents

More than one setting can be selected at once, to get the desired distribution.

9. Air recirculation

AUTO **First press:** The system automatically activates air recirculation when sensors fitted to the vehicle detect high levels of air pollution, therefore preventing the ingress of fumes into the vehicle (in a traffic queue, for example).

Second press: Manual recirculation is selected, preventing outside air from being drawn into the vehicle (right-hand switch indicator illuminates). This may cause misting in cooler and wet weather. Press again to cancel manual recirculation and return to normal operating mode.

Third press: Normal operating mode is selected, automatically selecting fresh or recirculated air, dependent upon vehicle conditions.

Air recirculation significantly influences the dehumidifying and cooling performance of the air-conditioning system. Therefore, in Auto mode, air recirculation is regulated automatically to enable the air-conditioning system to achieve its optimum performance.

Note: *Prolonged manual recirculation (right-hand switch indicator illuminated) may cause windows to mist and prevent odours from being dispersed.*

10. Air conditioning control

A/C Press for cool and dehumidified air. It is recommended that air conditioning is used throughout a journey, to control window misting and odours.

11. Maximum interior cooling

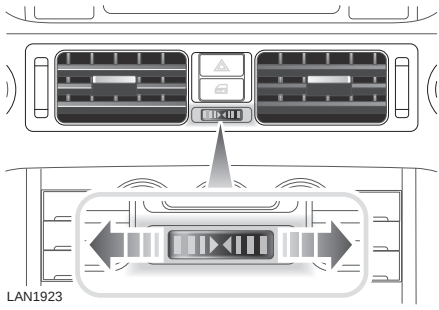
MAX A/C Press to operate. This mode automatically activates the air conditioning and air recirculation, sets the blower speed at maximum and the air distribution to the face level vents. This mode overrides the current temperature settings.

11. Residual heating

MAX A/C With the engine switched off, press to operate. With a warm engine, it is possible to provide cabin heating, by using the residual heat from the engine. This facility can be selected for up to 20 minutes after the engine is switched off and will operate until the engine cools.

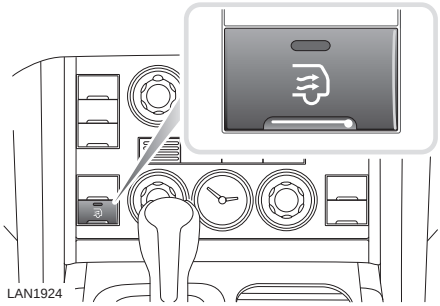
If you wish to heat the cabin prior to entering the vehicle, use the timed climate control facility. See **TIMED CLIMATE CONTROL** (page 100).

FACE LEVEL VENT TEMPERATURE CONTROL



When the climate control system distributes air through the face vents, the temperature can be finely adjusted by using the thumbwheel control. Rotate the thumbwheel towards the left for warm air and to the right for cooler air.

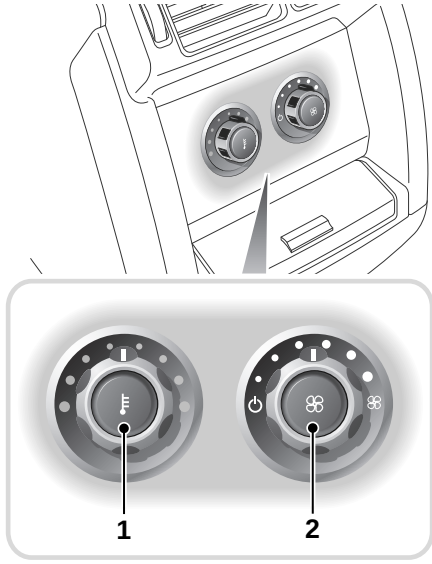
REAR CONTROL ISOLATION SWITCH



Press the isolation switch, located in the centre console, to enable or disable the rear climate controls.

The switch indicator illuminates when the rear controls are active and extinguishes when the controls are isolated.

REAR CONTROLS - 2 ZONE



LAN0548G

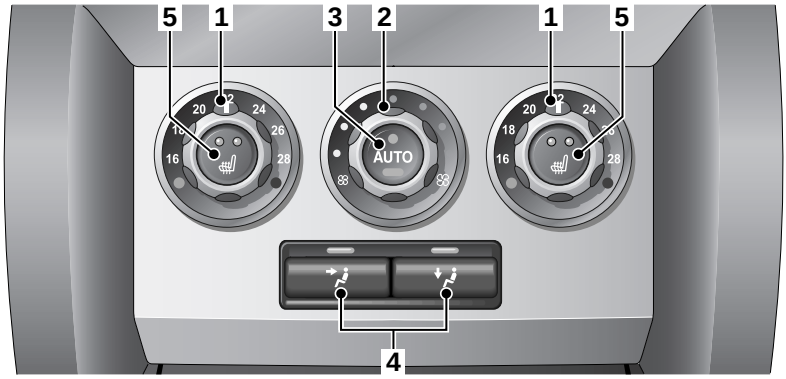
1. Temperature control
Rotate clockwise to increase, and counterclockwise to decrease the temperature of airflow from the rear vents.

2. Blower control

- In the **0** (off) position, airflow is delivered at the same temperature as the front vents.
- Turn the control clockwise to the first position to activate the rear temperature control.
- Turn the control clockwise to the second position and beyond to activate the rear blower and progressively increase airflow from the rear vents.

Note: *The temperature set by the front occupants, restricts the maximum level of warm air a rear passenger can select.*

REAR CONTROLS - 4 ZONE



Note: *The system will not achieve temperatures in the rear of the vehicle, that are more than 3°C (6°F) greater or less than the temperature set for the driver.*

1. Temperature controls

Rotate the controls to set the required temperature for the corresponding side of the rear compartment

2. Blower control

Rotate clockwise to increase and anticlockwise to decrease airflow from the vents.

3. Auto mode

In Auto mode, air distribution, blower speeds and vent temperatures are adjusted automatically to achieve and then maintain the desired cabin environment.

- Press **AUTO** (3) for fully automatic operation (both indicator lights in the switch illuminate).
- Rotate the temperature controls (1) to select the required temperature.
- It is recommended that the system is initially set to 22°C (72°F) and then adjusted to personal preference.
- Let the automatic temperature control system do the rest.

Both the air distribution and blower controls can be operated independently to override the automatic setting. In this case, the appropriate indicator in the **AUTO** switch extinguishes (the circular indicator represents the blower, the rectangular indicator represents air distribution). Press **AUTO** again to re-establish automatic operation.

Note: *If the air distribution and blower controls are manually selected, the system may not be able to achieve or maintain the required temperature settings.*

Note: *When Programme defrost mode is selected on the front control panel, the rear control is temporarily disabled. No manual or automatic adjustments are possible during this period. Normal operation is resumed when the defrost programme is complete.*

4. Air distribution control

Press the appropriate button to select the desired distribution setting:



Foot level vents



Face level vents

More than one setting can be selected at once, to get the desired distribution.

5. Seat heaters



Press once to operate at a high level, press twice to heat the seats at a lower level. For further information concerning the operation seat heaters, See **SEAT HEATERS** (page 98).

USING CLIMATE CONTROL

Fresh air enters the vehicle through the grille in the bonnet and stale air is drawn out through vents in the rear of the vehicle.

In winter conditions, please ensure that the air intake grille on the bonnet is free from obstructions such as leaves, snow or ice.

Maximum heating

For the best results, select **AUTO** and allow the system to control and stabilise passenger compartment temperature automatically. **AUTO** will select the optimum settings, allowing for available heat from the engine, blower noise and warm-up rate

Note: *Manually selecting a higher temperature setting will not increase the rate at which the vehicle interior warms up, it will only increase the temperature at which the system stabilises.*

To achieve maximum heating when the engine is already warm, set the temperature and blower controls to maximum and the air conditioning air distribution control to Auto.

Maximum cooling



The fastest way to cool the passenger compartment is to select the **MAX AC** button.

Demisting/defrosting



For maximum demist/defrost, select Programme defrost mode.



To minimise the risk of interior misting, always have the air conditioning on (as this removes moisture from the air entering the vehicle) and ensure the blower is set to provide a good supply of air through the vehicle.

Maximum ventilation

Set the temperature control to your preferred interior temperature and switch on the air conditioning. Set the air distribution control to **face level vents**. Ensure the face level vents are open and set the centre face vent temperature control fully towards the blue indicator. Adjust the blower speed to maximum.

General notes

- For optimum operating efficiency, ensure all the air vents (including those in the rear of the vehicle) are open.
- For minimum airflow noise, ensure that all face level air vents are open (including those in the rear).
- For the automatic temperature control system to function efficiently, all windows (and the sunroof) should be closed.
- The air conditioning will not function unless the engine is running.

- Surplus water produced by the dehumidifying process is expelled from the system via drain tubes beneath the vehicle. This may result in a small pool of water forming on the road when the vehicle is stationary and is not a cause for concern.

VENTILATION AND DISTRIBUTION

The ventilation system provides cooled, fresh or heated air to the interior of the vehicle, from the air intake grille on the bonnet.

Note: *Always keep the air intake grille clear of obstructions such as leaves, snow or ice.*

Air outlets are provided to the windscreen, face and feet. The temperature of the air supplied to the vents is controlled by the climate control system.

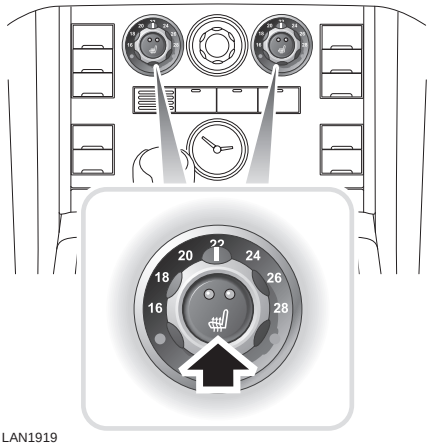
Air vents

The temperature of the air from all vents is controlled by the temperature settings of the climate control system.

On the side vents, rotate the thumbwheel to the right to fully open, or to the left to fully close the vents.

On the centre vents and rear vents, rotate the thumbwheel upwards to open, or downwards to close. Direct the air flow by moving the control in the centre of the louvres. To ensure optimum ventilation and minimum noise, all vents should be fully open.

SEAT HEATERS



Rear seat heaters

With the engine running, the seat cushion and seat back can be heated as follows:

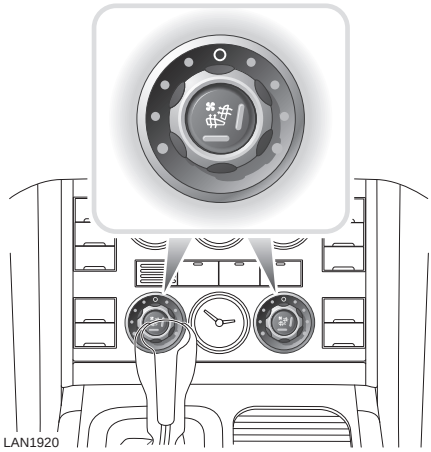
- Press once to operate at a high level (both indicators illuminate).
- Press twice to heat the seats at a lower level (right hand indicator extinguishes).
- Press the switch a third time to turn off the heater manually (both indicators will extinguish).

The seat heaters are thermostatically controlled and once selected, will operate continuously to maintain a predetermined temperature.

The indicators in the switches will remain illuminated until the heaters are either manually turned off, or the ignition is switched off.

Caution: The seat heaters consume considerable power from the battery. For this reason, they can only be operated while the engine is running.

CLIMATIC SEATS

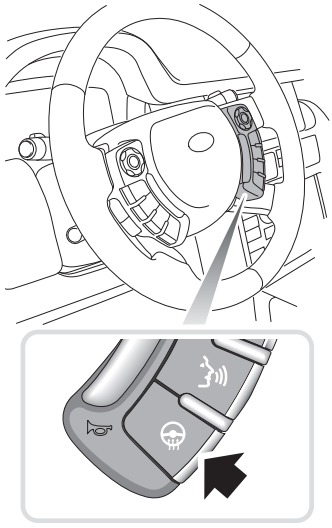

LAN1920

With the engine running, the seats can be ventilated as follows:

- Rotate the relevant control from the **0** (off) position clockwise, to progressively increase the temperature of the ventilated air (red indicators around the control illuminate). Rotate the control counterclockwise to progressively decrease the temperature of the ventilated air (blue indicators around the control illuminate).
- Repeatedly press the centre of the control to select either the seat back or both seat back and seat cushion. The relevant indicator(s) will illuminate.
- To turn off, rotate the control to the **0** (off) position. The indicator(s) will extinguish

Caution: Climatic seats consume considerable power from the battery. For this reason, they can only be operated while the engine is running.

HEATED STEERING WHEEL


LAN1921

Press to activate the steering wheel heating elements. The heating elements are thermostatically controlled and operate as necessary (when switched on), to maintain a comfortable temperature. Press the switch again to manually deactivate the heater.

Note: *On vehicles not fitted with remote air recirculation or a heated steering wheel, no button is fitted in this position.*

TIMED CLIMATE CONTROL

You can set the timed climate system to come on once or twice, during any 24 hour period. If the vehicle is driven every day, then this pattern will be repeated every day until cancelled. If the vehicle is not driven, then the function will be suspended after 24 hours.

- The timed climate system provides a way of making the temperature in the passenger compartment more comfortable before a journey, at a preset time.
- If the external temperature is 15°C (60°F) or lower, then the passenger compartment is heated using the auxiliary heating system.
- If the temperature is greater than 15°C (60°F), then the passenger compartment is ventilated by blowing in air from outside the vehicle.
- The timed climate system operates without the engine running.
- The touch screen can be used to operate the system manually and to program the preset activation time.
- Alternatively, the system can be activated using the remote control.
- The system will automatically shut down after 30 minutes (20 minutes for UK diesel vehicles).
- The system protects the vehicle battery, by not operating if the battery is in a low state of charge.
- Diesel vehicles only - to improve engine starting in ambient temperatures of -20°C (-4°F) or below, the auxiliary heating system may be used to heat the engine, instead of the passenger compartment, dependent on ambient temperature and engine temperature.

Setting a pre-set timed climate

Navigate to the home screen, by pressing the **HOME** button.

Note: *The term icon refers to buttons on the touch screen. The physical buttons are referred to as buttons.*

Touch the **Timed Climate** icon.

Alternatively, the timed climate menu can be accessed from the vehicle set-up menu by touching the **Settings** icon on the home screen and then touching the **Vehicle Settings** icon.

Note: *If the ignition is not turned on within 24 hours, the timed climate function will be suspended. The function will resume when the ignition is next switched on. This is to protect the vehicle battery.*

Touch the Timer 1 **Set** icon.

Scroll up/down to select the time you want the timed climate to start then touch **OK**.

If required, touch the Timer 2 **Set** icon and use the same process to select the time you want the second timed climate to begin.

Note: *The time displays in 12/24 hour clock format, depending on what has been selected in the system settings menu. See* ***CLOCKS*** *(page 104).*

An LED in the **AUTO** button illuminates to indicate one or both pre-sets have been set.

Note: *When the Smart Key is removed and you exit the vehicle, an LED in the* ***AUTO*** *button remains illuminated for up to 2 minutes while the system powers down.*

Pre-set timed climate operation

When a pre-set time is reached, the timed climate operation begins and adjusts the temperature in the passenger compartment up or down to more comfortable temperature, based on the exterior ambient temperature. This will operate for 30 minutes (20 minutes for UK diesel vehicles) before switching off.

During this period an LED in the **AUTO** button will flash on and off to indicate it is operating.

During this period, exhaust fumes from the heater may be seen coming from under the bonnet. This is normal and no cause for concern.

Note: *If the ignition is turned on during the 30 minute operation time, the timed climate operation is switched off.*

Diesel vehicles only - engine and passenger compartment pre-heating in cold ambient temperatures

To improve engine starting in temperatures of -20°C (-4°F) and below, the auxiliary heating system may be used to heat the engine instead of the passenger compartment. Engine pre-heating is also dependent on the engine temperature.

Passenger compartment heating (whether timed or manually activated) is available in temperatures of -20°C (-4°F) and below, provided the engine is already warm. This is useful for maintaining passenger compartment temperature during brief stops in journeys, in extremely cold weather.

The engine pre-heat facility will operate for up to 30 minutes (20 minutes for UK diesel models) before switching off.

Cancelling a timed climate pre-set

To cancel a timed climate pre-set, touch the **Set** icon for the timer you want to cancel, then touch **Cancel Timer**. The display updates to **Off**.

The LED in the **AUTO** button will be extinguished when both timer pre-sets are cancelled.

REMOTE CLIMATE CONTROL

The remote control has a range of approximately 100 m (328 ft) and, for optimum performance, should be held vertically when operated. There is no need to point the antenna at the vehicle.



LAN1390

1. **ON** button
2. **OFF** button
3. Operation indicator LED
4. Antenna

Note: *Avoid touching the antenna when operating the* ***ON*** *or* ***OFF*** *button.*

Press and hold the **ON** button (1) for approximately two seconds. The LED (3) will illuminate for three seconds to confirm that an automatic heating program has been initiated. If the system fails to start, the indicator LED rapidly flashes three times then extinguishes.

When the system is running, the operation indicator LED flashes for a short period to indicate the system's operation.

The heating program continues to operate until the **OFF** button (2) is pressed. After 30 minutes, if the heating program has not been switched off using the remote control, it will be switched off automatically to prevent the vehicle battery from discharging.

WARNING

Petroleum gases are highly inflammable and, in confined spaces are also extremely explosive.

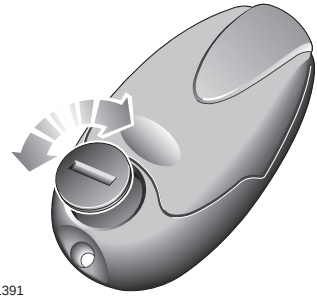
Do not operate the auxiliary heater with the vehicle in an enclosed space. Doing so can cause a build-up of highly toxic fumes which may cause unconsciousness or death.

Always ensure that the auxiliary heater is not operational when refuelling the vehicle.

Note: *The distance at which the remote control can operate the heater can be considerably more than 100 m (328 ft), provided that there are no obstacles (e.g. buildings) between the antenna and the vehicle.*

Caution: If the remote is left unused for any long period (e.g. during summer months), the battery should be removed and stored separately. Doing so will prevent the possibility of damage to the remote control due to battery corrosion.

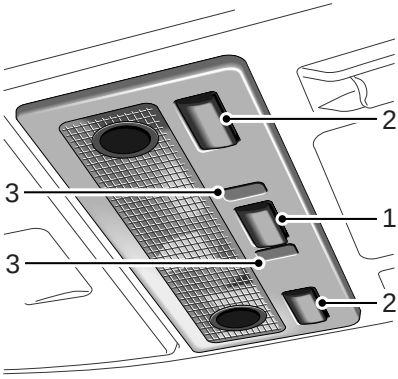
Replacing the batteries



LAN1391

With the back of the remote control facing upwards, use a coin or similar implement to rotate the battery cover. Lift the cover off to reveal the battery compartment. Remove the old battery and, ensuring that the correct polarity is maintained, insert a replacement 3.3 volt, CR1/3N battery. Replace the cover and rotate it to lock it closed.

INTERIOR COURTESY LAMPS AND MAP LAMPS



Front interior lamp and map lamps illustrated

The interior lamp illuminates automatically whenever the vehicle is unlocked, when the ignition is turned off, or when a door or taildoor is opened. The lamp remains illuminated for 60 seconds after the doors and taildoor are closed, or until the ignition is switched on.

After driving, the interior lamps will fade and then extinguish as soon as the vehicle is locked or when all the doors and tailgate are closed.

Note: *If a door is left open the lamps will automatically extinguish after 15 minutes, to prevent battery drain.*

To turn the lamp on and off manually, briefly press switch (1).

To turn off the automatic illumination feature (i.e. when a door is opened), press and hold switch (1) for three seconds. Repeat to restore the automatic illumination feature. The lamp will flash, and a message will be displayed to confirm the mode change.

Map lamp operation

Press the relevant map lamp switch (2) to turn on and off. If a map lamp is left on, it will extinguish after 15 minutes to prevent battery drain.

LOW LEVEL NIGHT TIME ILLUMINATION

With the lamp master switch turned to side lamps or headlamps, the interior lamps provide very low level illumination using the LEDs (3), in conjunction with the optional door bin and door handle lamps. The level of illumination can be adjusted using the instrument illumination dimmer switch. See **Instrument illumination control** (page 81).

Low level lighting provides very limited illumination for the interior of the vehicle, whilst the vehicle is being driven, without affecting the driver's night vision.

GLOVE BOX LAMP

Illuminates automatically whenever the lower glove box is opened and extinguishes when the glove box is closed. If the glove box is left open, the lamp will extinguish automatically after 15 minutes, to prevent battery drain.

PUDDLE LAMPS/APPROACH LAMPS

A lamp, mounted in the bottom of each of the exterior mirror housings, illuminates for 60 seconds when the vehicle is unlocked. These lamps illuminate the approach to the vehicle.

CLOCKS

Setting the time

To set the time, firstly access the system settings menu on the display and then select the clock icon on the touch screen.

Select the correct time then press **OK**.

All clocks will be synchronised.

Using the clock

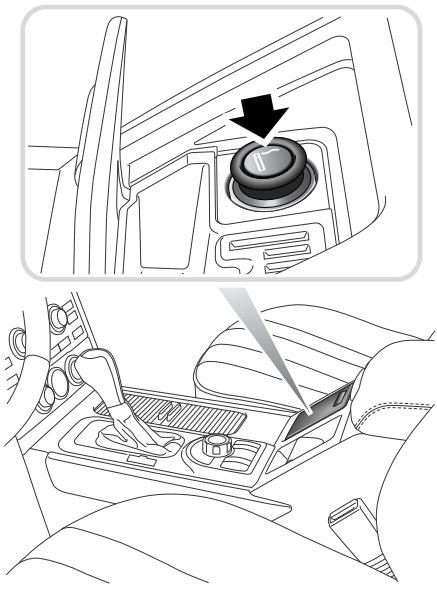
The analogue clock display illuminates constantly and dims automatically for night time viewing, when the side lamps are illuminated. The dimming level can be adjusted using the instrument panel illumination control. See **Instrument illumination control** (page 81).

Note: *To change between 24/12 hour clock display for non-analogue clock displays (e.g. for the timed heater), select the appropriate button on the right of the display.*

CIGAR LIGHTER

To access the cigar lighter, press the upper edge of the ashtray cover to open. With the ignition switch on, press the lighter in (arrowed) to heat up. When it has reached the correct temperature it will partially eject and can then be withdrawn for use.

- Only hold the cigar lighter by the handle.
- Do not plug accessories into the cigar lighter socket unless they are approved by Land Rover.



LAN0458G

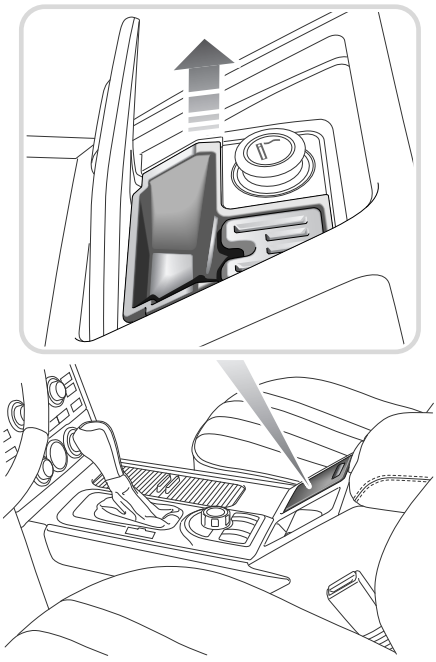
ASHTRAYS

WARNING

Do not use the ashtrays for disposing of waste paper or any other combustible items. The resulting fire may cause death or serious injury.

Front

To open the ashtray, press the upper edge of the cover.



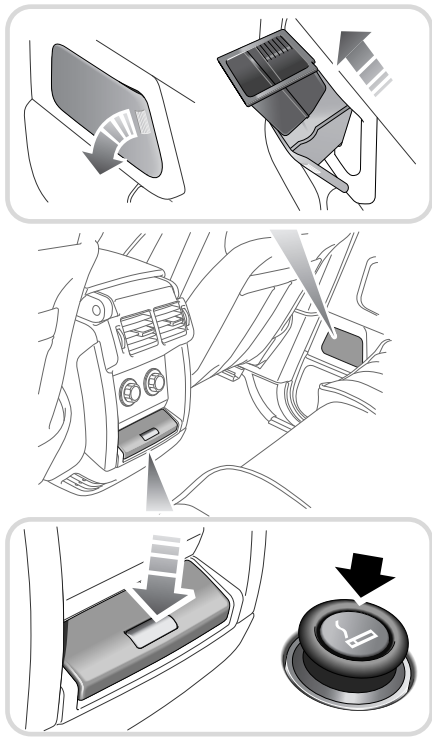
LAN0459G

To remove for emptying or cleaning, lift the ashtray upwards.

Rear

The rear ashtrays are set into the rear doors - pull where arrowed to open. To remove for emptying, open the ashtray and pull the inner compartment upwards.

The rear cigar lighter is incorporated in the rear of the cubby box, between the front seats. To access the lighter, press the rearward edge of the cover. Operation of the rear cigar lighter is the same as that in the front.



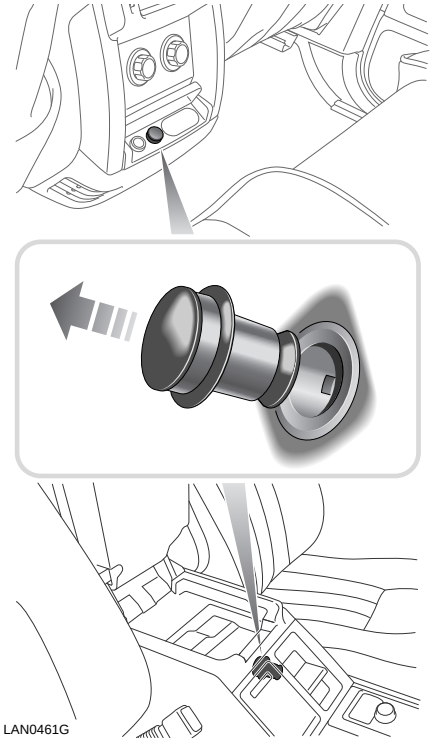
LAN1537

AUXILIARY POWER SOCKETS

An auxiliary power socket is mounted in the cubby box, between the front seats.

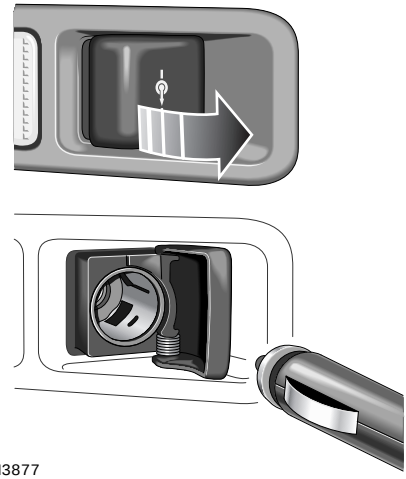
A second auxiliary power socket is located to the rear of the cubby box, adjacent to the rear cigar lighter. Press the rearward edge of the cover to access the socket.

Note: *Before attempting to use an auxiliary power socket, remove the protective plug, as shown.*



Passenger compartment power sockets

A third power socket is located on the right-hand side of the rear loadspace area.



Rear loadspace power socket

Using a power socket

The power sockets can be used to power Land Rover approved accessories that use a maximum of 180 Watts.

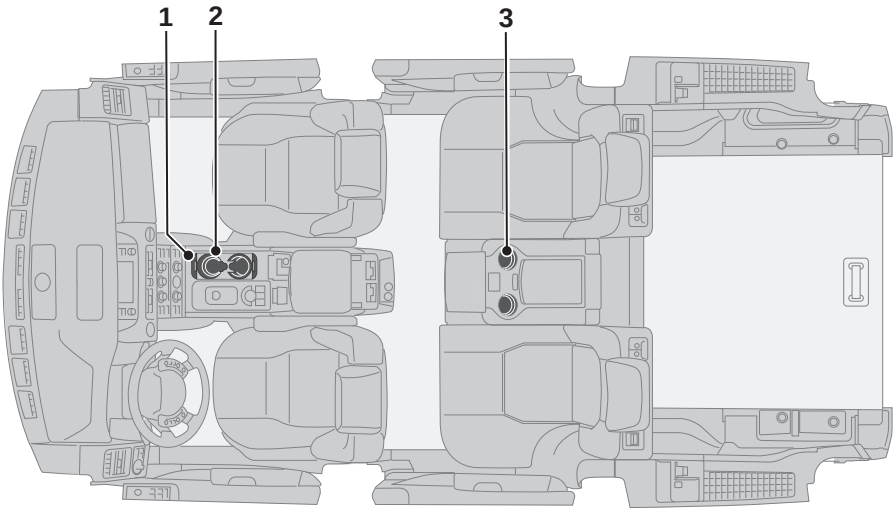
When not in use, always refit the power socket protective plug.

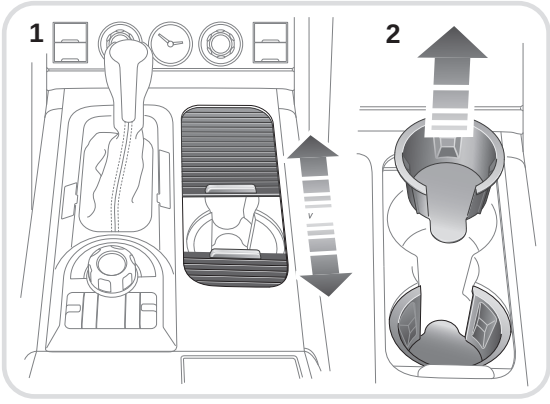
Note: *The auxiliary power socket in the loadspace remains live with the ignition turned off. Battery drain resulting in failure to start the engine may occur if accessories remain plugged in whilst the engine is switched off.*

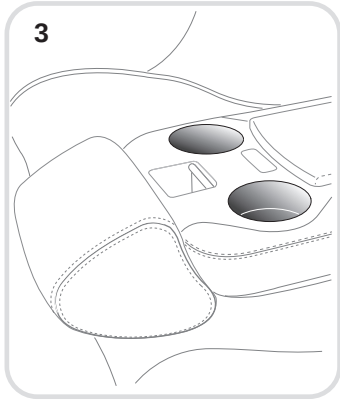
Caution: Only Land Rover approved accessories should be plugged into the power sockets. Using any other equipment may damage the vehicle's electrical system. If you are in any doubt contact your Dealer.

The engine should be running when using accessories for long periods. Failure to do so can discharge the battery.

CUP HOLDERS







LAN1934

1. Open the roller covers to access the front cup holders.
2. Lift out the inner sleeve of the cup holder, to accommodate larger cups.
3. Fold the armrest down to access the rear cup holders.

WARNING

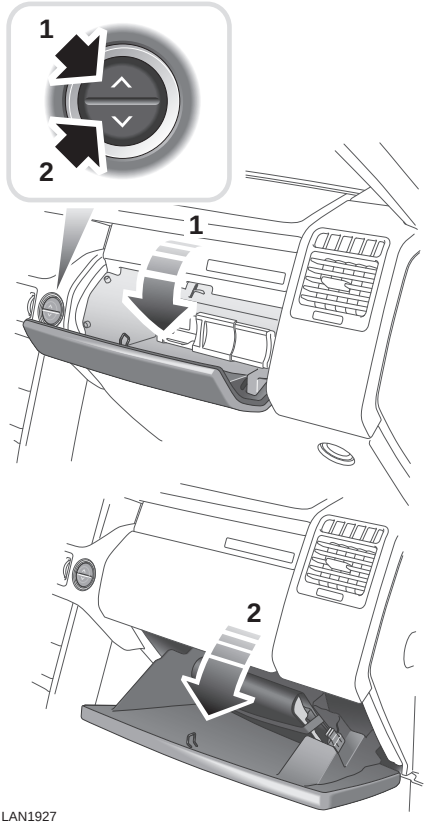
Do not drink or use the drinks holders when driving. Doing so can affect concentration, which may result in loss of control.

Do not place anything other than suitable drinks containers in the cup holder. Such items may be thrown about in the compartment in the event of an accident or emergency manoeuvre, which may cause injuries to the occupants.

The cup and bottle holders should only be used for soft containers. Containers which are hard (cans, metal, ceramic, hard plastic etc.) can cause serious injury or death if the vehicle is involved in an accident, or subject to sudden braking or direction change.

Do not carry open drinks containers. Hot liquids can cause serious injury when spilled and may damage the vehicle.

GLOVE BOXES



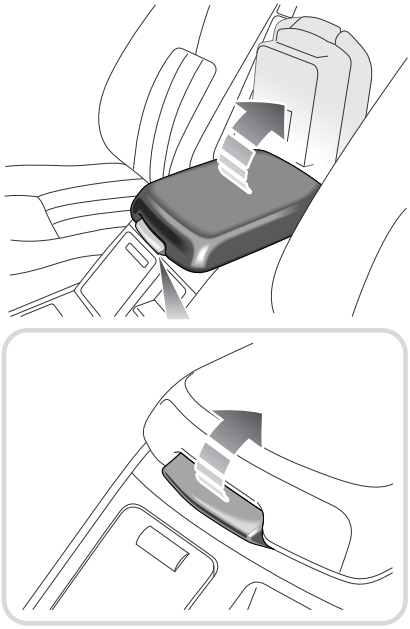
LAN1927

Press the upper portion of the release button (1) to open the upper glovebox.

Press the lower portion of the release button (2) to open the lower glovebox.

For added security, the glove boxes are locked automatically when the vehicle is locked.

CUBBY BOX

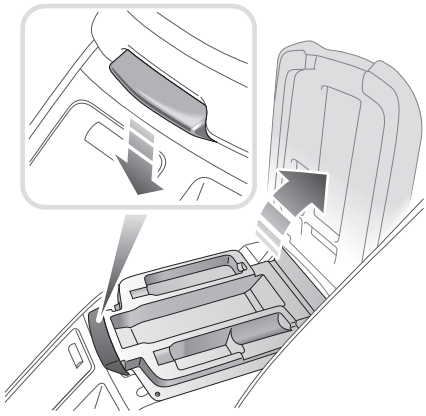


LAN0549G

WARNING

Ensure that any items stored in the vehicle are secure and cannot move. If the vehicle is involved in an accident, or subject to sudden braking or direction change, loose items can cause serious injury.

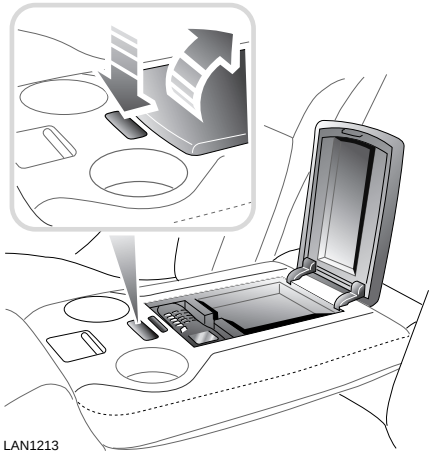
Lift the catch at the front of the cubby box lid to access the main cubby box.



LAN1637

Press down on the catch and lift up the main lid of the cubby box to access the trinket tray.

REAR CUBBY BOX

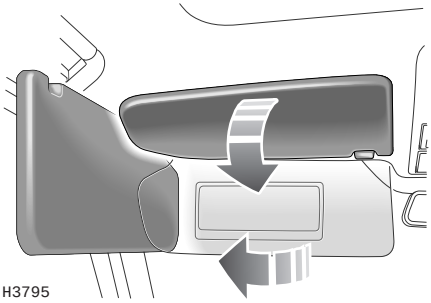


LAN1213

Fold the armrest down to access the rear cubby box.

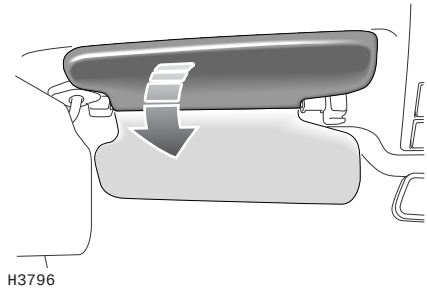
Press the button to release the lid of the cubby box to access the trinket trays.

SUN VISOR



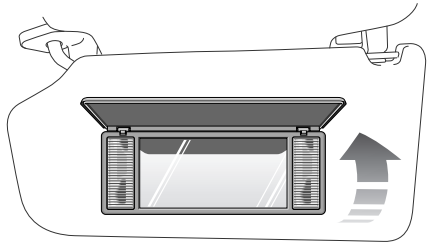
Pivot the sun visor downward to reduce sun glare through the front windscreen. If required, the visor can then be pivoted towards the side window to reduce sun glare from that side of the vehicle.

Double-blade sun visor



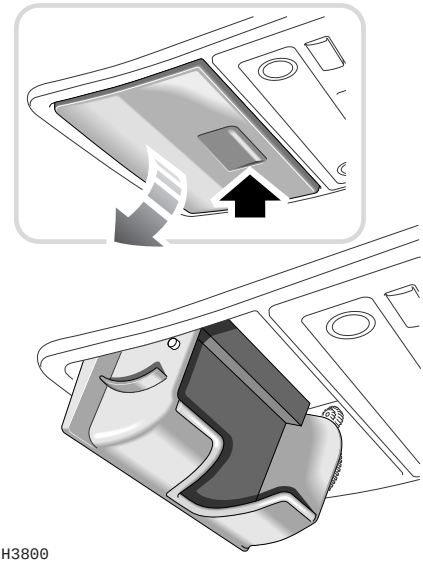
If the double-blade option is fitted, a secondary sun visor is located behind the main visor and can be used as required.

SUN VISOR VANITY MIRROR ILLUMINATION



Pivot the sun visor downward and raise the cover on the vanity mirror to illuminate the mirror. Close the cover to extinguish the lamps. If the cover is left open, the lamps will extinguish automatically after 16 minutes to prevent battery drain.

SUNGLASSES HOLDER



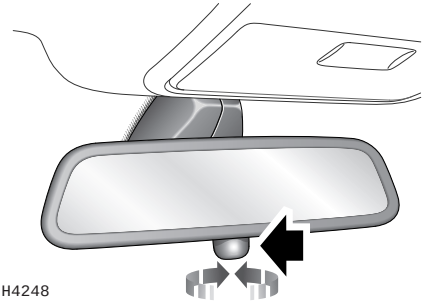
Press where arrowed (in inset) to open.

INTERIOR REAR VIEW MIRROR

Automatic dipping mirror

The automatic rear view mirror is equipped with an automatic dipping function which operates whenever the ignition is switched on. When powered, the light sensor detects excessive light and automatically dips the mirror, to reduce glare from the headlamps of following vehicles in dark or low light conditions.

Manual dipping mirror



To reduce glare from the headlamps of following vehicles in dark or low light conditions, rotate the red anti-theft indicator lens a quarter turn clockwise. Turn the lens a quarter turn anticlockwise to return the mirror to normal reflection.

HOMELINK® TRANSMITTER

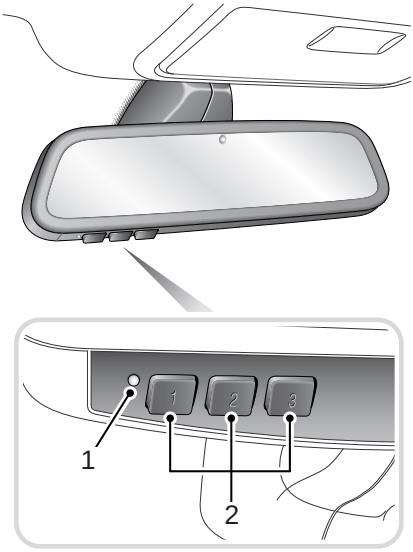
The Land Rover HomeLink® universal transmitter is built into the underside of the rear view mirror and provides a convenient way to replace up to three hand-held transmitters with a single built-in device. This innovative feature will learn the radio frequency codes of most current transmitters to operate garage doors and gates. With the available accessory package, the HomeLink® transmitter can also control home or office lighting and security systems. For reliability, the HomeLink® transmitter is powered by your vehicle's battery and charging system.
HomeLink® is a registered trademark owned by the Johnson Controls, Inc. Milwaukee, Wisconsin.

Precautions

When programming your HomeLink® transmitter, you will be operating the garage door or gate. Be sure that people and objects are out of the way, to prevent potential harm or damage.

WARNING

Do not use this HomeLink® transmitter with any garage door that lacks safety stop and reverse features. A garage door opener which cannot detect an object in the path of a closing door and then automatically stop and reverse the door does not meet current safety standards. Using a garage door opener without these features increases the risk of serious injury or death.



H6480N

1. Status indicator light - red
2. Channel buttons

Before programming the HomeLink® transmitter

Caution: If you intend programming a door or gate that may require you to press and re-press the original hand held transmitter (cycle), disconnect the power supply to the device motor, before using the cycling process, to prevent possible motor failure.

To achieve best results, fit a new battery to the original hand-held transmitter before starting the HomeLink® programming. If your opening device receiver is equipped with an antenna, ensure that the antenna is hanging straight down.

Programming

1. Turn the ignition on.
2. If you have previously programmed your HomeLink® transmitter, proceed to step 3. Otherwise, hold down the two outside buttons on the HomeLink® transmitter until the red light (1) begins to flash (approximately 20 seconds). Release both buttons.

   This initializes the HomeLink® transmitter and erases previous settings from all three channels.

   DO NOT perform this step when programming additional hand-held transmitters.
3. Decide which one of the three channels you want to program.
4. Hold the signal-emitting end of your original hand-held transmitter 50 - 150 mm (2 - 6 in.) away from the HomeLink® transmitter buttons so that you can still see the red status indicator light (1).
5. With one hand, push the hand-held transmitter button, and with the other, the desired button on the HomeLink® transmitter. Continue to press both buttons through step 6.
6. Hold down both buttons until you see the red light on the HomeLink® transmitter flash, first slowly and then rapidly (this could take up to a minute). It indicates that you have successfully programmed the HomeLink® transmitter to learn the new frequency signal. Release both buttons once the rapid flashing begins.
7. Turn the ignition off.

If after repeated attempts you do not successfully program the HomeLink® transmitter to learn the signal of the original hand-held transmitter, check that the operating frequency of your device is approved for use in your country. A table at the back of this supplement lists all approved frequencies.

If you still have a problem after checking frequency applicability, contact your Land Rover Dealer/Authorised Repairer or consult **www.eurohomelink.com**.

Operating the Land Rover HomeLink® transmitter

When programmed, the HomeLink® transmitter can be used in place of your original hand-held transmitter(s). To operate, simply press the appropriate button on the HomeLink® transmitter. The red light (1) comes on while the signal is being transmitted.

Note: *If your hand-held transmitter appears to program the HomeLink® transmitter, but does not open your garage door and if your garage door was manufactured after 1995, your garage door opener may have a code protected or rolling code feature.*

A rolling code type of system will change the code of your garage door opener every time you open or close your garage door.

To determine if you have one of these systems, depress the button on your HomeLink® transmitter that you programmed. If the red light on the HomeLink® transmitter flashes rapidly for 1-2 seconds, then lights continuously, your garage door opener has a rolling code system.

Rolling code system programming

To train your rolling code device to operate from your HomeLink® transmitter:

1. Turn the ignition on.
2. Program your original hand-held transmitter to the HomeLink® transmitter as previously described.
3. Remove the cover panel from your garage door opener receiver (the receiver should be located by the garage door motor).
4. Locate the training button on the garage door opener receiver. The exact location and colour of the button may vary by garage door opener brand.
5. Press and release the training button on the garage door opener receiver then perform the next step within 30 seconds.
6. Return to the HomeLink® transmitter in the vehicle and press the programmed button for two seconds and release.
7. Repeat step **6** three times to complete the process.

Your HomeLink® transmitter should now open your garage door.

Erasing channels

To erase all three programmed channels, hold down the two outside buttons until the red light begins to flash, then release both buttons.

All memories in the HomeLink® transmitter have now been cleared. Channels cannot be erased individually.

Reprogramming a single button

To program a device to the HomeLink® transmitter using a previously trained button:

1. Turn the ignition on.
2. Press and hold the desired button. Do NOT release the button until step **5** has been completed.
3. When the indicator light begins to flash slowly (after 20 seconds), position the original hand-held transmitter 50 - 150 mm (2 - 6 in.) away from the HomeLink® transmitter surface.
4. Press and hold the hand-held transmitter button. The HomeLink® indicator light will flash, at first slowly and then rapidly.
5. When the indicator light begins to flash rapidly, release both buttons.

Note: *Be sure to retain your original transmitter for future programming procedures (i.e. new vehicle purchase).*

When selling your vehicle, be sure to erase all your personal channels from the HomeLink® transmitter.

Accessories and assistance

Accessories for your HomeLink® transmitter are available from the manufacturer of the device. If you would like additional information or would like to purchase other accessories such as home lighting or security products that can be operated by the HomeLink® transmitter, please call the toll-free from anywhere within Europe on; 0 0800 0466 354 65. If calling from within Germany, the first zero is not required. If difficulty is experienced with this telephone number, try the alternative 0049 6838 907227.

Contact can also be made via email to info@eurohomelink.com.

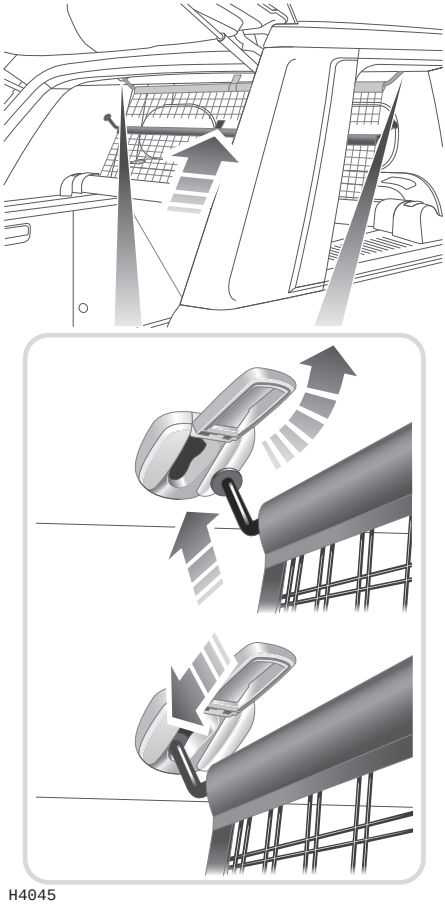
Approval numbers / dates for EuroHomeLink radio transceiver

Country	Frequencies	Approval No. / Date
Austria	27, 40, 433, 868MHz	GZ104569-ZB/98
Belgium	27, 40, 433, 868MHz	RTT/D/X2064
Czech Republic	27, 40, 433, 868MHz	CTU 2000 3 R 1194
Cyprus	27, 40, 433, 868MHz	MCW129/95 12/2000
Denmark	27, 40, 433, 868MHz	98.3142-266
Finland	27, 40, 433, 868MHz	FI98080106
France	27,30,40,433, 868MHz	97619 RD
Germany	27, 40, 433, 868MHz	D800038K
Gibraltar	27,40,418,433, 868MHz	RTTE 20754/0087847
Greece	27, 40, 433, 868MHz	JCI 05JUL2000 RTTE
Hungary	27, 40, 433, 868MHz	BB-5793-1/2000
Ireland	27, 40, 433, 868MHz	TRA 24/5/109/5
Iceland	27, 40, 433, 868MHz	IS-3418-00
Italy	27, 30, 40, 433, 868MHz	DGPGF/4/341032/TB 0002573

Country	Frequencies	Approval No. / Date
Luxembourg	27, 40, 433, 868MHz	L2433/10510-03J
Malta	27, 40, 433, 868MHz	WT/122/98
Netherlands	27, 40, 433, 868MHz	NL99030970
Norway	40, 433, 868MHz	NO20000026
Poland	27, 40, 433, 868MHz	URT-GP-CLBT-431-66/2002/C
Martinique (DOM)	27, 40, 433, 868MHz	97619 RD
Reunion, La (DOM)	27, 40, 433, 868MHz	97619 RD
Portugal	27, 40, 433, 868MHz	JCI 03JUL2000 RTTE
Slovak Republic	27, 40, 433, 868MHz	R 267 2001 N
Spain	27, 40, 433, 868MHz	0416 00
Sweden	40, 433, 868MHz	Ue990195
Switzerland/Fürstentum Liechtenstein	27, 40, 433, 868MHz	BAKOM 98.0746.K.P
Turkey	27, 40, 433MHz	0425/TGM-TR/JOCO-EURO
U.K.	27,40,418,433, 868MHz	RTTE 20754/0087847
South Africa	27, 40, 433MHz	TA 598/2002
Australia	30, 40, 433MHz	27NOV2002
New Zealand	27, 30, 40, 433MHz	02DEC2002
Jordan	27, 30, 40, 433, 868MHz	TRC/LPD/2002/20
Kuwait	27, 30, 40, 418, 433, 868MHz	14JAN2002
Saudi Arabia	27, 40, 418, 433MHz	SAP20554184
UA Emirates	433MHz	K8133510-CC
Monaco	27,30,40,433, 868MHz	PC/cp-CI.T55-03/04672
Andorra	27, 30, 40, 433, 868MHz	16SEP2003
Chile	40, 433MHz	12DEC2001
Croatia	27, 40, 433, 868MHz	SRD-156/03
Estonia	27, 40, 433, 868MHz	5-4796/04_1_2
Latvia	27, 40, 433, 868MHz	(27.4)-1B-2269
Slovenia	27, 40, 433, 868MHz	500-11/2004-146
Russia	433MHz	POCC DE.MJ05.H00016
Lithuania	27, 40, 433, 868MHz	TBC

LOADSPACE SAFETY NET

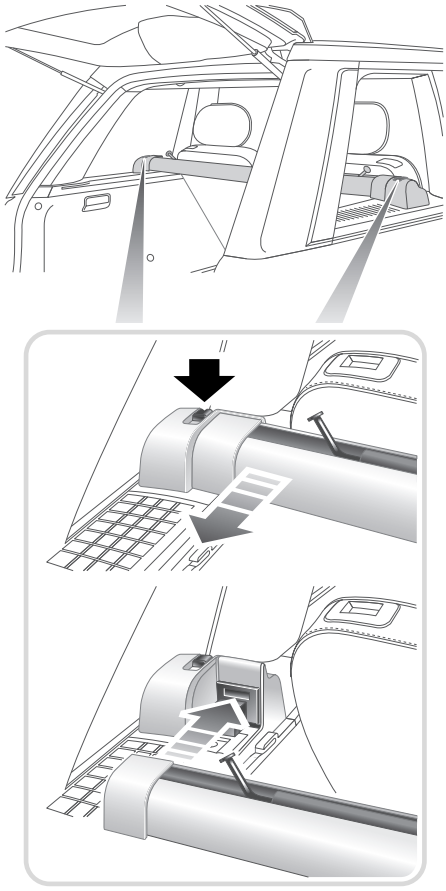
The loadspace safety net is designed to prevent loose loads and items of luggage from entering the passenger compartment in the event of an accident or emergency manoeuvre.



H4045

To use the net, open the mounting covers in the roof lining (see inset) and pull the net towards the roof. Hook the tabs (arrowed) into the mounting slots.

Removing the safety net cartridge



H4044

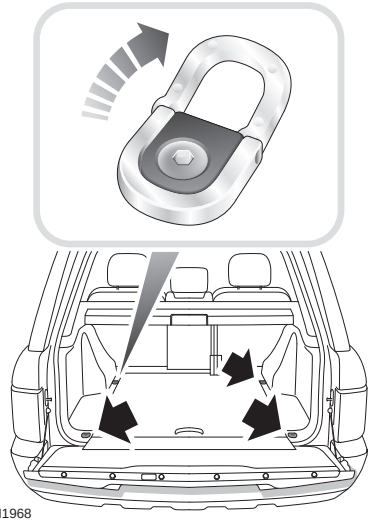
Press the catches down on the safety net cartridge to remove it from its mounting position to the rear of the rear seats.

To refit, push the net cartridge firmly back into the mounting position.

LUGGAGE ANCHOR POINTS

WARNING

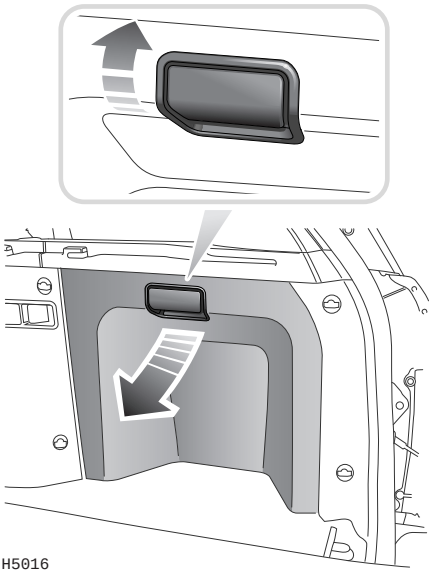
Do not carry unsecured equipment, tools or luggage, which could move and cause personal injury in the event of an accident or emergency manoeuvre either on or off-road.



LAN1968

Four fixing points are provided in the rear loadspace floor, to assist in safely securing large items of luggage. Land Rover provide a range of approved luggage retention accessories.

REAR LOADSPACE ACCESS HATCH



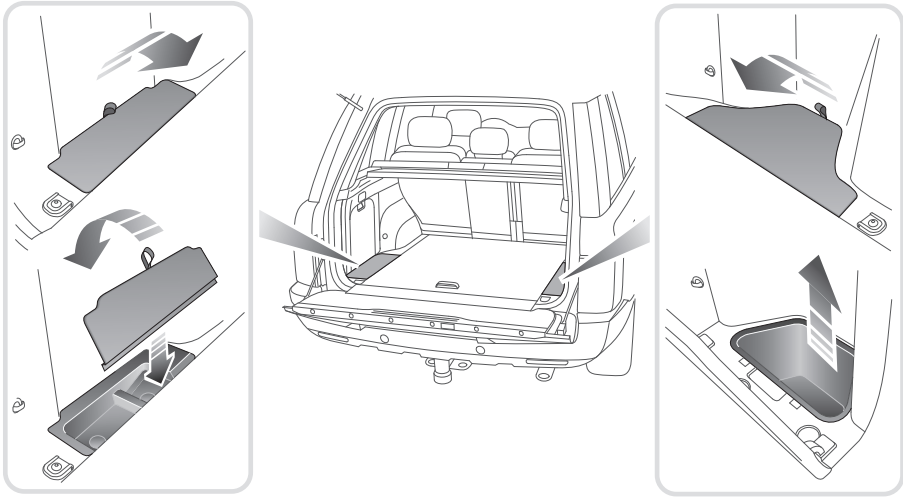
H5016

The access hatch is located on the right hand side of the rear loadspace and provides access to the storage space for a warning triangle, the rear loadspace fuse box and the emergency fuel filler flap release.

Lift the catch (upper inset) and pull the hatch away from the side of the vehicle.

When refitting the hatch, ensure that it is securely and correctly fitted, before driving.

REAR LOADSPACE STOWAGE AREAS



LAN1969

Hidden trinket tray

On the left-hand side of the loadspace, a small covered trinket tray is provided, to store smaller items in a concealed area. Pull up the tab to open the tray cover.

When replacing the cover, fit the right-hand edge first.

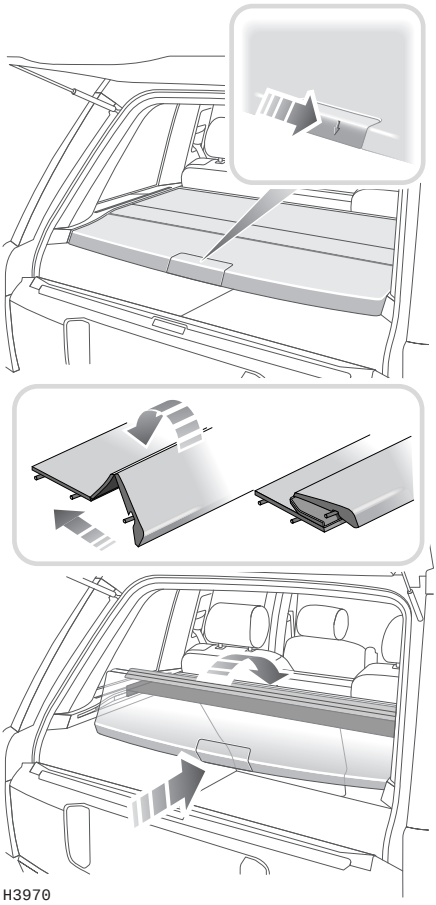
Removable stowage box

On the right-hand side of the loadspace, a removable box is fitted, beneath the loadspace floor. Pull up the tab to open the box cover. Pull the box out to remove.

Note: *On vehicles fitted with a detachable tow bar, the removable stowage box is not fitted and is replaced by the tow bar stowage area.*

LOADSPACE COVER

Operating the loadspace cover


H3970

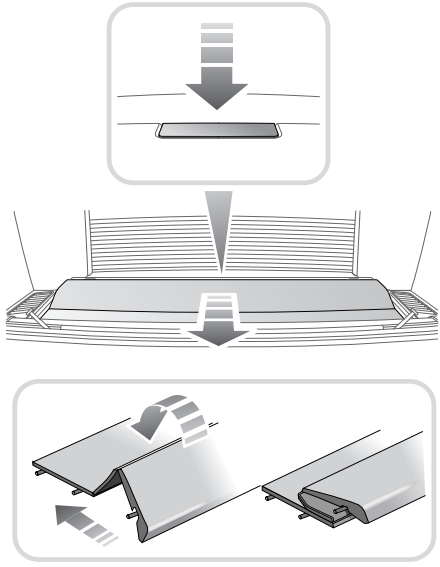
Push firmly downwards and forwards on the centre of the rear edge of the cover (where arrowed in the upper inset), then lift and fold forwards.

WARNING

Do not carry loose items of luggage on top of the loadspace cover - these may obscure vision and could become dangerous projectiles in the event of a sudden stop or collision.

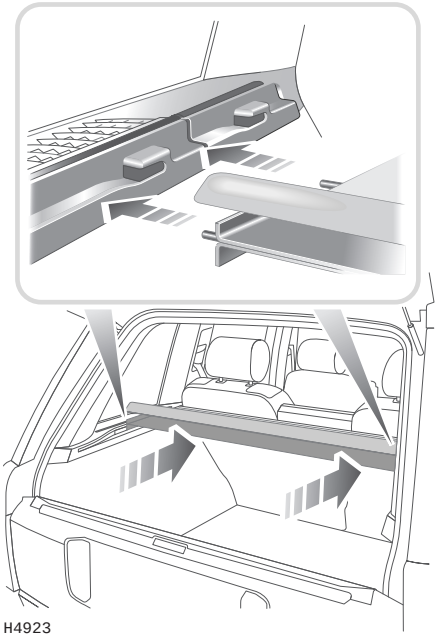
All equipment, luggage or tools carried in the loadspace should be secured to minimise the risk of injury to the driver and passengers in the event of an accident or emergency manoeuvre.

Folding the loadspace cover from inside the vehicle


H4051

If it is necessary to fold the loadspace cover from inside the vehicle (to access the emergency tailgate release lever, for example), remove the rear head restraints to improve access to the loadspace. From the rear seats, push firmly down on the centre rear edge of the cover (see upper inset), while pulling the cover towards the rear seats. The cover folds as shown in the lower inset.

Fitting the loadspace cover

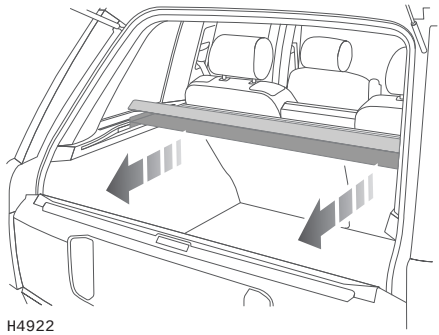


H4923

Place the loadspace cover in position, ensuring that the two locating pins on each side rest on the slides just rearwards of the sockets.

Press firmly forwards to engage and lock the pins in the sockets.

Removing the loadspace cover



H4922

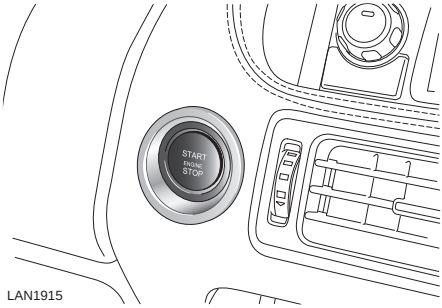
With the cover folded, pull the whole assembly rearwards to disconnect the locating pins and withdraw the loadspace cover carefully from the vehicle.

WARNING

Do not store the loadspace cover loose in the vehicle.

GENERAL INFORMATION

Start/Stop button



The start/stop button is used to start or stop the engine, or to turn on the ignition without starting the engine.

Switching on the ignition

To turn on the ignition without starting the engine. Do not depress the brake pedal, press the start/stop button and hold until the warning indicators illuminate, then release the button.

STARTING A PETROL ENGINE

Starting

WARNING

Never start the engine, or leave it running, when the vehicle is in an enclosed space. Exhaust gasses are poisonous and can cause unconsciousness and death if inhaled.

Caution: If the engine fails to start, do not continue cranking as this will discharge the battery. It may also damage the catalytic convertor due to unburnt fuel passing through the exhaust.

1. **P** (Park) or **N** (Neutral) must be selected.
2. Press the brake pedal.
3. With the brake pedal firmly depressed, press the start/stop button. The engine will crank automatically until it starts.

Stopping the engine

Before stopping the engine, ensure that the vehicle is parked safely with the park brake applied.

Select **P** (Park) and press the start/stop button.

STARTING A DIESEL ENGINE

WARNING

Never start the engine, or leave it running, when the vehicle is in an enclosed space. Exhaust gasses are poisonous and can cause unconsciousness and illness if inhaled.

Caution: If the engine fails to start, do not continue cranking as this will discharge the battery.

Starting

Note: *Do not press the accelerator pedal when starting the engine.*

1. **P** (Park) or **N** (Neutral) must be selected.
2. Press the brake pedal.
3. With the brake pedal depressed, press the start/stop button. There may be a delay whilst the glow plugs warm up, then the engine will crank automatically until it starts.

Note: *The delay period before cranking begins will be longer in low ambient temperatures due to extended glow plug operation. During this extended delay the brake pedal must remain depressed.* ***CRANKING WILL COMMENCE AFTER GLOW PERIOD*** *is displayed on the message centre.*

Glow plug operation



The glow plug warning indicator will remain illuminated while the glow plugs are operating.

Stopping the engine

Before stopping the engine, ensure that the vehicle is parked safely with the park brake applied.

Select **P** (Park) and press the start/stop button.

START/STOP WHILE MOVING

Switching off the engine

With the gear selector in position **P**, press the engine START/STOP button. The engine will stop and the ignition system will return to convenience mode.

Caution: It is not advisable to switch off the engine while the vehicle is moving. However, if a situation arises where engine switch off is urgent, the following procedure applies:

1. Press the START/STOP button for a total of two seconds, or
2. Press the START/STOP button twice within two seconds.

With either method the warning message 'Engine Stop Button Pressed' will be displayed

Rolling restart

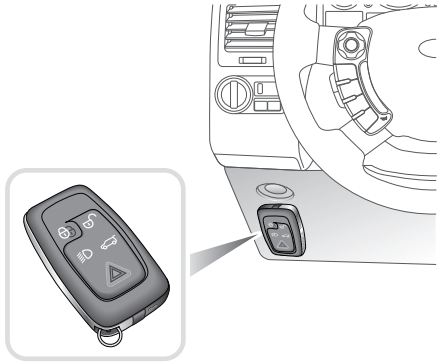
A rolling restart can be initiated by selecting transmission neutral position N and pressing the engine START/STOP button.

Now select **D**.

KEYLESS START BACKUP

If the vehicle has been unlocked using the emergency key blade or the Smart Key is not detected by the vehicle, it will be necessary to use the keyless start backup to disarm the alarm and start the engine.

The keyless start backup can only be used if the message **Smart Key Not Found, Refer To Handbook** is displayed in the message centre.



LAN2496

Position the Smart Key against the underside of the facia, on the outboard side of the steering column, with the buttons facing downwards.

When the Smart Key is positioned in this area, the message centre will indicate that the Smart Key has been recognised.

Holding the Smart Key in position and the brake pedal depressed, press the start/stop button to start the engine.

Once the engine has been started you no longer need to hold the Smart Key against the underside of the facia.

Note: *If the Smart Key is not recognised, or the engine still fails to start, consult your Dealer/ Authorised Repairer*

GENERAL DRIVING ADVICE

Instruments and warning indicators

Before driving it is important to fully understand the function of the instruments and warning indicators. See **INSTRUMENT PANEL** (page 65).

Caution: Red warning indicators are of particular importance, their illumination indicating that a fault exists. If a red indicator illuminates, always stop the vehicle and seek qualified assistance before continuing.

Power assisted steering

Note: *Power assistance is dependent on the engine running. If the engine is not running, a much greater effort will be required to steer the vehicle.*

Warming up

In the interests of fuel economy, it is advisable to drive the vehicle straight away, remembering that harsh acceleration or labouring the engine before the normal operating temperature has been reached can damage the engine.

Note: *Naturally aspirated engines are limited to a maximum of 5000 rpm until the engine oil temperature reaches* 20°C (68°F).

When the engine is cold, engine idle speeds will be faster than normal. Under these circumstances, use the foot brake to control the vehicle until the engine is warm and running at normal speed, and be aware of the need to take additional care when manoeuvring the vehicle.

Running-in

Proper running-in will have a direct bearing on the reliability and smooth running of your vehicle throughout its life.

In particular, the engine, gearbox, brakes and tyres need time to bed-in and adjust to the demands of everyday motoring. During the first 800 km (500 miles), it is essential to drive with consideration for the running-in process and heed the following advice:

- Limit maximum road speed to 110 km/h (70 mph) or 3 000 rev/min. Initially, drive the vehicle using light accelerator pressure and only increase engine speeds gradually once the running-in distance has been completed.
- Do not operate the vehicle with the accelerator fully depressed or allow the engine to labour in any gear.
- Avoid fast acceleration and heavy braking, except in emergencies.

Servicing requirements

Vehicles which operate in arduous conditions, particularly on dusty, muddy or wet terrain and vehicles which undergo frequent or deep wading conditions, will require more frequent servicing. Contact a Land Rover Dealer/ Authorised Repairer for advice.

After wading in salt water or driving on sandy beaches, wash the underbody components and exposed panels with fresh water. This will help to protect the vehicle's cosmetic appearance and prevent impairment of parking brake efficiency.

Fuel economy

Fuel consumption is influenced by two major factors:

- How your vehicle is maintained.
- How you drive your vehicle.

To obtain optimum fuel economy, it is essential that your vehicle is maintained in accordance with the manufacturer's service schedule.

Items such as the condition of the air cleaner element, tyre pressures and wheel alignment will have a significant effect on fuel consumption. But, above all, the way in which you drive is most important. The following hints may help you to obtain better value from your motoring:

- Avoid unnecessary, short, start-stop journeys.
- Avoid fast starts by accelerating gently and smoothly from rest.
- Do not drive in the lower gears for longer than necessary.
- Decelerate gently and avoid sudden and heavy braking.
- Anticipate obstructions and adjust your speed accordingly well in advance.
- When stationary in traffic, select **N** (Neutral) to improve fuel economy and air conditioning performance.
- Turn off air conditioning when not required.

Vehicle height

Caution: The overall height of your vehicle exceeds that of ordinary passenger cars. Always be aware of the height of your vehicle and check the available headroom before driving through low entrances. This is particularly important if the vehicle is fitted with a roof rack or if a sunroof is open.

Vehicle stability

WARNING

Utility vehicles have a significantly higher roll-over rate than other types of vehicles. Since these vehicles are designed to be operated off-road, these vehicles have a higher ground clearance and hence a higher centre of gravity. Such a feature has been associated with an increased risk of vehicle roll-over. An advantage associated with higher ground clearance vehicles is a better view of the road, allowing the driver to anticipate problems. Another factor shown to significantly increase roll-over risk is unauthorised vehicle modifications such as fitting incorrect specification tyres,
See WHEELS AND TYRES (page 255).
oversize tyres, body lifting, incorrect springs/dampers, incorrect vehicle loading/trailer towing.

However, on-road crash data also indicates that driver behaviour is a greater factor than a high centre of gravity in determining a vehicle's overall roll-over rate. The single most effective driver behaviour that can reduce the risk of injury or death in all crashes including roll-over, is to always wear your seat belt and to properly restrain all child passengers in the rear seat in an appropriate child safety seat. In a roll-over crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

Other measures that can reduce the risk of injury and death from vehicle crashes and roll-over are:

- Limit speed. Posted speed limits should never be exceeded, and you should always drive below these limits whenever traffic, weather, road or other conditions dictate. Always use your common sense and good judgement.
- Take curves at reasonable speeds, avoiding unnecessary braking.
- Drive defensively. Be aware of traffic, road and weather conditions. Avoid risk taking behaviour such as following too close, rapid lane changing or abrupt manoeuvres.
- Assume that pedestrians or other drivers are going to make mistakes. Anticipate what they might do. Be ready for their mistakes.
- Avoid distractions such as cellular phone calling, reading, eating, drinking or reaching for items on the floor.
- Before changing lanes, check your mirrors and use the direction indicators.
- Always leave room for unexpected events such as sudden braking.
- Never operate your vehicle when you have consumed alcohol, are sleepy or fatigued or have taken any medications that affect judgement, reflexes or alertness.

WARNING

Many vehicle roll-overs occur when a driver attempts to bring a vehicle back onto the road after some or all of the wheels drift onto the shoulder of the road, especially when the shoulder is unpaved. If you find yourself in such a situation, do not initiate any sharp or abrupt steering and/or braking manoeuvres to re-enter the roadway. Instead, let the vehicle slow down as much as safely possible before attempting to re-enter the roadway and keep your wheels as straight as possible while re-entering the roadway.

Breakdown safety

If a breakdown occurs while travelling:

- Wherever possible, consistent with road safety and traffic conditions, the vehicle should be moved off the main highway, preferably onto the shoulder as far as possible.
- Switch on hazard warning lamps.
- Ensure that **P** (Park) is selected before exiting the vehicle.
- If possible, position a warning triangle or a flashing amber lamp at an appropriate distance from the vehicle to warn other traffic of the breakdown (note the legal requirements of some countries).
- Consider evacuating passengers through the doors facing away from traffic, to a safe area away from the vehicle, as a precaution in case your vehicle is accidentally struck by another vehicle.

DIESEL PARTICULATE FILTER (DPF)

The Diesel Particulate Filter (DPF) forms part of the emissions reduction system fitted to Land Rover vehicles. The DPF will remove a high proportion of the harmful carbon microspheres (soot) before they leave the exhaust. It achieves this by filtering out the particles, which are then stored until they are burnt away and the filter is emptied.

Regeneration

Caution: The regeneration procedure produces high temperatures in the DPF. Heat can be felt radiating from beneath the vehicle, which is normal and not a cause for concern. However, the vehicle should not be parked over combustible material, particularly during dry weather. The heat generated could be sufficient to start a fire when in close proximity to combustible material such as long dry grass, paper etc.

Unlike a normal filter which requires periodic replacement, the DPF has been designed to regenerate, or clean itself to maintain operating efficiency. The regeneration process takes place automatically in most cases. However, some unfavourable driving conditions mean that the regeneration process must be initiated deliberately by the driver.

DPF FULL SEE HANDBOOK (amber warning indicator)

If this message appears the driver should carry out the DPF regeneration procedure as soon as possible.

Regeneration procedure

Note: *At all times during this procedure you should observe all relevant speed limits, laws, and regulations. Always take account of traffic and weather conditions, and drive with consideration for other road users.*

1. Drive the vehicle until the engine reaches normal operating temperature. The engine should not be left idling to achieve working temperature.
2. Drive the vehicle for a further twenty minutes, keeping the road speed above 80 km/h (50 mph).
3. If regeneration is successful the warning light, or message, will extinguish. If they do not repeat the process.

Note: *If the warning indicator or message fails to extinguish after following the regeneration process three times, contact your Land Rover Dealer/Authorised Repairer for assistance.*

Warning indicators and messages

Caution: Failure to take the appropriate action when a warning indicator or message appears may result in damage to the engine, DPF system, increased vehicle emissions, and costly repairs.

If regeneration cannot be achieved automatically by the system, due to short journeys for example, the driver will be notified via a warning indicator, or message.

DPF FULL SEE HANDBOOK (red warning indicator)

If this message appears the vehicle should be taken to your Land Rover Dealer/Authorised Repairer as soon as possible.

BEFORE DRIVING OFF-ROAD

Before driving off-road, it is absolutely essential that drivers become familiar with the vehicle's controls, in particular the transfer gear switch, CommandShift and Hill Descent Control (HDC).

Basic information and Off-Road driving techniques can be found in the Off-Road driving handbook, available on-line at:
http://www.ownerinfo.landrover.com

It is strongly recommended that off-road driver training is undertaken by anyone intending to drive off-road. Training is available ate your nearest Land Rover Experience centre. More details can be found at:
http://www.landroverexperience.com

Wading

Caution: The maximum advisable wading depth is 700 mm (27.6 in.). Wading at a depth greater than the maximum wading depth regularly, is not recommended.

If the vehicle remains stationary for any length of time, in water above the level of the door sills, severe electrical damage may occur.

Do not switch off the engine during wading. If the engine stalls during wading, re-start immediately. Should the engine stall, get it checked by Land Rover Dealer/Authorised Repairer as soon as possible.

If during wading, water enters the engine air intake, switch off immediately. The vehicle should be towed from the water and recovered to a Land Rover Dealer/Authorised Repairer.

EMISSION CONTROL SYSTEM

WARNING

Exhaust fumes contain poisonous substances which can cause unconsciousness and may even be fatal.

- **Do not inhale exhaust gases.**
- **Do not start or leave the engine running in an enclosed unventilated area, or drive with the taildoor open.**
- **Do not modify the exhaust system from the original design.**
- **Always repair exhaust system leaks immediately.**
- **If you think exhaust fumes are entering the vehicle have the cause determined and corrected immediately.**

Land Rover vehicles are fitted with emission and evaporative control equipment necessary to meet a number of territorial requirements.

In many countries it is against the law for vehicle owners to modify or tamper with emission control equipment, or to sanction the unauthorised replacement or modification of this equipment. In such cases the vehicle owner and the repairer may both be liable for legal penalties.

It is important to remember that all Land Rover Dealers/Authorised Repairers are properly equipped to perform repairs and to maintain the emission control system on your vehicle.

Caution: If the vehicle runs out of fuel, a misfire can result. This can cause damage to the emission control system.

CATALYTIC CONVERTER

WARNING

Exhaust system temperatures can be extremely high - do not park on ground where combustible materials such as dry grass or leaves could come into contact with the exhaust system - in dry weather a fire could result.

The exhaust system incorporates a catalytic converter, which converts poisonous exhaust emissions from the engine into environmentally less harmful gases. It cannot, however, remove all harmful exhaust emissions.

Caution: Severe damage to the catalytic converter could occur if the engine is stopped for any length of time when being driven through water, where the water level is above the exhaust pipe.

Caution: Catalytic converters can be easily damaged through improper use, particularly if the wrong fuel is used, or if an engine misfire occurs. For this reason it is very important that you heed the precautions which follow.

Fuel

Only use fuel recommended for your vehicle. See **ENGINES** (page 254).

Starting the engine

- Do not continue to crank the engine after a few failed attempts (unburnt fuel may be drawn into the exhaust system, thereby poisoning the catalyst), and do not attempt to clear a misfire by pressing the accelerator pedal - seek qualified assistance.
- When starting a cold engine, do not drive if a misfire is suspected and do not attempt to clear a misfire by pressing the accelerator - seek qualified assistance.
- Do not attempt to push or tow-start the vehicle.

Driving

- If a misfire is suspected, or the vehicle lacks power while driving, provided the engine has reached its normal operating temperature, it may be0 driven slowly (at risk of catalyst damage) to a Land Rover Dealer/Authorised Repairer for assistance.
- Never allow the vehicle to run out of fuel (the resultant misfire could damage the catalyst).
- Consult your Dealer/Authorised Repairer if your vehicle is burning excessive oil (blue smoke from the exhaust), as this will progressively reduce catalyst efficiency.
- On rough terrain do not allow the underside of the vehicle to be subjected to heavy impacts which could damage the catalytic converter.
- Do not overload or excessively rev the engine.
- Do not switch off the engine when the vehicle is in motion with a drive gear selected.

Vehicle maintenance

- It is vital that unqualified persons do not tamper with the engine, and that regular systematic maintenance is carried out by a Land Rover Dealer/Authorised Repairer.
- Do not run the engine with a spark plug or HT lead removed, or use any device that requires an insert into a spark plug.

SAFETY ON THE FORECOURT

WARNING

Petroleum gases are highly inflammable and, in confined spaces, are also extremely explosive.

Petroleum gasses are highly flammable, have a low flash point, and are explosive, especially in confined spaces. Avoid exposing the gasses to any potential sources of ignition as the resulting fire and explosion may cause serious injuries and/or death.

Only use containers specifically designed for carrying fuel, and always remove them from the vehicle to fill them. Failure to do so may result in spillage, and cause a fire.

Switch off the engine when refuelling, as it is both a source of extreme temperatures, and electrical sparks. The resulting fire and explosion may cause serious injury and death.

Switch off any personal electronic devices such as mobile phones, or music players. They have the potential to cause electrical sparks. The resulting fire and explosion may cause serious injury and death.

Do not smoke, use a naked flame, or cause sparks. The resulting fire and explosion may cause serious injury and death.

Do not overfill the fuel tank. Overfilling may cause spillage when the vehicle is driven. Spillage may also occur if the fuel expands in high ambient temperatures.

Always take sensible precautions when refuelling:

- Switch off the engine.
- Switch off mobile phones.
- Do not smoke or use a naked flame or light.
- Take care not to spill fuel.
- Do not overfill the tank.

WARNING

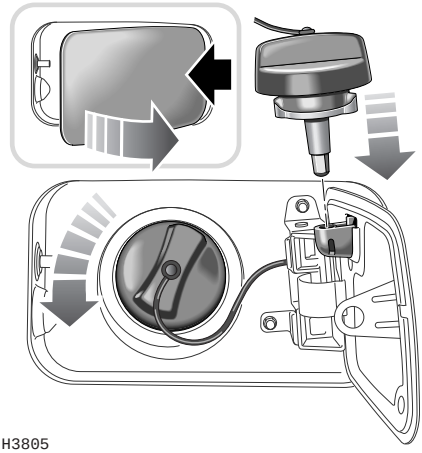
Always ensure that the fuel burning heater is not operating when refuelling the vehicle. See TIMED CLIMATE CONTROL (page 100).

FUEL FILLER

WARNING

To avoid any sudden discharge of fuel caused by excessive fuel vapour pressure, do not fully remove the filler cap until any captive tank pressure has been released.

Take careful note of warning labels located around the filler cap.



H3805

The fuel filler is located in the rear right-hand wing. With the vehicle fully unlocked (all doors and tailgate), press the right side of the fuel filler flap to open (shown in inset).

Carefully turn the cap anti-clockwise and allow any fuel tank pressure to be released. Once the pressure is released, it is safe to fully remove the filler cap. When refuelling, insert the filler cap in the socket on the back of the filler flap (see illustration).

When replacing, tighten the cap clockwise until you hear the fuel cap ratchet click once.

TYPE OF FUEL

Unleaded fuel

Unleaded fuel must be used for the emission control system to operate properly. Its use will also reduce spark plug fouling, exhaust system corrosion and engine oil deterioration.

The RON value (octane rating) and type of petroleum available at garage forecourts will vary in different parts of the world.

During manufacture engines are tuned to suit the fuels supplies commonly available in the country for which the vehicle is destined. However, if a vehicle is later exported to a different country, or is used to travel between different territories, the owner should be aware that the available fuel supplies may not be compatible with the engine specification. If in doubt seek advice from the territory concerned.

Octane rating

The recommended unleaded fuel should have an octane rating of 95 RON (Research Octane Number) or higher. However, you may also use unleaded fuel with a lower RON, but performance will be reduced. The minimum octane rating for fuel to be used is 90 RON.

Note: *Using unleaded fuel with a lower octane rating than recommended, can cause persistent heavy engine knock (a metallic rapping noise). If severe, this can lead to engine damage.*

If a heavy knock is detected, even when using fuel to the recommended octane rating, or if you hear knock while holding a steady speed on level roads, consult your Dealer/Authorised Repairer to have the problem corrected. Failure to do so is misuse of the vehicle, for which Land Rover is not responsible. However, occasional, light knock for a short time while accelerating or driving up hill, may occur.

Fuel specification - diesel engines

See **ENGINES** (page 254). for the recommended fuel specification.

The quality of diesel fuel (Derv) can vary in different countries and only clean, good quality fuel should be used. It is important that the sulphur content of diesel fuel does not exceed 0.3%. In Europe all supplies should be within this limit, but in other parts of the world, you should check with your supplier.

In markets where the sulphur content exceeds 0.3%, more frequent engine oil and filter changes will be required.

Caution: If your vehicle is fitted with a Diesel Particulate Filter (DPF) the maximum Sulphur content must not exceed 0.005%. Using an incorrect fuel will cause serious damage to the DPF. For more information about DPF see DIESEL PARTICULATE FILTER (DPF), page 127.

Note: *Maximum allowable Bio-diesel mix is 5%.*

ALTERNATIVE FUELS FOR PETROL ENGINES

Ethanol

Caution: This vehicle is not suitable for use with fuels containing more than 10 per cent ethanol.

Do not use E85 fuels (85 per cent ethanol content). Equipment necessary for the use of fuels containing more than 10 per cent ethanol is not fitted to this vehicle. If E85 fuels are used, serious engine and fuel system damage will occur.

Fuels containing up to 10 per cent ethanol (grain alcohol) may be used. Ensure the fuel has octane ratings no lower than those recommended for unleaded fuel. Most drivers will not notice any operating difference with fuel containing ethanol. If a difference is detected, the use of conventional unleaded fuel should be resumed.

Methanol

Some fuels contain methanol (methyl or wood alcohol). If you use fuels containing methanol the fuels must also contain co-solvents and corrosion inhibitors for methanol. Also, do not use fuels that contain more than three per cent methanol even if they contain co-solvents and corrosion inhibitors. Fuel system damage or vehicle performance problems resulting from the use of such fuels is not the responsibility of Land Rover, and may not be covered under the warranty.

Methyl Tertiary Butyl Ether (MTBE)

Unleaded fuel containing an oxygenate known as MTBE can be used provided the ratio of MTBE to conventional fuel does not exceed 15%. MTBE is an ether based compound, derived from petroleum, which has been specified by several refiners as the substance to enhance the octane rating of fuel.

Reformulated gasoline

Several petroleum companies have announced the availability of reformulated fuels. These fuels are specially designed to further reduce vehicle emissions. Land Rover fully supports all efforts to protect and maintain ambient air quality and encourages the use of reformulated gasoline where available.

FUEL FILLING

WARNING

Do not attempt to fill the tank to its maximum capacity. If the vehicle is to be parked on a slope, in direct sunlight, or high ambient temperature, expansion of the fuel could cause spillage.

Filling station pumps are equipped with automatic cut-off sensing to avoid fuel spillage. Fill the tank slowly until the filler nozzle automatically cuts-off the supply. Do not attempt to fill the tank beyond this point.

Petrol engine vehicles

The fuel filler neck will accept only a narrow filler nozzle of the type found on pumps that deliver unleaded fuel.

Diesel engine vehicles

The diesel pumps on garage forecourts fill at a maximum of 55 litres (12 gallons) per minute.

If the fuel cuts off as soon as the trigger on the pump is operated, check that the correct fuel has been selected. Immediate cut-off may have been caused by the fuel guard system.

DIESEL MISFUEL PROTECTOR

WARNING

When the diesel misfuel protector is activated, it could cause fuel to be discharged from the filler neck.

Diesel engine vehicles in some markets are equipped with a fuel guard system, incorporated into the fuel filler neck.

The diesel misfuel protector is designed to alert that the wrong fuel type has been selected. If the narrow filler nozzle fitted to pumps delivering unleaded petrol is correctly inserted (i.e. fully inserted) into the filler neck, the diesel misfuel protector mechanism will activate.

The diesel misfuel protector continually interrupts the fuel flow from the pump, until the diesel misfuel protector mechanism in the filler neck is reset.

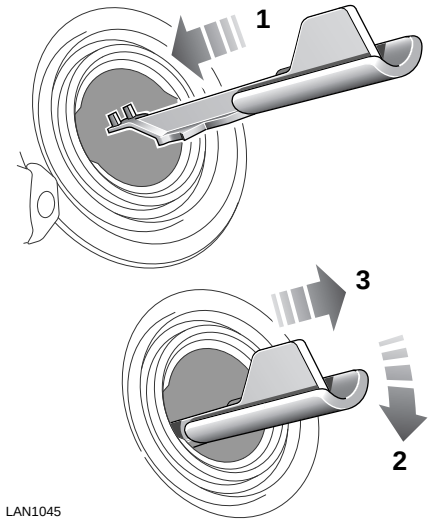
If this occurs, the yellow diesel misfuel protector will be visible in the filler neck. The diesel misfuel protector will need to be reset before the tank can be correctly filled with diesel fuel. This is achieved using the reset tool, located in the tool kit. See **TOOL KIT** (page 230).

Note: *It is the driver's responsibility to fill the vehicle with the correct fuel. The diesel misfuel protector only reduces the risk of filling the vehicle with the incorrect fuel.*

Caution: Using the incorrect fuel can result in major damage to your vehicle's engine and fuel system.

Note: *On diesel vehicles, when refuelling the vehicle using a disposable fuel canister, always use a canister designed for diesel fuel where possible. The spout on petrol canisters, may activate the diesel misfuel protector.*

Resetting the diesel misfuel protector



LAN1045

Reset the diesel misfuel protector as follows:

1. Insert the reset tool (with the teeth uppermost) as far as it will go into the filler neck.
2. Pivot the tool handle downwards to engage the teeth into the fuel guard.
3. Pull the tool rearwards, to reset the fuel guard.

Note: *To ensure that the diesel misfuel protector is correctly reset, check that the yellow diesel misfuel protector is no longer visible in the filler neck before refuelling with diesel fuel.*

After resetting the system, remove the tool from the filler neck and secure in its stowage slot in the spare wheel well. If subsequent driveability difficulties are encountered, seek assistance from a Land Rover Dealer/Authorised Repairer.

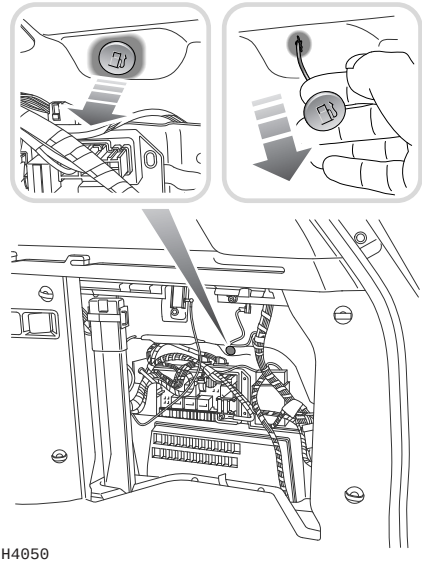
EMPTY FUEL TANK

Caution: Do not run the fuel tank dry.

Running the fuel tank dry could create an engine misfire.

Note: *When refuelling an empty fuel tank, at least 5 litres (1.1 gallons) of fuel must be added to the tank, before the engine can be started.*

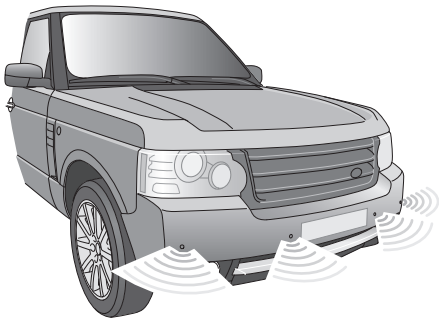
FUEL FILLER FLAP EMERGENCY RELEASE



H4050

If the vehicle battery has been disconnected or has discharged, the fuel filler flap can be opened manually. Open the rear loadspace access hatch. See **REAR LOADSPACE ACCESS HATCH** (page 118). Pull the green release handle (as illustrated in the insets) to open the filler flap.

USING PARK DISTANCE CONTROL (PDC)





LAN1944

Caution: The parking aid is not infallible, it is for guidance only. The sensors may not be able to detect certain types of obstruction (narrow posts or small narrow objects, small objects close to the ground and some objects with dark, non-reflective surfaces, snow for example).

Park Distance Control (PDC) is a system that assists the driver when manoeuvring the vehicle into a parking space, or anywhere there are obstacles that need to be avoided, warning the driver accordingly.

The vehicle is fitted with four ultrasonic sensors on each of the bumpers.

The range of the front sensors, and the two sensors on the corners of the rear bumper is approximately 600 mm (2 feet). The two centre rear sensors have a range of approximately 1 500 mm (5 feet).

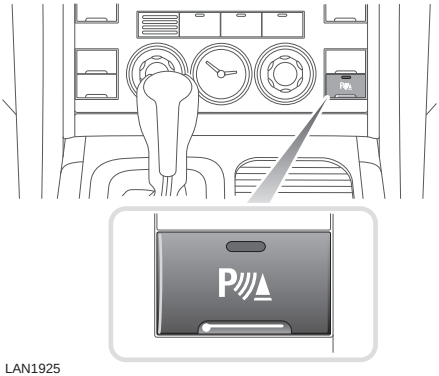
Caution: Keep the sensors free from dirt, ice and snow. If deposits build up on the surface of the sensors, their performance will be impaired. When washing the vehicle, avoid aiming high pressure jets directly at the sensors at close range.

Park Distance Control

Activating PDC

PDC is automatically activated whenever **R** (Reverse) is engaged. Both front and rear sets of sensors are activated and the indicator in the switch illuminates. A short tone sounds as confirmation.

In **R**, the sensors remain on regardless of vehicle speed.



LAN1925

Selecting **P** (Park), or pressing the switch will turn off the system.

PDC automatically turned off when **D** (Drive) is selected and the vehicle exceeds 16 km/h (10 mph).

When driving forwards into a limited space, front PDC can be activated manually by pressing the switch (illustrated) on the centre front facia (the indicator light in the switch illuminates and a short tone sounds as confirmation).

If turned on the system remains active in **R N** and **D** up to 16 km/h (10 mph).

A second press of the switch turns off the system.

If PDC has been manually switched off by pressing the switch, it will not activate automatically until either the switch has been pressed again, or **R** (reverse) is selected.

If a long, high pitched tone sounds and the switch indicator light flashes when PDC is activated, then a fault in the system has been detected and the system will not be operational. Contact your dealer for assistance.

PDC in operation

The distance from an obstruction is identified by an intermittent tone sounding (higher pitch for the front sensors and a lower pitch for the rear). As the vehicle moves closer to an obstruction, the frequency of the tone increases proportionally.

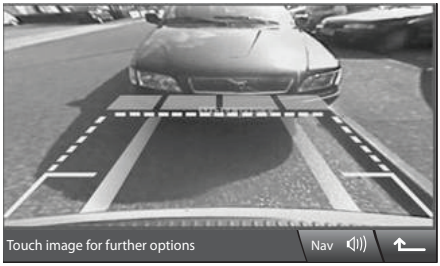
When the distance between the sensor and the obstruction is less than approximately 300 mm (1 foot), the tone becomes continuous.

REAR VIEW CAMERA SYSTEM

WARNING

It remains the driver's responsibility to detect obstacles and estimate the vehicle's distance from them when reversing. Some overhanging objects or barriers, which could possibly cause damage to the vehicle, may not be detected by the camera.

Always be vigilant when reversing.



LAN2447

The rear view camera provides a rear view image on the touch screen to assist in reversing the vehicle. Overlaid on the image are reversing guidelines.

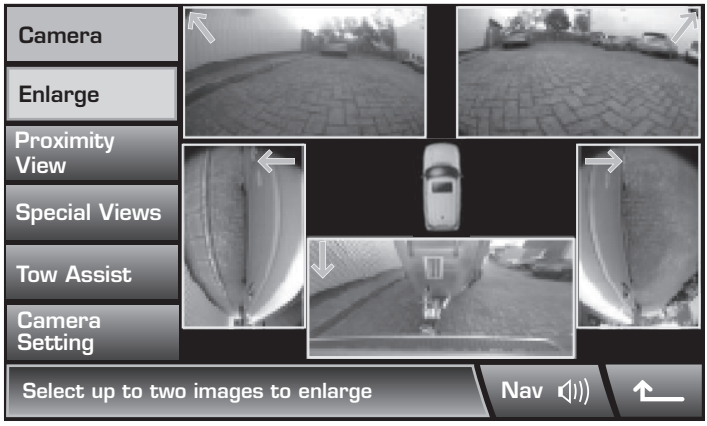
The camera is integrated into the rear spoiler and when reverse gear is selected, the touch screen automatically displays the view from the rear of the vehicle.

Note: *A return icon is displayed in the bottom right hand corner of the touch screen. Touch this to revert to the previously viewed screen.*

Rear View Camera display on the touch screen will discontinue when either of the following apply:

- Drive is selected for longer than 15 seconds.
- Drive is selected and vehicle speed is greater than 18 km/h (11 mph).

SURROUND CAMERA SYSTEM



LAN2893

WARNING

It remains the driver's responsibility to detect obstacles and estimate the vehicle's distance from them when reversing. Some overhanging objects or barriers, which could possibly cause damage to the vehicle, may not be detected by the camera.

Always be vigilant when reversing.

The camera home page is accessed by touching **Camera** on the **Home Menu** screen.

With the engine running and either Park or Neutral selected, the surround camera system provides views of the area surrounding the vehicle. It uses five discretely placed cameras, to assist in manoeuvring the vehicle.

Selecting views

Displayed on the **Camera** home page are real-time images from each of the five cameras fitted to the vehicle. Any two of the images can be selected and enlarged to view side-by-side on the screen. Highlight the image then touch the **Enlarge** soft key.

When viewing two images, one of them can be selected to view as a full screen image. It can then be zoomed into and panned around using the magnifier and arrow icons.

Proximity view - automatic operation

Japan only

When Drive or Reverse are selected, the relevant camera view will be selected for the direction of travel. Once the vehicle speed exceeds 18 km/h (11 mph) or the return icon is pressed, the camera screen will disappear.

Note: *The Proximity View will be disabled for the rest of that ignition cycle. To use the screen again, touch* ***Proximity View*** *on the* ***Camera*** *home page.*

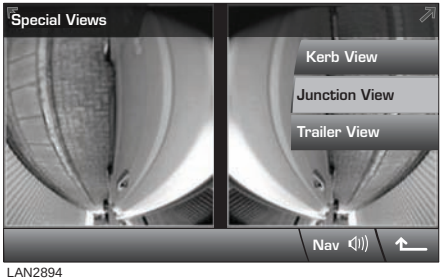
Proximity view - manual operation



LAN2931

Selecting **Proximity View** will display a combination of three images from the front and passenger side cameras. These views give the driver an enhanced view of the area forward and opposite the driver.

Special views

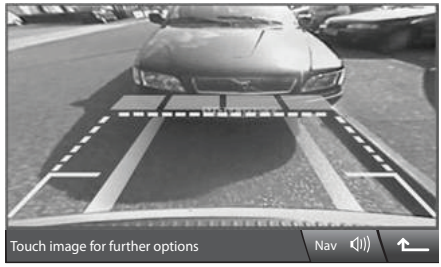


LAN2894

A selection of pre-set views can be displayed by selecting **Special Views**. They are provided to assist with difficult manoeuvres and are:

- Kerb view, shows views from the two front cameras.
- Junction view, shows views from the two side cameras.
- Trailer view, shows the rear camera view.

Reversing



LAN2447

When Reverse is selected, the touch screen automatically displays the view from the rear of the vehicle.

Overlaid on the rear view image are coloured dashed lines representing the perimeter of the vehicle, solid lines predicted the path of the vehicle (based on the position of the steering wheel) and the distance information from the Parking Aid system.

Note: *A return icon is displayed in the bottom right hand corner to take the driver back to the previously viewed screen.*

Camera settings - Japan only

Touch the **Camera Settings** soft key to access the camera options page. To deactivate the Semi-Auto Camera Functionality select Off. The Proximity View is now only accessible by manual activation using the **Proximity View** soft key.

Camera cleanliness

The camera system constantly monitors the cleanliness of the cameras and will alert the driver if the level of dirt on any camera exceeds a predetermined level by changing the colour of the camera position arrow from blue to red.

TOW ASSIST

Note: *Tow Assist requires a connected trailer to be fitted with a tracking target sticker. The sticker MUST be attached according to specific instructions. Ask your Land Rover Dealer for details.*

Note: *This feature may not operate with all trailer designs.*

Tow Assist aids trailer reversing by displaying information on the touch screen. The information is calculated by the Tow Assist feature and is based on the relationship of angles between the vehicle and trailer and the current steering wheel position. The tracking target sticker must be attached to the trailer.

Trailer Assist becomes active when a trailer is attached to the vehicle and the trailer electrical plug is attached to the vehicle socket. The screen will display a choice for connection. Select YES to move to the setup screen. Select NO to return to the previous screen.

Note: *If the connection is not detected, setup can be manually prompted by touching the* ***Tow Assist*** *icon on the* ***Camera*** *menu.*

Trailer setup

On first use the setup screens take the user through a series of configuration options for the connected trailer.

Information such as trailer length, number of axles and camera preference is required to finalise setup.

Once completed, the details are stored for future use.

Operation

When a new or existing trailer configuration is selected, Tow Assist will automatically display on the touch screen when reverse gear is selected.

Coloured lines are displayed to indicate the predicted path of both trailer and vehicle. After a little practice to become familiar with the system, reversing the trailer in the required direction will result in the trailer following the predicted path.

INTRODUCTION

The Land Rover VentureCam system consists of one or more VentureCam units, a docking station, an antenna and a touch screen. VentureCam is a wireless real time motion camera, that transmits in colour.

The camera is of a robust construction and is able to operate up to 30 metres (98 ft) away from the vehicle, but this will depend on the prevailing conditions. Environment and buildings may have an effect.

Up to 16 VentureCam units can be linked to the system. These mini cameras are a form of close circuit television viewed through the touch screen in either full screen or reduced screen mode. You can view all cameras linked by using the scroll soft keys on the touch screen.

The camera mounts can be attached to any suitable surface.

This gives the user a wide variety of possible locations where the VentureCam units can be used.

VentureCam will receive other video signals on the 2.45GHz frequency.

This is an open band frequency so if, for example, you have a home security camera, you may be able to select and view its signal by selecting the channel it is broadcasting on.

Note: *Land Rover VentureCam uses the same frequencies as some TV, WiFi and Bluetooth® devices. If interference with the image is observed, re-selecting the VentureCam will select a quieter channel.*

Please note that for this reason, the operation of a Land Rover integrated Bluetooth® phone system is inhibited when the Land Rover VentureCam system is active.

Land Rover have no control over the operation or format of security cameras and therefore cannot guarantee their operation.

The VentureCam is charged in a docking station in the upper glovebox. VentureCam can also be used as a torch.

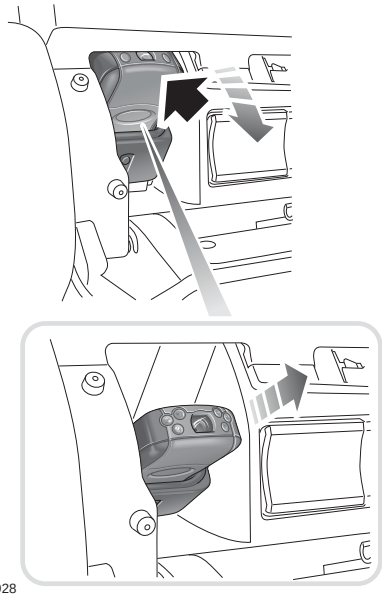
When the VentureCam is docked again a green halo around the LAND ROVER button flashes momentarily to indicate that a good electrical connection has been established.



LAN2923

The touch screen allows you to control the VentureCam units, selecting which one to view and to determine if the batteries are charged.

To remove a VentureCam from the docking station, push it lightly towards the facia. This releases the latching mechanism allowing the unit to be removed from the housing.



LAN2928

Note: *Some markets have a speed restriction when displaying motion images on a screen within the drivers vision. In these markets, exceeding this speed will turn the VentureCam off.*

WARNING

VentureCam is only to be used as a driving aid. It must not be used in a way that could distract the driver.

Take care when manoeuvring.

Always obey traffic regulations.

VentureCam must not be left loose in the vehicle. It must be docked in the docking station or stowed securely when not in use. In the event of an accident, unsecured items become flying missiles, capable of causing serious injury.

Do not place objects other than a Land Rover VentureCam into the docking station.

Do not allow the red torch illumination to face towards oncoming traffic when used on public roads.

Always mount a VentureCam out of the reach of children or animals.

If using VentureCam to reverse, care should be taken to ascertain left and right.

Note: *If using a VentureCam as an aid to reversing a trailer, its transmitting range may be reduced if it is located at the back of the trailer. Therefore take this into account when selecting a suitable location for a VentureCam.*

USING THE VENTURECAM UNIT

The VentureCam unit has a LAND ROVER button that allows you to select the function you require. The functions are marked graphically on the unit itself. Each press of the button takes you to the next function.



LAN2924

- When the unit is off, a single press of the button switches the camera function on.
- Pressing the button a second time turns the torch on torch and turns the camera off.
- A further press turns the unit off.

When you select camera mode, the halo around the LAND ROVER button illuminates and begins to flash, to indicate that the camera is awaiting a command from the touch screen.

Note: *The range of the Land Rover VentureCam will be reduced if it is held in the hand. We therefore only recommend supporting it in the mount provided.*

Note: *The torch can also be operated from within the vehicle using the torch soft key on the touch screen.*

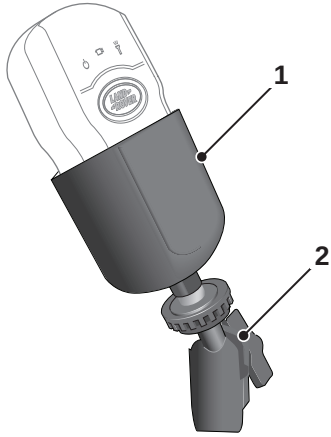
MOUNTING A VENTURECAM

Each Land Rover VentureCam unit is supplied with a flexible mounting system allowing you to attach it to a suitable surface.

Caution: The suction mount is designed for off road use and should only be fixed to a suitable exterior surface.

The Land Rover VentureCam mount comes in two parts:

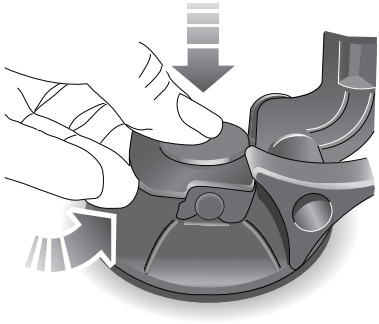
1. VentureCam holder.
2. Suction mount.



LAN2925

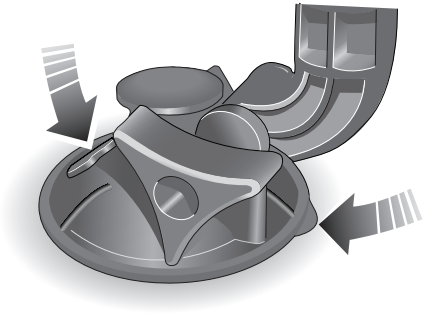
The holder is secured into the suction mount using a screw fixing similar to a wide range of camera accessories.

With the suction control lever lowered, apply the mount to clean glass or clean, flat body work, press the suction button and pull the lever up. Ensure a good fix is made before installing and using the VentureCam.



LAN2926

To release the mount, first take the VentureCam out of the holder. Grip the mount, lower the operating lever and lift the clear plastic tab on the perimeter of the suction pad to release the suction.



LAN2927

VENTURECAM CONTROLS

Access VentureCam from the main menu by touching the **4 x 4 Info** soft key.



On the **4 x 4 Info** screen, touch the camera icon soft key to view images on screen.

Other VentureCam soft key controls:

- Camera selection (Cam 1)
- Channel selection (CH 1)
- Scroll arrows - after selecting a channel or camera soft key, touch to scroll through available VentureCams and channels.
- Torch

Note: *If a soft key control is greyed out, the function is not currently available for selection.*

Note: *When a soft key is touched, a green halo appears briefly around the soft key to confirm selection. The halo then turns to amber, indicating that the selected function is active.*

Selecting available VentureCams and Channels

Use the scroll soft keys to scroll up or down through the list of available VentureCams (Cam 1, Cam 2 etc.) and channels (CH 1, CH 2 etc.) until the desired choice is visible. Touch to display the selected source.

If there is a problem with the selected source, a warning message will be displayed on-screen. Follow any instructions given and/or select an alternative source.

Using the torch



To operate the torch from within the vehicle, use the torch soft key that appears on the touch screen while viewing a VentureCam image.

When the torch is turned on, an amber halo appears around the torch soft key. Press the soft key again to turn the torch off.

Full screen display mode

In VentureCam mode, touching the screen area containing the VentureCam or channel image, will display a full screen view.

To return to the control display mode, touch the screen again.

VentureCam battery

VentureCam is fitted with a re-chargeable battery, that should give approximately 3 hours of continual video transmission. Alternatively, the VentureCam can be used as a torch and will last approximately 4 hours before a re-charge is required. Re-charging VentureCam takes approximately 1 hour from a fully discharged to a fully charged state.

Note: *The vehicle ignition must be on before charging starts.*

When docked, the VentureCam will go into a charging state. Charge level indicators will be displayed to indicate the battery state of charge, along with the display "VentureCam docked"

There are 3 charging stages which are as follows:



Recovery - One segment indicates that the VentureCam battery is virtually discharged (or may be very hot/cold). The battery is being gently charged to ensure a full battery recovery and subsequently, may stay in this mode for some time.



Fast charge - A rising row of segments indicates a fast charge, that will deliver a full charge in a minimum period.



Charged - A complete row of segments indicates a charged battery. Land Rover recommend you leave the VentureCam in the docking station when charged, this helps maintain the battery optimum charge level.

Storing a VentureCam to memory

To manage multiple VentureCam units, each VentureCam required for transmitting must be saved to the vehicle memory.

The unit must be in the docking station and can be saved while in any display view. Docking a VentureCam that has not been saved to the vehicle will display a pop up screen.

On the pop up screen select **OK** to save the VentureCam to the first available VentureCam position.

Selecting **Cancel** will clear the pop up window and return the user to the previously selected background. If you press the **Cancel** soft key accidentally, the docked VentureCam will have to be removed, then re-docked, before it can be stored to the memory.

After selecting **OK** another pop up window, giving the user the option to **Use now** or **Close** the window.

Selecting **Use now** will take the user to the **4 x 4 Info** screen, with VentureCam selected and showing the docked VentureCam display view.

Selecting **Close** will clear the pop up window and return the user to the previously selected background.

Note: *If 16 VentureCams have been saved to the vehicle and a new VentureCam is docked, the VentureCam will only charge and the Learn Camera pop up window will not be presented until a VentureCam is deleted, .*

The new one will have to be re-inserted into the docking station, before it can be stored in the memory.

Deleting a VentureCam unit from memory

To delete a VentureCam from memory, use the scroll soft keys to select the required VentureCam, then press the **Delete** soft key. A pop up window will be displayed.

Selecting **OK** removes that VentureCam from the list.

Selecting **Cancel** will clear the pop up window and return the user to the VentureCam list display view.

Care of your VentureCam

If VentureCam becomes muddy or covered in road dirt, wipe it with a damp cloth to clean the camera window and to ensure reliable battery charging.

If you have 2 or more VentureCams, cycle them through the docking station, so that each one gets a top-up charge every few weeks.

Avoid high temperatures, DO NOT store VentureCam in the sun.

Caution: VentureCam batteries, like all others, should be disposed of responsibly and in accordance with local authority regulations.

USING AUTOMATIC TRANSMISSION

Starting

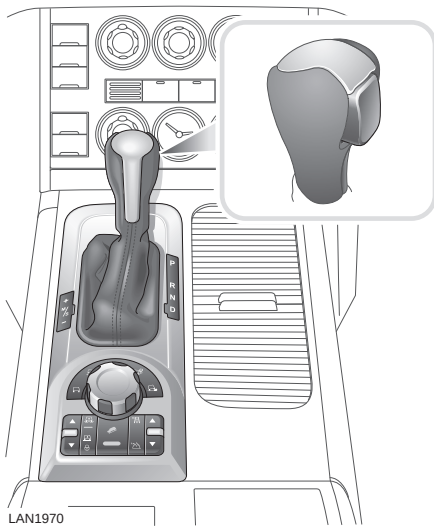
Caution: Vehicles must not be push or tow started.

The engine can only be started with the selector lever in the **P** (Park) or **N** (Neutral) positions.

- Always apply the parking brake and foot brake before starting the engine.
- Keep the brakes applied while moving the selector lever into a drive position (the selector lever cannot be moved from the **P** position unless the foot brake is applied).

  Note: *If pressure is applied to the selector lever before the foot brake is applied, any gear selected may not be available irrespective of the lever position. In this situation, remove pressure from the selector lever, ensure that the foot brake is applied and select the required gear.*
- Do not rev the engine or allow it to run above normal idle speed while selecting **D** or **R**, or while the vehicle is stationary with any gear selected.
- Always keep the brakes applied until you are ready to move off - remember, once a drive gear has been selected an automatic transmissioned vehicle may creep forward (or backward if reverse is selected).
- Do not allow the vehicle to remain stationary for any length of time with a drive gear selected and the engine running (always select **N** if the engine is to idle for a prolonged period).
- Always select **P** (Park) before exiting the vehicle.

Note: *For maximum air conditioning performance while stationary, select **P** or **N**.*



Selector lever positions

Caution: Do not select P or R if the vehicle is moving.

Do not select a forward drive gear when the vehicle is moving backwards.

Do not select reverse gear when the vehicle is moving forwards.

Select P and switch the ignition off before leaving the vehicle.

Do not leave children unattended in the vehicle.

An illuminated indicator on the selector panel and a number or letter on the gear selector display in the instrument panel, identify the selected gear position.

P - Park: This position locks the transmission and should be selected before switching the engine off. To avoid transmission damage, ensure the vehicle is completely stationary with the parking brake applied, before selecting **P**.

The selector release button must be pressed before moving the selector lever into **P**.

Press the selector release button and foot brake to move the selector lever out of **P**.

Note: *The selector lever will not be released from **P**, unless the ignition is on.*

R - Reverse: Before selecting **R**, ensure the vehicle is stationary, with the brakes applied. Press the selector release button in order to move the selector lever into **R**.

N - Neutral: Select neutral when the vehicle is stationary and the engine is required to idle for a brief period (at traffic lights, for example). In **N**, the transmission is not locked, so the parking brake must be applied whenever **N** is selected.

If the vehicle remains stationary, the selector lever becomes locked in **N** and it is then necessary to depress the brake pedal in order to release the selector lever.

Press the selector release button and foot brake to move from **N** to **R** or **D**.

D - Drive: Select for all normal driving; full automatic gear changing occurs on all six forward gears, according to road speed and accelerator position.

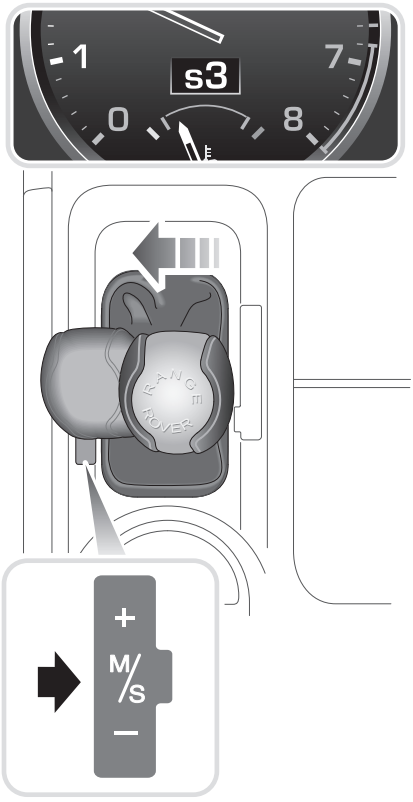
Kick-down in automatic mode

To provide rapid acceleration for overtaking, push the accelerator pedal to the full extent of its travel (this is known as kick-down), a click will be felt through the accelerator pedal. Up to a certain speed, this will cause an immediate downshift to the lowest appropriate gear, followed by rapid acceleration. Once the pedal is relaxed, normal gear change speeds will resume (dependent upon road speed and accelerator pedal position).

Note: *Moderate accelerator pressure may also result in a downshift in the transmission, depending on vehicle speed.*

Sport mode

In Sport mode, full automatic progression through the gear ratios is retained and the transmission will stay in the lower gears for longer. This improves mid-range performance with downshifts occurring more readily.



LAN1992

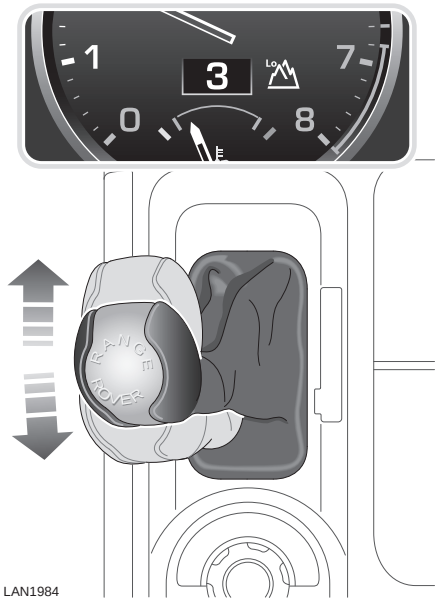
To select Sport mode, move the gear lever from the **D** position towards the left hand side of the vehicle (see illustration). The LED in the selector display to the side of the selector lever (arrowed in inset) illuminates and **SPORT MODE** is displayed in the main message centre for 6 seconds.

Sport mode can be deselected at any time, by returning the lever to the **D** position.

To return to Sport mode after CommandShift has been selected, move the selector lever across into the automatic mode **D** position, then move it back across into Sport mode.

CommandShift™ GEAR SELECTION

CommandShift gear selection can be used as an alternative to fully automatic transmission and is particularly effective when rapid acceleration or engine braking are required.



There are six gears, all of which are selected sequentially by a single forward or rearward movement of the gear selector lever, as follows:

1. With **D** (Drive) selected, move the gear selector from the **D** position towards the left hand side of the vehicle (this is exactly the same as selecting Sport mode). **SPORT MODE** is displayed in the main message centre for 6 seconds.
2. The transmission then automatically selects the ratio most appropriate to the vehicle's road speed and accelerator depression.
3. A single forward (**+**) movement of the selector lever will change the transmission to a higher gear, while rearward (**-**) movement of the lever will change down to a lower gear (when available). The selected gear will be indicated in the digital display in the instrument panel (see inset).

   Note: *The transmission will automatically change to a higher gear if engine speed is increased beyond a certain level.*
4. To deselect CommandShift, move the selector lever sideways, back to the **D** position. Automatic gear changing will then resume.

Note: *In CommandShift, kick-down is still available for increased acceleration.*
See ***Kick-down in automatic mode*** *(page 148).*

Note: *When Terrain Response is selected, the transmission will automatically enter CommandShift mode if the lever is moved into Sport/CommandShift while any Special Program is selected.*

Using CommandShift in High range

If manual mode is selected in High range, **1**st gear must be selected to move off from stationary. Normal sequential gear changing can be utilised once the vehicle is moving.

Using CommandShift in Low range

If manual mode is selected in Low range, the vehicle can move off from stationary in **1**st, **2**nd or **3**rd gear - this is particularly useful to improve traction when driving off-road.

Kick-down in manual CommandShift mode:

When in CommandShift, kick-down overrides the manual gear selection, to provide increased acceleration.

In High range, with CommandShift selected, kick-down will cause a downshift to the lowest gear possible for the current vehicle speed.

ELECTRONICALLY SELECTED AUTOMATIC MODES

In automatic or Sport mode (not available in CommandShift), the transmission control system will electronically adjust gear change points to suit a variety of driving conditions.

Note: *The electronic modes described below are selected automatically by the transmission control unit. They cannot be selected by the driver.*

Hill ascent, trailer and high altitude mode

A suitable gear change pattern is selected to retain lower gears for longer. This is to counter momentum loss caused by more frequent gear changing during hill ascent or when towing. This gear change pattern is also selected at high altitudes to combat reduced engine torque.

Hill descent mode

When in CommandShift mode, with the optimum gear for engine braking selected, the selector lever can then be moved across to the **D** position. The transmission will retain the previously selected manual gear until the descent is completed, then the transmission will automatically change to **D**.

High coolant temperature mode

In high ambient temperatures during extreme load conditions, it is possible for the engine and the gearbox to overheat. At a certain temperature, the transmission will select a gear change pattern designed to aid the cooling process, while enabling the gearbox to continue performing normally in high temperatures.

Note: *When Terrain Response is used, automatic transmission change points/patterns will change, depending on which mode has been selected.*

Limp home mode

Should the transmission develop a fault, “Gearbox fault” is displayed in the main message centre and limited gears may be available. Seek immediate assistance from your Land Rover Dealer / Authorised Repairer.

Note: *“Transmission fault” is displayed in some markets.*

TRANSFER GEARBOX

Your vehicle is equipped with an electronically controlled transfer gearbox allowing the driver to select High or Low range driving gears.

High range

High range should be used for all normal road driving and also for off-road driving across dry, level terrain.

Low range

Low range should only be used in situations where low speed manoeuvring is necessary, such as reversing a trailer or negotiating a boulder-strewn river bed, or when moving off while heavily loaded or towing.

Also use Low range for more extreme off-road conditions, such as steep ascents and descents. Do not attempt to use the Low range for normal road driving.

Range changing

The recommended method of changing range is with the vehicle stationary. Messages displayed in the main message centre will assist the experienced driver in carrying out a range change on-the-move.

Stationary method

With the vehicle stationary and the engine running, apply the foot brake and move the automatic gearbox selector to the **N** (neutral) position before pressing the appropriate portion of the transfer gear switch - press the forward arrow to select High range and press the rearward arrow to select Low range. When the switch is released, it returns to the central position.



LAN1971

While the vehicle is in High range, the range indicator in the instrument pack display is extinguished and the High range indicator in the switch is illuminated.

The range indicator in the instrument pack illuminates continuously to act as a reminder that Low range is engaged. It flashes to indicate a range change in progress and extinguishes once the vehicle is in High range.

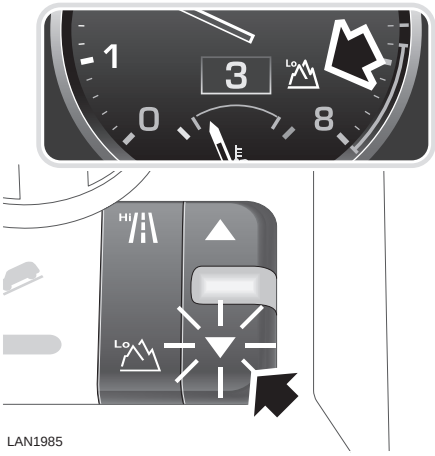


LAN1986

While a High to Low range change is in progress, the High range indicator in the switch will remain illuminated. The Low range indicators in both the switch and the instrument pack display will flash.

When the range change is complete, the High range indicator in the switch extinguishes. The Low range indicators in both the switch and the instrument pack display will illuminate constantly.

LOW RANGE SELECTED is displayed in the message centre for a few seconds.



LAN1985

While a Low to High range change is in progress, the Low range indicator in the switch will remain illuminated. The High range indicator in the switch will flash.

When the range change is complete, the Low range indicator in both the switch and the instrument pack display extinguishes. The High range indicator in the switch will illuminate constantly.

RANGE CHANGING ON THE MOVE

Note: *If the vehicle speed is too high when a range change is requested,* ***SPEED TOO HIGH FOR RANGE CHANGE*** *appears in the message centre. Slow down to allow a new range to be selected.*

If **N** is not selected before using the transfer gear switch, the message **SELECT NEUTRAL FOR RANGE CHANGE** is displayed.

Note: *Do not attempt to make moving range changes at speeds of 3 km/h (2 mph) or less.*

Changing from High to Low on the move

With the vehicle slowing down and travelling no faster than 40 km/h (24 mph), first select **N** in the main gearbox. Press the rear of the transfer gear switch and release.

Indication of the range change status is the same as for the stationary method.

Now select **D** or manual CommandShift mode. The transmission interlock prevents the engagement of a drive gear until the range change is complete.

Changing from Low to High on the move

With the vehicle travelling no faster than 60 km/h (38 mph), select **N** in the main gearbox. Press the front of the transfer gear switch and release.

Indication of the range change status is the same as for the stationary method.

Now select **D** (drive). The transmission interlock prevents the engagement of a drive gear until the range change is complete.

Caution: If the range change indicator still flashes when the ignition is turned off, apply the parking brake.

Transmission fault message

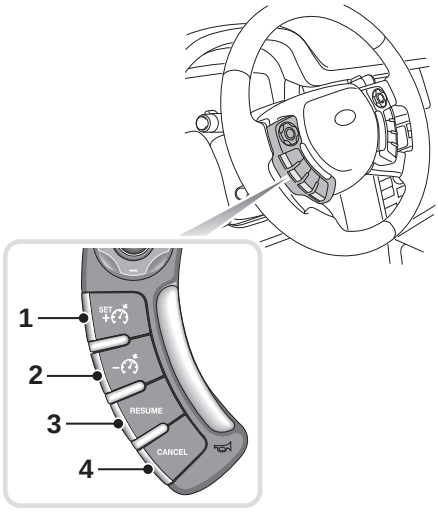
If a fault occurs within the transmission, a message will be displayed in the main message centre.

AUXILIARY EQUIPMENT

Caution: Do not use auxiliary equipment, such as roller generators, that are driven by only one or two wheels of the vehicle, as they will cause failure of the transfer gearbox.

CRUISE CONTROL

Cruise control enables the driver to maintain a constant road speed without using the accelerator pedal. This is particularly useful for motorway cruising or for any journey where a constant speed can be maintained for a lengthy period.



LAN1926

The cruise control system has four switches:

1. **+** Accelerate/Set switch
2. **-** Decelerate switch
3. **Resume** switch
4. **Cancel** switch

WARNING

Do not use cruise control on winding or slippery road surfaces, or in traffic conditions where a constant speed cannot be easily maintained.

Caution: Always observe the following precautions:

- **Do not use cruise control when using reverse gear.**
- **Do not use cruise control in off-road conditions such as rough tracks or on sand.**
- **Use of Sport mode is not recommended when cruise control is selected.**

Note: *Cruise control is not available when the vehicle is being driven in Low range gears.*

To operate

1. Accelerate until the desired cruising speed is reached. This must be above the system's operational minimum speed of 32 km/h (20 mph).
2. Press the **+** switch to set the vehicle speed in the system's memory. Cruise control will now maintain that road speed without the need for operation of the accelerator pedal.

Target speed marker

When the target speed has been set a green marker will appear. The marker will be shown on the speedometer at the set speed. If the set speed is adjusted the marker will move up or down accordingly.

To reduce the cruising speed

Press and hold the Decelerate (**-**) switch; the vehicle speed will decrease. Release the switch as soon as the desired speed is reached. The vehicle speed at the point of switch release becomes the new set speed.

Alternatively, the set speed can be decreased incrementally by tapping the Decelerate (**-**) switch. Each press of the switch will decrease the speed by 2 km/h (1 mph).

Note: *Cruise control will not operate at speeds below 32 km/h (20 mph).*

To increase the set cruising speed:

WARNING

When setting cruise control to the speed limit, it is important to remember that it is possible for the vehicle speed to increase when travelling downhill. This may result in the vehicle exceeding the speed limit.

The driver must always ensure that a safe speed is maintained below the speed limit, taking account of traffic and road conditions.

Press and hold the **+** switch; the vehicle will accelerate. Release the switch as soon as the desired speed is reached.

The vehicle speed at the point of switch release becomes the new set speed.

Alternatively, the set speed can be increased incrementally by tapping the **+** switch. Each press of the switch will increase the speed by 2 km/h (1 mph).

A further alternative is to increase speed by normal use of the accelerator. When the desired speed is reached, press the **+** switch to set the cruise control.

Suspending cruise control

Cruise control will suspend when the gear selector is moved into neutral, or when the brake pedal is pressed or if HDC or DSC becomes active. Cruise control can also be suspended by a single press of the **Cancel** switch.

To resume cruise control at the previously set speed, press the **Resume** switch.

Adaptive cruise control (ACC)

PRINCIPLE OF OPERATION

The Adaptive Cruise Control (ACC) system is designed to assist the driver in maintaining a gap from the vehicle ahead, or maintaining a set road speed, if there is no slower vehicle ahead. The system is intended to assist the driver, when following other vehicles which are in the same lane and travelling in the same direction.

WARNING

ACC is not a collision warning or avoidance system. Additionally, ACC will not react to:

Stationary vehicles or vehicles moving at less than 10 km/h (6 mph).

Pedestrians or objects in the roadway.

Oncoming vehicles in the same lane.

The ACC system is based on the use of a radar, which projects a beam directly forward of the vehicle, to detect objects ahead.

The radar is mounted below the grille, to provide a clear view forward for the radar beam.

USING ACC

WARNING

Only use ACC when driving on main roads, with free flowing traffic.

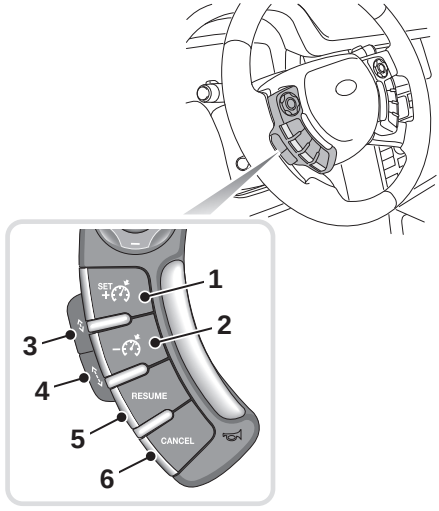
Do not use in poor visibility, specifically fog, heavy rain, spray or snow.

Do not use on icy or slippery roads.

It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times.

Keep the front of the vehicle free from dirt, metal badges or objects, including vehicle front protectors, which may interfere with radar operation.

Do not use ACC when entering or leaving a motorway.



LAN1948

The system is operated by controls mounted on the steering wheel. The driver can also intervene at any time by use of the brake or accelerator pedal.

The steering wheel controls operate as follows:

1. Speed adjust control: Press to increase.
2. Press to decrease the set speed.
3. Gap decrease.
4. Gap increase.
5. **RESUME** - Resumes the set speed after it has been cancelled.
6. **CANCEL** - Cancels but retains the set speed in memory.

Setting the speed

Accelerate as normal until the required speed is reached.

Press the speed adjust control (**+**), to store the speed in the memory and engage the system.

The set speed will be displayed on the message centre:

Changing the speed

There are three ways to change the set speed:

- Accelerate or brake to the desired speed then briefly press (**+**).
- Increase or decrease the speed by pressing the speed adjust buttons (**+**) or (**-**), until the required set speed is shown on the message centre. The vehicle speed will gradually change to the selected speed.
- Increase or decrease the speed in steps of 2 km/h (1 mph), by briefly pressing (**+**) or (**-**), until the desired speed is obtained.

ACC operates between approximately 30 km/h and 180 km/h (18 mph and 112 mph) dependent on the country specification.

Set speeds outside this range will not be captured.

The ACC may apply the brakes to slow down the vehicle to the new set speed. The new set speed will be displayed on the message centre until ACC is cancelled.

Follow mode gap settings

WARNING

When in follow mode, the vehicle will not decelerate automatically to a stop, nor will the vehicle always decelerate quickly enough to avoid a collision without driver intervention.

Once a set speed has been selected, the accelerator can be released and the set road speed will be maintained.

When a vehicle ahead enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed will be adjusted automatically until the gap to the vehicle ahead corresponds to the preset gap (Gap 3, identified by three chevrons is the default). The vehicle is now in follow mode.



The warning indicator in the instrument panel will be illuminated.

The message centre will display the gap set. The shortest (Gap 1), represented by one chevron and the longest (Gap 4), represented by four chevrons.

The vehicle will then maintain the time gap to the vehicle ahead, until:

- The vehicle ahead accelerates to a speed above the set speed.
- The vehicle ahead moves out of lane or out of view.
- The vehicle ahead slows so that low speed automatic switch off occurs.
- A new gap distance is set.

If necessary, the brakes will be automatically applied to slow the vehicle, to maintain the gap to the vehicle in front.

The maximum braking which is applied by the ACC system is limited and can be overridden by the driver applying the brakes, if required.

Note: *Driver braking will cancel ACC.*

If the ACC system predicts that its maximum braking level will not be sufficient, then an audible warning will sound while the ACC continues to brake. **DRIVER INTERVENE** will be displayed on the message centre. The driver should take immediate action.

When in follow mode, the vehicle will automatically return to the set speed when the road ahead is clear, for instance when:

- The vehicle in front accelerates or changes lane.
- The driver changes lane to either side or enters an exit lane.

The driver should intervene if appropriate.

Changing the follow mode set gap

The gap to the vehicle ahead can be adjusted by pressing the gap increase/decrease controls on the steering wheel. Four gap settings are available and the selected gap is represented by the corresponding number of chevrons in front of the car icon displayed on the message centre (Gap1 = 1 chevron, Gap 4 = 4 chevrons). After the ignition is switched on, the default gap setting (Gap 3), will be automatically selected ready for ACC operation.

Note: *When the ignition is switched off, the gap setting will revert to the default setting (Gap 3) when switched on again.*

Note: *It is the driver's responsibility to select a gap appropriate to the driving conditions.*

Overriding the speed and follow mode

WARNING

Whenever the driver overrides the ACC by pressing the accelerator pedal, the ACC will not automatically apply the brakes to maintain the gap to any vehicle ahead.

The set speed and gap can be overridden by pressing the accelerator pedal when cruising at constant speed or in follow mode. If the vehicle is in follow mode, the warning indicator will extinguish when the ACC is overridden and **CRUISE OVERRIDE** will be displayed in the message centre. When the accelerator is released, ACC will operate again and vehicle speed will decrease to the set speed, or a lower speed when appropriate if follow mode is active.

Automatic low speed switch off

If vehicle speed decreases below 30 km/h (18 mph), the ACC system automatically switches off and the warning indicator will extinguish.

If the brakes were being applied by the ACC system, they will be slowly released.

This will be accompanied by an audible warning and **DRIVER INTERVENE** will be displayed in the message centre. The driver must take control.

Automatic switch off

ACC will disengage, but not clear the memory, when:

- The **CANCEL** button is pressed.
- The brake pedal is pressed.
- Neutral, Park or Reverse gear positions are selected.
- Dynamic Stability Control activates.

ACC will disengage, and clear the memory, when:

- The ignition is switched off
- Maximum vehicle speed is reached
- A fault occurs in the ACC system.

Resuming the speed and follow mode

Caution: RESUME should only be used if the driver is aware of the set speed and intends to return to it.

By pressing the **RESUME** button after ACC has been cancelled (e.g. after braking), the ACC will become active again, provided that the set speed memory has not been erased. The set speed will be displayed for four seconds and the original set speed will be resumed, unless a vehicle ahead causes follow mode to become active.

Hints on driving with ACC

The system acts by regulating the speed of the vehicle using engine control and the brakes. Gear changes may occur in response to deceleration or acceleration whilst in ACC.

ACC is not a collision avoidance system. However, during some situations, the system may provide the driver with an indication that intervention is required.

An audible alarm will sound, accompanied by the message **DRIVER INTERVENE**, if the ACC detects:

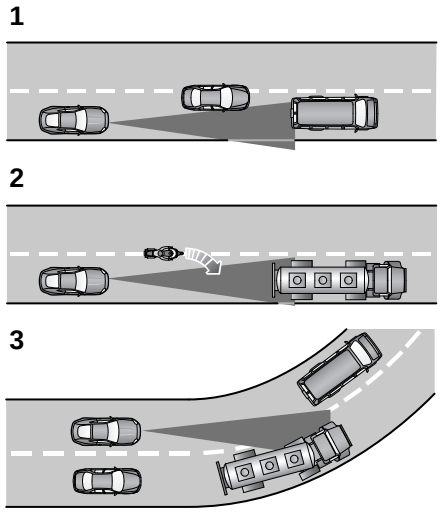
- A failure has occurred while the system is active.
- That using maximum ACC braking only is not sufficient.

Note: *Use of Sport Mode is not recommended. when ACC is engaged.*

Note: *When engaged, the accelerator pedal rests in the raised position. Fully release the pedal to allow normal ACC operation.*

Note: *When braking is applied by the ACC, the vehicle brake lamps will be switched on although the brake pedal will not move.*

Detection beam issues



E91498

Detection issues can occur:

1. When driving on a different line to the vehicle in front.
2. With vehicles that edge into your lane. They can only be detected once they have moved fully into your lane.
3. On bends in the road. There may be issues with the detection of vehicles in front, when going into and coming out of a bend.

Caution: In these cases, ACC may brake late or unexpectedly. The driver should stay alert and intervene if necessary.

ACC malfunction

If a malfunction occurs during operation of the system in cruise or follow modes, the ACC system will switch off and cannot be used until the fault is cleared. The message **DRIVER INTERVENE** appears briefly, and is then replaced by the message **CRUISE NOT AVAILABLE**. If malfunction of the ACC, or any related system, occurs at any other time, the message **CRUISE NOT AVAILABLE** will be displayed. It will not be possible to activate the ACC system in any mode.

Accumulations of dirt, snow or ice on the radar or cover, may inhibit ACC operation. Fitting of a vehicle front protector, applying stone chip protection or fitting metallised badges, may also affect ACC operation.

The ACC system relies on its radar to detect objects and constantly scans ahead. If the radar detects no objects ahead in ACC or follow mode, then the ACC will be deactivated, the audible alarm sounds and the message **DRIVER INTERVENE** displays briefly. The message **ACC SENSOR BLOCKED** will then be displayed.

The same messages may also be displayed while driving on open roads with few roadside objects for the radar to detect or in heavy rain.

Clearing the obstruction allows the system to return to normal operation. If the obstruction is present when ACC is inactive, e.g. on initial starting or with the ACC system switched off, the message **ACC SENSOR BLOCKED** will be displayed.

Tyres other than those recommended may have different sizes. This can affect the correct operation of the ACC.

Adverse weather conditions

WARNING

Do not use in poor visibility, specifically fog, heavy rain, spray or snow.

Do not use on icy or slippery roads.

During adverse weather conditions such as heavy rain or snowfall, the sensitivity of radar blockage detection is increased, so that it can correctly detect any reduced performance caused by a blocked sensor.

During these conditions, the warning message **ACC SENSOR BLOCKED** may be displayed more frequently, especially in areas where there are few roadside objects for the radar to detect.

FORWARD ALERT FUNCTION

Limited detection and warning of objects ahead is provided during ACC operation by the ACC **FORWARD ALERT** warning.

The enhanced Forward Alert feature additionally provides warnings whilst ACC is not engaged; if an object is detected close ahead, then the warning tone and message will be issued. The brakes will not be applied. The Forward Alert system does not initiate any action, the driver must take appropriate action when the **FORWARD ALERT** message is displayed. However, the system monitors driver actions (e.g. braking, steering or indicating) and may not initiate the warning display if the appropriate action has been taken early enough.

This Forward Alert feature may be switched on or off using the instrument panel menu.
See **USING THE MENU** (page 68).



When this indicator in the message centre is on, Forward Alert is active.

The sensitivity of the warning may be changed:

- Use the gap decrease button on the steering wheel when ACC is disengaged to display and then decrease the sensitivity of the alert.
- Use the gap increase button on the steering wheel to display and then increase the sensitivity of the alert.

Both of these alerts are accompanied by the message **FORWARD ALERT** in the message centre.

After an ignition cycle of Off and On, Forward Alert settings remain as previously set.

ADVANCED EMERGENCY BRAKE ASSIST

WARNING

Advanced Emergency Brake Assist, is an additional safety system and is not intended to relieve the driver of the responsibility for exercising due care and attention when driving.

On vehicles fitted with Advanced Emergency Brake Assist, brake response is improved during emergency braking when a moving vehicle is detected close ahead.

Advanced Emergency Brake Assist activates If the risk of collision increases after the **FORWARD ALERT** warning is displayed. The brakes are automatically applied gently in preparation for rapid braking (which may be noticeable). If the brake pedal is then pressed quickly, then braking is implemented fully, even if the pressure on the pedal is light.
See **Emergency Brake Assist (EBA)** (page 164).

Advanced Emergency Brake Assist is available at speeds above approximately 7 km/h (5 mph) and will function even if Forward Alert and Adaptive Cruise Control are switched off. A fault with the system will be indicated by the warning **FORWARD ALERT UNAVAILABLE** appearing in the message centre. Advanced Emergency Brake Assist will not be available until the fault is rectified.

Caution:

The system may not react to slow moving vehicles and will not react to stationary vehicles or vehicles not travelling in the same direction as your vehicle.

Caution:

Advanced Emergency Brake Assist can only improve braking performance if the driver applies the brakes.

Caution:

Warnings may not appear if the distance to the vehicle ahead is very small or if steering wheel and pedal movements are large (e.g. to avoid a collision).

Caution:

Advanced Emergency Brake Assist utilises the same radar sensor as Adaptive Cruise Control and Forward Alert - the same limitations of performance apply.

FOOT BRAKE

WARNING

Do not rest your foot on the brake pedal while travelling as this may overheat the brakes, reduce their efficiency and cause excessive wear.

Never allow the vehicle to freewheel with the engine turned off as braking assistance will not be available. The pedal brakes will still function, but more pressure will be required to operate them.

If the Red brake warning indicator should illuminate while the vehicle is in motion, bring the vehicle to a halt as quickly as traffic conditions and safety allow and seek qualified assistance before continuing. See Warning Indicators (page 71).

Never place a non-approved floor matting or any other obstructions under the brake pedal. This restricts pedal travel and braking efficiency.

The hydraulic braking system operates through dual circuits. If one circuit should fail, the other will continue to function.

In these circumstances, exercise extreme caution and be aware that increased brake pedal travel, greater pedal pressure, and longer stopping distances will be experienced.

Servo assistance

The braking system is servo assisted, but only when the engine is running. Without this assistance greater braking effort is necessary to safely control the vehicle, resulting in longer stopping distances. Always observe the following precautions:

- Always take particular care when being towed with the engine turned off.
- If the engine should stop for any reason while the vehicle is in motion, bring the vehicle to a halt as quickly as traffic conditions safely allow and do not pump the brake pedal, as the braking system may lose any remaining assistance available.

Wet conditions

Driving through water or even very heavy rain may adversely affect braking efficiency. Always dry the braking surfaces by intermittent light application of the brakes, first ensuring that you are at a safe distance from other road users.

Brake pads

Brake pads require a period of bedding in. For the first 800 km (500 miles), you should avoid situations where heavy braking is required.

Remember, regular servicing is vital to ensure that the brake pads are examined for wear and changed periodically to ensure long term safety and optimum performance.

ANTI-LOCK BRAKING SYSTEM (ABS)

WARNING

ABS cannot overcome the physical limitations of stopping the vehicle in too short a distance, cornering at too high a speed, or the danger of aquaplaning, i.e. where a layer of water prevents adequate contact between the tyres and the road surface.

The fact that a vehicle is fitted with ABS must never tempt the driver into taking risks that could affect his/her safety or that of other road users. In all cases, it remains the driver's responsibility to drive within normal safety margins, having due consideration for prevailing weather and traffic conditions.

WARNING

The driver should always take account of the surface to be travelled over and the fact that brake pedal reactions will be different to those experienced on a vehicle without ABS.

The anti-lock brake system (ABS) helps the driver to maintain full steering and directional stability during emergency braking, by preventing the road wheels from locking and skidding. ABS constantly monitors the speed of each road wheel and varies brake pressure to each, according to the available grip. ABS optimises the tyre-to-road adhesion under maximum braking.

When ABS is activated, you will feel a pulsating effect on the brake pedal. This is normal and you must **maintain maximum pressure** on the brake pedal.

No matter how hard you brake, dependent on road conditions, you should be able to continue steering the vehicle as normal.

ABS will enable you to steer around obstacles during emergency braking. ABS will not eliminate dangers inherent when;

- driving too close to the vehicle in front of you.
- aquaplaning.
- cornering with excessive speed.
- negotiating poor road surfaces.

Precautions:

- Do not pump the brake pedal at any time; this will interrupt operation of the system and may increase the stopping distance.
- Never place additional floor matting or any other obstruction under the brake pedal. This restricts pedal travel and may impair brake efficiency.

Warning indicator



If a fault is detected in the ABS, the ABS warning indicator will illuminate. Drive with care if the ABS warning indicator illuminates or remains on after the bulb check cycle. The brake system will continue to function normally, but without ABS braking.

WARNING

If the ABS warning indicator illuminates when driving, avoid heavy braking. Seek qualified assistance as soon as possible. Failure to follow this instruction may lead to personal injury or loss of vehicle control.

Off-road driving

While anti-lock braking will operate in off-road driving conditions, on certain surfaces total reliance on the system may be unwise. It cannot reliably compensate for driver error or inexperience on difficult off-road surfaces.

Note the following:

- On soft or deep surfaces such as powdery snow, sand or gravel, and on extremely rough ground, the braking distance required by the anti-lock braking system may be greater than for normal braking, even though improved steering would be experienced. This is because the natural action of locked wheels on soft surfaces is to build up a wedge of surface material in front which assists the wheels to stop.
- If the vehicle is stopped on a very steep slope where little traction is available, it may slide with the wheels locked because there is no wheel rotation to provide a signal to the ABS. To counteract this, briefly release the brakes to permit some wheel movement, then re-apply the brakes to allow ABS to gain control.
- Before driving off-road, read and thoroughly understand the **Off-road driving** section of this handbook.

Cornering Brake Control (CBC)

Cornering brake control (CBC) is an advanced form of ABS, which maintains vehicle stability and steering control during braking whilst cornering or changing lanes at speed.

Emergency Brake Assist (EBA)

If the brake pedal is depressed rapidly, EBA automatically boosts the braking force to a maximum and thus helps to stop the vehicle. Also, if the driver brakes more slowly, but with sufficient brake pressure to activate ABS on both front wheels, the system automatically increases the braking force so that all four wheels are in ABS control, optimising the performance of the ABS system.

Pressure should be maintained on the brake pedal during the entire brake application. If the brake pedal is released, EBA will cease operation.

A fault with the EBA system is indicated by illumination of the amber brake warning indicator. See **Warning Indicators** (page 71).

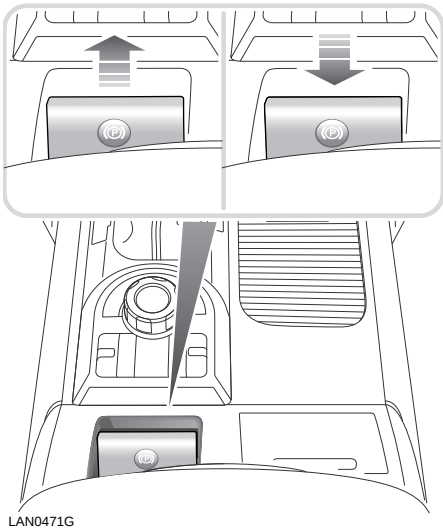
Electronic Brake Distribution (EBD)

Your vehicle is equipped with Electronic Brake Distribution (EBD), which balances the distribution of braking forces between front and rear axles to maintain maximum braking efficiency under all vehicle loading conditions.

For example; under light loads EBD applies less effort to the rear brakes to maintain vehicle stability, conversely allowing full braking effort to the rear wheels when the vehicle is towing or is heavily laden.

A fault with the EBD system is indicated by illumination of the red brake warning indicator. See **Warning Indicators** (page 71). If this illuminates while the vehicle is being driven, gently stop the vehicle as soon as safety permit and seek qualified assistance.

ELECTRONIC PARKING BRAKE (EPB)


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Applying the EPB manually

With the vehicle stationary, pull up the lever and release it. The lever will return to the neutral position, and the red EPB warning indicator in the instrument pack will illuminate.

It is important to confirm that the red warning indicator is continuously illuminated (not flashing). This indicates that the EPB has been correctly applied.

If the lever is operated while the vehicle is travelling at less than 3 km/h (2 mph), the vehicle will be brought to a stop abruptly. The stop lamps will not illuminate.

If the system detects a fault with the EPB, the warning indicator will illuminate yellow and is accompanied by a message on the message centre. If a fault is detected while EPB is operated, the warning indicators will flash red and illuminate yellow. Also the message **PARKBRAKE FAULT. SYSTEM NOT FUNCTIONAL** will appear in the message centre. The indicator will continue to be illuminated for at least ten seconds after the ignition has been switched off.

WARNING

The EPB operates on the rear wheels of the vehicle and hence secure parking of the vehicle is dependent on being on a hard and stable surface.

Do not rely on the EPB to operate effectively if the vehicle has been subjected to immersion in mud and water.

Do not rely on the EPB system to hold the vehicle stationary if the yellow EPB warning indicator is illuminated and/or the red warning indicator is flashing. Seek qualified assistance urgently.

Fault management

Under certain fault conditions it may be possible to apply the EPB. Switch off the ignition, press and hold the EPB switch for 10 seconds. The red warning indicator will come on continuously to indicate that the EPB has been applied.

Note: *Under some transmission fault conditions, the parking brake may not function or may not operate automatically.*

Dynamic operation

In an emergency, the parking brake can be applied dynamically, i.e. with the vehicle travelling at more than 3 km/h (2 mph). Pulling up on the lever and holding it up gives a reduction in speed. The brake warning indicator will illuminate accompanied by a harsh sound and **CAUTION! PARK BRAKE APPLIED** appears on the main message centre. The stop lamps will illuminate.

Releasing or depressing the lever will cancel the EPB application.

The EPB should not be used regularly to decelerate the vehicle or to bring it to a standstill; this facility is intended for emergency use only.

Caution: Driving the vehicle with the parking brake applied (other than in the emergency situation described above) or repeated use of the parking brake to decelerate the vehicle may cause serious damage to the brake system.

Releasing the EPB manually

To disengage the EPB, the ignition must be switched on. Apply pressure to the foot brake while pressing down on the EPB lever.

It is not possible to manually release the EPB without pressing the foot brake.

If the EPB cannot be released manually, seek qualified assistance immediately.

Releasing the EPB automatically

If the vehicle is stationary with the EPB applied and the transmission in **D** or **R**, pressing the accelerator will release the EPB and allow the vehicle to move off.

With the transmission in CommandShift™ mode, automatic release is available in **1**st and **2**nd gears in High range and in **1**st, **2**nd and **3**rd, in Low range.

Automatic release of the EPB is only possible when the driver's door is closed and the driver's seat belt is buckled.

To delay the automatic release feature, hold the lever in the applied position, then at the desired point, release it.

In the event of a fault, **PARK BRAKE FAULT. AUTO RELEASE NOT FUNCTIONAL** will appear in the message centre. In this event, release the EPB manually.

Under most conditions the EPB system will release seamlessly as the accelerator is applied, allowing the vehicle to move. However, release times may be extended for an initial time period at the start of a journey when changing into gear from **P** or **N**. This is normal and is to allow for the extended gear engagement times that may occur under certain circumstances.

If the vehicle is used in severe off-road conditions, such as wading, deep mud, etc., additional maintenance and adjustment of the parking brake will be required. Consult your Land Rover Dealer/Authorised Repairer.

Applying the EPB automatically

EPB will be applied automatically if the ignition is switched off and the vehicle speed is below 3 km/h (2 mph).

To prevent an automatic application, when the vehicle is stationary press and hold the EPB switch in the release position. Within 5 seconds switch off the ignition and hold the EPB switch for a further 2 seconds.

DYNAMIC STABILITY CONTROL

WARNING

Dynamic Stability Control (DSC) is unable to compensate for driver misjudgment. It remains the driver's responsibility to drive with due care and attention in a manner which is safe for the vehicle, its occupants and the other road users.

Dynamic Stability Control (DSC) optimises vehicle stability, even in critical driving situations. The system controls dynamic stability when accelerating and when starting from a standstill. Additionally, it identifies unstable driving behaviour, such as understeer and oversteer and helps to keep the vehicle under control by manipulating the engine output and applying the brakes at individual wheels. Some noise may be generated when the brakes are applied.

Warning indicator



Illuminates as a bulb and system check when the ignition is switched on and should extinguish when the engine is running.

If the warning indicator flashes rapidly the system is active, regulating engine output and brake forces.

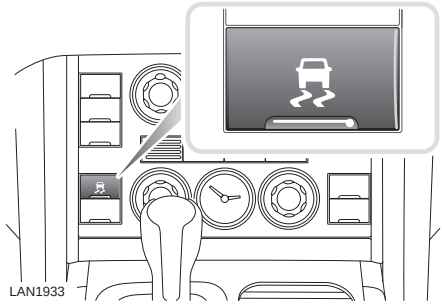
If a fault occurs the warning indicator will illuminate and remain on continuously. The vehicle can still be driven with care, but be aware that driving characteristics of the vehicle may change in adverse conditions.

Deactivating DSC operation

Land Rover recommend that DSC is operational in all normal driving conditions.

In some driving conditions, where forward traction should be maximised, it may be beneficial to deactivate DSC. Such conditions include:

- To rock the vehicle out of a hollow or out of a soft surface.
- Starting in deep snow or on a loose surface.
- Driving in deep sand.
- Driving on tracks with deep longitudinal ruts.
- Driving through deep mud.





To deactivate DSC, press the DSC switch on the facia (the DSC off warning indicator will illuminate continuously).

Deactivating DSC also reduces the level of Electronic Traction Control intervention and may lead to an increase in wheel spin.

Reactivating DSC

To reactivate DSC, press the DSC switch on the facia. DSC will automatically reactivate when the engine is started.

ROLL STABILITY CONTROL(RSC)

WARNING

No electronic system can remove the need for safe driving practice. RSC can help to maintain control of the vehicle. It cannot regain control of the vehicle if it has been lost, or overcome driver errors. Always drive with due consideration for the prevailing road and weather conditions.

RSC works in conjunction with DSC to try and prevent vehicle roll-over. If the system senses that the vehicle is approaching roll-over it will reduce engine power and use the ABS system to reduce the chance of roll-over.

TRAILER STABILITY ASSIST

When the trailer electrical socket is in use trailer stability assist monitors the vehicle's motion when a speed of 60 km/h (37 mph) or above is reached. If vehicle behaviour associated with the trailer swaying is noted engine and braking management systems will operate to stabilise the vehicle and trailer.

Note: *Trailer stability assist will not operate when DSC is switched off.*

Functionality may be reduced when travelling on slippery surfaces.

The system will not function in the event of the trailer jack-knifing.

The system may still operate without a trailer connected, but the socket is in use. Using a cycle rack and light board for example.

ELECTRONIC TRACTION CONTROL

In conditions where one or more wheels has a tendency to spin, Electronic Traction Control (ETC) works with the Dynamic Stability Control (DSC) system to improve mobility.

If a wheel is spinning, ETC automatically brakes that wheel until it regains grip. This braking activity causes the engine power to be transferred to the remaining wheels. Some noise may be generated when the brakes are applied.

Note: *Deactivating DSC will also change the level of ETC intervention. When a wheel starts to spin, ETC will still brake that wheel, however, the engine torque output will not be limited by the system. This may improve vehicle mobility in certain situations, but will also increase levels of ground damage and load upon brakes.*

Warning indicator



The warning indicator in the instrument pack illuminates briefly when the ignition is switched on.

The warning lamp flashes if ETC or DSC is activated and continues to flash until the vehicle regains traction and stability.

A fault with the ETC system is indicated by the DSC warning indicator illuminating continuously.

Any fault will deactivate ETC. Drive with care and seek qualified assistance as soon as possible.

SAND LAUNCH CONTROL

Sand launch control is automatically enabled when the Sand special program is selected on the Terrain Response system.

When pulling away from stationary on sand and other dry, yielding ground, excessive wheel spin can cause the wheels to dig downwards preventing forward movement. Sand launch control limits the amount of wheel spin allowing a gradual controlled pull away even if full throttle is applied.

ROCK CRAWL PRECHARGE

Rock Crawl precharge is automatically enabled when the Rock Crawl special program is selected on the Terrain Response system.

Rock Crawl precharge applies a small amount of brake pressure to each brake calliper during low speed driving. This improves brake and traction control response times helping to reduce forward/backward vehicle roll when cresting an obstacle or releasing the accelerator pedal.

ADAPTIVE DYNAMICS

The Adaptive Dynamics system continuously monitors inputs from both the road and driver, and optimises the settings of the vehicle suspension for ride comfort and control.

If the message centre displays the message **ADAPTIVE DYNAMICS FAULT** accompanied by an amber warning triangle, a fault has been detected with the system and you may experience some degradation in ride comfort. If the message occurs repeatedly, have the vehicle checked by a Land Rover Dealer/ Authorised Repairer at the earliest opportunity.

HILL DESCENT CONTROL

HDC operates in conjunction with the anti-lock braking system to provide greater control in off-road situations particularly when descending severe gradients.

HDC can be used in **D**, **R** and CommandShift. When in **D**, HDC will automatically select the most appropriate gear to enable a controlled descent. The vehicle should not be driven with the HDC active in **N** neutral, unless the driver is changing gear range using the transfer gearbox.

Note: *Some of the Terrain Response program/ range combinations will activate and deactivate HDC automatically. If HDC is selected manually, it will not be deactivated by Terrain Response.*

Gradient release control (GRC)

With HDC activated, if the vehicle is stopped on a slope using the footbrake, GRC will become active (except in Terrain Response sand program). During a hill ascent when the footbrake is released GRC will automatically delay the brake release to allow the driver to take up drive, and build up engine torque. The brakes will then gradually release to allow the vehicle to move smoothly away. When descending a hill, a similar brake hold and gradual release is employed to provide a smooth transition in to HDC control.

GRC operates in forward and reverse, and requires no driver intervention.

HDC information indicator



HDC can be selected at speeds below 80 km/h (50 mph), but the vehicle has to be travelling at less than 50 km/h (30 mph) for the system to operate.

The green HDC information indicator will illuminate continuously when HDC operating conditions are met; e.g. vehicle speed reduces below 50 km/h (30 mph) - and HDC is activated.

If the information indicator is flashing, HDC has been selected, but the system's operating conditions have not been met (e.g. the vehicle is travelling too fast), or HDC fade-out is occurring. See **HDC fade-out** (page 173).

If HDC is already selected and vehicle speed rises above 50 km/h (30 mph), HDC is suspended and the information indicator will flash. A message will also appear in the main message centre.

HDC speed indicator

Once set the operating speed range will be shown using a green marker. The marker will be displayed on the speedometer next to the target speed range.

To select HDC



LAN1972

Press and release the switch (arrowed) to select HDC (HDC information indicator illuminates). To deselect, press and release again (indicator extinguishes).

Hill Descent Control (HDC)

If HDC is deselected when HDC is operating, the system fades out, allowing the vehicle to gradually increase in speed.

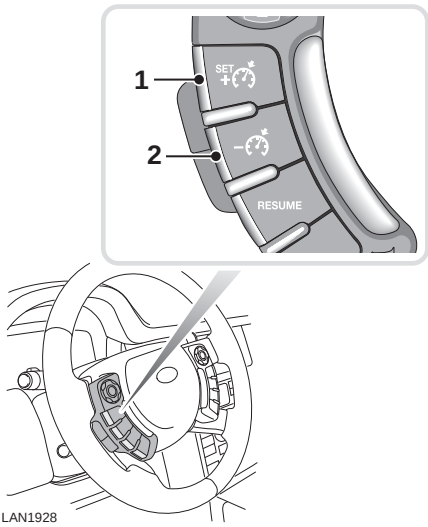
When used in Low range, HDC is able to control the vehicle to a lower target speed. Use Low range gears when steep descents are to be attempted.

Note: *HDC is automatically deselected if the vehicle ignition is switched off for more than 6 hours.*

HDC in action

HDC should be used in conjunction with an appropriate gear selection. HDC can be used in **D**, **R** and CommandShift. When in **D**, HDC will automatically select the most appropriate gear to enable a controlled descent.

During a descent, HDC will maintain a target speed of up to a maximum of 20 km/h (12 mph) in low range, and 30 km/h (19 mph) in high range. If engine braking is insufficient to control the vehicle speed, HDC automatically operates the brakes to slow the vehicle and maintain a speed relative to the selected gear range and the accelerator pedal position.



While HDC is controlling the vehicle speed, the target speed can be varied using the steering wheel-mounted cruise control (1) **+** and (2) **-** switches. To reduce the target descent speed, press and hold the **-** switch. The vehicle speed at the point of switch release will become the new target speed.

To set the minimum target speed for the selected gear, bring the vehicle to a halt using the foot brake, before releasing the foot brake and beginning the descent.

Note: *Each gear has a pre-defined minimum descent speed.*

To increase the target descent speed, press and hold the **+** switch. The vehicle speed at the point of switch release will become the new target speed. Alternatively, the target speed can be adjusted by tapping the **+** or **-** switches. Each press of the switch will adjust the target speed by approximately 0.5 km/h (0.3 mph).

Note: *The descent speed will only increase if the gradient is sufficiently steep to cause the vehicle to accelerate as the braking effect is reduced. On a shallow slope, pressing the* ***+*** *switch may result in no speed increase.*

When driving off-road, HDC can be permanently selected to ensure that control is maintained. ABS and traction control are still fully operational and will assist if the need arises.

Note: *With HDC selected, gear changes can be carried out in the normal way.*

If the brake pedal is depressed when HDC is active, HDC is overridden and the brakes will perform as normal (a pulsation might be felt through the brake pedal). If the brake pedal is then released, HDC will recommence operating at the speed at which the brakes were released.

In extreme circumstances, the HDC system may cause brake temperatures to exceed their pre-set limits. If this occurs, **HDC TEMPORARILY UNAVAILABLE** will be displayed in the message centre. HDC will then fade out and become temporarily inactive. HDC will not be available until the brakes reach an acceptable temperature, at which time the warning message will disappear from the message centre and HDC will, if required, resume operating.

If a fault is detected in the HDC system, **HDC NOT AVAILABLE SYSTEM FAULT** will appear in the message centre. If the fault is detected while the system is active, HDC will fade out. Do not attempt a steep descent when HDC is unavailable or use a very low gear and/or the foot brake. If a fault has been detected, consult your Land Rover Dealer/Authorised Repairer at the earliest opportunity.

HDC fade-out

HDC fade-out regulates the vehicle's acceleration in a controlled manner, by reducing brake pressure, until the rate of hill descent is controlled by engine braking alone. HDC will then enter stand-by mode. During fade-out, the HDC information indicator will flash.

If required (e.g. the angle of the descent levels out significantly), fade-out may be achieved deliberately by deselecting HDC while the system is operating - the information indicator will extinguish.

AIR SUSPENSION

The air suspension system maintains the correct vehicle height by controlling the quantity of air in the vehicle's air springs.

Unless stated otherwise, height changes may only be made while the engine is running and the driver and passenger doors are closed.

When the air suspension system lifts the vehicle, it normally uses compressed air stored in its reservoir. The suspension will rise much more slowly if this reservoir is depleted due to repeated raising and lowering of the suspension.

On-road height

The normal height for the vehicle.

Off-road height

This is 55 mm (2.2 in.) higher than On-road height. It provides improved ground clearance and approach, departure and break-over angles. See **VEHICLE DIMENSIONS** (page 258).

Off-road height can be selected at any speed up to 40 km/h (24 mph). When the system is at Off-road height, the system will automatically select On-road height if the vehicle speed exceeds 50 km/h (30 mph).

Note: *When using Terrain Response, some of its programs/range combinations will adjust suspension height automatically*

Access height

This is 40 mm (1.6 in.) lower than On-road height. It provides easier entry, exit and loading of the vehicle.

Access height can be selected at any time, but the system response will depend on the vehicle's speed:

- If the vehicle speed is greater than 20 km/h (12 mph), the suspension will wait for up to one minute for the vehicle to slow down. If the vehicle does not slow down to below 20 km/h (12 mph) within this time, the Access height request will be cancelled.
- If the vehicle speed is less than 20 km/h (12 mph), the suspension will move to a part-lowered height and remain at this height for up to one minute. If the vehicle does not slow down to 8 km/h (5 mph) within this time, the Access height request will be cancelled.
- If the vehicle speed is lower than 8 km/h (5 mph), the suspension will be lowered to Access height immediately.

Access height may be selected up to 40 seconds after the ignition is switched off, provided that the driver's door has not been opened within this time.

WARNING

The driver should ensure that the vehicle is clear of obstacles and people before lowering the vehicle. Remember that, for example, the clearance under the floor and bumpers, and in the wheel arches, will be 95 mm (3.7 in.) less at Access height than at Off-road height.

The suspension will automatically rise from Access height when the vehicle speed exceeds 8 km/h (5 mph) for 5 seconds. If the speed exceeds 13 km/h (8 mph) the suspension will rise and remain in the higher position until the driver selects a new setting.

If Access height was selected directly from Off-road height, the system will return to Off-road height when the vehicle speed exceeds 10 km/h (6 mph). Otherwise the system will lift the suspension to On-road height.

Crawl (locked at Access height)

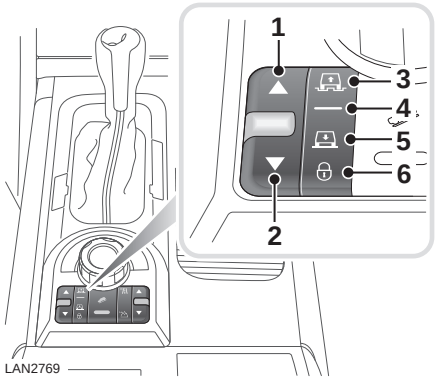
This mode enables the vehicle to be driven at low speeds at Access height to give increased roof clearance in low car parks, etc.

Crawl can be selected when the vehicle speed is below 35 km/h (22 mph). When the vehicle is in Crawl, On-road height will be selected automatically if the vehicle speed exceeds 40 km/h (24 mph). This will be preceded by a warning message and a chime.

Messages

Messages relating to the air suspension system will be displayed in the main message centre. See **INFORMATION MESSAGES** (page 76). Some messages are accompanied by a chime.

Adjusting suspension heights



1. Raise switch and indicator
2. Lower switch and indicator
3. Off-road indicator
4. On-road indicator
5. Access indicator
6. Lock indicator

Suspension heights

The raise/lower switch (**1** or **2**) is used to move up or down through the suspension heights. Indicators (**3**), (**4**) or (**5**) will be lit to show the height selected. A message indicating the suspension height will also be displayed in the message centre when Off-road, Access or Crawl is selected.

The raise/lower switch indicators will be lit to show the direction of movement. They extinguish when the height change movement is completed.

If a height change is requested that is not allowed, such as attempting to raise the height of the vehicle with the engine not running, the raise/lower indicators will flash twice and a chime will sound. A message will be displayed on the message centre.

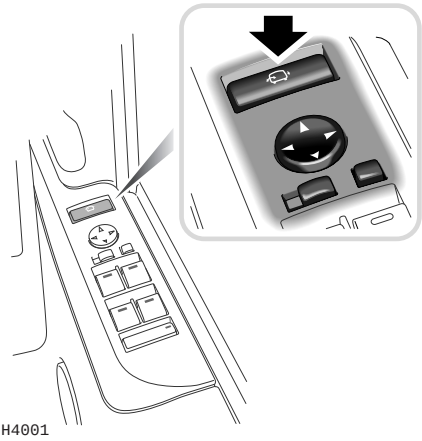
A flashing switch indicator indicates that the system is in a waiting state or shows that it will automatically override the driver's choice if speed criteria are exceeded.

Selecting Access height

If Access height is selected above 20 km/h (12 mph), indicator (**5**) will flash while the system waits for the vehicle to slow down.

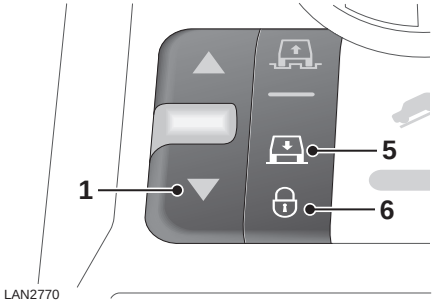
When the vehicle slows down to 20 km/h (12 mph), indicator (**4**) will extinguish as the system goes to the part-lowered height. indicator (**5**) will be lit and the raise/lower indicator will continue to flash.

When the vehicle slows down to 8 km/h (5 mph), indicator (**5**) and the raise/lower indicator will be lit. When Access height is reached, the raise lower indicator will extinguish.



Access height may be selected directly by pressing the Access switch on the driver's door panel.

Selecting and cancelling Crawl (locked at Access height)



When the suspension is at On-road or Access height and the vehicle speed is below 35 km/h (22 mph), press the lower switch (**1**) for one second. Indicators (**5**) and (**6**) will be lit to confirm the selection.

Crawl can be cancelled manually by pressing the raise switch for one second. Indicator (**6**) will extinguish.

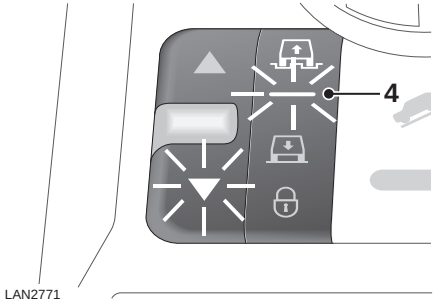
Note: *When Crawl is cancelled, the suspension will rise to On-road height when the vehicle speed exceeds 8 km/h (5 mph) for 5 seconds. If the speed exceeds 13 km/h (8 mph) the suspension will rise and remain in the higher position until the driver selects a new setting.*

Selecting Access height directly from Off-road height

When the suspension is at Off-road height, press the lower switch (**1**) then press it again before its indicator goes out.

The system will remember to return the suspension to Off-road height automatically if the vehicle exceeds 8 km/h (5 mph) for 5 seconds. If the speed exceeds 13 km/h (8 mph) the suspension will rise and remain in the higher position until the driver selects a new setting.

Automatic height change warnings



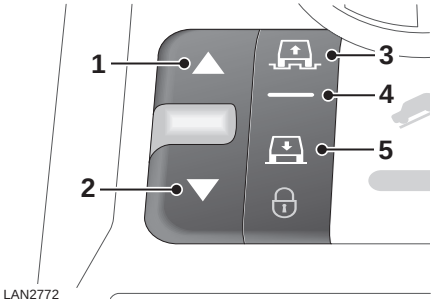
When the suspension is at Off-road height, Access or Crawl, the suspension height will change automatically when vehicle speed exceeds predetermined levels.

When the suspension is at Off-road height or Crawl, it warns the driver that the vehicle is approaching a speed threshold. A chime will sound, a message will be displayed on the message centre and the On-road indicator (**4**) and either the raise or lower indicator will flash.

The Off-road height speed warning is shown above. If the vehicle slows down, the warning will disappear.

Door open override

If a door is opened during a height change while the vehicle is at rest, the height change will be restricted.



The indicator for the target height (**3**, **4** or **5**) will remain lit and the raise or lower indicator will flash.

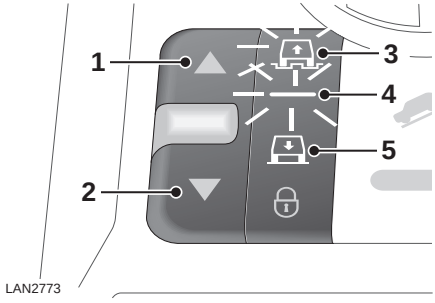
The height change will resume if all of the doors are closed within 90 seconds.

If the doors are not closed within this time, the indicator will extinguish and the indicators showing the heights above and below the current position will be illuminated.

Selecting a new height using the raise/lower switches (**1** or **2**), or driving off will reset the system.

Extended mode

If the vehicle is grounded and traction control is induced, the system raises the vehicle by 35 mm (1.4 in.) to clear the obstruction. Extended mode is activated automatically and cannot be selected manually.



When Extended mode is activated, indicator (**3**) will flash if the suspension is above Off-road height. Indicators (**3**) and (**4**) will flash if the suspension is between Off-road and On-road heights. Indicators (**4**) and (**5**) will flash if the suspension is between On-road and Access heights. A message will be displayed on the message centre.

To exit Extended mode, either press the raise/lower switches (**1** or **2**) briefly up or down, or drive the vehicle at a speed greater than 5 km/h (3 mph) for 30 seconds.

Additional lift whilst in extended mode

When Extended mode has been invoked and the automatic lifting of the vehicle has been completed, the driver can request an additional lift in order to clear the obstacle. This can be particularly useful when Extended mode has been invoked on soft surfaces.

To request additional lifting wait for the raising switch indicator to extinguish, then press and hold the switch (**1**) for 3 seconds while also pressing the brake pedal. A chime will sound to confirm that the request has been accepted. The raising switch indicator will be illuminated while the vehicle is being lifted.

Suspension freeze

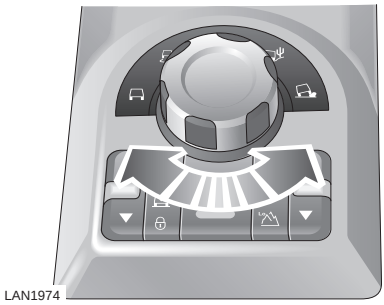
If the system is attempting to change the suspension height and it detects that the suspension is prevented from moving, the system will freeze all movements.

This can be caused by attempting to lower the vehicle onto an obstacle or attempting to lift the vehicle against an obstruction.

The symbols behave in the same way as described in Extended mode and the same message will be displayed on the message centre. As in Extended mode, to exit this freeze state, either press the switch (**1** or **2**) or drive the vehicle at a speed greater than 20 km/h (12 mph).

TERRAIN RESPONSE™

The Terrain Response system is permanently active, continuously providing benefits in traction and driveability. These can be further enhanced for specific on and off-road driving conditions by the selection of special programs, using one simple driver interface.


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This interface allows the driver to tell the vehicle what sort of terrain is to be driven over. Based on the selected special program, the system optimises the vehicle set-up for the prevailing conditions, providing the optimum in traction, driveability and vehicle composure.

The Terrain Response special programs automatically bring in changes in vehicle drive and suspension systems that have until now been only individually and manually controllable by the driver.

The systems comprising Terrain Response are:

- Engine management.
- Gearbox management.
- Intelligent differential control.
- Dynamic stability, traction control and HDC systems.
- Air suspension.

The system will provide a variable accelerator response, ranging from very cautious for slippery conditions (where a large pedal movement has only a small effect on engine power) to very responsive, for example, for sand, where engine power is allowed to rise more quickly.

This further extends the breadth of off-road capability of Land Rover vehicles. In addition, Terrain Response offers control of systems that have previously not been manually controllable.

Note: *Since each Terrain Response special program uses the optimum settings of each drive component - accelerator response, suspension, transmission, etc. - relative to the terrain being driven over, it follows that changing from one special program to another brings in a different set of criteria.*

This means that, for instance, the engine revs produced by the current accelerator pedal position might increase or decrease slightly in the new program, or the suspension could change height. The changes are not dramatic, but are noticeable.

To obtain the maximum benefits from the system, it is suggested that you first try it out in circumstances where any distraction will not affect other road users.

Terrain Response is designed to benefit the driver, regardless of the level of off-road driving experience. The enhanced traction system, with the control of many system parameters through one simple driver input, coupled with specific advice from the message centre, will aid drivers with limited off-road experience. Additionally, the system can back-up the skills of experienced drivers, who will also benefit from the wider performance envelope available through the special programs.

Using Terrain Response

The Terrain Response system is always active and can not be switched off. When the vehicle is started, the system will normally start in its General program (SPECIAL PROGRAMS OFF). Using the correct special program, will provide benefits in how the vehicle can be driven over different surfaces or terrains. It is recommended that a special program be engaged, whenever driving conditions could become difficult.

Depending on the terrain, it may be beneficial for the automatic transmission to change gear under different speed and load conditions. Each special program will provide the most appropriate gear-shift points for the terrain, including the most appropriate gear to set off in (i.e., second, High range, or third, Low range, in Grass-Gravel-Snow or first, Low range, when in Rock Crawl).

The amount of slip allowed in the electronically controlled differentials will be optimised continuously, both from the point of view of traction and vehicle stability.

Depending on the Terrain Response program selected, the control of the differentials will vary to provide the optimum settings.

Note: *Special programs should be engaged pro-actively - before starting to drive in particular conditions. They are not intended as a means of extracting a vehicle that has been driven into difficulties.*

The system has been designed to instil confidence regarding choice of special program, despite the fact that conditions associated with each program are distinctly different. However, the vehicle will be very capable under all circumstances, even when no special program is selected, as some sub-systems will react to the conditions where possible. In case of any uncertainties about the most appropriate special program selection, it will be best to leave the system in Terrain Response General program (SPECIAL PROGRAMS OFF) until terrain conditions become more distinct and a program choice can be made with more confidence.

The system is of particular use when driving off-road, but, even here, it should be used pro-actively and not be used as a means of retrieving control.

If a Terrain Response special program has been selected, then the transmission can be left in **D**. If descending a slippery slope, CommandShift **1** or **2** should be considered.

WARNING

When towing, the automatic vehicle height rise associated with using the system in low range, will be automatically prevented by the system. This will be indicated by a warning in the message centre. However, this function relies on the fitting of a Land-Rover approved towing electrical socket. Failure to fit a Land-Rover approved towing electrical socket or to follow these guidelines may lead to the vehicle being raised to Off-road height even with a trailer attached.

Driver over-ride options

All systems will be set to optimum parameters for the terrain conditions reflected in the choice of control program. The following two systems controlled by Terrain Response, may also be operated independently by the driver:

- Air suspension.
- Hill Descent Control.

In some special programs, the Terrain Response system will switch on HDC and in Low range the system will automatically move the suspension to Off-road height.

WARNING

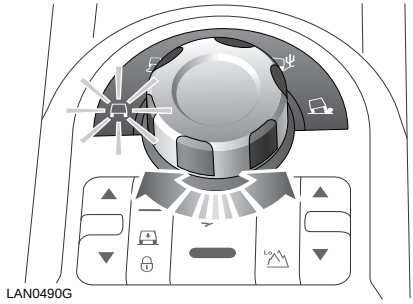
This height increase will start regardless of whether the vehicle is moving or not.

Both the HDC and ride height automatic selections can be cancelled by the driver at any time. Conversely, if HDC or a specific ride height has not been automatically selected by the system, the driver can always choose to operate it as normal at any time.

Whether the HDC or ride height options are being brought in automatically by the system, or manually by the driver, the changes of state will be confirmed through the message display and by the individual system information indicators. Use of the system in the special programs, particularly in low range, may prompt some driving advice and warnings as well as additional information to be displayed on the touch-screen and in the message centre.

Note: *Gear selection can be overridden by using the CommandShift function on the gearbox to lock the vehicle in a particular gear.*

Operation



A rotary knob just behind the gear lever can be rotated to select a special program. Turning the selector past either end of the selection range has no effect.

Four special programs are available:

- Grass/gravel/snow (also includes ice).
- Mud/ruts.
- Sand.
- Rock Crawl.

When the ignition is turned on, the graphics around the control knob are illuminated, with the active program highlighted in amber. The brightness of graphic illumination at night, is controlled as part of the instrument illumination control; the brightness of the amber lighting is high or low depending on the use of the headlamps.

When a Terrain Response program is selected, the corresponding symbol will be displayed on the message centre. The touch-screen will temporarily display an image of the rotary control selection followed by a description of the selected program.

If the ignition is turned off with a special program selected, then the system will remember for approximately six hours which program was selected and return to that program once the ignition is switched back on.

The system indicates, via the message centre, that the previously selected special program is still selected. When the ignition has been off continually for more than six hours, the Terrain Response system defaults to the General program (SPECIAL PROGRAMS OFF) with the exception of the Grass Gravel Snow program, which will remain selected.

Terrain Response general (SPECIAL PROGRAMS OFF)



When the Terrain Response special programs are off, the system will be in its General program. This will be indicated by the above symbol being displayed in the message centre when the rotary control is turned counter clockwise. Sub-systems will adapt to the prevailing terrain conditions and select control settings based on the conditions sensed.

This program setting is compatible with all on and off-road terrain conditions. Normal conditions in which it is not necessary to select a specific program include driving on surfaces that closely match a hard road surface. Dry cobbles, Tarmac or even wooden planks are all included in the scope which consists of hard supportive surfaces with no loose coating of water, dust or similar material.

It is recommended that a special program be de-selected, once the specific conditions for its use no longer prevail. This is done by turning the selector knob back to the General program position.

When a special program is de-selected, all vehicle systems will be returned to their normal control settings. The one exception is HDC, which will remain active if it was manually selected previously. Also, as a precaution, the vehicle will change from raised to Normal ride height only when moving.

Grass-Gravel-Snow



Use this program for surfaces where the underlying base is fairly firm, but a coating of other material gives a tendency to slip. The coating can be water, slime, grass, snow or loose gravel, shale or pebbles, or even a thin coating of sand. This program should also be selected in icy conditions.

In this special program the Terrain Response systems will select settings to give the best traction, handling and driveability for predominantly slippery conditions. Hill Descent Control will be engaged automatically in low range, but can be manually de-selected. See **HILL DESCENT CONTROL** (page 171).

For use of the vehicle with snow chains fitted, See **SNOW CHAINS** (page 221).

Note: *When in deep snow, if the vehicle is struggling for forward traction or is stuck, then switching off Dynamic Stability Control (DSC) may be an advantage. If DSC is switched off, then it must be switched back on as soon as the difficulty is overcome.*

Mud-Ruts



Use this program when traversing ground that is not only muddy or deeply rutted, but possibly soft and uneven to the point of demanding maximum axle displacement. This unevenness can also be that brought about by sizeable wooden debris in the form of roots, brushwood, small logs, etc.

This acts like the previous program, except that it selects settings for the individual systems that optimise traction and driveability for muddy/rutted driving conditions, with driver over-ride options as before. The program is available in High and Low range, but Low range is recommended.

It is anticipated that this program will usually be used in low range. If not, the driver will be prompted to consider selecting low range. If the Mud-Ruts program and low range are selected together, the vehicle ride height will be raised automatically.

Sand



Use this program to drive on soft and predominantly dry, yielding sandy ground, such as dry beaches, dunes and sand deserts. Also consider using this program for deep gravel.

The Sand special program uses the control settings and software logic best suited to driving on sand, with the driver-override option as before.

In instances where the sand is damp or wet and soggy, the conditions are better addressed by the use of mud/ruts special program.

Note: *When in deep sand, if the vehicle is struggling for forward traction or is stuck, then switching off Dynamic Stability Control (DSC) may be an advantage. If DSC is switched off, then it must be switched back on as soon as the difficulty is overcome.*

Rock Crawl



Use this program to cross wet or dry, solid, unyielding ground, such as clusters of boulders, which demands high levels of road-wheel displacement and careful vehicle control. This program would also be used for crossing river beds strewn with large rock features submerged below water.

Unlike the other options, Rock Crawl is only selectable in Low range. If selection is attempted in High range, the special program selection will not be accepted and the driver will be prompted to select Low range. This special program will utilise system control settings to optimise the vehicle suspension and traction system for the conditions, which are likely to require extreme suspension articulation and good low-speed control.

Caution: Selection of a wholly inappropriate special program for the prevailing terrain conditions will not endanger the driver or immediately damage the vehicle. However, if continued, such an action will impair vehicle response to those conditions and will reduce the durability of the suspension and drive systems.

When a special program requires increased air suspension height, the system will automatically select it, unless it suspects that a trailer is attached because an electric load is seen on the trailer socket.

A message will be displayed on the message centre.

On screen surface advice

Information relating to the type of surface that each special program is suited to can be found on the touch screen via the **4 x 4 Info** soft key. From the **4 x 4 Info** screen, select the Terrain Response icon then the information icon. The displayed text is relevant to the currently selected Terrain Response program.

To view other descriptions, select another program.

Inappropriate special program selection

If an inappropriate special program is attempted to be selected - such as choosing Rock Crawl while in High range - the symbol of that program will flash amber, an audio warning will sound and the message centre will advise that the chosen special program is unavailable and will suggest corrective action to be taken.

If, after 60 seconds, the requirements have not been met, the warnings will cease and the message centre will show which program remains active.

Should the system become partly inoperable for any reason, it may not be possible to select certain special programs and a warning will be given when selection of an affected program is attempted. If the system should become totally inoperable, all of the control program symbols will be switched off and the message centre will display message.

The air suspension system provides an automatic levelling function. See **AIR SUSPENSION** (page 174). In circumstances where the system is used in Low range, it is most likely that mobility and vehicle composure would benefit from increased ground clearance.

System messages

Messages relating to the Terrain Response system are displayed on the message centre. See **INFORMATION MESSAGES** (page 76).

TOWING

The torque ranges of Land Rover engines allow maximum-weight loads to be pulled smoothly from standstill, and reduce gear changing on hills or rough terrain. A smoother start can be achieved with trailers over 2 000 kg (4 400 lb) by moving off in Low range then changing to High range while on the move.

WARNING

To preserve vehicle handling and stability, only fit towing accessories that have been designed and approved by Land Rover.

Do not use lashing eyes or vehicle recovery towing eyes to tow a trailer. Use of the towing eyes for purposes other than their designed intention could result in damage or injury.

It is the driver's responsibility to ensure that the towing vehicle and trailer/caravan are loaded and balanced so that the combination is stable when in motion. When preparing your vehicle for towing, pay attention to any instructions provided by the trailer/caravan manufacturer as well as to the information that follows.

Balancing the combination

To ensure optimum stability, it is essential that the trailer adopts a level aspect. In other words, the trailer must be level with the ground, with the towing hitch and trailer drawbar set at the same height. This is particularly important when towing twin axle trailers! Adjust the height of the hitch point if necessary.

The air suspension system is designed to cope with a heavy trailer load without upsetting the balance or feel of the vehicle. To ensure that the vehicle is in the correct position when setting the towing hitch height, the engine should be running with the air suspension set to on-road height and all doors closed. See **AIR SUSPENSION** (page 174).

Note: *The high speed height is disabled while the trailer electrics are connected.*

- The trailer should be level with the ground when loaded.
- The height of the draw bar hitch point should be set so that the trailer is level when connected to the loaded vehicle.

Points to remember:

- When calculating the laden weight of the trailer, remember to include the weight of both the trailer and its load.
- The trailer nose weight plus the combined weight of the rear seat passengers and the vehicle's load carrying area must never exceed the GVW or the individual maximum axle loads.

  Note: *When towing, European legislation allows for the GVW to be exceeded by 100 kg (220 lb). See* ***Weights*** *(page 256).*
- Where the luggage load can be divided between trailer and tow vehicle, loading more weight into the vehicle will generally improve the stability of the combination. However, ensure that the GVW and maximum rear axle load are not exceeded and that the combination remains level.

- For maximum stability, ensure that loads are properly secured and unable to shift position during transit. Also, position loads so that most of the weight is placed close to the floor and, where possible, immediately above or close to the trailer axle(s).
- Towing regulations vary from country to country. Always ensure national regulations governing towing weights and speed limits are observed (refer to the relevant national motoring organisation for information). The vehicle's maximum permissible towed weight refers to its design limitations and NOT to any specific territorial restriction. See **TOWING** (page 256).

Note: *When towing, do not exceed 97 km/h (60 mph). Additionally, if the temporary spare wheel is in use, do not exceed 80 km/h (50 mph).*

Vehicle weights

When loading a vehicle to its maximum (GVW), take account of the load distribution to ensure that axle loads do not exceed the permitted maximum values. It is your responsibility to limit the vehicle load in such a way that neither the maximum axle loads nor the GVW are exceeded. The most accurate method of determining load distribution is by using a public weighbridge.

Nose weight must be the greater of 50 kg (110 lb) or 7% of the actual trailer laden weight, up to the maximum tow hitch load. Nose weight can be measured using a proprietary brand of nose weight indicator.

WARNING

In the interest of safety, the gross vehicle weight, maximum rear axle weight, maximum trailer weight and tow hitch load (nose weight) must not be exceeded.

Electronically selected gearbox modes

A suitable gear change pattern for trailer towing, hill ascent and high altitude is selected electronically and retains lower gears for longer. This feature is enabled to counter momentum loss caused by more frequent gear changing, which can occur when climbing hills or when towing a trailer or caravan. This gear change pattern is also selected at high altitudes to combat reduced engine torque.

Gearbox overheating

To avoid overheating the gearbox, it is not advisable to tow heavy trailer loads at prolonged speeds of less than 32 km/h (20 mph) using the main gearbox in High range. Use the transfer gearbox to select Low range instead.

Towing on severe inclines

If a journey includes severe inclines and the Gross Train Weight (the maximum permissible weight of vehicle, plus trailer - See **TOWING** (page 256).) is towed, ensure that the grille and radiator are free from obstruction and that only high quality fuel is used. This enables the engine and the cooling system to operate more efficiently.

Trailer socket

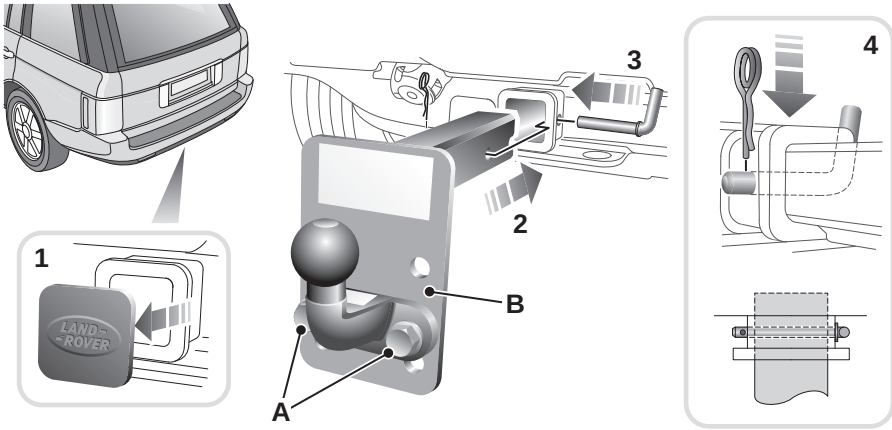
The vehicle connector provides a 5 amp output, which must **not** be exceeded. If it is required to exceed 5 amps, a 12S and a 13 pin accessory harness kit is available from your Land Rover Dealer/Authorised Repairer, increasing the output to 15 amps.

Essential Towing Checks

Tyre pressures:	Increase rear pressures of towing vehicle to those for Maximum Gross Vehicle Weight conditions. See **Tyre pressures** (page 218). Ensure trailer/caravan tyres are at the pressures recommended by the trailer manufacturer.
Nose weight:	If the vehicle is loaded to the Gross Vehicle Weight (GVW), the nose weight is limited to 150 kg (330 lb). If a trailer with over-run brakes is used the nose weight can be increased up to 250 kg (550 lb) total nose weight. However, vehicle payload **must be restricted** by at least the same weight to ensure that the GVW and rear axle weights are not exceeded. See **Weights** (page 256).
Breakaway cable or secondary coupling	A breakaway cable or secondary coupling **must** be attached. If the trailer/caravan is fitted with brakes, it is usual for an attached breakaway cable to operate the brakes in the event of the coupling becoming detached. See your trailer manufacturers literature. If your trailer does not have a breakaway cable, a secondary coupling must be attached. Use a suitable point on the towing bracket to securely attach the coupling. It is not advisable to loop cables or couplings around the neck of the tow ball as they could slide off.

TOW BAR FITMENT

There are two different types of tow bar that can be fitted to your vehicle. The following pages give you the information to fit and remove both types.



LAN1950

1. Remove the plastic protective cover (marked with the Land Rover logo) from the tow bar mounting aperture.
2. Insert the stock of the tow bar assembly into the mounting aperture.
3. Insert the securing bar, so that it passes through the walls of the aperture and through the tow bar assembly stock.
4. Insert the straight part of the retaining pin through the securing bar.

Removal of the tow bar is the reverse of the fitting procedure. Once the tow bar is removed, ensure that it is returned to its protective case and that it is secured in such a way that it cannot move around inside the vehicle. Remember to refit the plastic protective cover into the tow bar mounting aperture.

Drop plate tow bar

Drop plate height adjustment

Remove the two bolts (**A**) securing the tow bar to the drop plate (**B**).

Reposition the tow bar on the drop plate so that it aligns with one of the other two height settings and secure the two bolts. Tighten the bolts to a torque of 170 Nm.

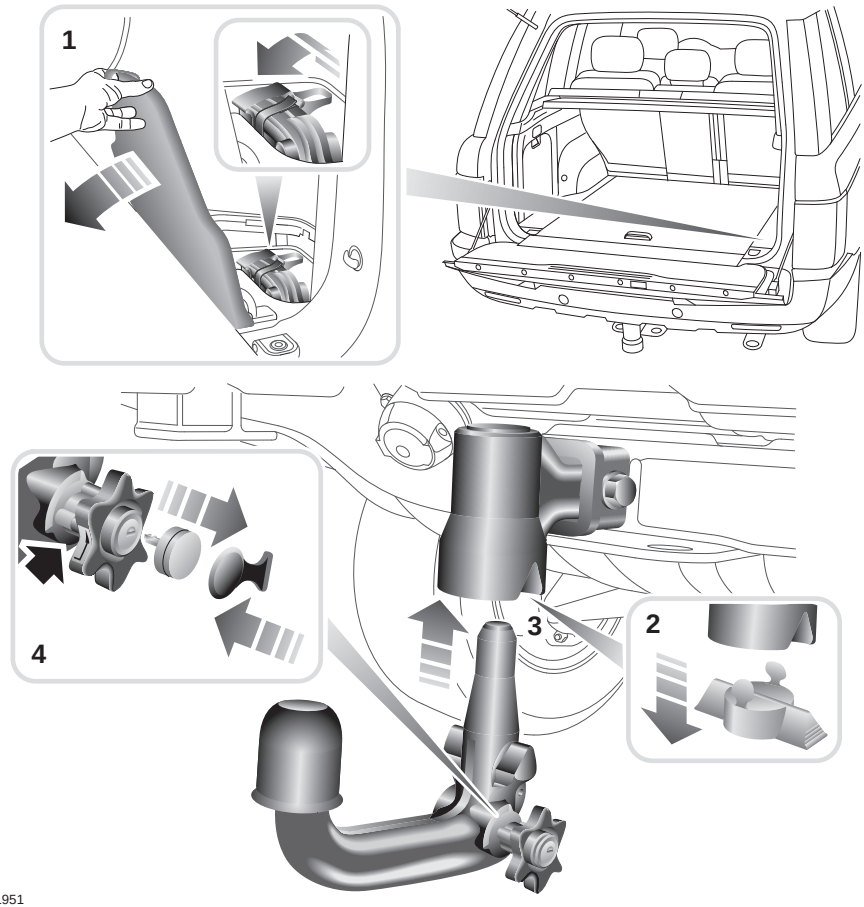
WARNING

Before towing, always check that the retaining pin is firmly in place through the securing bar.

Never leave the tow bar loose in the vehicle, where it could become a projectile in the event of heavy braking or an accident.

The drop plate tow bar is stowed in a bag and should be strapped to one of the luggage anchorage points in the rear loadspace.

Detachable tow bar



LAN1951

The detachable tow bar is located under an access hatch on the right hand side of the rear loadspace floor.

1. Lift up the access hatch, release the strap buckle and remove the tow bar.
2. Remove the protective plastic cover from the tow bar mounting.

Note: *The protective cover can be stowed in the tow bar stowage area, whilst the tow bar is installed.*

The tow bar should be in the unlocked position, this can be determined by a red marker on the handwheel lining up with a green bar on the body of the tow bar (arrowed in inset 4). If this is not the case (a green marker lines up with the green bar), refer to the procedure for unlocking the tow bar, detailed later on this page. The tow bar can only be installed when in the unlocked position.

3. Insert the tow bar bolt into the tow bar mounting and push firmly upwards until the tow bar locks in position. When the towbar locks, the green marker on the handwheel will line up with the green bar on the tow bar.
4. Turn the key anticlockwise to lock the handwheel, then remove the key and fit the protective cover onto the handwheel lock.

Note: *Store the key in the tow bar stowage area for safe keeping.*

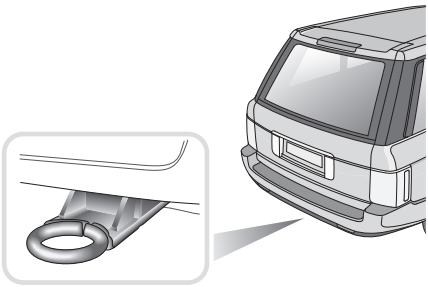
Removing the tow bar mounting for off-road

Remove the cover from the handwheel lock, insert the key and turn it clockwise.

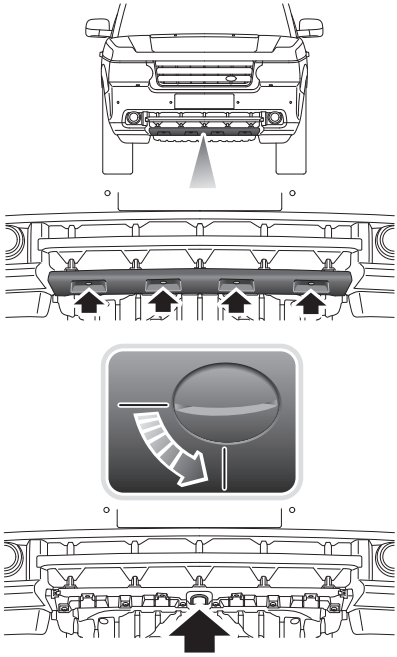
To remove the tow bar, it is necessary to unlock it using the handwheel. Pull the handwheel out, then rotate it clockwise, until a click sounds - the red marker on the handwheel should now line up with the green bar. The tow bar is now unlocked.

Carefully lower the tow bar and place the cover over the handwheel key. Ensure that the tow bar is securely strapped into its stowage area under the loadspace floor and remember to refit the red protective plastic cover into the tow bar mounting.

TOWING EYES



LAN2536



LAN2535

WARNING

The towing eyes at the front and rear of the vehicle are designed for vehicle recovery purposes only and must not be used to tow a trailer or caravan.

Before using the towing eyes for off-road recovery, it is essential that off-road driver training, covering recovery techniques, is undertaken.

Front

A single towing eye, set behind a removable panel in the front spoiler is provided at the front of the vehicle for on-road recovery.

Before driving off-road, remove the panel from the spoiler as a precaution against accidental loss.

Removing the panel: Loosen the four turnbuckles securing the panel to the front spoiler. Using both hands, remove the tow eye cover and store in a safe place.

Rear

The towing eye provided at the rear of the vehicle can be used for towing your vehicle or towing another vehicle in recovery situations.

TOWING FOR RECOVERY

Caution: Under no circumstances must your vehicle be towed with only two wheels in contact with the ground. It must be towed with all four wheels on the ground, recovered onto a trailer, or have a combined wheel lift and towing dolly arrangement to lift it clear of the ground.

Most vehicle recovery specialists will load your vehicle onto a trailer - this is the recommended method. However, if it is necessary to recover the vehicle by towing with all four wheels on the ground, observe the following procedure:

Towing the vehicle on all four wheels

Caution: Always adhere to the following procedure when towing the vehicle with all four wheels on the ground. Failure to do so could result in unintended vehicle movement or unanticipated vehicle conditions.

When preparing to tow the vehicle on four wheels, it is essential that neutral is selected on the transmission. If the main gearbox cannot be set in neutral, the vehicle must not be towed under any circumstances.

Before selecting neutral, ensure that the parking brake is properly and securely applied.

Note: *Your vehicle has permanent four-wheel drive and is fitted with a steering lock. The following instructions must be carried out carefully to prevent damage to the vehicle.*

Leaving the ignition on for extended periods may drain the vehicle battery.

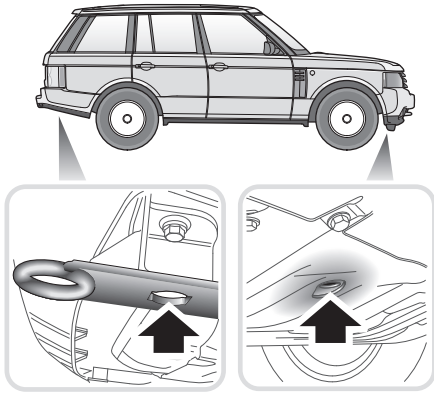
1. Secure the towing attachment from the recovery vehicle to the front towing eye. See **TOWING EYES** (page 191).
2. With the parking brake applied, switch the ignition on.
3. Place the gear lever in **N** (Neutral).
4. If required, the ignition may be left on to operate the brake lamps and direction indicators.
5. Release the parking brake before towing the vehicle.

WARNING

Without the engine running, the brake servo and power steering pump cannot provide assistance; greater effort will therefore be required to operate the brake pedal and turn the steering wheel. Longer stopping distances will also be experienced.

If the above conditions are met, and the transfer box remains in gear, the vehicle may only be towed for a distance of 50 km (30 miles) at a maximum speed of 50 km/h (30 mph).

TRANSPORTER OR TRAILER LASHING



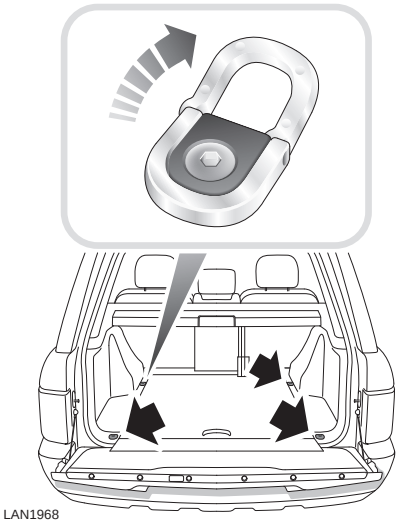
LAN2111

Pairs of lashing eyes are fixed to the underside of the vehicle - at the front (ahead of the front wheels) and at the rear (behind the rear wheels). Do not secure lashing hooks or trailer fixings to any other part of the vehicle.

Note: *The front and rear lashing eyes are for lashing only and must not be used for towing.*

IMPORTANT INFORMATION
Once the vehicle is loaded onto the trailer and if the vehicle electronics are operational, the electronic air suspension (EAS) must be set to Access height. This should be done before securing the vehicle to the trailer.

LUGGAGE ANCHOR POINTS



LAN1968

Four fixing points are provided in the rear luggage compartment floor, to assist in safely securing large items of luggage. Land Rover provide a range of approved luggage retention accessories.

WARNING

Do not carry unsecured equipment, tools or luggage which could move and cause personal injury in the event of an accident or emergency manoeuvre either on or off-road.

ROOF RACKS

A range of roof rack systems is available as Land Rover approved accessories. For further information about roof rack systems approved for use with your vehicle and advice as to which system would suit your requirements best, please consult your Land Rover Dealer/ Authorised Repairer.

Always observe the following precautions:

- The **maximum** load for approved roof rack systems is 100 kg (220 lb) for normal road use and 50 kg (110 lb) off-road. The above weights include the mass of the roof rack system.
- Only fit roof racks that have been designed for your vehicle. If in doubt, consult your Land Rover Dealer/Authorised Repairer.
- All loads should be evenly distributed, side to side, with any weight bias towards the front of the roof rack system.
- Ensure all loads are secured within the periphery of the roof rack system.
- Check to ensure the roof rack and load are secure after 50 km (30 miles) of any journey.

WARNING

To avoid the risk of personal injury or death, do not permit children or any other person to travel on the roof rack (or access ladder) whilst the vehicle is in motion.

A loaded roof rack can reduce the stability of the vehicle, particularly when cornering and encountering cross winds.

Driving off-road with a loaded roof rack is not recommended. If it is necessary to stow luggage on the roof rack while driving off-road, all loads must be removed before traversing side slopes.

HEADLAMPS

There are two types of headlamps systems:

- Xenon high/low beam main lamps with a fill-in high beam halogen lamp alongside.
- An Adaptive Front Lighting System (AFS).

WARNING

Xenon lamp units operate at a very high temperature. If they have recently been in use, allow sufficient time for the to cool before touching them.

A very high voltage is required to ignite the gas and metal vapour used to power Xenon lamps. Contact with this voltage could cause very serious injury.

Replacement or maintenance of Xenon lamps should be carried out only by qualified personnel.

Adaptive Front Lighting System (AFS)

AFS is to give the driver improved visibility. It has two main components: a swivelling headlamps unit and a static bending lamp, with a beam set to 45 degrees from the centre line of the vehicle.

The headlamps units can swivel left or right, to improve light spread on bends in the road and they operate throughout the vehicle speed range.

The system takes inputs from the vehicle's road speed and steering angles to determine the amount of horizontal swivel. The amount of swivel is highest at low manoeuvring speeds, and reduces as speed increases.

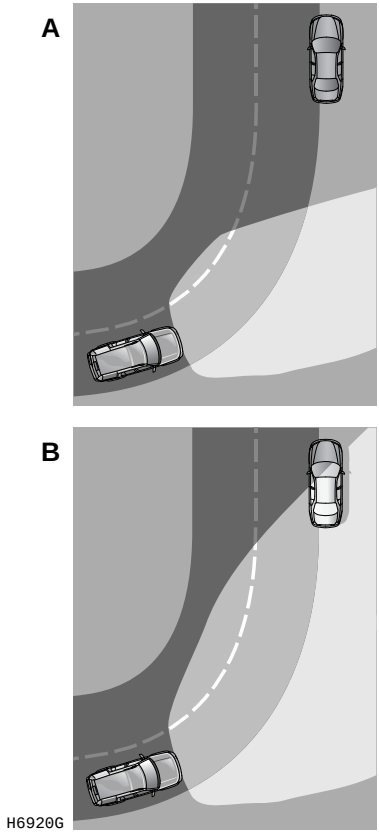
If reverse gear is selected, the lamps return to the central position and the unit's swivelling capability is disabled.

Static Bending Lamps (SBL)

Additional lighting comes from the static bending lamps which have a beam set to 45 degrees from the centre line of the vehicle.

When the engine is started and the headlamps are turned on, the headlamps can be seen to swivel as they go through a self-calibration for a few seconds.

The AFS advantage



A. Shows the light spread of a vehicle not fitted with AFS.

B. Shows the light spread of a vehicle fitted with AFS.

These lamps broaden the beam of the headlamps when cornering during normal driving.

The system receives signals for the vehicle's road speed and the steering angle. Based upon these signals, the lighting system can determine in which direction the vehicle is turning, and illuminate the respective SBL.

A. Shows the light spread of a vehicle not fitted with SBL.

B. Shows the light spread of a vehicle fitted with SBL.

Static bending lamps operate when the system detects a steering wheel rotation of 70 degrees or more.

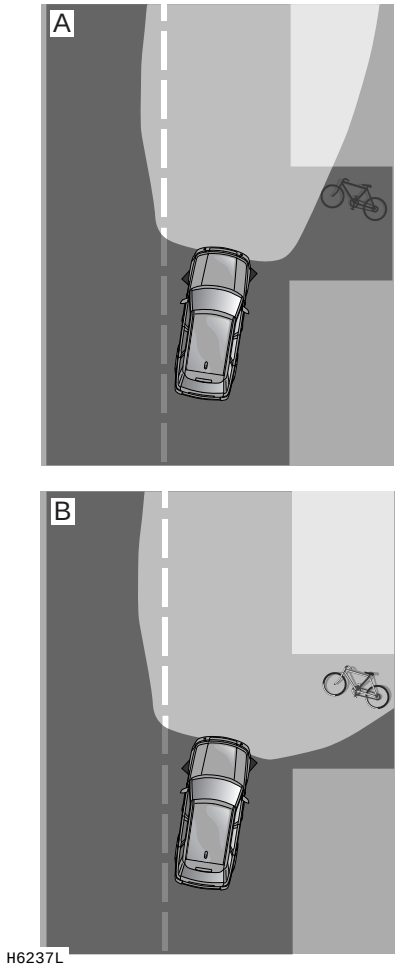
Static bending lamps will be deactivated when the vehicle's speed exceeds 70 km/h (44 mph), and will only be reactivated when the speed reduces to 60 km/h (37 mph).

Note: *Static Bending Lamps will de-activate if the vehicle has been stationary for more than two minutes or when park, neutral or reverse are selected.*

The lamps broaden the beam of the headlamps when cornering during normal night driving.

With the ignition on and the headlamps operating, the system will switch on the static bending lamp when it receives an input from the vehicle's direction indicator.

Note: *Only the lamp on the same side as the operating direction indicator will come on.*



H6237L

ROUTINE MAINTENANCE

Regular systematic maintenance is the key to ensuring the continued reliability and efficiency of your vehicle.

Maintenance is the owner's responsibility and you must ensure that owner maintenance operations, oil services, inspections and brake fluid and coolant changes are carried out when required and according to the manufacturer's recommendations.

The routine maintenance requirements for your vehicle are shown in the Service Portfolio book. Most of this necessary workshop maintenance requires specialised knowledge and equipment, and should preferably be entrusted to a Land Rover Dealer/Authorised Repairer.

Service Portfolio

The Service Portfolio book includes a Service Record section, which enables a record to be kept of all the oil services and inspections that are carried out on the vehicle. This section of the book also provides a facility for the Land Rover Dealer/Authorised Repairer to record brake fluid changes.

Ensure your Land Rover Dealer/Authorised Repairer signs and stamps the book after each oil service and inspection.

OWNER MAINTENANCE

In addition to the routine services and inspections referred to previously, a number of simple checks must be carried out more frequently. You can carry out these checks yourself and advice is given on the pages that follow.

Any significant or sudden drop in fluid levels, or uneven tyre wear, should be reported to a Land Rover Dealer/Authorised Repairer without delay.

Daily checks

- Operation of lamps, horn, direction indicators, wipers, washers and warning indicators.
- Operation of seat belts and brakes.
- Look for fluid deposits underneath the vehicle that might indicate a leak.

  Condensation dripping from the air conditioning is normal.

Weekly checks

- Engine oil level.

  Note: *The engine oil level should be checked more frequently if the vehicle is driven for prolonged periods at high speeds.*
- Brake fluid level.
- Power steering fluid level.
- Screen washer fluid level.
- Tyre pressures and condition.
- Operate air conditioning.

All fluid specifications and capacities are shown in See **LUBRICANTS AND FLUIDS** (page 252).

WARNING

If brake pedal travel is unusually long or if there is any significant loss of brake fluid, contact your Land Rover Dealer/Authorised Repairer immediately. Driving under such conditions could result in extended stopping distances or complete brake failure.

SAFETY IN THE GARAGE

WARNING

Under no circumstances should any part of the fuel system be dismantled or replaced by anyone other than a suitably qualified vehicle technician. Failure to comply with this instruction, may result in fuel spillage with a consequent risk of fire.

Do not work beneath the vehicle with the wheel changing jack as the only means of support.

Ensure sparks and naked lights are kept away from the engine compartment.

Wear protective clothing, including where practicable, gloves made from an impervious material.

Remove metal wrist bands and jewellery before working in the engine compartment.

Do not allow tools or metal parts of the vehicle to make contact with the battery leads or terminals.

Never leave the engine running in an unventilated area - exhaust gases are poisonous and extremely dangerous.

Keep your hands and clothing away from drive belts and pulleys.

If the vehicle has been driven recently, do not touch exhaust and cooling system components until the engine has cooled.

Do not touch electrical leads or components while the engine is running or with the ignition switched on.

WARNING

Cooling fans may continue to operate after the engine is switched off. When the engine is hot, the cooling fans may also start operating after the engine is switched off and continue operating for up to 10 minutes. Keep clear of all fans while working in the engine compartment.

Poisonous fluids

Fluids used in motor vehicles are poisonous and should not be consumed or brought into contact with open wounds. These include; battery acid, antifreeze, brake and power steering fluid, petrol, diesel, engine oil and windscreen washer additives.

For your own safety, always read and obey all instructions printed on labels and containers.

Used engine oil

Prolonged contact with engine oil may cause serious skin disorders, including dermatitis and cancer of the skin. Always wash thoroughly after contact.



It is illegal to pollute drains, water courses or soil. Use authorised waste disposal sites to dispose of used oil and toxic chemicals.

EMISSION CONTROL

Your vehicle is fitted with various items of emission and evaporative control equipment designed to meet specific territorial requirements. You should be aware that unauthorised replacement, modification or tampering with this equipment by an owner or repair shop may be unlawful and subject to legal penalties.

In addition, engine settings must not be tampered with. These have been established to ensure that your vehicle complies with stringent exhaust emission regulations. Incorrect engine settings may adversely affect exhaust emissions, engine performance and fuel consumption, as well as causing high temperatures, which will result in damage to the catalytic converter and the vehicle.

ROAD TESTING DYNAMOMETERS (rolling roads)

Because your vehicle is equipped with anti-lock brakes and permanent four-wheel drive, it is essential that any dynamometer testing is carried out only by a qualified person familiar with the dynamometer testing and safety procedures (only on a four-wheel drive dynamometer) practised by Land Rover Dealers/Authorised Repairers. Contact your Land Rover Dealer/Authorised Repairer for further information.

DRIVING IN ARDUOUS CONDITIONS

When a vehicle is operated in extremely arduous conditions, more frequent attention must be paid to servicing requirements.

For example: If your vehicle experiences deep wading conditions, even daily servicing could be necessary to ensure the continued safe and reliable operation of the vehicle.

Arduous driving conditions include:

- Frequent driving in dusty and/or sandy conditions.
- Frequent driving on rough and/or muddy roads.
- Frequent wading.
- Frequent driving at high speeds in high ambient temperatures above 50ºC.
- Frequent driving in severe cold weather below -40ºC.
- Frequent driving in mountainous conditions.
- Frequent trailer towing.
- Driving in areas using road salt or other corrosive materials on the driving surface.

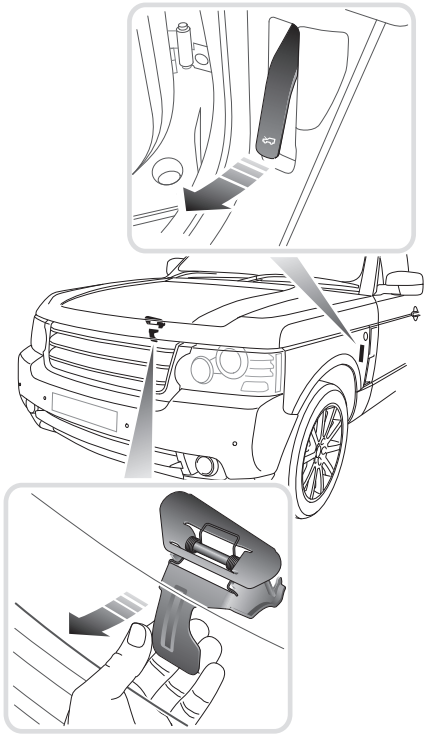
Contact a Land Rover Dealer/Authorised Repairer for advice.

PREPARATION FOR WINTER

Before the onset of winter, to prevent the door seals from freezing closed, apply a silicon-based lubricant pen to the flocked seals across the tops of the doors.

This action will need to be repeated at the start of each winter to maintain protection. For further information, consult a Land Rover Dealer/Authorised Retailer.

BONNET OPENING



LAN1949

1. From inside the vehicle on the driver's side, pull the bonnet release handle (see upper inset).
2. Lift the bonnet safety catch lever (lower inset) and raise the bonnet.

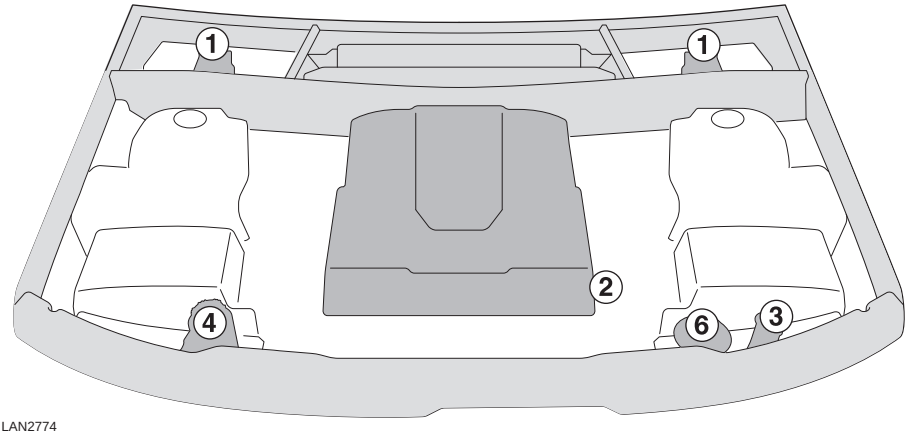
Closing the bonnet

WARNING

Do not drive with the bonnet retained by the safety catch alone.

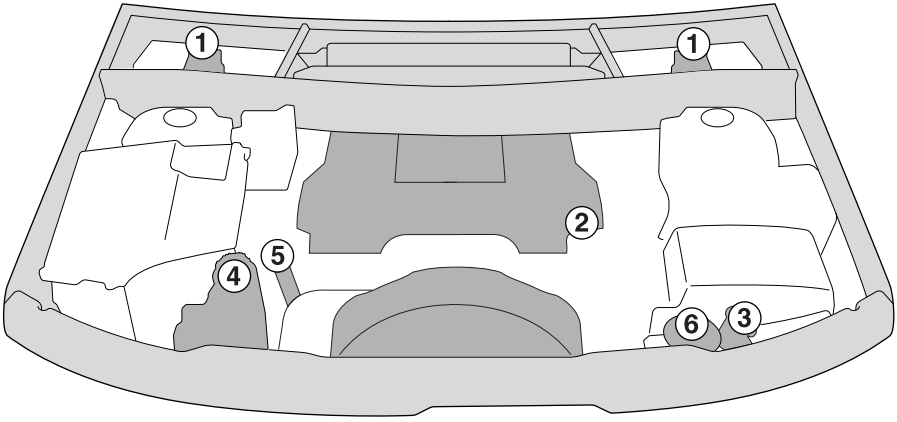
After closing the bonnet, check that the lock is fully engaged by attempting to lift the front edge of the bonnet. This should be free from all movement.

FLUID CHECKS



LAN2774

Petrol engine



LAN0504G

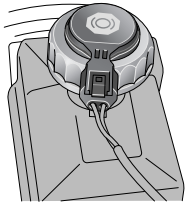
Diesel engine

WARNING

While working in the engine compartment, always observe the safety precautions listed under, See SAFETY IN THE GARAGE (page 197).

Recommended fluids and lubricants can be found later in this handbook. See **LUBRICANTS AND FLUIDS** (page 252).

1. Brake fluid reservoir



LAN0509G

Note: *The brake fluid reservoir is located on the right of the engine compartment on a right-hand drive vehicle and on the left on a left-hand drive vehicle.*

2. Engine oil filler



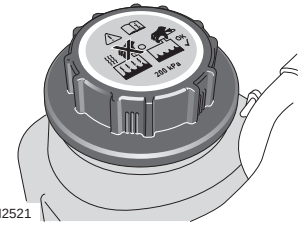
LAN1960

3. Washer reservoir



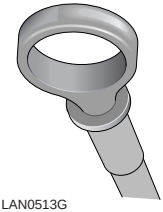
LAN0511G

4. Cooling system reservoir



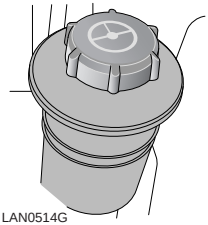
LAN2521

5. Diesel engine oil dipstick



LAN0513G

6. Power steering reservoir



LAN0514G

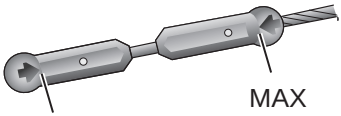
ENGINE OIL CHECK (DIESEL)

Check the oil level weekly, when the engine is cold and with the vehicle resting on level ground.

The oil consumption of an engine is influenced by many factors. Under high loads an engine will consume more oil than usual. Diesel engines usually consume slightly more oil than petrol engines.

Checking the oil level

Note: *If you need to check the oil level when the engine is hot, switch off the engine and let the vehicle stand for five minutes to allow the oil to drain back into the sump. Do not start the engine.*



LAN2328

1. Withdraw the dipstick and wipe the blade clean with a lint-free cloth.
2. Fully re-insert the dipstick and then withdraw again to check the oil level. Never allow the oil level to fall below the lower mark or hole on the dipstick.

As a general guide, if the level on the dipstick:

- Is nearer to the maximum than the minimum, add no oil.
- Is nearer to the minimum than the maximum, add half a litre (one pint) of oil.
- Is below the minimum, add one litre (two pints) of oil and, after five minutes, re-check the level.

Topping up the oil

Caution: Your vehicle warranty may be invalidated if damage is caused by using oil that does not meet the required specification.

Caution: Failure to use an oil that meets the required specification can cause excessive engine wear, a build up of sludge and deposits, and increase pollution. It could also lead to engine failure.

Caution: Overfilling with oil could result in severe engine damage. Oil should be added in small quantities and the level re-checked to ensure that the engine is not overfilled.

1. Remove the oil filler cap.
2. Add oil to maintain the level between the **MIN** and **MAX** marks on the dipstick. Clean up any oil spilled during topping-up.
3. Check the oil level again after five minutes.

It is essential to use the correct specification oil, and to ensure it is suitable for the climatic conditions in which the vehicle is to be operated.

Note: *The approximate quantity of oil required to raise the level from **MIN** to **MAX** on the dipstick is 1.5 litres (2.64 pints).*

ENGINE OIL CHECK (PETROL)

Caution: If is recommended that the oil level is checked weekly. If any significant or sudden drop in oil level is noted you should seek qualified assistance immediately.

Caution: Your vehicle's warranty may be invalidated if damage is caused by the use of improper engine oil. Low quality or obsolete oils do not provide the protection required by modern, high performance engines. Failure to use an oil that meets the required specification could cause excessive engine wear, a build up of sludge and deposits and increased pollution. It could also lead to engine failure.

Caution: Do not use oil additives of any type as engine damage could occur. Use only specified lubricants.

Engine oil consumption

A certain amount of oil consumption is normal. The rate of consumption will depend on the following:

- The quality and viscosity of the oil.
- Climatic conditions.
- The speed at which the engine is being operated.
- Road conditions.

Drivers should expect above normal consumption when the engine is new.

Checking the oil level

For an accurate oil level reading to be taken, the following conditions must be met:

- The vehicle needs to be parked on level ground.
- The oil level should be checked when the engine is **hot**. It is therefore recommended that a reading is taken after a journey.
- The vehicle needs to stand for approximately 10 minutes after the engine is switched off, to allow the oil to drain back to the sump.

Note: *The system will not give a reading until the oil level has stabilised.*

Once the above conditions are met, check the oil level as follows:

1. Switch on the ignition - do not start the engine.
2. Set the transmission to Park (**P**)
3. To display the current oil level, access the vehicle information and settings menu.

   Select **Service Menu** and then select **Oil Level Display**.
4. The oil level topping-up advice will be shown in the message centre. Top-up as instructed.

Engine Oil



LAN2540

An indication of the oil level is displayed on the gauge. Messages to the right of the gauge advise you of any action you may need to take.

If the oil level is within the required operating range, the message **Level Ok** will be displayed. Do not add any additional oil to the engine.

If the oil level is below the required operating range, a message advising you how much oil to add will be displayed, e.g. **Add 0.5L**. Add the recommended quantity of oil then recheck the level.

If the message **Overfilled** is displayed, seek qualified assistance immediately. Do not drive the vehicle as this will cause serious damage to the engine.

Topping up the oil

Caution: Your vehicle warranty may be invalidated if damage is caused by using oil that does not meet the required specification.

Caution: Failure to use an oil that meets the required specification, could cause excessive engine wear, a build-up of sludge and deposits and increase pollution. It could also lead to engine failure.

Caution: Overfilling with oil could result in severe engine damage.

1. Unscrew the oil filler cap.
2. Add the appropriate quantity of oil (as indicated by the message center oil level display). Wait 5 minutes to let the oil level stabilise and re-check the level.

   Clean up any oil spilled during topping up.
3. Once the correct level is achieved, refit the filler cap and securely tighten by hand.

COOLANT CHECK AND TOP-UP

WARNING

Never remove the filler cap when the engine is hot - escaping steam or scalding water could cause serious personal injury.

Unscrew the filler cap slowly, allowing the pressure to escape before removing completely.

Avoid spilling antifreeze onto a hot engine - a fire may result.

Caution: Never run the engine without coolant.

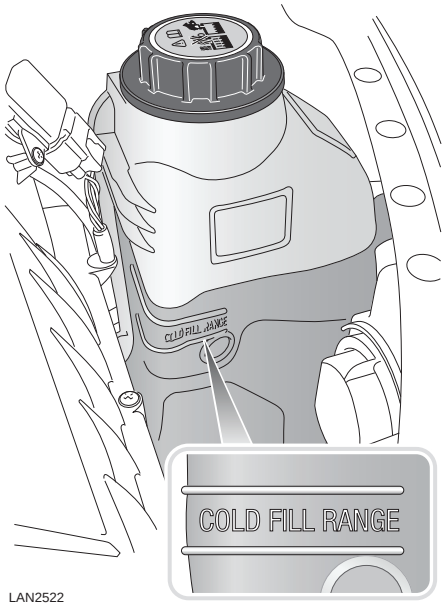
Antifreeze will damage painted surfaces; soak up any spillage with an absorbent cloth immediately and wash the area with a mixture of car shampoo and water.

Never top-up with salt water. When travelling in territories where the water supply contains salt, always ensure you carry a supply of fresh (rain or distilled) water.

The coolant level in the expansion tank should be checked only when the **CHECK COOLANT LEVEL** message is displayed on the message centre. Always check the level when the system is cold.

Note: *Coolant expands when hot. This may cause the level to rise above the upper level mark on the side of the expansion tank.*

If it is necessary to remove the filler cap before the system has fully cooled, loosen the cap slowly, allowing the air pressure to escape gradually.



LAN2522

Top-up with a 50% mixture of antifreeze and water. See **LUBRICANTS AND FLUIDS** (page 252). Top-up to the upper level indicator mark located above the COLD FILL LEVEL text, on the side of the expansion tank. This should be viewed from standing in front of the vehicle. Ignore any coolant visible in the top section of the tank.

Ensure the cap is tightened fully after top-up is completed.

If the level has fallen appreciably, suspect leakage or overheating and arrange for your Land Rover Dealer/Authorised Repairer to examine the vehicle.

Caution: An over-filled expansion tank may cause a build-up of pressure and excess fluid could be expelled through the filler cap.

ANTIFREEZE

WARNING

Antifreeze is poisonous and can be fatal if swallowed - keep containers sealed and out of the reach of children. If accidental consumption is suspected, seek medical attention immediately.

Prevent antifreeze coming in contact with the skin or eyes. If this occurs, rinse immediately with plenty of water.

Antifreeze contains important corrosion inhibitors. The antifreeze content of the coolant must be maintained at 50% ± 5% all year round (not just in cold conditions). To ensure that the anti-corrosion properties of the coolant are retained, the antifreeze content should be checked once a year.

The specific gravity of a 50% antifreeze solution at 20°C (68°F) is 1.068 and protects against frost down to -40°C (-40°F).

Antifreeze must be renewed at regular intervals, regardless of distance travelled (refer to your **Service Portfolio** book). Failure to do so may cause corrosion of the radiator and engine components.

Caution: If the cooling system overheats to the point where coolant/steam is expelled from the pressure cap, ensure that the system is checked as soon as possible. The engine must not be run with low coolant levels as serious engine damage may occur.

Coolant specification

Use only a 50% mix of water and an approved antifreeze. See **Engine cooling system** (page 252).

In an emergency - and only if this type of antifreeze is unavailable - top-up the cooling system with clean water, but be aware of the resultant reduction in frost protection. Do not top-up or refill with conventional antifreeze formulations. If in doubt consult a Land Rover Dealer/Authorised Repairer.

Note: *When clean water is added in the event of an emergency, the low coolant indicator will illuminate if the water/antifreeze mix ratio is over-diluted. This indicator will extinguish when the ratio of water/antifreeze is returned to a 50% mix. This should be done at the earliest opportunity.*

BRAKE FLUID

WARNING

Brake fluid is highly toxic - keep containers sealed and out of the reach of children. If accidental consumption of fluid is suspected, seek medical attention immediately.

If brake fluid should come into contact with the skin or eyes, rinse immediately with plenty of water.

Take care not to spill fluid onto a hot engine - a fire may result.

Do not drive the vehicle with the fluid level below the MIN mark.

Caution: Brake fluid will damage painted surfaces; soak up any spillage with an absorbent cloth immediately. Wash the area with a mixture of car shampoo and water.

Check

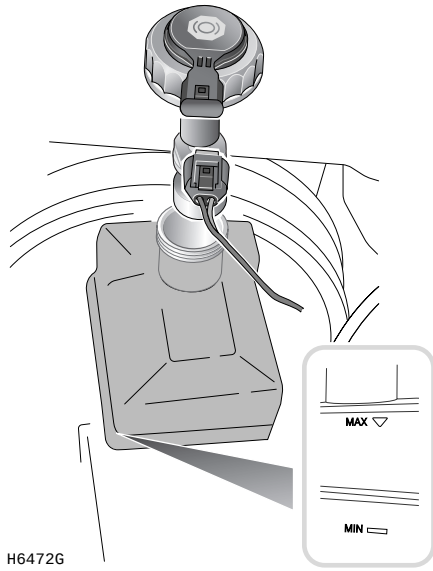
The fluid level may fall slightly during normal use as a result of brake pad wear but should not be allowed to fall below the **MIN** mark. Any substantial drop in fluid indicates a leak in the system, in which case the vehicle must not be driven and you should contact your Land Rover Dealer.

WARNING

Contact your Dealer/Authorised Repairer immediately if brake pedal travel is unusually long or if there is any appreciable drop in brake fluid level.

With the vehicle on level ground, check the fluid level at least every week (more frequently in high mileage or arduous operating conditions). Check the level visually through the side of the transparent reservoir without removing the filler cap.

Top-up



Wipe the filler cap clean before removing to prevent dirt from entering the reservoir. Unscrew the cap (1/8 turn) and top-up the reservoir to the **MAX** mark using brake fluid conforming to DOT 4 specification.
See **LUBRICANTS AND FLUIDS** (page 252). for a full specification.

Use only new fluid from an airtight container (old fluid from opened containers or fluid previously bled from the system will have absorbed moisture, which will adversely affect performance, and must not be used). **Do not overfill.**

Brake fluid must be completely renewed at regular intervals, regardless of distance travelled. See **Service Portfolio** book.

Brake pedal free travel: No adjustable free travel.

POWER STEERING FLUID

WARNING

Power steering fluid is highly toxic - keep containers sealed and out of reach of children. If accidental consumption of fluid is suspected, seek medical attention immediately.

If fluid comes into contact with the skin or eyes, rinse immediately with plenty of water.

Do not spill the fluid onto a hot engine - a fire may result.

Caution: Power steering fluid will damage painted surfaces: Soak up any spillage with an absorbent cloth immediately and wash the area with a mixture of car shampoo and water.

Check and top-up

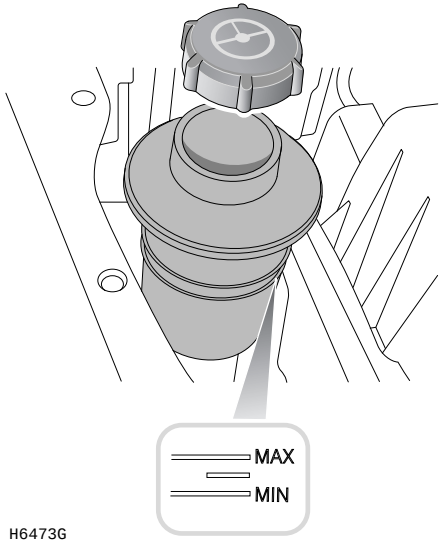
Check and top-up the fluid level only with the engine switched off and the system cold, and ensure that the steering wheel is not turned after stopping the engine.

With the vehicle on level ground and wheels in the straight ahead position, check the level visually through the side of the reservoir without removing the filler cap.

Maintain the fluid level so that it is between the MIN and MAX marks on the reservoir.

If topping-up is required, wipe the filler cap clean, to prevent dirt from entering the reservoir. Remove the filler cap and top-up the reservoir to the MAX mark.

Do not fill above the MAX mark on the side of the reservoir.



H6473G

Emergency operation

Any large or sudden drop in the fluid level must be investigated by a Land Rover Dealer/ Authorised Repairer.

If it can be established that fluid loss is slow, then the reservoir may be topped-up to the upper level mark to enable the vehicle to be driven to the nearest Land Rover Dealer/ Authorised Repairer for examination.

If the fluid level has dropped below the lower level mark, top-up the reservoir before starting the engine, or damage to the steering pump could result.

Caution: The engine must not be started if the fluid level has dropped below the MIN mark on the side of the reservoir - severe damage to the pump could result.

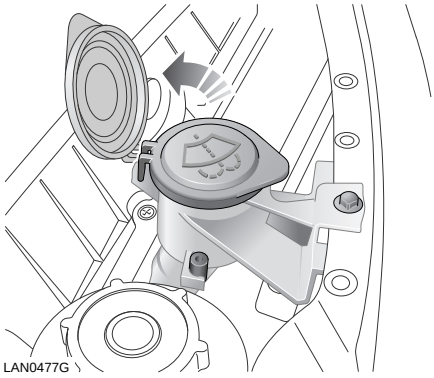
WINDSCREEN WASHER TOP-UP

Fluid top-up

WARNING

If you operate your vehicle in temperatures below 5°C (40°F), use washer fluid with antifreeze protection. In cold weather, failure to use washer fluid with antifreeze protection could result in impaired windshield vision and increase the risk of a vehicle crash.

Some screenwash products are inflammable, particularly if high or undiluted concentrations are exposed to sparking. Do not allow screenwash to come into contact with naked flames or sources of ignition.



The windscreen washer reservoir supplies both front and rear screen washer jets and headlamp washer jets.

Check the reservoir level at least every week and top-up with a mixture of water and Land Rover Parts STC 8249 Screenwash. Preferably mix the recommended quantities of water and screenwash in a separate container before topping-up, and always follow the instructions on the container. Note that an approved screenwash is necessary to prevent freezing in very cold weather.

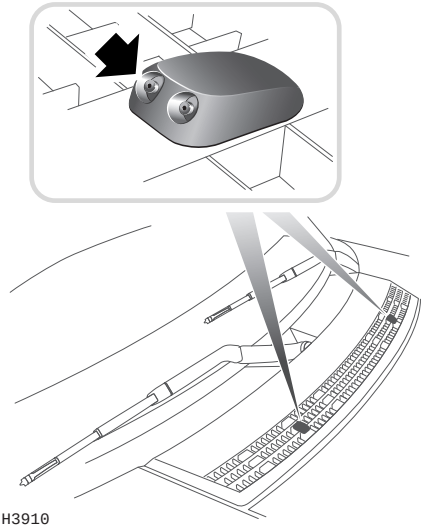
Caution: Do not use an antifreeze or vinegar/water solution in the washer reservoir - antifreeze will damage painted surfaces, while vinegar can damage the windshield washer pump.

Caution: Body panels may suffer discolouration as a result of screenwash spillage. Take care to avoid spillage, particularly if an undiluted or high concentration is being used. If spillage occurs, wash the affected area immediately with water.

WASHER JETS

Operate the washer switches periodically to check that the nozzles are clear and properly directed.

The windscreen washer jets are set during manufacture and should not need adjusting. However, if adjustment is ever necessary, insert a needle into the jet orifice and lever gently to position each jet, so that the spray is directed towards the centre of the windshield.



H3910

The rear screen jets located in the wiper arm are not adjustable.

WARNING

Should any jet become obstructed, insert a needle or thin strand of wire into the orifice to clear the blockage.

Do not operate the washer jets during adjustment. Washer fluid may cause irritation to the eyes and skin.

Always read and observe the washer fluid manufacturers instructions.

HEADLAMP WASHERS

The spray jets are set during manufacture and should not need to be adjusted.

Caution: Ensure an approved screen washer solvent is used in the windscreen washer reservoir to prevent freezing.

WIPER BLADE REPLACEMENT

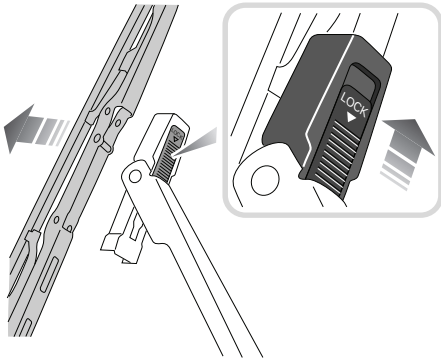
Only fit replacement wiper blades that are identical to the original specification.

Grease, silicone and petrol based products impair the blade's wiping capability. Wash the wiper blades in warm soapy water and periodically check their condition.

If signs of hardness or cracking in the rubber are found, or if the wipers leave streaks or unwiped areas on the windscreen during use, then the wiper blades should be replaced.

Clean the windscreen regularly with an approved glass cleaner and ensure the screen is thoroughly cleaned before fitting replacement wiper blades.

Front wiper blades

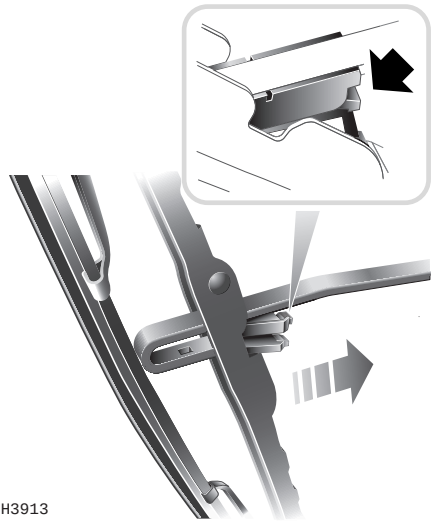


H3912

Lift the wiper arm away from the windscreen. Disconnect the blade by pushing the locking tab (see inset in illustration) to the unlock position.

Fitting a replacement blade is a reversal of this process. Check that the blade is securely locked before returning the wiper assembly to the windscreen.

Rear wiper blade



H3913

The blade is inaccessible in its parked position. The removal process is as follows;

1. Start the rear wiper operation.
2. When the blade is in a near vertical position, open the upper tailgate. The wiper will stop.
3. Turn the ignition off.
4. Lower the upper tailgate and lift the wiper arm away from the rear screen.
5. Pivot the blade assembly away from the arm. Press the tab (arrowed in inset), to release the blade assembly and slide the assembly off the end of the wiper arm. Carefully lower the arm to the screen.

To replace, position the wiper arm into the aperture in the middle of the new blade assembly and push firmly into position until the blade clips into place. When the upper tailgate is closed and the ignition is turned on the rear wiper will operate as normal.

BATTERY WARNING SYMBOLS

There is a label on the battery, depicting a number of warning symbols. The warning symbols are as follows:



No smoking, flames, no sparks (Red).



Shield eyes (Blue).



Keep away from children (Red).



Explosive gas (Yellow).



Battery acid (Yellow).

BATTERY SAFETY

WARNING

Always wear appropriate eye protection when working with batteries.

Batteries contain acid, which is both corrosive and poisonous. If spillage occurs:

- **On clothing or the skin - remove any contaminated clothing immediately, flush the skin with large amounts of water, and seek medical attention urgently.**
- **In the eyes - flush with clean water immediately for at least 15 minutes. Seek medical attention urgently.**

Swallowing battery acid can be fatal unless immediate action is taken - seek medical attention urgently.

During normal use, batteries emit explosive hydrogen gas - ensure sparks and naked lights are kept away from the engine compartment.

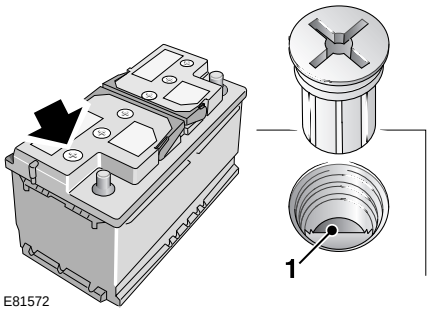
Do not attempt to start the vehicle if the electrolyte in the battery is suspected of being frozen.

For your safety, remove all metal wrist bands and jewellery before working in the engine compartment and never allow the battery terminals or vehicle leads to make contact with tools or metal parts of the vehicle.

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

Take care when working near rotating parts of the engine.

BATTERY CARE



WARNING

The cell plugs and vent pipe must be in place at all times when the battery is in the vehicle. Failure to fit, or incorrect fitting of these items is potentially hazardous. Ensure that the vent pipe is free from kinks or damage.

If battery acid comes into contact with your skin or eyes, immediately rinse with cold water and consult a doctor.

Never charge or boost a frozen battery.

Switch off the ignition before disconnecting battery terminals. Always disconnect the earth terminal first and reconnect last.

Caution: Do not allow battery electrolyte to come into contact with fabric or painted surfaces. Battery electrolyte is both corrosive and toxic and can damage a wide range of materials. If battery electrolyte comes into contact with any surface, wash it down immediately with copious amounts of clean water.

A low maintenance battery, specifically designed for use with this vehicle, is fitted in the engine compartment.

Caution: In hot climates, frequent checks of the battery electrolyte level are required. High temperatures can cause battery fluids to evaporate rapidly. A drained battery may be damaged irretrievably.

Unscrew the six cell plugs and store carefully. Check that the surface of the liquid (electrolyte) is level with the level indicator (1). If necessary, top up with distilled water a, but never overfill. Refit the cell plugs.

The exterior of the battery should occasionally be wiped clean, to remove any dirt or grease.

Note: *The service life of the battery is dependent on its condition of charge. It must always be sufficiently charged for the battery to last the optimum length of time.*

Note: *Do not connect any 12 volt equipment (for example, a 12 volt lamp), directly to the battery terminals. Use one of the accessory sockets located within the vehicle for connecting Land Rover approved accessories.*

DISCONNECTING THE BATTERY

WARNING

Remove all metal jewellery before working on or near the battery, and never allow metal objects or vehicle components to come into contact with battery terminals. Metal objects can cause a spark and/or short circuit, which can result in an explosion.

Switch the ignition off before disconnecting battery terminals. Always disconnect the earth terminal first and reconnect last.

There may at times be a requirement to disconnect the battery:

- Turn the ignition off.

- Wait for at least two minutes before starting the disconnection procedure. Ensure you have your remote control available as you may have to turn off the alarm sounder.
- Disconnect only the negative (-) terminal.
- Wait for two minutes before reconnecting the battery.

If the alarm sounds when the battery is reconnected, use the remote control to turn it off.

Effects of battery disconnection

Following disconnection and subsequent reconnection of the vehicle battery, a number of the vehicle systems will be reset automatically. This may take a few minutes and with some systems, sensors have to detect certain actions whilst driving, before full operability returns. This in no way affects the safe operation of the vehicle.

REMOVING THE BATTERY

WARNING

Remove all metal jewellery before working on or near the battery, and never allow metal objects or vehicle components to come into contact with battery terminals. Metal objects can cause a spark and/or short circuit, which can result in an explosion.

Switch off the ignition before disconnecting battery terminals. Always disconnect the earth terminal first and reconnect last.

Use caution when lifting the battery out of, or into, the vehicle. It is heavy and may cause injury when lifting or dropped.

Do not tilt the battery more than 45 degrees, as it may cause damage and may cause the electrolyte to leak out. Battery electrolyte is highly corrosive and toxic.

Caution: Do not rest the battery on any part of the vehicle, as it may cause damage due to its weight.

Caution: Do not run the engine with the battery disconnected. Doing so may damage the charging system.

1. Ensure that all electrical circuits are switched off, all windows are close and the alarm is disarmed.
2. Remove the Smart Key from the vehicle and wait two minutes to allow the systems to power down fully.
3. Undo the negative clamp and lift the cable and clamp clear of the battery terminal.
4. Undo the positive clamp and lift the cable and clamp clear of the battery terminal.
5. Undo the battery clamp and lift the battery clear of the vehicle.

Replacement batteries

WARNING

Only fit a replacement battery of the same type and specification as the original - other batteries may vary in size or have different terminal positions, which could cause a fire hazard when connected to the vehicle's electrical system.

Battery disposal



Used batteries must be disposed of correctly, as they contain a number of harmful substances. Seek advice from your Dealer/Authorised Repairer and/or your local authority.

REFITTING THE BATTERY

WARNING

Remove all metal jewellery before working on or near the battery, and never allow metal objects or vehicle components to come into contact with battery terminals. Metal objects can cause a spark and/or short circuit, which can result in an explosion.

Use caution when lifting the battery out of, or into, the vehicle. It is heavy and may cause injury when lifting or dropped.

Do not tilt the battery more than 45 degrees, as it may cause damage and may cause the electrolyte to leak out. Battery electrolyte is highly corrosive and toxic.

Only fit a replacement battery of the same type and specification as the original - other batteries may vary in size or have different terminal positions, which could cause a fire hazard when connected to the vehicle's electrical system.

Caution: Ensure that when fitting a battery to the vehicle, the terminals and battery clamps are clean and lightly coated with petroleum jelly. This will ensure good electrical connections are made, and help prevent corrosion.

Caution: Always follow the battery manufacturer's instructions. Failure to do so may result in damage to the vehicle and/or the electrical system.

A new battery should be supplied with plastic terminal covers. Leave the covers in place when fitting the battery. Remove them one at a time to fit the battery cable clamps.

Refitting is an exact reversal of the removal procedure. If you are in any doubt about fitting a battery, seek qualified assistance beforehand.

CHARGING THE VEHICLE BATTERY

Caution: The battery must be disconnected and removed from the vehicle before charging.

Caution: Ensure that the correct type of battery charger is used. An unsuitable charger may damage the battery and could cause it to explode.

Caution: When charging a battery, ensure it is in a well ventilated area away from any naked flame, sparks or other ignition sources. During charging the battery can produce a highly explosive and flammable gas.

BATTERY MONITORING SYSTEM (BMS)

If excessive battery discharge is occurring when the engine isn't running, the system will shut down non-essential electrical systems to protect battery power.

TYRE CARE

WARNING

Defective tyres are dangerous. Do not drive the vehicle if a tyre is damaged, excessively worn, or incorrectly inflated.

Avoid contaminating the tyres with vehicle fluids, as they may cause damage to the tyre.

Avoid spinning the wheels. The forces released, can damage the structure of the tyre and cause it to fail.

If wheel spin is unavoidable due to loss of traction (in deep snow, for example), do not exceed the 50 km/h (30 mph) point on the speedometer.

All of the vehicle's tyres (including the spare) should be checked regularly for damage, wear and distortion. If you are in any doubt about the condition of a tyre, have it checked immediately by a tyre repair centre or your Land Rover Dealer/Authorised Repairer.

Tyre wear

Good driving practise will improve the distance you obtain from your tyres and avoid unnecessary damage.

- Always ensure that the tyre pressures are correctly adjusted.
- Always observe the posted speed limits and advisory speeds for bends.
- Avoid pulling away quickly and hard acceleration.
- Avoid making fast turns or braking sharply.
- Wherever possible, avoid potholes and obstacles on the road.
- Do not drive up kerbs or rub the tyres against them when parking.

Wear indicators



LAN0330G

WARNING

Wear indicators show at the point of minimum tread. Tyres which have worn to this point will have reduced grip and poor water displacement characteristics.

Caution: If tread wear is uneven across a tyre, or if the tyre wears excessively, the vehicle should be checked by your Land Rover Dealer/Authorised Repairer as soon as possible.

Note: *Tyre condition should be checked after the vehicle has been used off-road. As soon as the vehicle returns to a normal, hard road surface, stop the vehicle and check for damage to the tyres.*

When the tread has worn down to approximately 1.6 mm, wear indicators start to appear at the surface of the tread pattern. This produces a continuous band of rubber across the tread as a visual indicator.

The tyre must be replaced as soon as the wear indicator becomes visible, or sooner, if legislation requires replacement.

Note: *Tread depth should be checked regularly, in some cases more frequently than the service intervals.*

Age degradation

Tyres degrade over time, even when they are not being used. It is recommended that tyres generally be replaced after six years of normal service. Heat caused by hot climates or frequent high loading conditions can accelerate the ageing process.

You should replace the spare tyre when you replace the other road tyres, due to ageing of the spare tyre.

Punctured tyres

WARNING

Do not drive the vehicle with a punctured tyre. Even if the punctured tyre has not deflated, it is unsafe to use as the tyre may deflate suddenly at any time.

Not all punctures result in the tyre deflating immediately. Therefore, it is important to check the tyres for damage and foreign objects regularly.

When driving, if a sudden vibration or change to the vehicle's handling is noticed, reduce speed immediately. Do not brake or make any sudden manoeuvres or direction changes. Drive slowly to an area away from the main highway and stop the vehicle.

Note: *Driving the vehicle to a safe area may cause damage to the punctured tyre, but occupant safety is far more important.*

Inspect the tyres for signs of punctures, damage or under-inflation. If any damage or deformity is detected, the tyre should be replaced. If a spare tyre is not available, then the vehicle should be recovered to a tyre repair centre or Land Rover Dealer/Approved repairer.

Replacement tyres

WARNING

Do not fit cross-ply tyres.

Do not fit tubed tyres.

Do not swap tyres around the vehicle.

Always fit replacement tyres of the same type, and wherever possible, of the same make and tread pattern.

Replacement wheels should be genuine Land Rover parts. This will maintain the designed driving characteristics, both on and off road.

If the use of tyres not recommended by Land Rover is unavoidable, ensure that you read and fully comply with the tyre manufacturer's instructions.

Ideally, tyres should be replaced in sets of four. If this is not possible, replace the tyres in pairs (front and rear). When tyres are replaced, the wheels should always be re-balanced and alignment checked.

The correct tyre specification for your vehicle can be found on the tyre information label. See **Tyre information label** (page 219). For an explanation of the label information, See **WHEELS AND TYRES** (page 255).

Directional tyres

Directional tyres are designed to operate correctly when rotating forwards (when the vehicle is travelling forwards).



LAN0331G

Typical directional tyre indicators

Temporary spare tyre

WARNING

If a temporary spare is in use, the vehicle must be driven with caution at reduced speed (80 km/h [50 mph] maximum). A standard wheel and tyre should be fitted as soon as possible, and only one temporary spare wheel should be fitted to the vehicle at any one time.

Tyre pressures

WARNING

If the vehicle has been parked in strong sunlight or used in high ambient temperatures, do not reduce tyre pressures; instead, move the vehicle into the shade and allow the tyres to cool before checking.

Under-inflation causes excessive flexing and uneven wear to the tyre. This can lead to sudden failure. Over-inflation causes a harsh ride, uneven tyre wear and poor handling.

A hot tyre, at or below the recommended cold inflation pressure, is dangerously under-inflated.

Correctly inflated tyres will ensure that you enjoy the best combination of tyre life, ride comfort, fuel economy and road handling.

Under-inflated tyres wear more rapidly, can seriously affect the vehicle's road handling characteristics and fuel consumption, as well as increasing the risk of tyre failure.
Over-inflated tyres give a harsher ride and wear unevenly.

Tyre pressures should be checked at least once a week with normal road use, but should be checked daily if the vehicle is used off-road.

It is impossible to determine if a tyre is properly inflated just by looking at it.

The recommended tyre pressures are listed on a label on the B pillar on the driver's side (visible with the driver's door open). See **Tyre information label** (page 219).

Tyre pressures listed on the tyre information label are considered to be the recommended cold tyre inflation pressure, at maximum gross vehicle weight condition, measured when the tyres are **cold**, after the vehicle has been parked for at least 3 hours or driven less than 5 km (3 miles).

Check the pressures (including the spare wheel) when the tyres are cold - be aware that it only takes 1.5 km (1 mile) of driving to warm up the tyres sufficiently to affect the tyre pressures.

When you drive for more than 5 km (3 miles), the tyres and the air inside them, warm up and it is normal for the tyre pressure to increase above the recommended cold pressure. When checking tyre pressure in this condition, never reduce air pressure.

Note: *Air pressure naturally increases in warm tyres; if it is necessary to check the tyres when they are warm (after the vehicle has been driven for a while), you should expect the pressures to have increased by up to 30 - 40 kPa (0.3 - 0.4 bar/4 - 6 psi). In this circumstance, do not let air out of the tyres in order to match the recommended cold tyre pressures.*

Note: *The pressure for your spare tyre should be set to the highest value given for your vehicle's wheel/tyre size combination, and adjusted after fitment.*

Note: *When towing heavy trailers or with the tow vehicle loaded, the additional imposed nose weight may cause the GVW tyre loading to be exceeded. This is permissible provided that road speeds are limited to 100 km/h (60 mph) and rear tyre pressures are increased by at least 20 kPa (3 psi). This excludes the temporary spare, where 80 km/h (50 mph) is the maximum permitted speed and tyre pressure should be maintained at the pressures shown on the tyre information label. See* ***Tyre information label*** *(page 219).*

Checking tyre pressures

Where possible, always check the tyre pressures when the tyres are cold, using the following procedure:

1. Remove the valve cap.
2. Firmly attach a tyre pressure gauge/inflator to the valve.
3. Read the tyre pressure from the gauge. If required add air to the tyre.
4. If air is added to the tyre, remove the gauge from the valve and re-attach it before checking that the pressure is correct.

   Failure to remove and re-attach the gauge to the valve could cause the gauge to show an incorrect reading.
5. If too much air is added, remove the gauge from the valve and allow air out of the tyre by pressing the centre of the valve.

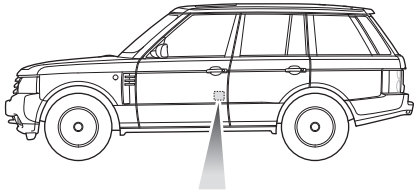
   Reconnect the gauge to the valve and check that the air pressure is correct. If the pressure is still not correct, repeat this process and re-check.
6. Refit the valve cap.

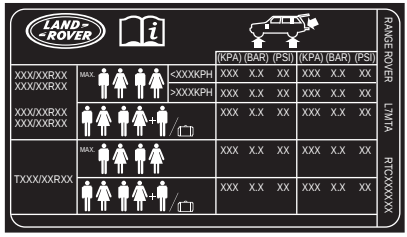
Note: *It is an offence in certain countries to drive a vehicle with tyres that are not properly inflated in accordance with the vehicle's proper use.*

Valves

Keep the valve caps screwed down firmly - they prevent dirt from entering the valve. Check the valve for leaks (listen for a tell-tale hissing) when you check the tyre pressure.

Tyre information label



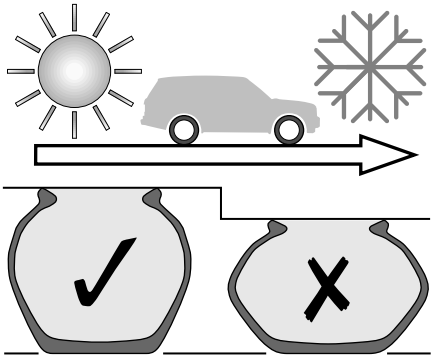


LAN2005

The tyre label is visible on the pillar behind the drivers door (also known as the B pillar), giving information specific to the wheel and tyre equipment fitted to the vehicle when it was built.

This label contains information relating to tyre and wheel sizes along with recommended pressures for all wheel and tyre combinations.

Pressure compensation for ambient temperature changes



LAN0599G

If the ambient temperature drops, the tyre pressures will decrease, which may cause under-inflation. This should be borne in mind when travelling to, or through, areas of lower temperature.

Under-inflation causes the tyre side wall height to reduce which, in turn, results in uneven tyre wear and a risk of tyre failure.

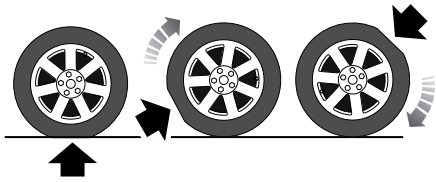
Tyre pressures may be adjusted before setting off on a journey to, or through, areas of low temperature. Alternatively, the tyre pressures can be adjusted when low temperature areas are reached.

Note: *If the tyre pressures are to be adjusted in the lower temperature area, the vehicle should be left standing for at least one hour prior to adjustment.*

Tyre pressures should be increased by 0.14 bar/14 kPa (2 psi) for each 10°C (20°F) temperature decrease.

Flat spots

If the vehicle is stationary for a long period when the ambient temperature is high, the tyres may form flat spots. When the vehicle is driven, these flat spots will cause a vibration, which will steadily disappear as the tyres regain their original shape.



LAN0600G

In order to minimise flat-spotting, the tyre pressures can be increased.

Tyre pressures should be increased by 0.14 bar/14 kPa (2 psi) for each 10°C (20°F) temperature increase.

Long-term storage

Flat-spotting can be minimised during long-term storage, by increasing the tyre pressures to the maximum indicated on the tyre sidewall.

Note: *The tyre pressures should be reduced to the correct pressure, before the vehicle is driven.*

High performance tyre and wheel combinations

Caution: This vehicle may be fitted with a high performance wheel and low profile tyre combination, designed to give enhanced dry road performance, with consideration for aquaplaning resistance.

Low profile, high speed rated tyres have a softer tread compound. If driven aggressively, they may suffer increased tread wear and a shorter life than can be expected from other tyre types. This wheel and tyre combination is susceptible to damage if driven off-road. This combination has less performance in snow and ice conditions than M and S tyres. High performance tyres must be replaced with winter tyres when weather conditions dictate.

USING WINTER TYRES

Winter tyres are more suitable during extremes of low temperatures, snow and ice and will considerably improve the vehicle's handling during these conditions.

Winter tyres must be fitted on all four wheels.

Approved winter tyres

See **WHEELS AND TYRES** (page 255).

Winter tyre pressures:

The cold tyre inflation pressures for winter tyres are the same as those for normal tyres of the same size.

SNOW CHAINS

WARNING

Only use snow chains in heavy snow conditions, on hard road surfaces.

Dynamic Stability Control (DSC) must be switched off when using snow chains. DSC limits wheel spin which is required to maintain traction in deep snow conditions.

Do not exceed 50 km/h (30 mph) when snow chains are fitted.

WARNING

Do not fit snow chains to a temporary use spare wheel.

Snow chains are designed for use on hard-surface roads in extreme snow conditions only, and are not recommended for off-road use. If it is necessary to fit snow chains to your vehicle, always observe the following:

- **Front wheels:** Spike spiders can be fitted to 20 inch front wheels.
- **Rear wheels:** Snow chains can be fitted to 19 inch rear wheels, provided the wheels and tyres conform to the specifications of the original equipment. See **WHEELS AND TYRES** (page 255).
- Snow chains **must not** be fitted to a temporary spare wheel.
- ONLY Land Rover approved chains should be used - these are designed for your vehicle and will eliminate any risk of damage to other components. Approved snow chains are only available from a Land Rover Dealer/Authorised Repairer.
- Always adhere to the snow chain fitting and retensioning instructions and the speed limitations recommended for varying road conditions. Never exceed 50 km/h (31 mph).
- Only fit snow chains in pairs.
- Avoid tyre damage by removing the chains as soon as the road is free from snow.

Caution: Do not fit unapproved snow chains - this could damage tyres, wheels, suspension and brake components and could result in damage to the bodywork of the vehicle.

TYRE PRESSURE MONITORING (TPM)SYSTEM

WARNING

The Tyre Pressure Monitoring (TPM) system system is not a substitute for manually checking tyre pressures.

The TPM system only provides a low tyre pressure warning and does NOT re-inflate the tyres.

Tyre pressures should be checked regularly, when cold, using an accurate pressure gauge.

Failure to properly maintain your pressures could increase the risk of tyre failure, with consequential loss of vehicle control and personal injury.

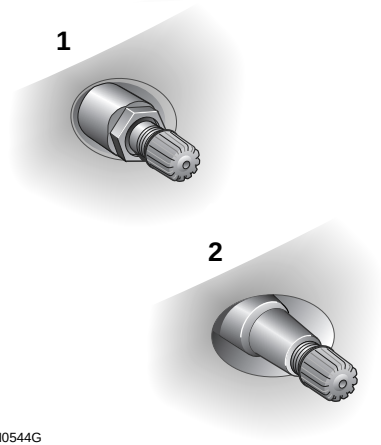
The TPM system cannot register damage to a tyre. Regularly check the condition of your tyres, especially if the vehicle is driven off-road.

Note: *Non-approved accessories may interfere with the system. If this occurs,* ***TYRE PRESSURE MONITORING SYSTEM FAULT*** *is displayed in the message centre.*

Different types of tyre may affect the performance of the TPM system. Always replace tyres in accordance with recommendations. See ***Tyre information label*** *(page 219).*

Your vehicle may be equipped with a TPM system which monitors pressure in each tyre, including the full-size spare tyre. Temporary spare tyres are not fitted with sensors and are consequently not monitored.

Note: *The TPM system only provides a low tyre pressure warning and does* ***not*** *re-inflate the tyres.*



LAN0544G

Wheels fitted with a TPM system can be easily visually identified by the external metal lock nut and valve (**1**). All Land Rover non-TPM system wheels have a rubber valve fitted (**2**).

TPM system operation

The TPM system monitors the pressure of the tyres via sensors located in each wheel and a receiver located within the vehicle. Communication between sensor and receiver is via Radio Frequency (RF) signals.



The tyre pressure warning comprises a yellow warning indicator (telltale) within the instrument pack and an associated message within the message centre.

Each tyre, including the spare (if provided), should be checked regularly, when cold, and inflated to the recommended pressure. The appropriate section of this Owner's Handbook should be consulted for the recommended tyre inflation pressures. When the low tyre pressure warning is indicated, one or more of your tyres is significantly under-inflated.

If the telltale light illuminates, you should stop and check your tyres as soon as possible and inflate them to the recommended pressure. See **Tyre information label** (page 219). If low pressure warnings occur frequently, the cause must be determined and rectified. Driving on a significantly under-inflated tyre causes the tyre to overheat and can lead to tyre failure. Under-inflation also reduces fuel efficiency and tyre tread life, and may affect the vehicle's handling and stopping ability.

The TPM system also monitors the full size spare tyre pressure. If the pressure for the spare tyre is incorrect, the message **CHECK SPARE TYRE PRESSURE** will be displayed, accompanied by illumination of the warning telltale.

When driving through variable climatic conditions, the TPM system warnings may be intermittent.

Caution: When inflating tyres, care should be taken to avoid bending or damaging the TPM system valves. Always ensure correct alignment of the inflation head to the valve stem.

Your vehicle will also indicate a TPM system malfunction by initial flashing and subsequent continuous illumination of the warning telltale. A text message will accompany the system malfunction and will display **TYRE PRESSURE MONITORING SYSTEM FAULT**. The TPM system fault sequence will be activated at every ignition cycle until the fault is rectified. When a malfunction occurs, the system may not be able to detect or signal low tyre pressure as intended.

TPM system malfunctions may occur for a variety of reasons which may include other radio frequency systems that could cause interference or the installation of incompatible replacement tyres on the vehicle.

Spare tyre pressure

A full size spare tyre should be inflated to the highest pressure for the specified tyre size, when not in use on the vehicle.

Temporary use spare tyres must be inflated to the correct pressure as shown on the tyre label.

Full size spare wheel and tyre change

Should it be necessary to change a wheel and tyre with the spare then the system will automatically recognise the change in wheel positions. The vehicle must be driven for a minimum of 15 minutes after a tyre change and then remain stationary for 15 minutes to activate full TPM system operation. After driving above 25 km/h (18 mph) any deflation warning will clear typically within 5 minutes.

Temporary spare wheel and tyre change

If the temporary spare wheel is fitted, the system will automatically recognise the change in wheel positions. Then, after approximately ten minutes of driving above 25 km/h (18 mph), the message **TYRE FRONT (REAR) RIGHT (LEFT) NOT MONITORED** will be displayed, accompanied by illumination of the warning telltale.

The warning telltale will initially flash and will subsequently revert to continuous illumination. Extended use of the temporary spare wheel, will produce an additional text message **TYRE PRESSURE MONITORING SYSTEM FAULT**.

This TPM system display sequence will be activated at every ignition cycle until the temporary spare wheel is replaced by a fully operational full size wheel and tyre assembly.

Always replace the temporary spare wheel before having TPM system faults investigated. The fault may well be rectified with the fitment of a fully operational full size running tyre in lieu of the temporary spare wheel assembly.

Tyre Pressure Monitoring unavailable / winter wheels and tyres

If all four road wheels and tyres are exchanged for a set that do not have TPM system sensors fitted (for example a winter wheel and tyre set), the text message **TYRE PRESSURE MONITORING SYSTEM UNAVAILABLE** will be displayed. The text message will be redisplayed at each ignition cycle. If the text message has been displayed, the TPM system will not be able to warn of low tyre pressure. TPM system sensors should be fitted to the wheels and tyres.

Following the display of **TYRE PRESSURE MONITORING SYSTEM UNAVAILABLE** and the correct fitment of TPM system sensors, the vehicle needs to be driven until the TPM system sensors are recognised by the system. Once the TPM system sensors are recognised, the text message **TYRE PRESSURE MONITORING AVAILABLE** will be displayed.

Vehicle loading

It is possible to select different pressure levels that correspond to the placard pressures for a lightly laden and a heavily laden vehicle. If the vehicle is to be used heavily laden or for towing, the tyre pressures must be increased to cope with the additional load, and the TPM system must be set to heavily laden mode via the instrument panel menu.

1. Select **Vehicle Set-up**.
2. Select **TPMS Load Settings**.
3. Select **Heavy Load**.

When the vehicle load is returned to normal and the tyre pressures are reset, the system should be set to lightly laden mode

If a tyre needs to be changed

It is recommended that you should always have your tyres serviced by a dealer or qualified technician. If a TPM system is fitted, each wheel and tyre assembly, with the exception of a temporary spare is equipped with a tyre pressure sensor connected to the tyre valve stem.

In order to avoid damage to the sensor, the tyres must be removed and refitted to the road wheel in a specified manner. Care must be taken to avoid contact between the bead of the tyre and the sensor during removal and refitting of the tyre, otherwise the sensor may become damaged and/or inoperable.

WARNING

Valve stem seal, washer, nut, valve core and cap should be replaced at every tyre change.

Valve stem seal, washer and nut must be replaced if valve retention nut is loosened. Sensor units and nuts must be refitted using the correct torque figures and associated profile.

Sensors can be removed from the wheel by the unscrewing of the valve retention nut.

Damage to the vehicle may result if these precautions are not taken.

Replacement sensor fitment procedure

Sensor replacement should be carried out by a Land Rover Dealer/Authorised Repairer.

A replacement sensor must be fitted to a running wheel in order to be recognised by the TPM system. The vehicle must remain stationary for 15 minutes during the sensor fitment before the system is ready to detect the new sensor. The vehicle must be driven for a minimum of 15 minutes after a sensor replacement and then remain stationary for 15 minutes to activate full TPM system operation.

Should the TPM system warning for any wheel not clear, even after ensuring correct inflation and driving for more than ten minutes above 25 km/h (18 mph), consult your Land Rover Dealer/Authorised Repairer.

CLEANING THE EXTERIOR

Caution: Some high pressure cleaning systems are sufficiently powerful to penetrate door/window seals and damage trim and door locks. Never aim the water jet directly at the engine air intake, heater air intakes, body seals (doors, sunroof, windows etc.) or at any component which may be damaged (lamps, mirrors, exterior trim etc.).

Do not use a power wash system in the engine bay area, as it may damage fragile components, electrical systems etc.

Ensure that you read and comply with all warnings and instructions supplied with any cleaning products. Never use cleaning products which are not approved for use on vehicles.

Washing the vehicle

Remove heavy deposits of mud and dirt with a hose, before washing the vehicle.

Wash your vehicle frequently, using a sponge and generous quantities of cold or lukewarm water containing a suitable car shampoo. Rinse thoroughly and dry with a chamois leather, or synthetic substitute.

When washing the vehicle:-

- Do not use hot water.
- Only use cleaning products approved for use on vehicles.
- During hot weather, do not wash the vehicle in direct sunlight.

Caution: Substances which are corrosive, such as bird droppings, tree resin, dead insects, tar spots, road salt and industrial fall-out, can damage the vehicle's paintwork. Any such deposits should be removed as soon as possible, to prevent damage to the vehicle's paintwork.

Removing tar spots

Use white spirit to remove tar spots and stubborn grease stains from paintwork. Ensure that after using white spirit, the area is washed immediately with soapy water to remove all traces of spirit.

Underbody maintenance

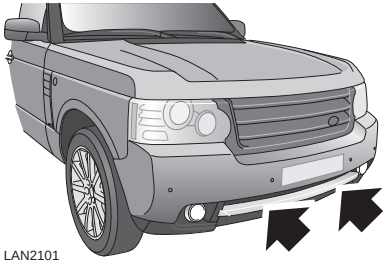
Corrosive materials used on highways to control snow and ice, as well as accumulations from off-road driving or wading in salt water, can collect on the vehicle's underbody. If these materials are not removed, accelerated corrosion can occur. Regularly flush the underbody with plain water and pay particular attention to areas where mud and debris collect.

If damage or corrosion is detected, have the vehicle checked by a Land Rover Dealer/ Authorised Repairer as soon as possible.

Cleaning after driving off-road

Caution: After driving off-road, ensure that areas around air intakes and the front grille are clean and clear of debris. Failure to do so may cause the engine to overheat.

Ensure that the vehicle and underside is cleaned soon after off-road driving, taking particular care to clean areas where mud and debris has compacted.



LAN2101

This should include using a low pressure hose to flush water through the lower grille area (arrowed in illustration), to clean the cooling system components.

Repairing minor paint damage

Regularly inspect the paintwork for damage. and any stone chips, fractures or deep scratches in the paint/bodywork should be repaired promptly. Bare metal will corrode quickly and, if left untreated, can result in expensive repairs.

Minor chips and scratches can be touched-up using materials available from a Land Rover Dealer/Authorised Repairer. Larger areas of damage will require professional repair and you should consult a Land Rover Dealer/Authorised Repairer.

Polishing

Occasionally treat the paint surface with an approved polish containing the following properties:

- Very mild abrasives to remove surface contamination without removing or damaging the paint.
- Filling compounds that will fill scratches and reduce their visibility.
- Wax to provide a protective coating between the paint and the elements.

Note: *Do not apply car polish to the unpainted areas of the bumper mouldings - polish will become ingrained in the textured finished.*

Glass and mirrors

The rear screen and mirror glass should only be cleaned using soapy water and a soft cloth. This will avoid damaging the reflective surface of the mirror and the heating elements and antenna in the rear screen.

Never use abrasive cleaning products or metal ice scrapers on the mirrors or the front/rear screens.

CLEANING THE INTERIOR

WARNING

Ensure that you read all of the information and instructions for use, which are provided with cleaning products. Some products contain substances that are harmful and can cause health problems if used incorrectly.

Caution: Ensure that you read all of the information and instructions for use, which are provided with cleaning products. Some products, if used incorrectly, can cause damage to the interior surfaces of the vehicle.

Plastic and cloth

Clean plastic or cloth faced surfaces with warm water and non-detergent soap, then wipe clean with a soft cloth.

WARNING

Do not polish the instrument panel. Polished surfaces are reflective and may interfere with the driver's view.

Leather

Caution: Only use cleaning products specifically designed for use on leather. Do not use chemical, alcohol or abrasive materials, as they will cause rapid deterioration of the leather. The use of products which are not approved, will invalidate your warranty.

If you are in any doubt as to which products to use, consult your Land Rover Dealer/ Authorised Repairer.

It is recommended that leather is cleaned and protected at least every six months, using Land Rover leather cleaning kit BAC500490. Use only in accordance with the instructions.

Note: *Some materials/fabrics are prone to dye transfer, which can cause unsightly discolouration to lighter coloured leathers. Affected areas should be cleaned and re-protected as soon as possible.*

Carpets and fabrics

Only clean with a dilute solution of an approved upholstery cleaner. It is advisable to test all cleaners on a concealed area before use.

Instrument pack, clock and audio equipment

Only use a soft, dry cloth to clean the instrument pack, clock and audio equipment. Do not use cleaning fluids or sprays.

Seat belts

Extend the seat belts fully, then use warm water and a non-detergent soap to clean. Allow the seat belts to dry naturally while fully extended.

WARNING

Do not allow any water, cleaners or fabric from cloths, to enter the seat belt mechanism. Any substance which enters the mechanism may affect the performance of the seat belt in an impact.

Note: *When cleaning the seat belt, take the opportunity to examine the webbing for damage/wear.*

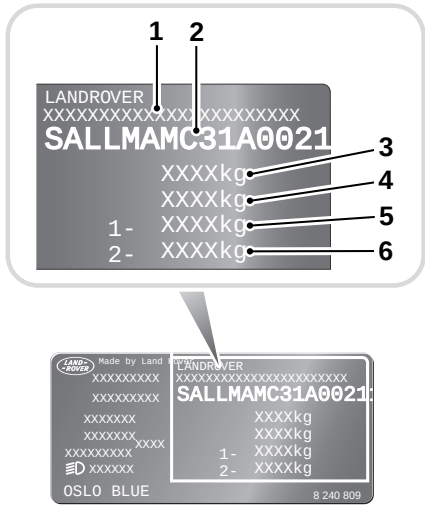
Airbag module covers

WARNING

Airbag covers should only be cleaned using a slightly dampened cloth and a small amount of upholstery cleaner.

Do not allow the airbag covers or surrounding areas, to become contaminated with liquids. Any substance which enters the mechanism, can prevent correct deployment of an airbag during an impact.

VEHICLE IDENTIFICATION NUMBER (VIN)



LAN0479G

1. Type approval (where required).
2. Vehicle Identification Number (VIN).
3. Gross vehicle weight (where required).
4. Gross train weight (where required).
5. Maximum front axle load (where required).
6. Maximum rear axle load (where required).

If you need to communicate with a Land Rover Dealer/Authorised Repairer, you may be asked to quote the Vehicle Identification Number (VIN).

The VIN is stamped on a plate which is visible through the lowest part of the left side of the windscreen (this should match the VIN recorded in the Service Portfolio book). VIN information may also be found in areas such as: Bonnet locking platform, suspension tower and door shut faces.

VEHICLE BUILT DATE (Australia only)

This is the calendar month and year in which the body and power train assemblies were conjoined and the vehicle was driven from the production line.

The vehicle built date is printed on a label in the engine compartment.

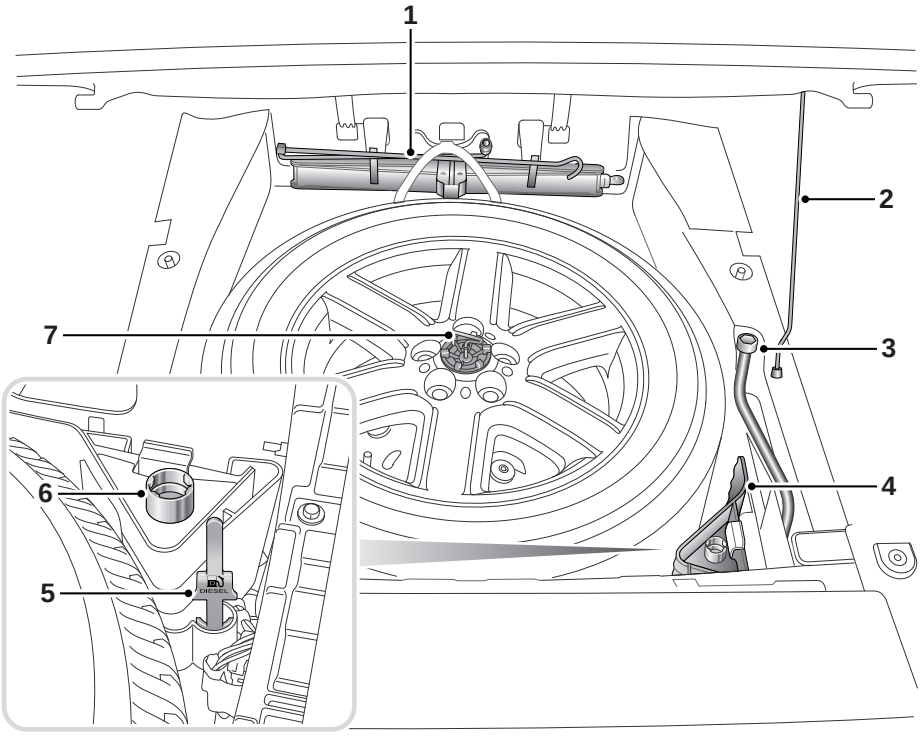
ENGINE NUMBER

The engine number is stamped on the cylinder block on the right-hand side of the engine.

Engine number (V8 petrol)

The engine number is located on the front of the right-hand cam cover. To access the number, it is necessary to remove the engine covers. For further information contact your dealer/authorised repairer.

TOOL KIT



LAN0480G

The wheel change tool kit is stowed in the spare wheel well, under an access hatch in the rear loadspace area.

1. Wheel change jack.
2. Spare wheel hatch support stay.
3. Wheel nut brace.
4. Wheel chocks.
5. Diesel misfuel protector reset tool.
6. Locking wheel nut adaptor.
7. Spare wheel retaining bolt.

WARNING

After wheel changing, always secure tools, chocks, jack and replaced wheel in their correct storage positions. Such objects if not properly stowed can become missiles in a crash or roll-over, potentially causing injury or death.

Care of the jack

Examine the jack occasionally, clean and grease the moving parts, particularly the screw thread, to prevent corrosion.

To avoid contamination, the jack should always be stowed in its fully closed position.

WHEEL CHANGING

If a wheel change is required, pull off the road completely. Park on ground which is as level and solid as possible. Ensure that the vehicle is clear of any objects that will obstruct the safe removal of the wheel. Switch on the hazard warning lights, and where legally required, display a warning triangle.

Caution: If the vehicle is fitted with the optional Deployable Side Steps, do not attempt to jack up the vehicle. The steps must be removed before jacking can proceed. Refer to the information supplied with the side steps for removal details. Alternatively, refer to your Warranty Benefits book and contact the appropriate recovery service for assistance.

Always ask your passengers to get out of the vehicle and wait in a safe area away from other traffic. Disconnect any attached trailer or caravan.

Before changing a wheel, ensure the front wheels are in the straight ahead position (if possible), apply the parking brake, select **P** (Park) and select Low range in the transfer box.

Before attempting to raise the vehicle using a jack, the suspension must be set to 'On Road' or 'Normal' height.

Switch the ignition off. Observe the following precautions:

- Ensure the jack will be positioned on firm, level ground. Never on soft ground, or over metal gratings or manhole covers. Do not place additional material between the jack and the ground, this may jeopardise the safety of the jacking operation.
- Chock the wheels.
- Never raise the vehicle with passengers inside, or with a caravan or trailer connected.

Tilt sensor

Your vehicle is fitted with a tilt sensor which activates the alarm if the vehicle is tilted fore and aft, or side to side, after it has been locked.

If you wish to have the doors locked while jacking up the vehicle, for any reason, lock the doors by pressing the lock button twice within 10 seconds. If you use the key to lock the doors, turn the key in the driver's door lock towards the rear of the vehicle twice within 10 seconds.

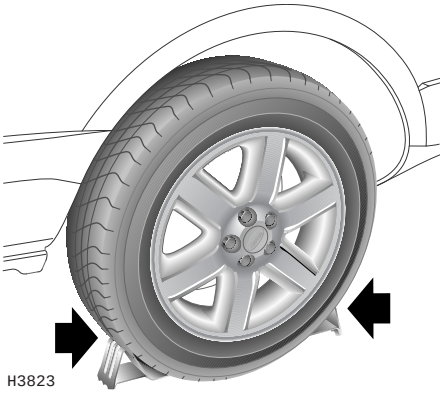
Using wheel chocks

WARNING

When lifting the vehicle, ensure the vehicle is parked on level ground.

Before raising the vehicle, the road wheel diagonally opposite must be securely chocked. Both chocks must be used on opposite sides of the wheel and must be securely pushed against the tyre.

If jacking the vehicle on a slope is unavoidable, place the chocks on the downhill side of the two opposite wheels.


H3823

The wheel chocks are stowed in the spare wheel well. See **TOOL KIT** (page 230).

Using the warning triangle

Storage position for a warning triangle is provided behind the rear loadspace access hatch. See **REAR LOADSPACE ACCESS HATCH** (page 118). for instructions on opening the hatch.

Place the warning triangle at a suitable distance behind the vehicle, to warn other drivers of a possible obstruction.

TEMPORARY SPARE WHEEL

Some vehicles, while fitted with alloy road wheels, have a reduced size steel or alloy wheel as a spare.

This is designated a **temporary use spare** and is shown by having a speed restriction label attached to the wheel. Please see read the following warnings carefully and ensure they are fully understood.

WARNING

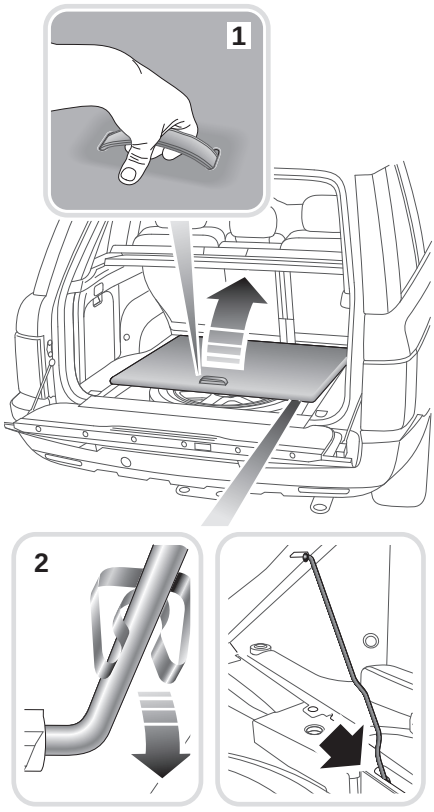
The following precautions must be observed when the temporary spare wheel is in use:

- **Drive cautiously; the temporary spare wheel tyre is smaller in size and higher in pressure than a regular tyre. It will cause a harsher ride and may have less traction on some road surfaces. If driving off-road on a temporary spare wheel, drive with extra caution.**
- **The temporary spare wheel is for temporary use only. It must be replaced by a normal-sized wheel and tyre as soon as possible.**
- **Only one temporary spare wheel is to be used on the vehicle at any one time.**
- **Do not drive at a speed exceeding 80 km/h (50 mph).**
- **The tyre pressure in the temporary use spare wheel/tyre should be as specified in the wheels and tyres section. See WHEELS AND TYRES (page 255).**
- **The temporary spare wheel has a shorter life than a regular tyre. Replace the tyre with the same type and specification.**
- **The use of snow chains is not permitted on a temporary spare wheel.**

REMOVING THE SPARE WHEEL

WARNING

The wheels are extremely heavy. Take care when lifting and particularly when removing the spare wheel from the rear loadspace and when lifting the replaced wheel back into the spare wheel well.



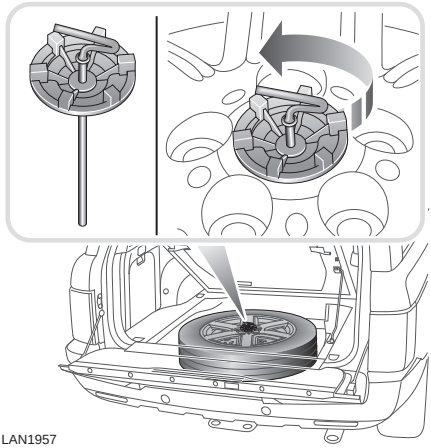
LAN1956

To access the spare wheel well, it is necessary to fold the rear edge of the loadspace cover forward. See **LOADSPACE COVER** (page 120).

With the tailgate open:

1. Lift the handle (1) to open the spare wheel access hatch.
2. Unclip the support stay (2) from the underside of the hatch and slot the end into the hole to the side of the spare wheel aperture (solid arrow in inset), to keep the access hatch open.

   Unhook the wheel changing jack restraining strap and remove the jack. Remove the wheel chocks and wheel nut brace. See **TOOL KIT** (page 230).
3. Loosen the spare wheel retaining bolt, remove bolt and spare wheel.



LAN1957

CHANGING A WHEEL

Note: *If the vehicle is fitted with the optional Electronic Side Steps, do not attempt to jack up the vehicle. Refer to your Warranty Benefits book and contact the appropriate recovery service for assistance.*

Positioning the jack

WARNING

The vehicle jack supplied with your vehicle should only be used when changing a wheel in emergency situations.

Before using the vehicle jack, check that it is not damaged or deformed and that the thread is lubricated and free from foreign matter.

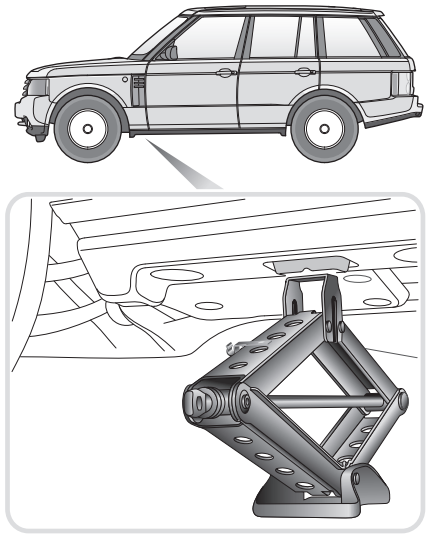
Never place anything between the jack and the ground, or the jack and the vehicle.

Never work beneath the vehicle with the jack as the only means of support. The jack is designed for wheel changing only. Always:

- **Place the jack on firm, level ground.**
- **Position the jack from the side of the vehicle, in line with the appropriate jacking point.**
- **Raise the jack so that the pin in the head of the jack engages with a hole in the chassis rail at the points shown in the illustrations.**

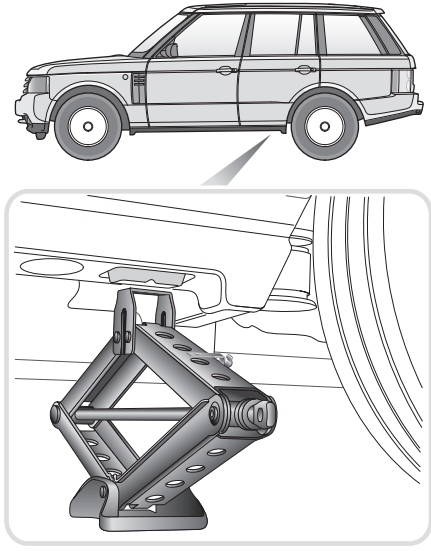
Caution: Use only the specified jacking points. If you use other positions, you may damage the body, steering, suspension, engine, braking system or the fuel lines.

Always position the jack from the side of the vehicle in line with the appropriate jacking point. Ensure the jack is positioned on firm, level ground.



LAN1958

Front jacking point

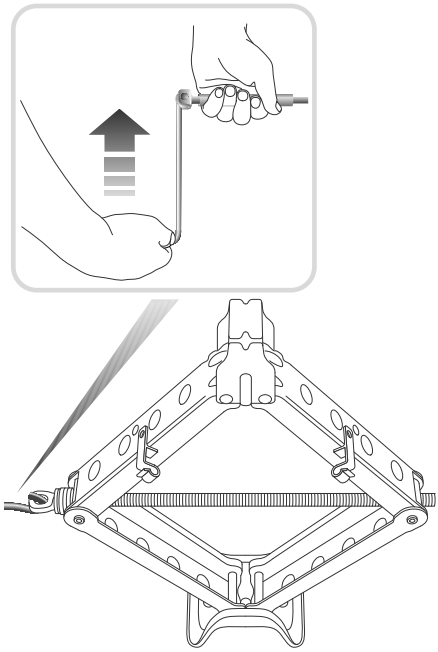


LAN1959

Rear jacking point

Wheel Changing

Operating the jack



H4110

Position the jack under the relevant jacking point, attach the jack cranking handle to the jack.

Turn the jack handle clockwise to raise the jack cradle until it engages with the jacking point.

Ensure that the base of the jack is in full contact with the road surface.

WARNING

Always use the jack lever throughout to minimise any chance of accidental damage or injury.

Changing a wheel

WARNING

Make sure that the vehicle is on firm, level ground with the wheels pointing straight ahead.

Make sure that the jack is vertical to the jacking point and the base is flat on the ground.

Have the passengers leave the vehicle.

Do not work underneath the vehicle when it is supported only by a jack.

1. Before raising the vehicle, use the wheel nut brace to slacken the wheel nuts half a turn anticlockwise.
2. Raise the vehicle until the tyre is clear of the ground.
3. Remove the wheel nuts and place to one side to prevent them from being lost.
4. Remove the road wheel.

Caution: Do not damage the surface of the wheel by placing it face down on the road.

5. On alloy wheels, use an approved anti-seize compound to treat the wheel mounting bore. This will minimise any tendency for adhesion between the wheel and the bore.

   Ensure that no compound comes into contact with the brake components or the flat mounting surfaces of the wheel.

   If, due to an emergency situation, this treatment is not practicable; refit the spare wheel for the time being, but remove and treat the wheel at the earliest opportunity.
6. Fit the spare wheel and lightly tighten the wheel nuts, ensuring they are firmly seated. Do not fully tighten whilst the tyre is clear of the ground.

WARNING

When fitting a wheel, ensure that the mating faces of the hub and wheel are clean and free from rust or anti-seize compound - any accumulation of dirt or rust could cause the wheel nuts to become loose and result in an accident.

7. Ensure that the space under and around the vehicle is free from obstructions then lower the vehicle and remove the jack and wheel chocks.
8. Fully tighten the wheel nuts in an alternating pattern until all are tightened. Do not overtighten by using foot pressure or extension bars on the wheel stud brace, as this could overstress the wheel nuts. Check the wheel nut torque at the earliest opportunity.

Road wheel nut torque	140 Nm (103 lbf.ft)

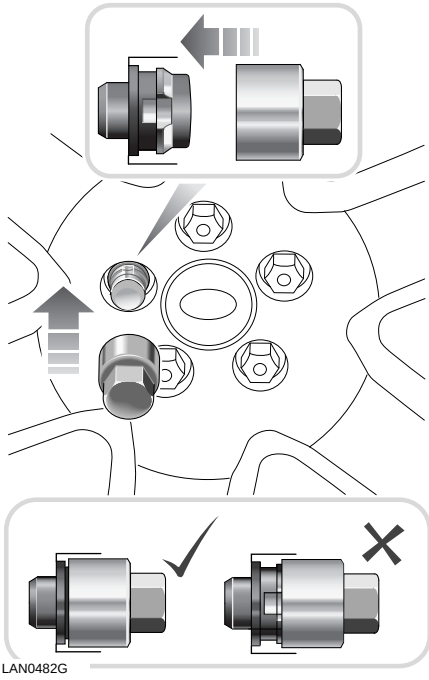
9. Using a suitable blunt tool, apply light pressure to the rear of the replaced wheel centre cap and remove. Using hand pressure only, fit the centre cap into the newly fitted wheel. Return tools, chocks, jack and the replaced wheel to their correct storage positions.

   Note: *Storing the wheel in the spare wheel well can be achieved by following the spare wheel removal procedure in the reverse order.*
10. Remember to change to High range before driving.
11. Finally, check the tyre pressure at the earliest opportunity. See **WHEELS AND TYRES** (page 255).

For additional information on your tyres, See **TYRE CARE** (page 216).

LOCKING WHEEL NUTS

Vehicles may be equipped with a locking wheel nut on each wheel. These are similar to standard wheel nuts but can only be removed using the adaptor provided in the tool kit.



LAN0482G

Note: *A code number is stamped on the locking nut. Ensure the number is recorded on the Security Information card supplied with the literature pack. Quote this number if a replacement is required. Do not keep the Security Information card in the vehicle.*

Insert the adaptor firmly onto the locking wheel nut. Using the wheel nut brace, unscrew the wheel nut and adaptor.

Return the locking wheel nut adaptor to the correct storage position.

STARTING AN ENGINE WITH A DISCHARGED BATTERY

Using booster cables (jump leads) from a donor battery, or a battery fitted to a donor vehicle, is the only approved method of starting a vehicle with a discharged battery. This procedure differs to that used to charge a battery, which should not be attempted with the battery connected to the vehicle.

Push or tow starting is not recommended.

WARNING

Always wear appropriate eye protection when working with batteries

During normal use, batteries emit explosive hydrogen gas - ensure sparks and naked lights are kept away from the engine compartment.

Do not attempt to start the vehicle if the electrolyte in the battery is suspected of being frozen.

Make sure both batteries are of the same voltage (12 volts), and that the booster cables have insulated clamps and are approved for use with 12 volt batteries.

Do not disconnect the discharged battery.

Do not connect positive (+) terminals to negative (-) terminals, and ensure booster cables are kept away from any moving parts in the engine compartment.

Take care when working near rotating parts of the engine.

Boosting from another vehicle

Caution: If using a donor vehicle, under no circumstances should the vehicles come into contact with each other. This could establish an earth connection, which may cause sparks and damage.

If a donor vehicle is to be used, both vehicles should be parked with their battery locations adjacent to each other. Ensure that the two vehicles do not touch.

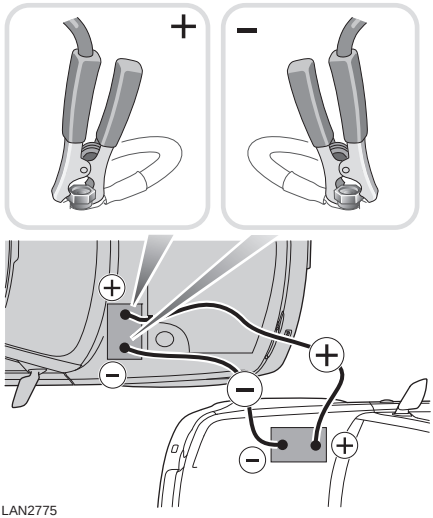
On both vehicles, apply the parking brake and ensure that the transmission is set in neutral (**P** - park for vehicles with automatic transmission).

Switch the ignition off and all electrical equipment of both vehicles, then follow the connection instructions on the following page.

WARNING

Do not use a 24 volt booster start system. These produce excessive voltage and can damage the vehicle's electrical system.

BOOSTING PROCEDURE



Caution: Ensure that you have read and fully understood the information and warnings given earlier in this section. See STARTING AN ENGINE WITH A DISCHARGED BATTERY (page 237). See Boosting from another vehicle (page 237).The aforementioned sections should be read fully and understood before attempting to give or receive a booster start.

Always adopt the following procedure, ensuring the booster cables are connected in the order shown below:

1. On the donor vehicle, connect one end of the Red booster cable to the positive (**+**) terminal of the battery.
2. On the disabled vehicle, connect the other end of the Red booster cable to the positive (**+**) terminal of the battery.
3. On the donor vehicle, connect one end of the black booster cable to the negative (**-**) terminal of the donor battery.
4. On the disabled vehicle, connect the other end of the black booster cable to the negative (**-**) terminal on the battery.
5. Check that the cables are clear of any moving parts of both engines, then start the engine of the donor vehicle and allow it to idle for a few minutes.
6. Start the disabled vehicle. When both engines are running normally, allow them to idle for two minutes before switching off the donor vehicle engine.

Caution: Do not switch on any electrical circuits on the previously disabled vehicle until after the booster cables have been removed.

Caution: If the engine does not start straight away, the battery will need to be removed to be charged or to be replaced.
See DISCONNECTING THE BATTERY (page 213).

Disconnecting the booster cables must be an exact reversal of the procedure used to connect them.

If the vehicle power supply has been interrupted, ABS and DSC will be deactivated (the relevant warning indicators will illuminate). They can be reactivated by driving a short distance or by turning the steering wheel from full lock to lock, with the engine running and the vehicle stationary. The ABS and DSC warning indicators will extinguish when the systems are reactivated.

FUSES

Fuses are simple circuit devices which protect electrical equipment against the effects of excess current.

A blown fuse is indicated when the electrical equipment it protects becomes inoperative.

Fuses are colour coded to help identify their amperage, as follows:

Fuse colours

VIOLET	3 amp
TAN	5 amp
BROWN	7.5 amp
RED	10 amp
BLUE	15 amp
YELLOW	20 amp
WHITE	25 amp
GREEN	30 amp
ORANGE	40 amp

Checking or renewing a fuse

Always switch the ignition off and switch off the affected electrical circuit, before removing a fuse.

The fuse removal tweezers are located in the passenger compartment fusebox. Press the tweezers onto the head of the suspect fuse and pull to remove. A break in the wire inside the fuse indicates that the fuse has blown and must be replaced.

Caution: Always switch off the ignition, and the affected circuit, before replacing a fuse.

Caution: Fit Land Rover approved replacement fuses of the same rating and type, or fuses of matching specification. Using an incorrect fuse may result in damage to the vehicle's electrical system and can result in a fire.

Engine compartment fuses

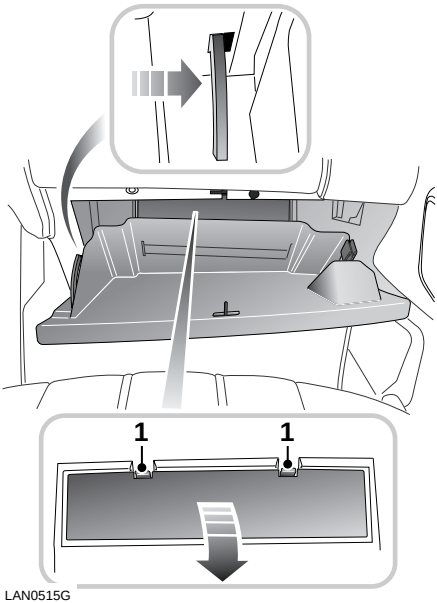
WARNING

Failure of any fuses or relays contained within the engine compartment, should only be investigated by a qualified technician.

Some fuses are located in the engine compartment, including the Pre-fuses (located adjacent to the battery) and engine management fuses (located in the electronic control box).

These fuses should be accessed or replaced only by a qualified technician.

PASSENGER COMPARTMENT FUSE BOX



LAN0515G

The passenger compartment fuse box is fitted behind the lower glove box; to access the fuses, open the glove box, then release the left-hand support stay as shown (see upper inset). This allows the glove box to open to the service position.

Remove the fuse box cover by pressing down on the catches (1) while pulling the cover rearwards.

Note: *There are a number of spare fuses included within the fuse box (see fuse box label).*

A label in the fuse box cover shows the circuits protected, the fuse values and their locations. They are also listed on the following page.

Fuse specification

Fuse number	Rating (amps)	Circuit protected
1	5	Interior motion sensor, RF receiver, TPMS receiver
2	-	Spare
3	10	Front fog lights
4	-	Spare
5	5	Slip control, yaw rate sensor, steering angle sensor
6	5	Adaptive Cruise Control (ACC), brake light switch
7	20	Rear climate seats
8	30	Passenger's powered front seat, rear electric seats
9	5	Electric Parking Brake (EPB)
10	5	Air suspension
11	10	Reverse lights - trailer

Fuses

Fuse number	Rating (amps)	Circuit protected
12	5	Reverse lights
13	-	Spare
14	5	Brake pedal switch, EMS (Diesel only)
15	30	Heated rear screen
16	5	Spare
17	5	Keyless start
18	-	Spare
19	5	Engine Management System (EMS)
20	10	Heated steering wheel
21	10	Climatic seats, rear air conditioning, centre console switchpack
22	5	Transmission, rear differential, transfer box, centre console switchpack
23	5	Adaptive front lighting system
24	10	Right hand side markers, right hand tail lamp
25	10	Left hand side markers, left hand tail lamp, number plate lamps
26	-	Spare
27	10	Tail lamps - trailer
28	20	Rear climate seats
29	20	Driver's climatic seat / heated seat
30	25	Passenger's door
31	5	Rain sensor
32	25	Driver's door
33	20	Passenger's climatic seat / heated seat
34	10	Fuel filler door locking / fuel filler door unlocking
35	-	Spare
36	5	Battery backed alarm sounder
37	-	Spare
38	15	Front screen washer
39	25	Left hand rear door
40	5	Driver's window switch pack, clock, seat switch packs, front seat lumbar
41	5	Telephone
42	30	Driver's powered seat, rear electric seats
43	15	Rear screen washer

Fuses

Fuse number	Rating (amps)	Circuit protected
44	25	Right hand rear door
45	30	Passenger's powered seat, rear electric seats
46	30	Driver's powered seat, rear electric seats
47	20	Sunroof
48	30	Trailer
49	5	Adaptive front lighting -right hand headlamp motor
50	5	Adaptive front lighting -left hand headlamp motor
51	5	Steering wheel switches
52	20	Front cigar lighter, centre console accessory socket
53	-	Spare
54	-	Spare
55	20	Loadspace accessory socket
56	10	Airbags
57	10	Map lamps, glovebox lamp, battery saver circuits
58	30	Deployable sidestep
59	-	Spare
60	-	Spare
61	10	Instrument panel
62	10	Climate control
63	20	Rear cigar lighter, front accessory socket
64	15	Head unit, DVD autochanger, touch screen display
65	5	Venture cam, surround camera
66	5	Diagnostics socket
67	15	Rear seat entertainment
68	10	Infotainment, touch screen display
69	5	Compact disc (CD) autochanger

REAR LOADSPACE FUSE BOX

The fuse box is situated on the right-hand side of the loadspace behind the rear loadspace access hatch. Pull the handle to open the panel, See **REAR LOADSPACE ACCESS HATCH** (page 118).

Fuse specification

Fuse number	Rating (amps)	Circuit protected
1	30	Audio system amplifier
2	15	Adaptive dynamics
3	5	Parking aid, blind spot monitor (BSM), camera - rear view only
4	10	Rear air conditioning
5	20	Air suspension
6	30	Electronic Park Brake (EPB)
7	40	Audio system amplifier
8	15	Trailer
9	-	Spare
10	-	Spare
11	5	Glove compartment
12	-	Spare
13	5	Air suspension compressor
14	15	Rear blower motor
15	15	Rear screen wiper
16	5	Auxiliary heater
17	-	Spare
18	-	Spare
19	-	Spare
20	30	Rear seat heaters

REPLACING BULBS

Check the operation of all exterior lamps before you drive the vehicle.

Caution: Before attempting to replace a bulb, ensure that both the affected lamp and the vehicle's ignition are turned off. If the circuit remains live a short circuit can occur which may damage the vehicle's electrical system.

Always replace bulbs with the correct type and specification. If you are in any doubt contact your Dealer/Authorised Repairer for advice.

Replacement bulbs

Note: *All bulbs must be rated at 12 Volts.*

Bulb	Watts
Headlamps main beam	55 (H7)
Front fog lamps	55 (H11)
Side repeater lamps	5
Reverse lamps	6 (H6)
Number plate lamps	5
Door/puddle lamps	5
Interior lamps	6
Luggage/footwell lamps	5
Luggage/tailgate lamps	6
Glovebox lamp	5
Vanity mirror lamp	1.2

Note: *In certain territories it is a legal requirement to carry spare bulbs, in case of bulb failure. A replacement bulb kit is available as an approved accessory from your Land Rover Dealer/Authorised Repairer.*

Halogen bulbs

Halogen bulbs are used for high beam, front fog lamps and reverse lamps. Take care not to touch this type of bulb with your fingers; always use a cloth to handle them. If necessary, clean the bulb with methylated spirits to remove fingerprints.

Xenon lamps

WARNING

Replacement or maintenance of Xenon lamps should only be carried out by suitably qualified personnel.

High voltage is required to ignite the gas and metal vapour which are used to power Xenon lamps. Contact with this voltage can cause serious injury.

Xenon lamp units operate at a very high temperature. Ensure that the lamp units have cooled before attempting to touch them.

Some vehicles are fitted with Xenon headlamp units. Xenon lamps provide significantly improved visibility, especially during adverse weather.

The operational life of a Xenon lamp is significantly longer than that of a conventional or halogen bulb.

Seek advise about the proper disposal of Xenon lamp units from a Land Rover Dealer/Authorised Repairer or your local authority.

Light emitting diodes (LEDs)

Controls, displays and some lights and other equipment items inside your vehicle have light emitting diodes (LEDs) behind a cover as their light source. These LEDs resemble conventional lasers and are classified by law as **Class 1 light emitting diodes**. Replacement LEDs should be fitted only by qualified personnel.

WARNING

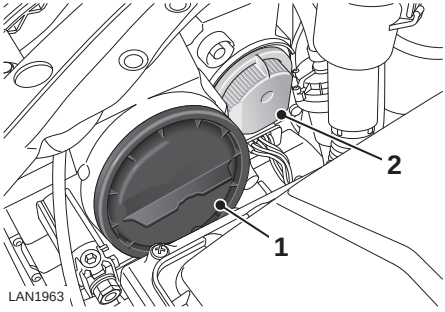
Do not remove the cover or expose the eyes directly to the unfiltered light source for several hours at a time, as this could cause irritation to the iris.

HEADLAMP UNIT

WARNING

Do not attempt to change any bulb with the lighting switched on. If the lighting has just been switched off, give the bulbs time to cool. Handling them when hot may cause personal injury.

Bulb access

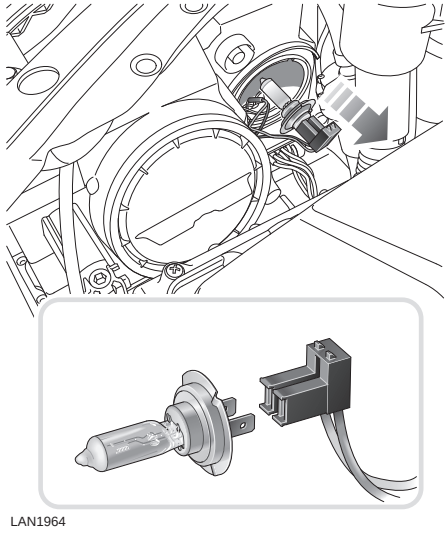


The bulbs within the headlamp unit are:

1. Xenon bi-functional.
2. Halogen high beam.

The type of bulb to be used in each case is marked on the back of the headlamp unit. See **Replacement bulbs** (page 244).

To change a halogen high beam bulb

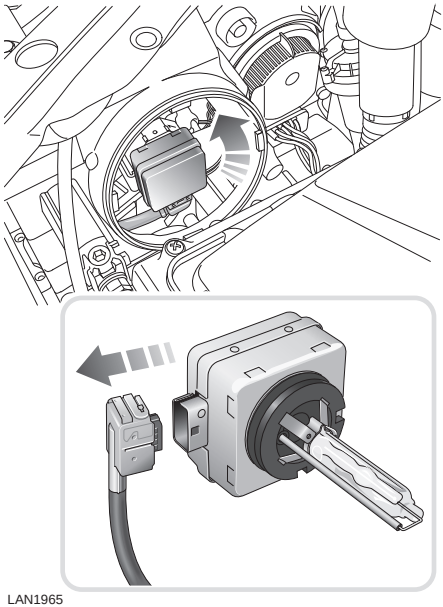

LAN1964

1. Twist and lift off the cap.
2. Pull out the bulb holder, complete with bulb, from the headlamp unit.
3. Prise the bulb from the holder and replace with a new bulb.
4. Replace the bulb holder into the headlamp unit and push into place. Note that the cut outs in the bulb ring should be on top when refitting into the headlamp unit.

Note: *After the replacement of any high or low beam bulb, the alignment of the headlamps should be checked by a Land Rover Dealer/ Authorised Repairer.*

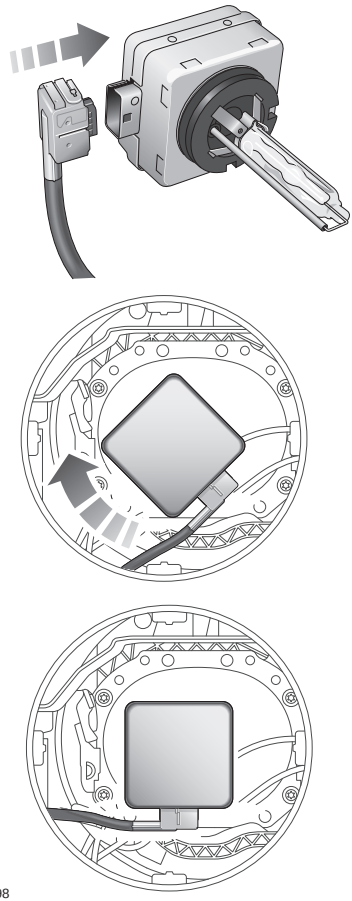
Bulb Replacement

To change a xenon bulb



LAN1965

1. Twist and lift off the cap.
2. Twist the connector cap anticlockwise to unlock it and carefully withdraw the bulb assembly, taking care not to bring the bulb into contact with the unit casing.
3. Disconnect the electrical connector and pull it clear of the bulb assembly.

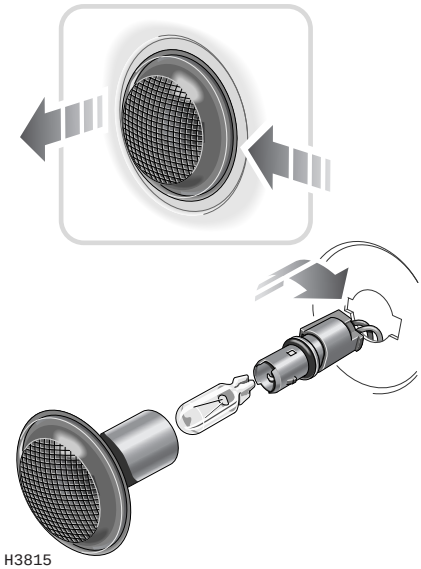


LAN2498

1. Reconnect the electrical connection and carefully insert the new bulb assembly into the lamp unit.
2. Twist the bulb unit clockwise to lock it in place.

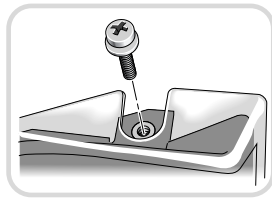
Bulb Replacement

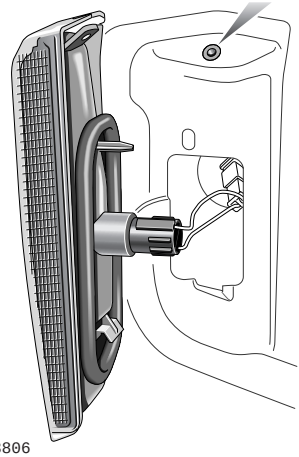
SIDE REPEATER LAMP


H3815

Push the lens firmly towards the rear of the vehicle and prise out the leading edge. Move the unit forward to release the spring catch and withdraw the lamp unit from the wing. Twist to release the bulb holder from the lens unit, then pull the bulb from its socket.

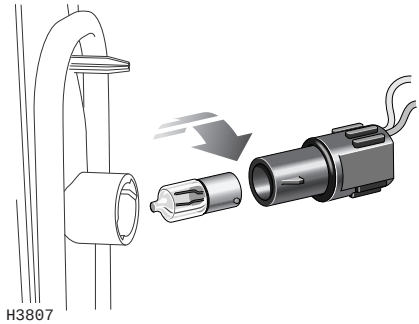
REVERSE LAMPS




H3806

The reverse lamps are located on either side of the rear number plate, mounted on the lower tailgate.

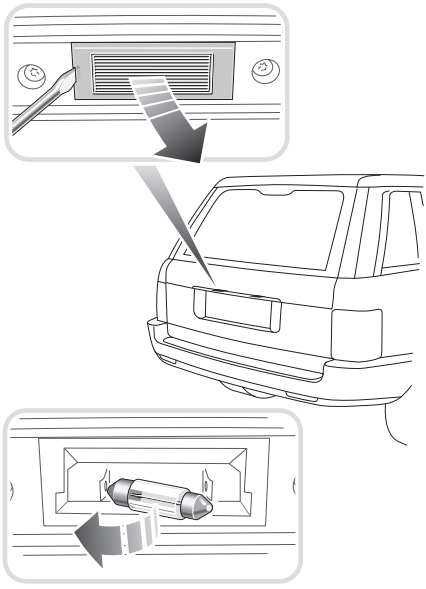
With the upper tailgate raised, remove the screw to release the lamp unit from the tailgate.


H3807

Twist and pull the bulb holder to release from the rear of the lamp unit, then pull the bulb to remove.

Note: *Do not touch the replacement bulb glass with your fingers. If necessary, clean the bulb with methylated spirits.*

NUMBER PLATE LAMPS



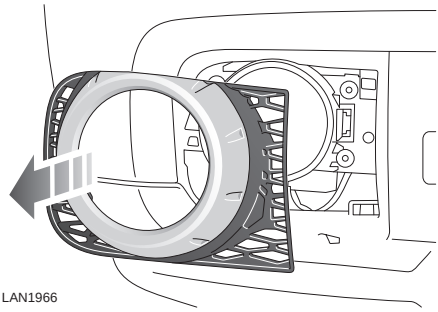
LAN2112

With the upper tailgate open and using a suitable tool, lever the lens from the tailgate (see inset). Pull the bulb to remove.

FRONT FOG LAMPS

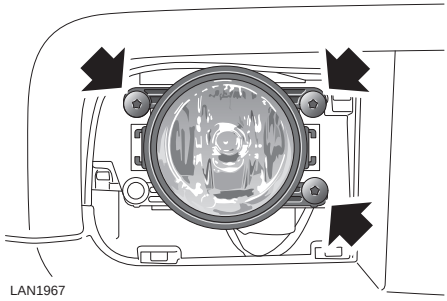
To change a front fog lamp bulb

1. insert a flat screw driver blade through the lower section of the grille. Lift and release the securing tabs at the bottom of the fog lamp surround and pull it forward to remove.



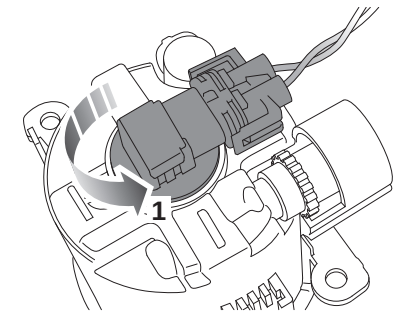
LAN1966

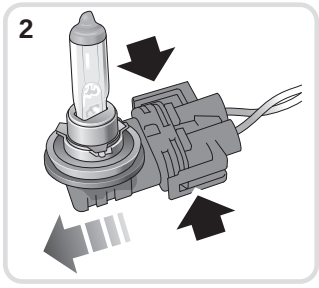
2. Remove the three securing screws to release the lamp unit. Ease the unit out of the front bumper.



LAN1967

3. Twist the bulb holder anti-clockwise to unlock, then pull out the bulb complete with electrical connector.





LAN2433

4. To release the bulb, depress the two catches (solid arrows in inset), then pull to remove the bulb from the holder.
5. Before fitting the replacement bulb, note the flat area and the tab on the otherwise circular shape of the bulb mounting flange. The tab acts as a key to enable correct positioning of the bulb in the bulb holder.

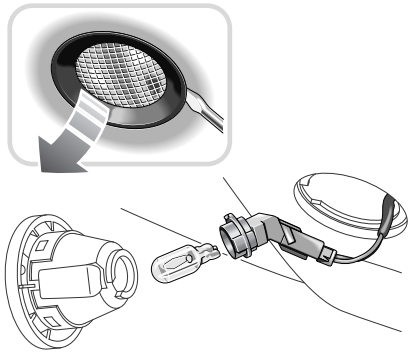
   Note:

   Do not touch the bulb glass with your fingers. If necessary, clean the bulb with methylated spirits.
6. Insert the new bulb and repeat the above procedure in reverse order.

Note: *After the replacement of a fog lamp bulb, the alignment of the lamp should be checked by a Land Rover Dealer/Authorised Repairer.*

UPPER FOOTWELL LAMPS

The lamps are located on the lower edge of the fascia and lower glove box lid.

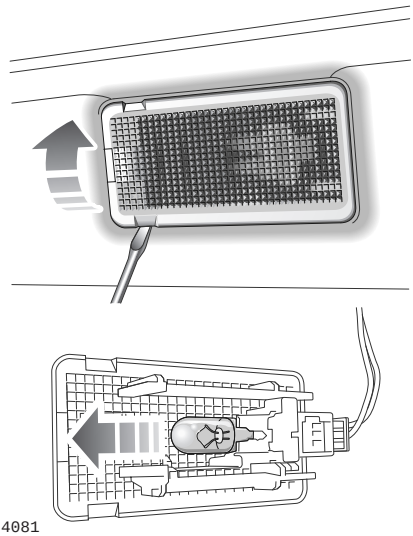


H3884

Insert a small flat-bladed screwdriver under the side of the lamp unit and carefully prise the unit out of the footwell.

Twist and pull the bulb holder access the bulb and pull the bulb to remove.

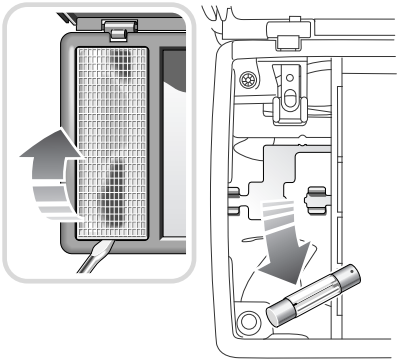
PUDDLE/LOWER FOOTWELL LAMPS



H4081

With the relevant door open, insert a small flat-bladed screwdriver under the forward edge of the lens, to lever the lamp unit out of the door. Pull the bulb out to remove.

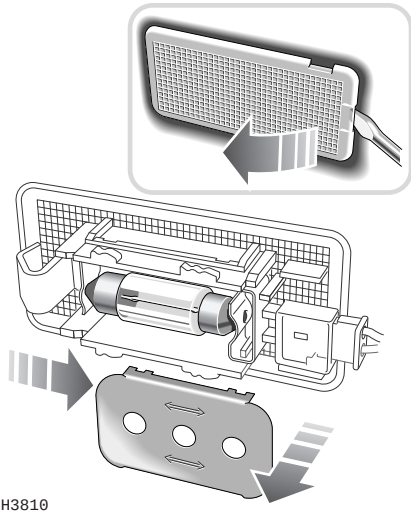
VANITY MIRROR LAMPS



H3882

With the vanity mirror cover open, use a small flat-bladed screwdriver to lever the relevant lens from the mirror/lamp unit. Pull out bulb to remove.

LUGGAGE LAMP



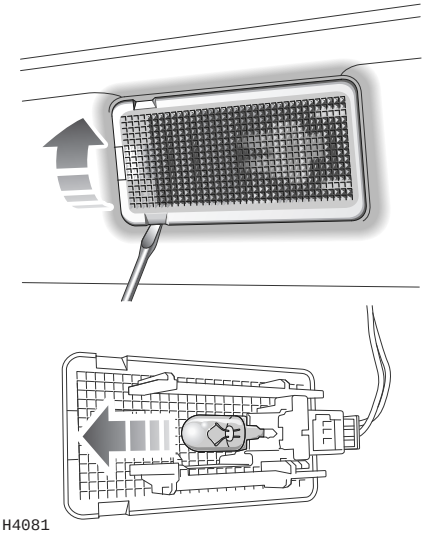
H3810

Insert a small flat-bladed screwdriver into the indent on the side of the lens and carefully prise the lens from the lamp unit (see inset).

Slide the metal plate to the right and then pull away from the back of the lamp unit (see main illustration). Pull the bulb to remove.

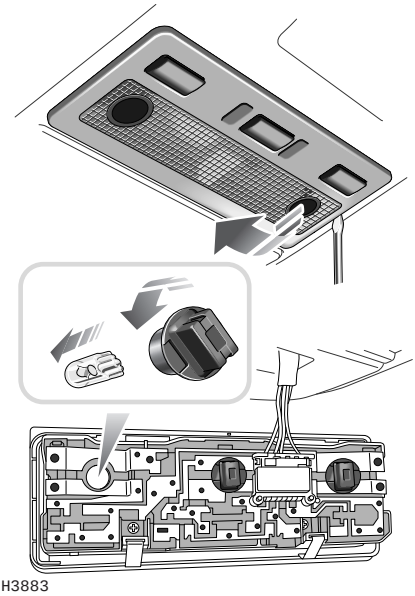
Bulb Replacement

TAILGATE LAMPS



Insert a small flat-bladed screwdriver under the lens and carefully prise the lens from the lamp unit. Pull the bulb to remove.

MAP LAMP



Insert a small flat-bladed screwdriver into the indent on the side of the lens (as illustrated) and prise the lens from the lamp unit. Twist the relevant bulb holder anticlockwise and withdraw from the lamp unit, then pull the bulb out to remove.

LUBRICANTS AND FLUIDS

Recommendations for all climates and conditions.

Note: *Recommended oils are complete in themselves and additives should not be used.*

Note: *It is essential to change oil much more frequently if the vehicle is operated under arduous conditions, especially if deep wading is carried out.*

Engine oil - V8 Petrol vehicles

Use a 5W/20 oil meeting specification WSS M2C925-A.

Land Rover recommends Castrol SLX Professional 5W-20.

Japan only - ILSAC GF4 and API SM

Engine oil - Diesel vehicles

Use a 5W/30, 5W/40, 10W/30 or 10W/40 oil meeting Land Rover WSS-M2C913-B only.

In high sulphur markets use WSS-M2C921-A

Engine oil temperature ranges

5W/30 will protect from -30°C to 35°C (-22°F to 95°F)

5W/40 will protect from -30°C to 50°C (-22°F to 122°F)

10W/30 will protect from -10°C to 35°C (-14°F to 95°F)

10W/40 will protect from -10°C to 50°C (-14°F to 122°F)

Main gearbox

Petrol: Shell ATF M1375.4

Diesel: Filled for life

Transfer gearbox

Use Shell TF 0753.

Front differential

All vehicles: Castrol SAF XO.

Rear differential

Non-locking: Castrol SAF XO

Locking: Castrol SAF Carbon Mod Plus

Power steering

Texaco Cold Climate PSF 14315.

Brake reservoir

Use Shell DOT4 ESL or a low viscosity DOT 4 brake fluid that meets ISO 4925 class 6 requirements.

Windscreen washers

Screen washer fluid.

Engine cooling system

Antifreeze: Use Havoline XLC to WSS-M97B44 (Texaco XLC) - orange colour, with one part antifreeze to one part water for protection down to -40°C (-40°F).

CAPACITIES

With the exception of the front and rear differential capacities, the following capacities are approximate and provided as a guide only. All oil levels must be checked using the dipstick or level plugs as applicable. The front and rear differentials must be filled to the volume listed below.

Fuel tank	104.5 litres (23 gallons)
Engine oil refill and filter change: - Diesel vehicles - V8 NA Petrol vehicles - V8 SC Petrol vehicles	 9.9 litres 8.0 litres 10.9 litres
Front differential: - Dry fill - Refill	 0.8 litres 0.75 litres
Rear differential - non-locking: - Dry fill - Refill	 1.2 litres 1.14 litres
Rear electronic locking differential: - Dry fill - Refill	 1.6 litres 1.55 litres
Washer reservoir	6.3 litres
Cooling system (refill): - Diesel vehicles - V8 NA Petrol vehicles - V8 SC Petrol vehicles	 14 litres 15 litres 16 litres

ENGINES
Diesel

Recommended fuel	Diesel or Automotive Gas Oil (AGO) to EN 590 specification only. Maximum allowable Bio-diesel mix is 5%.
Capacity	3 628 cm^3
Firing order	1-5-4-2-6-3-7-8
Bore	81.0 mm
Stroke	88.0 mm
Number of cylinders	8
Compression ratio	17.3:1

Petrol

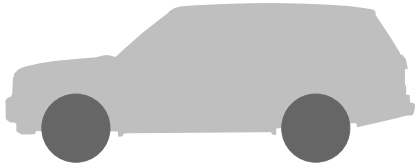
Recommended fuel	95 RON to EN 228 specification.
Capacity	4999 cm3
Firing order	1-5-4-2-6-3-7-8
Bore	92.5mm
Stroke	93 mm
Number of cylinders	8
Compression ratio	NA 11.5:1 SC 9.5:1

WHEELS AND TYRES

Wheel size and tyre specification

Wheel size	Tyre
5.5J x 19	T175/80 R19 122M - (Temporary spare tyre)
8J x 19	255/55 R19 111 V - All terrain tyre
8.5J x 20	255/50 R20 109 Y - All terrain and all terrain sport tyre

Accessory wheels and tyres - insert details



LAN0518G

1. Front tyre pressure.
2. Rear tyre pressure.
3. Wheel/tyre size, type and specification

Note: *Accessory fit off-road tyres (with a speed rating of Q or T) are subject to speed restrictions. Q-rated tyres should not be used at speeds greater than 160 km/h (100 mph), T-rated tyres should not be used at speeds greater than 190 km/h (118 mph).*

Tyre pressures

Tyre pressures are listed on a label on the B pillar on the driver's side (visible with the driver's door open). See **Tyre information label** (page 219).

Temporary spare tyre pressure	kPa	bar	psi
Any position or load condition	420	4.2	60

WEIGHTS

Approximate EEC kerb weights (full fuel tank):	
- Petrol engine vehicles	2 590 - 2 680 kg (5 710 - 5 908 lb)
- Diesel engine vehicles	2 710 kg (5 975 lb)
Maximum Gross Vehicle Weight (GVW):	
- All vehicles	3 200 kg (7 055 lb)
Maximum front axle load	1 530 kg (3 373 lb)
Maximum rear axle load	1 850 kg (4 079 lb)
Maximum roof rack load	100 kg (220 lb)

Note: *Axle weights are non-additive; i.e. maximum GVW is not calculated by adding together maximum front and rear axle loads. The above individual maximum axle weights and gross vehicle weight must not be exceeded, except when towing.*

Note: *The weight of Land Rover approved roof bars and cross rail roof rack is allowed for before further weight calculations are made. However, if an alternative roof rack system is to be used, the weight of the system must be included as part of the load weight.*

TOWING

	On-road	Off-road
Maximum trailer weight:		
Unbraked trailer	750 kg (1 653 lb)	750 kg (1 653 lb)
Trailer with over-run brakes	3 500 kg (7 716 lb)	1 000 kg (2 204 lb)
Gross Train Weight:		
- All vehicles	6 700 kg (14 771 lb)	4200 kg (9 259 lb)

	Australia	All other markets
Maximum tow hitch load (Nose weight):		
- All vehicles	250 kg (550 lb)	150 kg (330 lb)

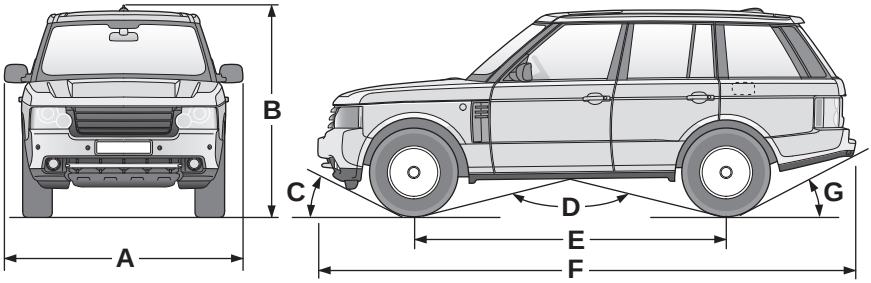
Note: *To increase stability when loading to the maximum trailer weight, it is advised that trailer load distribution is adjusted to achieve the recommended nose weight. See* ***TOWING*** *(page 185).*

Note: *For trailers with over-run brakes only, if a greater nose weight is necessary, the recommended 150 kg (330 lb) can be increased up to a maximum of 250 kg (550 lb) total nose weight. However, vehicle payload* ***must be restricted*** *by at least the same weight to ensure that the GVW and rear axle load are not exceeded.*

Note: *Europe only - when towing, the gross vehicle weight can be increased to a maximum of 3 300 kg (7 275 lb) and the technically permissible maximum rear axle load may be exceeded by not more than 15% to a maximum of 2 127 kg (4 689 lb),* ***provided*** *road speed is limited to 100 km/h (60 mph) or 80 km/h (50 mph) when a temporary spare wheel is in use.*

Dimensions

VEHICLE DIMENSIONS



LAN1954

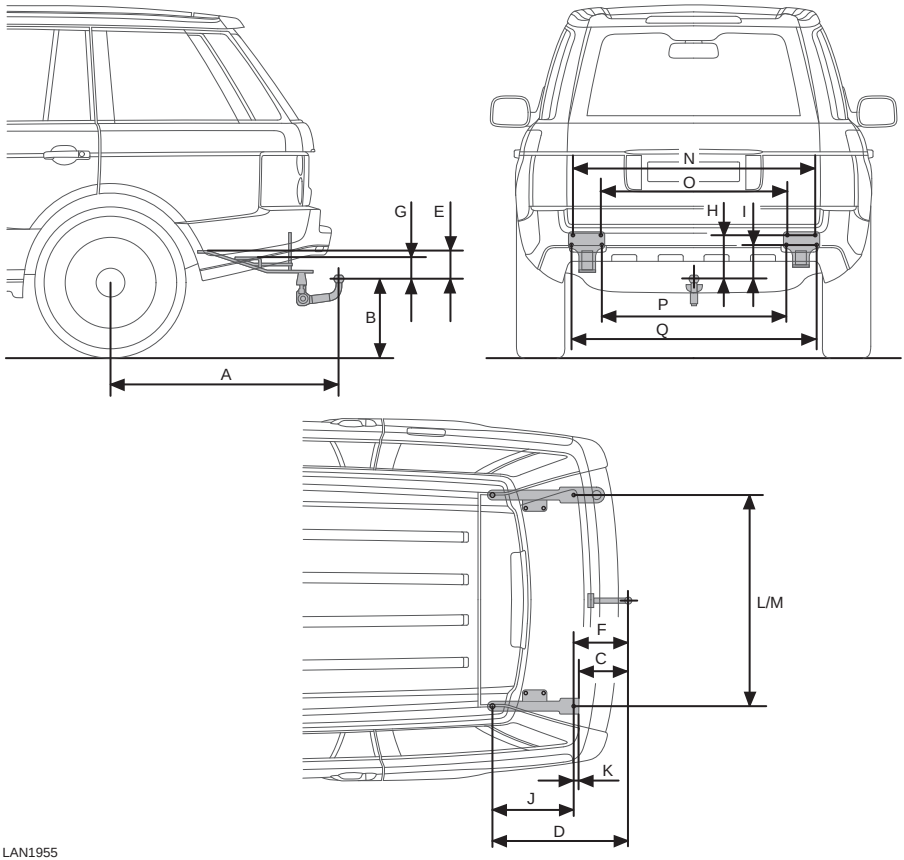
A	Overall width	2 216 mm	87.2 in
	Overall width (mirrors folded)	2 034 mm	80.1 in
B	Overall height		
	- Access height	1 837 mm	72.3 in
	- Motorway height	1 857 mm	73.1 in
	- Standard height	1 878 mm	73.9 in
	- Off-road height	1 932 mm	76.1 in
E	Wheelbase	2 880 mm	113.4 in
F	Overall length	4 967 mm	195.6 in
	Overall length (including tow hitch - to centre of tow ball)	5 015 mm	197.4 in
	Track: - Front	1 629 mm	64.1 in
	Track: - Rear	1 625 mm	64.0 in
	Brake pedal free travel	No adjustable free travel	
	Turning circle - kerb to kerb	12 metres	39.4 feet

Wheel alignment (minutes):	V8 Diesel	V8 NA Petrol	V8 SC Petrol
- Front toe	+9	0	-9
- Rear toe	+12	+18	+12

Off road performance

C	Approach angle - Off-road ride height (at EEC kerb weight): - Standard ride height - Off-road ride height	29 degrees 34 degrees	
D	Breakover angle (at EEC kerb weight): - Standard ride height - Off-road ride height	131 degrees 120 degrees	
G	Departure angle without tow hitch (at EEC kerb weight) - Standard ride height - Off-road ride height	24.2 degrees 26.6 degrees	
	Departure angle with adjustable tow hitch (at EEC kerb weight): - Standard ride height - Off-road ride height	13.6 degrees 16.0 degrees	
	Departure angle with fixed height tow hitch (at EEC kerb weight): - Standard ride height - Off-road ride height	15.2 degrees 17.4 degrees	
	Wading depth	700 mm	27.6 in
	Minimum under body clearance (off-road height)	283 mm	11.1 in

TOW BAR DIMENSIONS



Note: *Dimensions refer to towing equipment officially released by Land Rover.*

A	Wheel centre to centre of towball	1 235 mm	48.62 in
B	Ground to centre of towball	397 mm	15.63 in
C	Centre of outer attachment points to centre of towball	252.7 mm	9.95 in
D	Centre of rear inner attachment points to centre of towball (horizontal)	713.5 mm	28.09 in

E	Centre of rear inner attachment points to centre of towball (vertical)	152.7 mm	6.01 in
F	Centre of inner attachments to centre of towball (horizontal)	286 mm	11.26 in
G	Centre of inner attachments to centre of towball (vertical)	138.2 mm	5.44 in
H	Centre of outer No. 1, 2 attachments to centre of towball	236.4 mm	9.31 in
I	Centre of outer No. 3, 4 attachments to centre of towball	184.2 mm	7.25 in
J	Rear inner attachments to inner attachments	427.5 mm	16.83 in
K	Inner attachments to outer attachments	33.3 mm	1.31 in
L	Distance between the rear inner attachments	1 092 mm	42.99 in
M	Distance between the inner attachments	1 092 mm	42.99 in
N	Distance between the outer No. 1 attachments	1 230.6 mm	48.45 in
O	Distance between the outer No. 2 attachments	953.4 mm	37.55 in
P	Distance between the outer No. 3 attachments	940 mm	37.01 in
Q	Distance between the outer No. 4 attachments	1 244 mm	48.98 in

Note: *Dimensions refer to towing equipment officially released by Land Rover.*

FUEL CONSUMPTION

Fuel consumption figures

	URBAN		EXTRA-URBAN		COMBINED	
	l/100km	mpg	l/100km	mpg	l/100km	mpg
Petrol	20.8	13.6	10	28.2	14	20.2
Petrol - Supercharged	22.6	12.5	10.4	27.2	14.9	19
Diesel	14.5	19.6	9.2	30.7	11.1	25.4

The fuel consumption figures have been calculated using a standard testing procedure (the new EC test procedure from Directive 99/100/EC), and produced in accordance with The Passenger Car Fuel Consumption (Amendment) Order 1996.

Under normal use, a vehicle's actual fuel consumption figures may differ from those achieved through the test procedure, depending on driving technique, road and traffic conditions, environmental factors, vehicle load and condition.

Urban cycle

The urban test cycle is carried out from a cold start and consists of a series of accelerations, decelerations and periods of steady speed driving and engine idling. The maximum speed attained during the test is 50 km/h (30 mph) with an average speed of 19 km/h (12 mph).

Extra-urban cycle

The extra urban test cycle is carried out immediately after the urban test. Approximately half of the test comprises steady-speed driving, while the remainder consists of a series of accelerations, decelerations and engine idling. The maximum test speed is 120 km/h (75 mph) and the average speed 63 km/h (39 mph). The test is carried out over a distance of 7 km (4.3 miles).

Combined

The combined figure is an average of the urban and extra-urban test cycle results, which has been weighted to take account of the different distances covered during the two tests.

Note: *These figures should not be compared with the figures produced using the ECE/EEC procedure previously required by The Passenger Car Fuel Consumption Order 1983. Because of the changes in test procedure, even the urban figures would differ if the same car were subjected to both tests.*

DECLARATIONS OF CONFORMITY

The Declarations of Conformity are from manufacturers of RF (Radio Frequency) equipment, whose components are used in the manufacture of your Range Rover.

These manufacturers state that their components comply with relevant rules of the R and TTE (Radio and Telecommunication Terminal Equipment) directive.

The directive requires the manufacturer of short range radio devices to self-certify that RF parts fitted to Land Rover vehicles are fit for use and that the declarations are supplied with the vehicle documentation. If at a future date a technical inspection is required, the declarations will provide all necessary information.

Note: *The Declarations of Conformity are published in the native language of the RF equipment manufacturer, in compliance with the R and TTE Directive.*

SIEMENS VDO
Automotive

SiemensVDO Automotive AG „P.O. Box 10 09 43 „D-93009 Regensburg

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Fax +49(0)941/790-1366999
E-Mail dagmar.kolar@siemens.com
Internet www.siemensvdo.de
Our Ref. Doc_S122780002.doc
Date. 09/11/2005

Declaration of Conformity in accordance with Directive 1999/5/EC (R&TTE Directive)

Manufacturer: Siemens VDO Automotive AG
Body & Chassis Electronics

Address: Siemensstrasse 12
D-93055 Regensburg
Germany

Product type designation: S122780002

Intended use: Radio frequency transmitter used Tire Pressure Monitoring system

The product mentioned above complies with the essential requirements and other relevant provisions of Directive 1999/5/EC, when used for its intended purpose:

Health and safety pursuant to §3.1.a: *Applied standard(s):* EN 60950: 2000

Electromagnetic compatibility pursuant to § 3.1.b: *Applied standard(s):* EN 301 489 -1,-3: V1.4.1 (2002-08)

Efficient use of spectrum pursuant to § 3.2: *Applied standard(s):* EN 300 220 -1: V1.3.1 (2000-09)

The following marking applies to the above mentioned product:

CE

Siemens VDO Automotive AG

Regensburg, 2005-11-09

i.V. .....
Jean-Francois Tarabbia
Executive Vice President
Body and Chassis Electronics Operations

i.V. .....
Dr. Martin Fischer
Vice President
Wireless Products and Modules

SIEMENS VDO
Automotive

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Internet www.siemensvdo.de
Our Ref. Doc_5WK49096.doc
Date. 03/08/2005

Declaration of Conformity in accordance with Directive 1999/5/EC (R&TTE Directive)

Manufacturer: Siemens VDO Automotive AG
Body & Chassis Electronics

Address: Dep. SV C BC P2 RF TG
Siemenstrasse 12
D-93049 Regensburg
Germany

Product type designation: 5WK4 9096

Intended use: Radio frequency receiver used in vehicle locking/unlocking systems

The product mentioned above complies with the essential requirements and other relevant provisions of Directive 1999/5/EC, when used for its intended purpose:

Health and safety pursuant to §3.1.a: *Applied standard(s):* EN 60950:2000

Electromagnetic compatibility pursuant to § 3.1.b: *Applied standard(s):* EN 301 489-1,-3: V1.4.1 (2002-08)

Efficient use of spectrum pursuant to § 3.2: *Applied standard(s):* EN 300 220-1: V1.3.1 (2000-09)

The following marking applies to the above mentioned product:

CE

Siemens VDO Automotive AG

Regensburg, 2005-08-03

i.V. .....
Jean-Francois Tarabbia
Executive Vice President
Body and Chassis Electronics Operations

i.V. .....
Dr. Martin Fischer
Vice President
Wireless Products and Modules

Continental

Continental Automotive GmbH · Postfach 100 953 · 93009 Regensburg

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dagmar.kolar@continental-corporation.com

Date	Your message dated	Our Reference	Your reference
July 29, 2008			

Declaration of Conformity in accordance with Directive 1999/5/EC (R&TTE Directive)

Manufacturer: Continental Automotive GmbH
Address: Siemensstrasse 12
D-93055 Regensburg
Germany

Product type designation: S180 052 020 A
Intended use: Tire Pressure System

The product mentioned above complies with the essential requirements and other relevant provisions of Directive 1999/5/EC, when used for its intended purpose:

Health and safety pursuant to §3.1.a: *Applied standard(s):*
EN 60950-1: 2006

Electromagnetic compatibility pursuant to § 3.1.b: *Applied standard(s):*
EN 301 489 -1: V1.6.1 (2005-09)
EN 301 489 -3: V1.4.1 (2002-08)

Efficient use of spectrum pursuant to § 3.2: *Applied standard(s):*
EN 300 220 -1: V2.1.1 (2006-04)
EN 300 220 -2: V2.1.1 (2006-04)

The following marking applies to the above mentioned product:

CE

Continental Automotive GmbH

Regensburg, 2008-07-29

i.V. ppa.

Andreas Wolf
Executive Vice President
Body &Security

Norbert Müller
Director Product Group 3
Body & Security

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www.continental-corporation.com

Registered Office:
Hannover
Commercial Court:
Amtsgericht Hannover
HRB 80646

General Managers:
Gerard Customdiec
Helmut Matschi
Harald Stahlmann

LAN2592

AUDIO SYSTEM OVERVIEW

Audio controls



LAN1962

1. Navigation
2. Home menu
3. Touch screen display
4. Light sensor
5. Telephone
6. Audio/Video
7. Search up/increase
8. Mode
9. Search down/decrease
10. Scroll up/down
11. Volume
12. Info
13. Audio on/off
14. Tone

Note: *The audio system is operated by a combination of physical buttons on the facia and virtual buttons displayed on the touch screen. To avoid confusion when reading this handbook, the physical buttons are referred to as buttons and the on screen buttons as icons.*

TOUCH SCREEN CARE

Care points

The touch screen allows control of all the Infotainment systems from a single point. To ensure that it continues to operate correctly, some basic care points are listed below.

- Clean only with a lightly moistened soft cloth.
- Do not use chemical agents, or domestic cleaners, to clean any part of the touch screen or its surround.
- Only use your finger to operate the touch screen. Ensure that only one finger at a time is in contact with the screen, to prevent incorrect entries.
- A short, light press is sufficient to operate functions. Do not use excessive pressure.
- Do not allow any sharp, hard or abrasive objects to come into contact with the screen.
- Where possible, avoid exposing the touch screen to direct sunlight for long periods.

Note: *None of the functions of the touch screen are operated by dragging icons.*

SWITCHING THE AUDIO SYSTEM ON



To switch on the system, press the On/Off button.

The first time the system is switched on, the home menu will be displayed. Switching the system on subsequently, will display the screen or menu that was in use when the system was switched off.

TURNING OFF THE TOUCH SCREEN



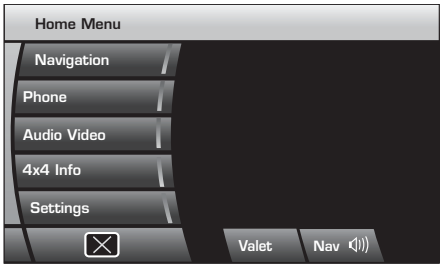
The touch screen display can be turned off without turning off the audio system by touching the display off icon on the screen.

Touch the screen to turn the display back on.

PERSONALISING THE SYSTEM SETTINGS

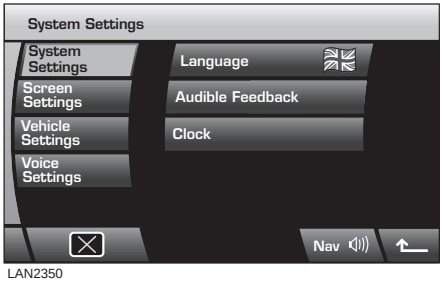
Your vehicle is delivered with the system settings (language etc.) tailored to the market for which the vehicle is intended.

These settings can be changed to suit your preferences.



LAN2349

To access the Settings menu, touch the **Settings** icon on the Home Menu.



LAN2350

From the Settings menu, touch the icon for the category of setting you want to change.

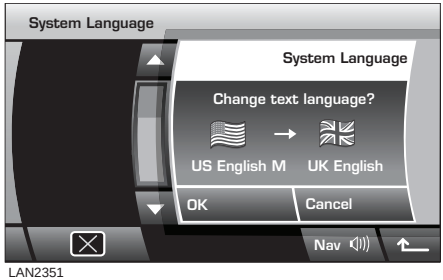
SYSTEM SETTINGS

Changing the language setting

To change the language used by the system, touch the **Language** icon on the System Settings menu.

The language choices are displayed as a list. Scroll up or down through the list using the on-screen arrows. The currently selected language will be indicated as an orange icon.

Touch the button icon for the language you wish to use.



LAN2351

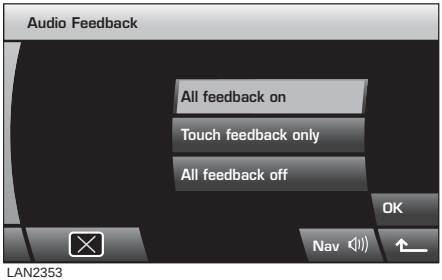
A pop-up menu will appear indicating the current language, the new language and the option to cancel or accept the change.

Once your language choice has been made and you have pressed the **OK** icon, the main Settings menu will be displayed.

Note: *The country of origin for the language is indicated by the national flag, useful if the display has been set to a language that you are unable to read.*

Audible feedback on/off

To change your audible feedback preferences (information messages etc.), touch the **Audible Feedback** icon on the System Settings menu.



LAN2353

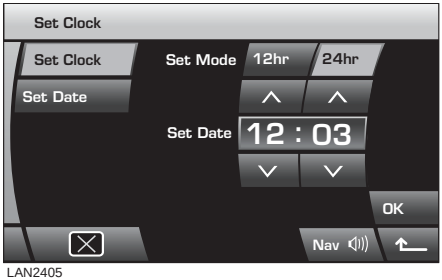
From the menu, touch the icon for the level of audible feedback you prefer, followed by the **OK** icon to confirm your choice.

Time and date settings

To set/change the time and date, touch the **Clock** icon on the System Settings menu.

Touch the **Set Clock** icon to set the time or touch the **Set Date** icon to set the date.

Time



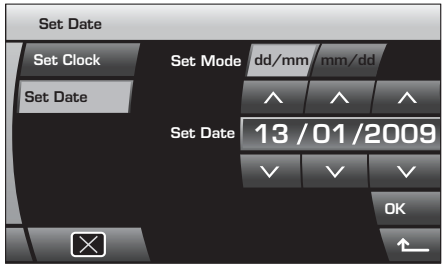
LAN2405

Select your preferred format (12 or 24 hour), then use the up and down arrow icons to increase or decrease the hours and minutes.

Once the correct time has been set, touch the **OK** icon to save the changes.

Note: *If 24 hour format is selected, the AM/PM indicator will not be shown.*

Date



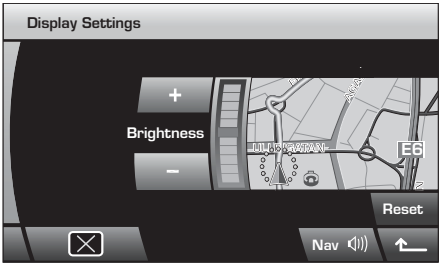
LAN2346

Select your preferred date format, then use the up and down arrows to increase or decrease the year, month and date as required.

Once the correct format and date have been set, touch the **OK** icon to save the changes.

SCREEN SETTINGS

From the Screen Settings menu touch the Display Settings icon.

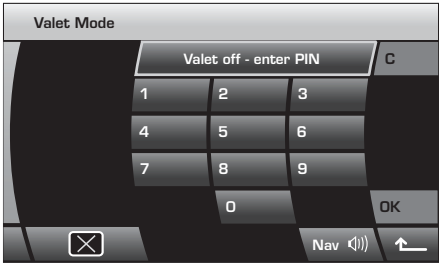


LAN2354

Brightness is adjusted by touching the **+** or **–** icons. Touching the **Reset** icon will return the brightness control to the centre position.

VALET MODE

Selecting valet mode



LAN1995

From the main **Home** touch-screen menu, select **Valet**.

Enter a four digit Personal Identification Number (PIN) (personally chosen) by touching the digit screen pad.

As you start to enter a PIN, the **C** button will become available.If you wish to cancel the PIN, touch the **C** button at any time during entering the number.

On completion, touch the **OK** button.

The PIN must be entered once more to confirm the number and then a pop-up screen is displayed, advising you that valet mode has been activated.

Select **OK**.

The screen will display **Valet on**.

The luggage compartment and glove compartment are now securely locked and the touch screen function has been limited to the valet mode screen only.

Note: *Remember to take the emergency key blade with you to ensure security is complete.*

Deselecting valet mode

When you next enter the vehicle, the **Valet mode** screen will be displayed.

Enter your four digit PIN and touch the **OK** button.

A pop-up screen is displayed, advising you that valet mode has been deactivated.

The screen will indicate that valet mode has been deactivated by displaying **Valet off**.

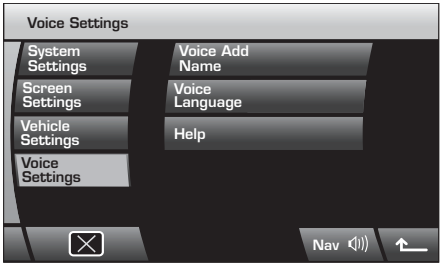
- The luggage compartment will return to the previously set security requirement.
- The glove compartment will now open as normal.

If an incorrect PIN is entered a pop-up screen will indicate an invalid entry.

Note: *If valet mode is activated and the PIN subsequently forgotten, only your Land Rover Dealer / Authorised Repairer can deactivate valet mode.*

VOICE SETTINGS

From the main Settings menu, touch the **Voice Settings** icon.



LAN2356

From the Voice settings menu, touch the icon for the setting you want to change.

Voice language

From the Voice Settings menu, touch the **Voice Language** icon.

The language choices are displayed as a list. Scroll up or down through the list using the on-screen arrows. The currently selected voice language will be indicated as an orange icon.

Touch the button icon for the language you wish to use.



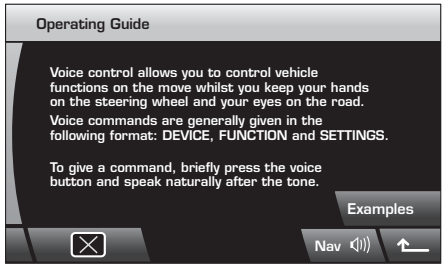
LAN2517

A pop-up menu will appear indicating the current language, the new language and the option to cancel or accept the change.

Once your language choice has been made and you have pressed the **OK** icon, the voice settings screen will be displayed.

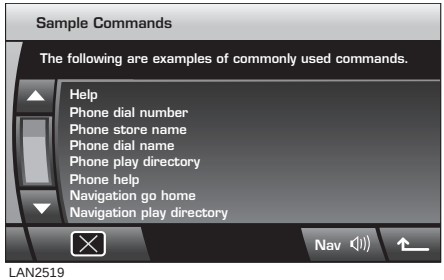
Help

From the Voice Settings menu, touch the **Voice Language** icon.



LAN2518

A brief overview on how to operate the voice control system will be displayed. To display a list of the most commonly used commands, touch the **Examples** icon.



LAN2519

Scroll up or down through the list using the on-screen arrows.

Voice add name

The voice system can be personalised with the addition of names for phone numbers.
See **STORING A TELEPHONE NAME/ NUMBER WITH VOICE RECOGNITION** (page 317).

Audio level settings

VOLUME ADJUSTMENT

WARNING

Sustained exposure to high sound levels can damage your hearing.



To access the volume set up menu, press and hold the Tone button until the volume set up menu is displayed. The icons to the left, allow you to choose a setting to adjust (**AVC, INFO, NAV, Phone** and **Voice**). The boxes to the right of the icons show the values currently set for each option. The bar graph and the +/– icons are used to change the settings and show the changes.

Note: *If no change is made within ten seconds, the volume set up menu will disappear.*

Automatic Volume Control (AVC)

Automatic Volume Control adjusts the volume level as the vehicle speed increases. This compensates for the increase in noise at increased speeds.

From the volume set up menu, touch the **AVC** icon to display the settings for AVC.

The bar graph represents the amount by which the volume level may increase. If the smallest bar is selected, the AVC function will be turned off. In this state the volume will not increase with vehicle speed. The remaining bars (from 1 to 9) will increase the volume level up to the maximum level selected.

To increase the level of volume change, touch the **+** icon. Each touch will select the next bar to the right, up to the maximum (9).

To decrease the level of volume change, touch the **–** icon. Each touch will select the next bar to the left, down to the minimum (1). A subsequent touch of the **–** icon will switch AVC off.

Information announcements

Touch the **INFO** icon from the volume set up menu, to adjust the volume level for radio announcements, such as news broadcasts and traffic announcements on RDS.

To increase the volume level, touch the **+** icon. Each touch will select the next bar to the right, up to the maximum (9).

To decrease the volume level, touch the **–** icon. Each touch will select the next bar to the left, down to the minimum (1).

Navigation guidance

Touch the **NAV** icon from the volume set up menu, to adjust the volume level for navigation guidance messages.

To increase the volume level, touch the **+** icon. Each touch will select the next bar to the right, up to the maximum (9).

To decrease the volume level, touch the **–** icon. Each touch will select the next bar to the left, down to the minimum (1).

Telephone volume

Touch the **Phone** icon from the volume set up menu, to adjust the volume level for the telephone.

To increase the volume level, touch the **+** icon. Each touch will select the next bar to the right, up to the maximum (25).

To decrease the volume level, touch the **–** icon. Each touch will select the next bar to the left, down to the minimum (5).

Voice volume

Touch the **Voice** icon from the volume set up menu, to adjust the volume level for voice messages.

To increase the volume level, touch the **+** icon. Each touch will select the next bar to the right, up to the maximum (25).

To decrease the volume level, touch the – icon. Each touch will select the next bar to the left, down to the minimum (5).

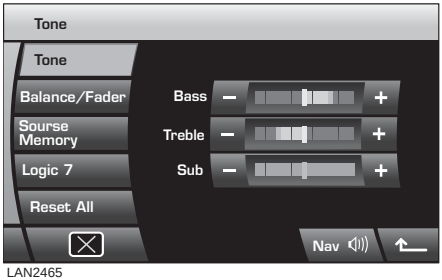
Manual volume adjustment

During normal audio/video playback, a news interrupt, navigation guidance, telephone interrupt or voice message, the volume level can be adjusted by turning the rotary control.

Resetting the volume settings

Press the **Reset All** icon from the volume set up menu, to move to default settings position.

TONE ADJUSTMENT



LAN2465



Press the Tone button briefly to display the Tone menu. From this menu, the settings for Bass, Treble, Sub-woofer, Balance, Fade and Logic 7 can be adjusted/enabled.

Note: *If no change is made within ten seconds, the screen will revert to that which was displayed prior to selecting the tone adjustment menu.*

Bass, treble and sub-woofer

With the Tone menu displayed, touch the **Tone** icon. The adjustments for Bass, Treble and Sub-woofer are made, using the **+** and **-** icons to increase or decrease the settings, as required.

Balance and fade

To access the Balance and Fade adjustment screen, touch the **Balance/Fader** icon on the Tone menu screen.

The balance and fade adjustments are made by moving the position of the highlighted squares using the four arrow icons. The highlighted squares represent the bias direction for audio output.

To reset the balance and fade adjustments to the mid position, touch the Reset All icon.

Source memory

Source memory allows settings to be adjusted and memorized for individual audio sources. Further explanation can be obtained by touching the **Source Memory** icon.

Logic 7

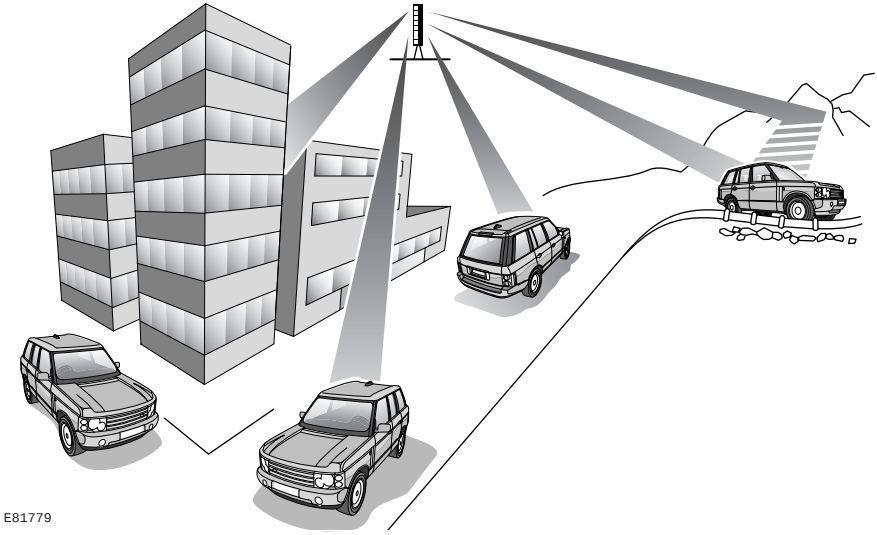
Logic 7 delivers audio source output using a seven channel feed. This provides a three dimensional audio effect, by controlling the vehicle speakers individually. This allows instruments, sound effects and dialogue within recorded or broadcast audio sources, to be clearly placed around the passenger cabin.

To turn Logic 7 on or off, touch the **Logic 7** icon.

Tone reset all

With the Tone menu displayed, touch the **Reset All** icon. The settings revert to the mid position.

RADIO RECEPTION



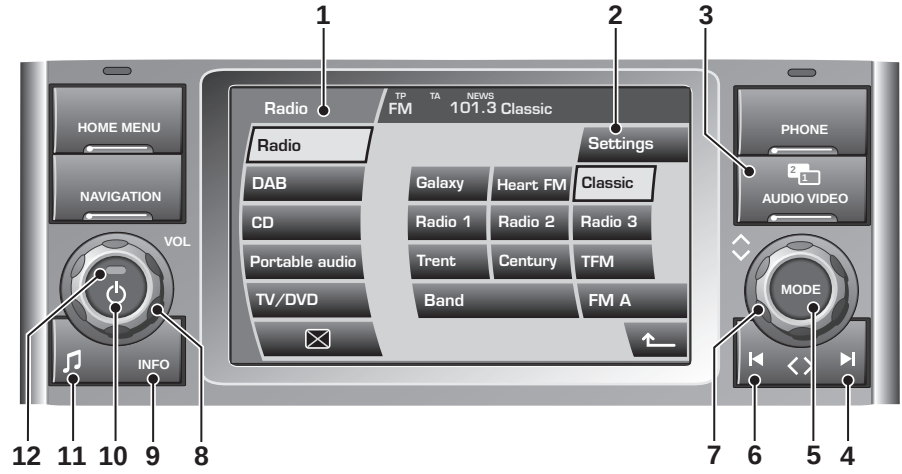
Some interference is to be expected from time to time during a journey. Occasionally, it may be necessary to retune the audio unit, to offset the effects of moving from one transmitter area to another.

While Radio Data System (RDS) automatic retuning helps to reduce the effects of signal changes, some manual retuning may still be required (especially for local stations) in areas of weak reception.

FM Signals travel in a straight line, so large obstacles, such as tall buildings, can shield the vehicle from the signal, causing distortion or loss of reception (known as dead spots).Distortion can also occur if FM signals received directly from the transmitter, mix with signals deflected by obstructions such as mountains, hills and tall buildings. This is known as multi-path distortion.

Note: *Although distortion, interference and lack of signal clarity are sometimes attributed to a fault in the radio, this is rarely the case.*

RADIO CONTROLS



LAN2776

1. Touch screen display
2. Settings
3. Access Audio/Video Menu
4. Search up/increase
5. Mode or DVD ENTER
6. Search down/decrease
7. Scroll up down (menu control)
8. Volume
9. Traffic/News information
10. Audio on/off
11. Tone
12. Audio on/off indicator

Note: *The audio system is operated by a combination of physical buttons on the facia and virtual buttons displayed on the touch screen. To avoid confusion when reading this handbook, the physical buttons are referred to as buttons and the on screen buttons as icons.*

RADIO OPERATION

To access the radio mode, either touch the Audio Video icon on the home menu, or press the **MODE/DVD ENTER** button and turn the rotary control until Radio is highlighted.

Band selection

When in radio mode, touch the **Band** icon repeatedly, until the required band is selected (FM, MW, AM).

Auto storing stations

When in radio mode, to auto store stations, touch the **Settings** icon.

Touch the **Autostore** icon to start storing stations. Repeat for all other wavebands.

The other autostore bands are FMA, MWA and LWA.

Alternatively, touch and hold the **FM A** icon to start the auto store process.

To stop auto store at any time, irrespective of the method used, press either of the seek buttons. The auto store search will stop, the preset station positions will remain as shown prior to the search beginning and the last station played will resume.

Pressing the **MODE/DVD ENTER** button, or touching the **Radio, DAB, CD, Portable Audio** or **TV/DVD** icons, will also cancel the auto store search and move to the relevant display.

Selecting preset stations

Once the station frequencies have been auto stored, they can be selected by touching the icon for the required station.

Alternatively, rotate the right side audio control. The first click displays the current station and each subsequent click moves to the next station. Clockwise rotation moves to the right and down, counter-clockwise moves to the left and up.

Seeking stations

Press the up or down seek button to skip to the next available station in that direction.

When seeking from the main radio screen, the station information will be displayed in the data display at the top of the screen.

When seek is enabled from any view other than audio/video, the station information is displayed briefly as a pop-up.

Manual tuning

To manually input a frequency, touch the **Settings** icon. A new frequency may be selected by using the Manual tuning facility.

Touch the **Direct Frequency Input** icon and a pop-up will be displayed to allow the frequency to be entered using the numeric key pad.

Note: *Only some of the digits will be enabled on the pop-up screen. These are the only digits available to start the frequency. When the first digits have been input further available digits will be displayed.*

When the desired frequency has been entered, press the **OK** icon to confirm.

Once the frequency has been set, the station information (if available) will be displayed in the information display.

To save the station frequency as a preset, touch and hold a location icon for approximately three seconds. After a short delay the station name will be displayed at that preset location.

RADIO DATA SYSTEM (RDS)

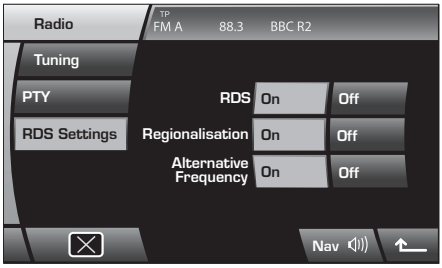
Your audio unit is equipped with RDS, which enables the audio unit to receive additional information with the normal radio signals.

On the FM waveband, RDS enables the audio to receive traffic and news information broadcasts. RDS also allows the audio to automatically re-tune to stations that are linked to the same network if that network allows this.

Note: *Not all FM radio stations broadcast RDS. If a non-RDS station is selected, RDS features will not be available.*

Selecting RDS

With an FM waveband selected, touch the **Settings** icon located on the main Radio screen.



LAN2342

When the settings menu is displayed touch the **RDS Settings** icon.

RDS can be turned on or off as required by touching the **On** or **Off** icons.

Note: *With RDS disabled, the Regionalisation and Alternative Frequency features are also disabled. If RDS in turned on, the Regionalisation and Alternative Frequency features can be turned on or off individually, as required.*

Regionalisation (REG)

As you drive into different radio reception areas, RDS automatically retunes the radio to the strongest signal. The Regional (REG) option stops the system from tuning to another local radio station with a stronger signal.

From the RDS settings menu, you can switch the REG feature **On** or **Off.** With REG on, your selected local radio station will remain tuned even if reception levels drop.

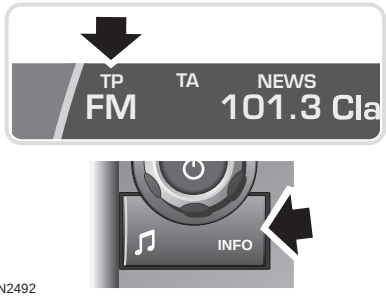
Alternative frequency (AF)

Some radio stations broadcast on different frequencies in different parts of the country. If the selected station signal weakens, the radio will automatically re-tune to a stronger alternative frequency (AF), if one is available (this feature is particularly useful on long journeys where the vehicle travels through different transmitter areas serving the same radio station).

From the RDS setting menu, you can switch AF feature **On** or **Off**.

TRAFFIC INFORMATION

Selecting traffic information



LAN2492

Briefly press the **INFO** button, the **TA** indicator appears in the upper display.

When a radio station capable of providing traffic information is selected, the **TP** indicator appears alongside.

As soon as a traffic announcement is received, the currently playing audio source is interrupted and the word **TRAFFIC** appears briefly in the main display area, followed by the name of the station providing the information.

Tuning difficulties

- If the radio is tuned to a weak FM signal (in remote areas, for example) or a radio station that cannot provide traffic information, when the **INFO** button is pressed, the tuner will search for a good traffic information signal. **TP SEEK** will be displayed for the duration of the search.
- If a traffic information station cannot be found, the words **Not Found** will be displayed. In this case the radio will return to the previously tuned frequency.
- If the signal from a traffic information station weakens, the **TP** indicator will start to flash. In this case, press either of the Search controls to start searching for another radio station. If the traffic information signal weakens during audio playback, the radio will automatically attempt to locate and re tune to a traffic information station with a stronger signal.

Note: *If a non-traffic information station has been stored on one of the pre-set buttons, and is selected while the traffic information facility is switched on, the radio will remain on the selected station unless Traffic Information is turned off and on again.*

Traffic information during CD play

When traffic information is switched on, CD play will be interrupted by information broadcasts automatically, as and when they occur.

The station name and **TRAFFIC** will alternately appear in the display. At the end of the broadcast, CD play will resume from the point on the disc at which CD play was interrupted.

Cancelling an announcement

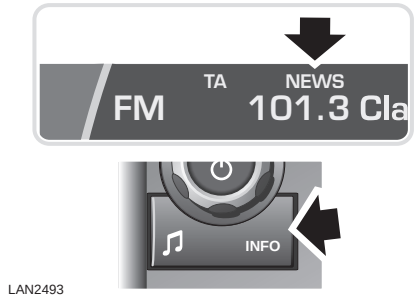
To cancel an announcement briefly press the **INFO** button.

Switching off traffic information

Briefly press the **INFO** button (the **TA** indicator will disappear from the left side of the display). This action will prevent traffic information broadcasts from being received until the feature is reselected.

NEWS INFORMATION

Selecting news information



LAN2493

Press and hold the **INFO** button for more than 2 seconds, to select or de-select News Information - the word **NEWS** will appear in, or disappear from, the display accordingly.

During news broadcasts, the display flashes **NEWS** alternately with the name of the radio station providing the news information.

Note: *Both traffic and news information can be selected at the same time. However, the radio will always give priority to traffic information.*

News information during CD play

When the news information mode is active, the currently playing audio source will be interrupted by news information broadcasts automatically, whenever they occur.

The station name and **NEWS** will appear in the display. At the end of each broadcast, audio playback will resume from the point at which audio playback was interrupted.

Cancelling an announcement

To cancel an announcement briefly press the **INFO** button.

PRIORITY PROGRAMME TYPE (PTY)

The RDS (Radio Data System) allows programmes to be categorised by the broadcast type (rock music, current affairs, news etc.).

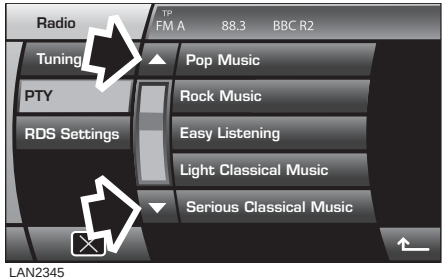
This in turn, allows you to search for a station by choosing the type of broadcast that you wish to listen to.

Note: *The PTY menu is not available when the vehicle is moving.*

Searching by PTY category

To use the PTY feature, touch the **Settings** icon located on the main Radio screen.

Touch **PTY** to display a list of available PTY categories.



LAN2345

Scroll up or down the list of available PTY categories using the on-screen arrows.

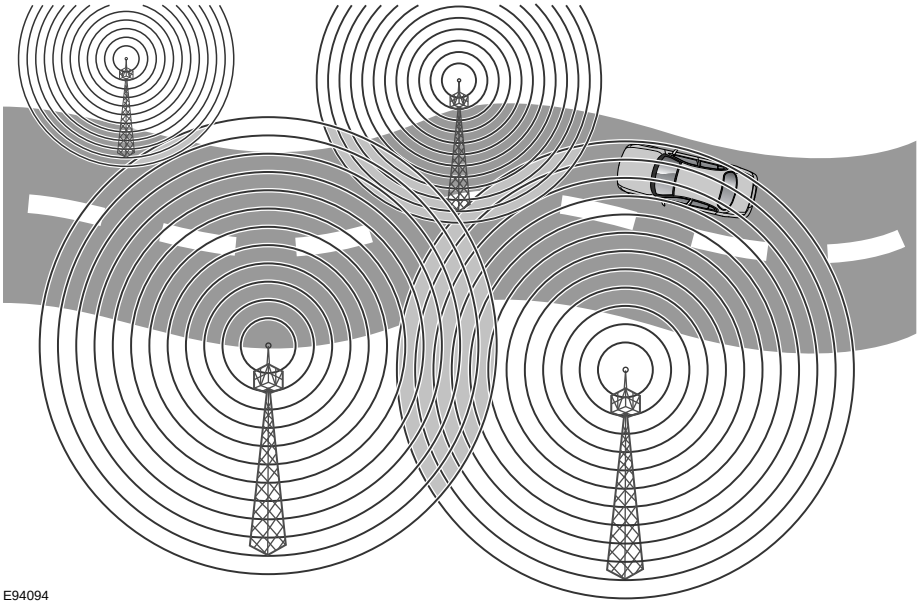
Touch a PTY category to select it, the audio unit will search for and then retune to an available station belonging to that category. **Searching** will be displayed in the information display.

If no station is found in that category, then **No PTY** is displayed and you will return to the current station.

Digital Audio Broadcasting (DAB)

GENERAL INFORMATION

Digital radio reception



E94094

DAB radio is very different from normal AM/FM radio in both operation and sound quality. The DAB network is designed to provide near CD quality from radio broadcasts. In most locations DAB signals are available without hiss, crackle, pop or interference, and no fading or overlap.

DAB radio can significantly increase the number of radio channels/stations available. The DAB signals are transmitted to most major cities, towns and motorway networks.

Radio signals travel in a straight line so large obstacles, such as tall buildings, can shield the vehicle from the signal, causing temporary loss of reception (known as dead spots).

Digital radio is transmitted from regional transmitters. Some local channels are not available outside the range of their transmitters. If you want to listen to local channels as you move around the country, use the auto-tune function (AUTO) to update the channel list. For more information on the auto-tune function. See **CHANNEL AUTOMATIC TUNING** (page 284).

Note: *If any auxiliary electrical equipment is connected to the vehicle, then this may reduce the DAB radio sound quality.*

Digital Audio Broadcasting (DAB)

Ensembles

Unlike AM/FM radio, DAB transmits several channels/stations on a single frequency. A group of channels is known as an ensemble. Ensembles may consist of six or more channels (national or local). Some may have sub-channels offering several listening options.

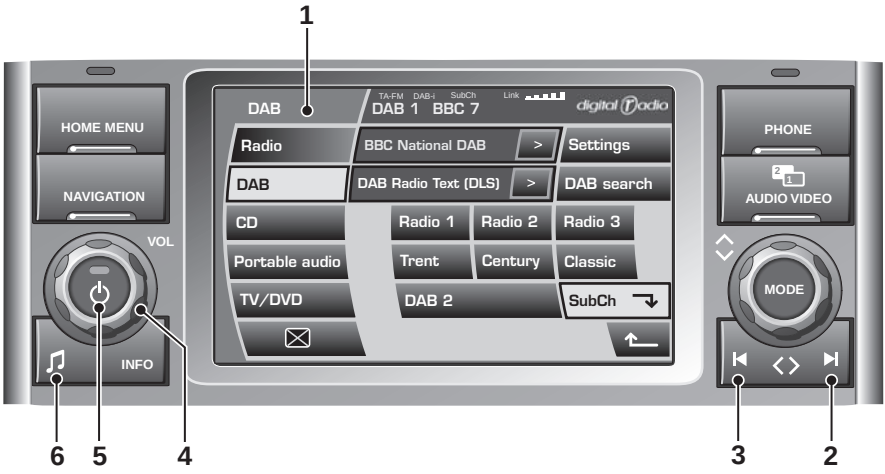
When scrolling through the channels the sub-channels will appear in order, and can be selected in the same way as the channels. If reception is lost when the vehicle is in motion select **AUTO** to build a new list of ensembles.

The table below provides an example of the ensembles, channels and sub-channels available in one location.

Ensemble	Channel/station	Sub-channel 1	Sub-channel 2
First ensemble	Channel/station 1		
	Channel/station 2	Sub-channel	
	Channel/station 3		
	Channel/station 4		
	Channel/station 5		
	Channel/station 6	Sub-channel	Sub-channel
	Channel/station 7		
	Channel/station 8		
	Channel/station 9		
Second ensemble	Channel/station 1		
	Channel/station 2		
	Channel/station 3		
	Channel/station 4		
	Channel/station 5		
	Channel/station 6		
Third ensemble	Channel/station 1		
	Channel/station 2		
	Channel/station 3		
	Channel/station 4		

Digital Audio Broadcasting (DAB)

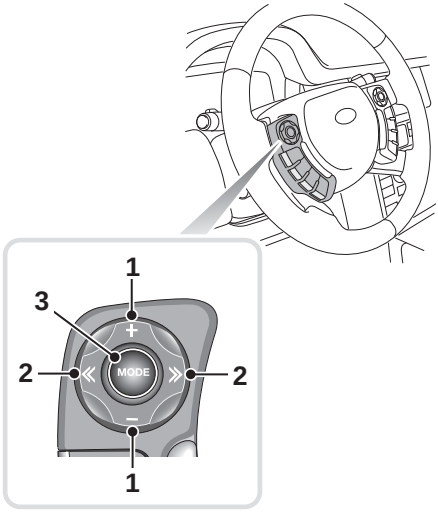
AUDIO CONTROLS



LAN2777

1. Touch-screen.
2. Seek up.
3. Seek down.
4. Volume control.
5. On/off.
6. Tone adjustment.

Steering wheel controls



LAN1994

1. Press **+** or **-** to increase or decrease the audio volume.
2. Press left or right to scroll through channels/stations.
3. Press the **MODE** button repeatedly to scroll through the available audio sources.

USING DAB

To receive digital broadcasts, briefly touch the **DAB** button on the touch-screen.

Choose **DAB1**, **DAB2** or **DAB3** to receive digital radio broadcasts. The three DAB sources enable you to preset up to 18 different channels.

The channel that was last played on your chosen digital source will be selected for playback automatically.

Note: *If this is the first time you have used DAB radio, you will be unable to listen to any digital broadcasts until you have searched for a list of available channels using the auto-tune function.*

Digital Audio Broadcasting (DAB)

CHANNEL AUTOMATIC TUNING



LAN2778

In DAB mode, select **DAB Search**, then select **Auto-tune** to start automatic tuning and build a list of all the digital ensembles and channels that are available in your region.

While automatic tuning is running, the message **DAB Auto-tuning** will be displayed on the touch-screen, along with a percentage complete. When tuning is complete, the first channel found will start playing.

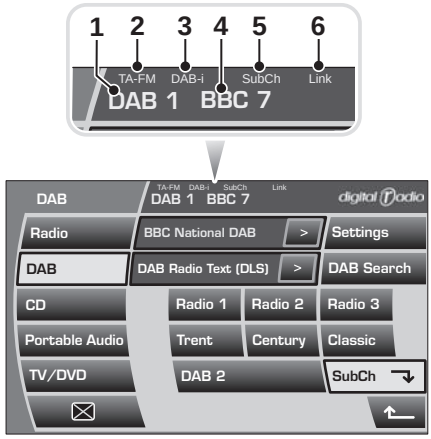
Note: *The auto-tune process can take longer than one minute to complete.*

To update the list of local channels when you move to a different region, select **Auto-tune** again. You can also add local channels as presets to minimise the need for auto-tuning as you move location.

Note: *Store the channels you listen to frequently as presets. This will prevent them being lost when you use the auto-tune process.*

DISPLAY OPTIONS

Touch-screen information panel



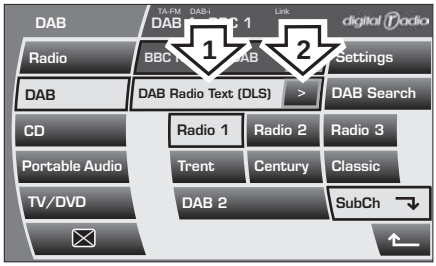
LAN2779

1. DAB band indicator.
2. **TA-FM** is displayed if the FM traffic option is enabled.
3. **DAB-i** indicates that DAB Announcements are enabled.
4. Channel name.
5. The arrow icon indicates that subchannels are available under the current channel. **SubCh** is displayed if a subchannel is tuned to.
6. **Link** is displayed if the Link DAB option is enabled.

Note: *The display can also show PTY or Ensemble information if you have selected one of these options under* ***DAB text*** *on the Settings menu.*

DAB radio text

Many digital channels transmit additional text (DLS, Dynamic Label Segment) to accompany a broadcast. For safety reasons, this text does not scroll across the screen.



LAN2780

The first 16 characters of text are displayed (**1**). If you want to read the full text, you must select the additional text icon (**2**).



LAN2781

The **DAB radio text** pop-up screen displays all 128 characters of text. This text may change periodically, if the broadcaster chooses to do so.

To remove the pop-up screen, briefly touch it.

PRESET CHANNELS

Storing channels as presets



LAN2782

Store up to eighteen digital channels (six each on **DAB1**, **DAB2** and **DAB3**) using the named preset icons. Follow the procedure below to store channels as presets.

1. Search for and start playing the channel you want to preset.
2. Touch and hold (two seconds) the preset icon on which you want to store the current channel. Audio output is muted for a further two seconds while the channel is stored and a confirmation message is displayed.
3. Repeat steps 1 and 2 for each channel that you want to store as a preset.

Note: *You cannot store a subchannel as a preset. If you try to store a subchannel, you will store the channel to which the subchannel belongs.*

Recalling a preset channel



LAN2782

Make sure that you have selected the appropriate digital source (**DAB1**, **DAB2** or **DAB3**) and then briefly touch the preset icon you require. The channel you have selected will start to play automatically.

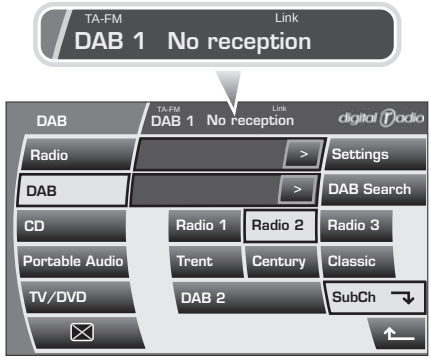


LAN2783

Note: *If you try to recall a channel that has previously been stored as a preset, but is now unavailable or invalid, the message* ***No channel found*** *is displayed. You must choose another channel.*

CHANNEL OPTIONS

Digital radio channels are organised into groups called ensembles. Some channels may sometimes provide one or more subchannels.



LAN2784

If the digital radio signal is lost or the system takes time to tune in to a channel, then the display screen will show the message **No reception**.

The problem may be caused by a temporary problem, such as buildings or trees blocking the signal, or it might be a problem with the broadcast service operator. Try tuning to an alternative channel and return later to see if the problem has been resolved. If you are unable to tune to any other channels, switch off the audio unit and then try again.

Finding a channel

Briefly touch one of the channel seek buttons on the facia or steering wheel to select the next available digital channel.



LAN2043

The seek up button selects the next channel, the seek down button selects the previous channel.

Note: *If the next or previous channel is in a different ensemble, then there will be a pause before the channel is located. The message* ***Searching…*** *is displayed on the screen.*

If channels have been preset, select one of the six preset icons to start playing that channel.

Finding a subchannel



LAN2785

If subchannels are available under the current channel, the subchannel arrow icon (**1**) is displayed at the top of the touch-screen and the Subchannel icon is enabled.

To access the subchannels, select the downward-pointing arrow (**2**). Use the seek buttons to find the next/previous subchannel.

To return to the channel tier, select the upward-pointing arrow.

Note: *When you select and play a subchannel, the subchannel icon is replaced by* ***SubCh****.*

Note: *You cannot store a subchannel as a preset.*

Note: *If you select the preset icon for the channel containing the subchannel you are currently playing, you will be returned to the channel.*

Finding an ensemble

Touch and hold (two seconds) the seek buttons to find the next or previous ensemble.

After a few seconds pause, the first channel in the ensemble found will start playing.

DAB search

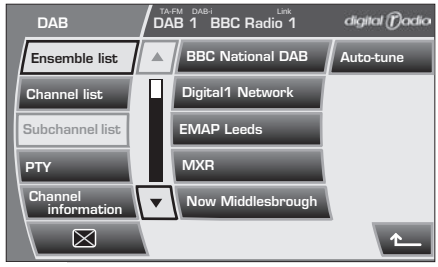
The DAB search menu enables you to view lists of available ensembles, channels and subchannels. You can also perform searches based on programme type (PTY).

Select **DAB search** to display the DAB search menu.

Auto-tune

Select **Auto-tune** to build a list of available ensembles and channels for your current location.

Ensemble list



LAN2786

Select **Ensemble list** to display a list of all available ensembles. Select an ensemble name in the list to display a list of channels in that ensemble. Select a channel name to tune that channel.

Channel list

Select **Channel list** to display a complete list of all channels in all available ensembles. Select a channel name to tune that channel.

Subchannel list

Select **Subchannel list** to display a list of any subchannels available for the currently tuned channel. If no subchannels are currently available, then the Subchannel list option is disabled. If the maximum five subchannels are available, then use the arrows to scroll through the list.

PTY

Channels are categorised by the broadcaster as belonging to a programme type (PTY) category. You can display a list of channels organised according to their PTY category.

Select **PTY** to display a list of PTY categories that contain channels. Select a PTY category to display a list of channels in that category. Select a channel name to play that channel.

Press one of the seek buttons repeatedly (during the first ten seconds of broadcast) to cycle through all of the channels contained in that PTY category.

Channel information

Select **Channel Information** to display technical data relating to the currently-tuned channel. The data listed is as follows: Channel name, Ensemble name, Bit rate (kbits/s) and Audio level.

SETTINGS



LAN2787

In DAB mode, select **Settings**.

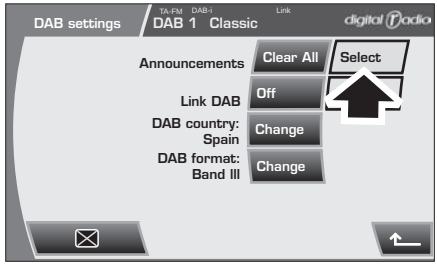
Note: *If **Settings** is selected once, but no action is taken for a further ten seconds, the system will exit the menu automatically.*

Announcements

You can select up to four types of announcement from a list of eleven, for example, **News**, **Area/Weather**, **Traffic** and **Alarm**.

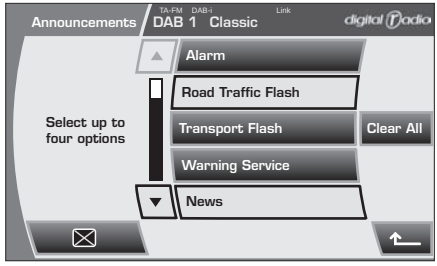
When a DAB announcement is broadcast, it will interrupt normal play for the duration of the announcement.

Note: *The Alarm announcement type, broadcasts information concerning crises of national or international importance.*



LAN2788

To display the full list of announcement types, touch **Select**.



LAN2789

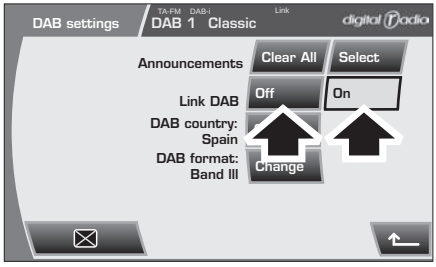
Select an announcement type to enable it, select it again to disable it. If you want to clear all enabled types, select **Clear all**. To scroll through the list, select the arrow icons.

Note: *If you have already selected four announcement types, you will be unable to select further types.*

Link DAB

Regional ensembles containing a list of local digital channels are broadcast by a variety of regional providers. For example, the Leicester and Coventry regions in the UK are currently supplied by Now Digital, where as Birmingham is supplied by CE Digital.

A channel (for example, Chill) in two different regional ensembles will share an identification if broadcast by the same provider (for example, Chill Coventry and Chill Leicester). If channels are being broadcast by different suppliers, then they will not share the same identification (for example, Chill Coventry and Chill Birmingham).



LAN2790

If you move from one region to another and **Link DAB** is enabled, the DAB radio will attempt to retune to a channel with the same identification in a different ensemble.

If the signal strength for a local channel falls below an acceptable level, the audio unit will automatically search other available ensembles for another channel with the same identification.

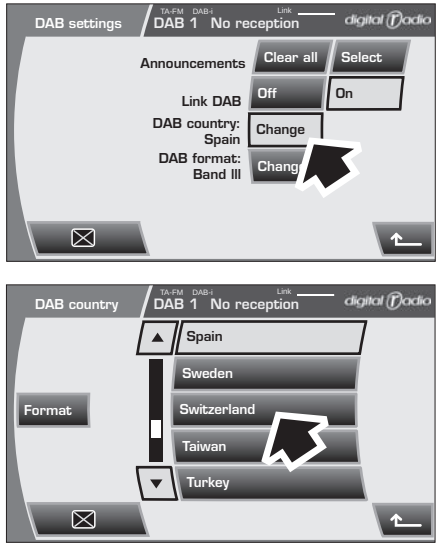
If an alternative channel is found in another ensemble that is also in your current channel list, then the new channel is tuned automatically after a few seconds. If a channel is not found after a few seconds, then **No reception** is displayed on the screen.

The word **Link** is displayed at the top of the touchscreen to indicate that Link DAB is enabled.

DAB country

If you move the vehicle to a different country, you can change DAB Country options to make sure that you receive the best possible reception and sound quality.

Note: *If you have already selected a DAB format, then the DAB country option is disabled.*



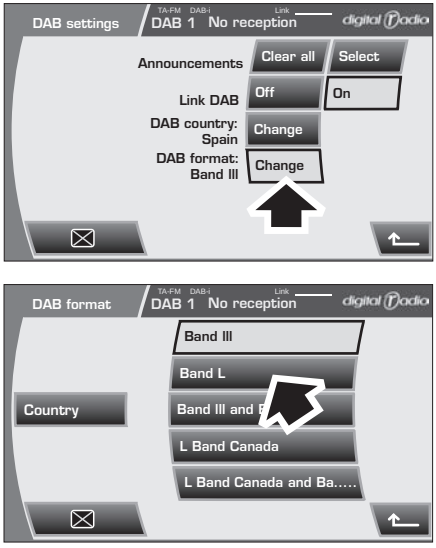
LAN2053

Select **Change** to display a list of countries where DAB services are available. Select the country name to enable it.

Note: *When you change the DAB country, the audio unit will automatically start auto-tuning. If you* ***Cancel*** *the auto-tune, the country setting will remain changed but you may not have access to all available ensembles for that country.*

Note: *This option is disabled when the vehicle is moving*

DAB format



LAN2054

Different regions or countries may use different digital bands to broadcast DAB channels. If you know the band(s) required, then you can choose from the **Band selection** list.

Select **Change** to display a list of formats. The available bands are:

- L Band
- Band III
- L Band & Band III
- L Band Canada
- L Band Can & Band III

Note: *When you change the DAB format, the audio unit will automatically start auto-tuning. If you* ***Cancel*** *the auto-tune, the format setting will stay changed but you may not have access to all available ensembles for that format.*

Note: *This option is disabled when the vehicle is moving*

COMPACT DISC COMPATIBILITY

Caution: Irregular shaped CDs and CDs with a scratch protection film should not be used.

Caution: CDs with labels (or stickers) attached, should not be used. Labels may become warped and prevent the CD from being ejected, causing damage to the CD player. Such damage is not covered by the warranty agreement.

Caution: The CD unit will play compact discs that conform to the international Red Book standard audio specification. Copy-protected CDs from some manufacturers do not conform to this standard and playback cannot be guaranteed.

Caution: Due to technical incompatibility, recordable (CD-R) discs and re-writable (CD-RW) discs may not function correctly.

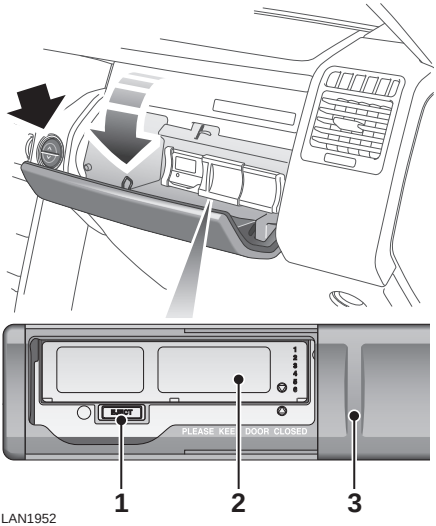
Caution: Dual format, dual-sided discs (DVD Plus, CD-DVD format) are thicker than normal CDs and consequently playback cannot be guaranteed in Land Rover audio units, and jamming could occur. Warranty claims, where this type of disc is found to be inside an audio unit returned for repair, will not be accepted.

The following CD formats may cause the CD player to malfunction. It is recommended that the following types of CD are not used:

- 8 cm (3.1 in.) discs with or without an adaptor.
- CDs that are not circular.
- CDs with a paper label.
- CDs that are warped, dirty, scratched or have an abnormal edge.
- Dual format, dual-sided discs (DVD Plus, CD-DVD format).
- DVDs.

It is recommended that only high quality 12 cm (4.7 in.) circular discs, that show the Compact Disc Digital Audio logo, are used.

CD AUTOCHANGER



LAN1952

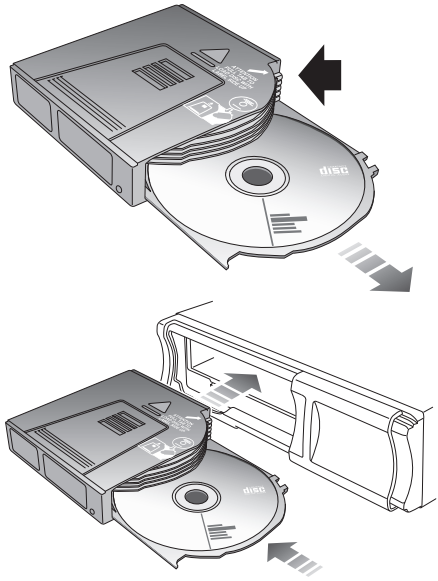
The CD autochanger is located in the upper glove box on the passenger side of the vehicle. Press the release switch to open the glove box.

Fully open the sliding cover (3) to insert or remove the magazine (2).

Keep the cover closed at all other times, to prevent dirt and dust from entering the CD changer unit.

Press button (1) to eject the magazine.

Loading and unloading the magazine



LAN1953

To unload the magazine, hold the magazine with the arrow uppermost, pull out each tray in turn by its tab (see arrow above), while holding the tray securely so as not to drop the disc. Unload one disc at a time and handle only the edge and centre of the disc.

Place a disc (label side uppermost) onto each tray. Load only one disc in each tray.

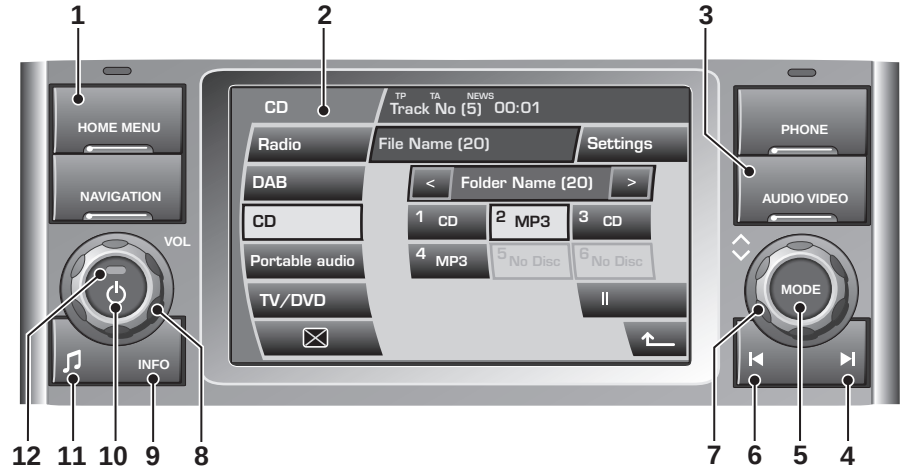
Correctly align the tray to the magazine and slide the tray fully into the magazine. Insert the magazine in the direction of the arrow marked on the magazine casing and push it fully into the CD changer. Close the sliding cover.

Note: *Additional magazines can be obtained from a Land Rover Dealer/Authorised Repairer.*

CD autochanger maintenance

The manufacturers do not recommend the use of lens cleaning discs.

COMPACT DISC PLAYER CONTROLS



LAN1979

1. Settings
2. Touch screen display
3. A/V (audio/video)
4. Up/increase
5. Mode
6. Down/decrease
7. Audio
8. Volume
9. Info
10. Audio on/off
11. Tone
12. Audio on/off indicator

Note: *The Infotainment system is operated by a combination of physical buttons on the touch screen surround and virtual buttons displayed on the touch screen. To avoid confusion when reading this handbook, the physical buttons are referred to as buttons and the on screen buttons as icons.*

Dual/DVDPlus discs

Please be aware that a new generation of DVD discs is being adopted by the music industry. They are know as **Dual Discs** or **DVDPlus** discs. They have digital music on one side and video content on the other. CD players may load and play this type of disc. However, it is likely that the disc will not eject and may jam the mechanism. Such damage to a CD player will not be covered under warranty.

TRACK SELECTION



LAN2791

Tr 12 - Track number of the track being played.

03:47 - Track elapsed play time from start of track.

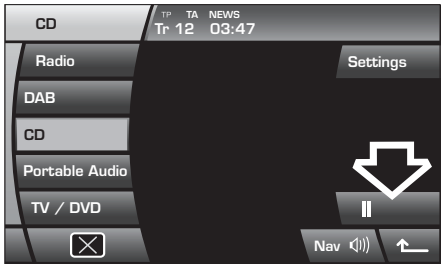
You can move to the next or previous CD track, using the seek buttons either on the facia or on the steering wheel.

Briefly touch the seek buttons to move to the previous or next track.

Touch and hold (two seconds) to play rapidly back through one or more tracks (review) or rapidly forward through one or more tracks (cue).

Normal playback resumes when the seek button is released.

COMPACT DISC PAUSE

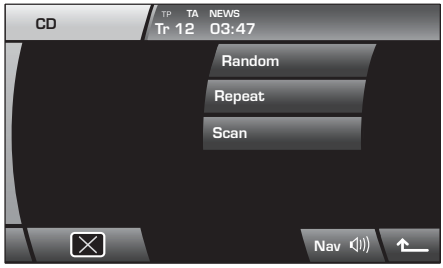


LAN2469

Select **II** to pause the current track. While play is paused, the icon will be highlighted, select it again to resume playback.

Note: *If the volume is turned down to zero, CD playback is automatically paused. Play resumes when the volume is increased.*

COMPACT DISC PLAY OPTIONS



LAN2470

The following compact disc play options are available from the **Settings** menu.

- Random
- Repeat
- CD scan

Touch the icon for the required compact disc play option.



LAN2471

Only one option can be active at a time with the currently selected option shown in the information area of the display.

The currently selected disc play options are automatically cancelled when a different audio source is selected or when the audio unit is switched off.

Random

Selecting **Random** alters the playback order for the current CD so that tracks are played in a random sequence. If you are playing an MP3 CD, the tracks in the current folder only will be mixed.

Random playback can be cancelled by deselecting the option under the **Settings** menu.

Repeat

Selecting **Repeat** will play the current track repeatedly. Deselect the option to cancel repeat and resume normal play.

Note: *Repeat can be cancelled by pressing the track up or track down button.*

CD Scan

Selecting **CD scan** allows you to sample the music on a compact disc. This option plays the first ten seconds of each track in numerical order. Play will then begin at the start of track one.

Note: *CD scan can be cancelled by pressing the track up or track down button.*

MP3 FILE PLAYBACK

MP3 discs have the potential to hold more music than a conventional CD, because each track can be compressed to a higher degree during recording.

If you record your own music, each session must be properly closed but the whole disc does not have to be finalised.

Some discs can contain additional information e.g. CD titles, track titles and the artist's name.

Additional touchscreen controls enable you to select folders and tracks.

Caution: Copyright laws vary in different countries; please check the laws in your country if you want to record from copyright source material.

Note: *The audio system will play MP3, WMA, WAV and AAC files. The highest compression rate supported, is 320k bits per second (kbps). If anything less than 128 kbps is used, Digital Signal Processing (DSP) functionality may be lost.*

Note: *The CD player is not guaranteed to play every disc available because of variation in the quality of discs.*

Using MP3 discs

When an MP3 disc is first played, the first track in the root folder will play first. If you restart play after switching to another disc or audio source, then play will resume from the point you left it.

Note: *The CD player may take a long time (one minute or more) to load an MP3 disc, owing to the number of tracks on it. To minimise the loading on the system, a rigid folder structure is recommended.*



LAN2516

The currently active folder and file name is displayed on the touch-screen.

To navigate between folders, touch the left/right arrow icons either side of the folder name bar.

Use the seek buttons on the facia or the steering wheel to select the next/previous track on the MP3 disc.

MP3 folder structure

A CD-R or CD-RW can have MP3 folders and tracks recorded in many different ways, with many layers of folders and with tracks distributed throughout the folder structure.

Note: *Any CD containing a mixture of MP3 and CDDA tracks will be treated as a CD (any MP3 tracks will be ignored).*

PORTABLE AUDIO INTERFACE

Located in the centre console cubby box is an interface to allow the connection of a variety of portable audio devices, including iPods, to the vehicle's audio system.

Note: *Most devices connected to the iPod and USB ports will be charged, but devices that are fully discharged will not play.*

If an iPod or mass storage device is connected to the interface, you can use the touch-screen to operate and search the device. Many of the controls are similar to those available for CD play.

The devices that you can connect to the portable audio interface include:

- USB mass storage devices, for example memory stick.
- iPod.

Note: *The portable audio interface supports all iPod generations including iPod Photo and iPod Nano. However, iPod Shuffle is not supported via this interface. See* ***''AUXILIARY INPUT (AUX IN) SOCKET', page 301***

Note: *The audio system will play MP3, WMA, WAV and AAC files.*

Connecting an iPod

On the audio Home screen, select **Audio/Video**, then **Portable Audio**, then **iPod**.

Note: *You can also press the* ***MODE*** *button and then select* ***Portable Audio****.*

A dedicated iPod lead is supplied with the Portable audio interface. Plug in your iPod with the usual care necessary to protect the connector pins from damage.

Play will start automatically from the point at which the iPod was last played as long as its battery is not discharged or defective.

Caution: During extreme temperatures it is advisable to unplug and remove an iPod from the vehicle.

Connecting a USB device

On the audio Home screen, select **Audio/Video**, then **Portable Audio**, then **USB**.

Note: *You can also press the* ***MODE/DVD ENTER*** *button and then select* ***Portable Audio****.*

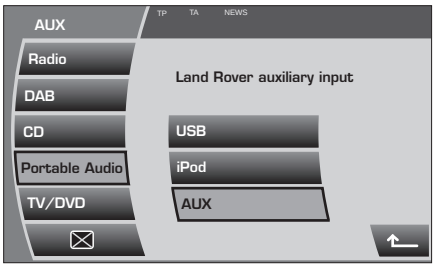
Insert the USB device into the socket.

Whenever the device is connected, the first track in the first available folder is played automatically.

Note: *Some MP3 players have their own file system that is not supported by this system. To use your MP3 player, you must set it to USB Removable Device or Mass Storage Device mode (see manufacturer's information for further details). Only music that has been added to the device in this mode can be played via the vehicle's portable audio system.*

Note: *We recommend that only music files are loaded on the USB device. This will speed up the automatic indexing of files.*

Connecting more than one device



LAN2104

You can connect an iPod and a USB device simultaneously to the portable audio interface and switch between them using the touch-screen. Select **iPod**, **USB** or **AUX**, to switch between modes.

Note: *Selecting AUX will select an input connected to the auxiliary input socket. See* ***AUXILIARY INPUT (AUX IN) SOCKET*** *(page 301).*

The device docked first will remain the active device until you choose to change.

If, after changing to the newly-docked device, you change back to the first device, play will resume at the point you left it (USB and iPod only).

Note: *You cannot use a USB hub to connect more than one USB device to the audio unit.*

Note: *Options such as* ***Repeat*** *and* ***Mix*** *relate to the device currently playing, they will not apply to any subsequent device.*

OPERATING A PORTABLE DEVICE



LAN2103

If you are using a USB mass storage device or iPod connected to the portable audio interface, you can control playback using the touch-screen controls.

Note: *If you are using an audio device connected via the auxiliary input socket, then playback must be controlled from the device itself.*

Autoplay

Whenever a USB device is docked, play will start automatically at the first track in the first available folder.

For an iPod, play will always resume from the current track, whether previously docked or not.

Pause

Select **II** to pause playback, select the button again to resume playback.

Random

USB:

- Briefly touch **Random** to play tracks in the current folder in a random sequence.
- Touch and hold (two seconds) **Random** to play all tracks on the device in a random sequence.

iPod:

- Briefly touch **Random** to play tracks in the current playlist in a random sequence.
- Touch and hold (two seconds) **Random** to play all tracks on the iPod in a random sequence.

If the Mix option is active, select **Random** to cancel it and return to normal playback.

Repeat

USB:

- Briefly touch **Repeat** to repeat play the current track continuously.
- Touch and hold (two seconds) **Repeat** to repeat all tracks in the current folder on a loop.

iPod:

- Briefly touch **Repeat** to repeat play the current track continuously.
- Touch and hold (two seconds) **Repeat** to repeat all tracks on the iPod on a loop.

Select **Repeat** again to cancel it and return to normal playback.

Displaying track information

Many tracks will be saved with additional information contained in an id3 tag. You can choose to display some or all of this information on the screen. The default display provides track title information only.

Briefly touch the **-->** button repeatedly to toggle through the information, including track title, artist, album and genre.

Touch and hold (two seconds) the **-->** button to display the **Portable audio text** pop-up screen providing all the id3 tag information available for the track.

If no information is available, the screen will display the text **No entry**.

Touch the pop-up screen to close it.

SEARCHING A PORTABLE DEVICE

Next/previous track

Briefly touch the seek buttons to move to the previous or next track.

If the **Random** option is switched on, then the next track will be the next in the randomised playlist.

Fast forward/reverse

Touch and hold a seek button to fast forward or reverse through the current track. Release the seek button to resume normal play.

USB folders

The **Folders** option enables you to explore the folder structure on the USB device.

Note: *Only compatible file types will be displayed on the touch-screen.*

Note: *We recommend that only compatible files are loaded onto the device. This will speed up the automatic indexing of your files.*

Note: *This feature is most useful when the files and folders on the USB device have been organised logically.*

Select **Folders** to display all folders on the device.

Select a folder name to display a list of tracks in that folder. Use the arrow icons (if displayed) to scroll through the list.

Select a track to start playback of that track. Play will continue as normal through the remainder of the tracks in that folder.

Select the open folder icon at the top of a menu to move back to the level of that folder.

iPod folders

Select **Browse** to display all search methods available on the iPod. Search methods include, **Playlist**, **Artist**, **Album**, **Genre**, **Composer**, **Podcast**, **Audio Book** and **Song**.

Select a search method from the list to display a list of items found.

If you select **Artist**, a list of artists will be displayed.

If you select an album title, a list of tracks is displayed. Select a track to start playback.

Select the open folder icon at the top of a menu to move back to the level of that folder.

Portable device settings

In Portable audio mode, select **Settings**, then select **Options**.

Page jump

Only five items are displayed on screen from a list of many items. If you select a single arrow scroll button, then four items will scroll past.

The **Page jump** setting helps you to navigate a very long list of items by setting the number of items scrolled through when a double-arrow page scroll button is selected.

For example, if you select **10** under **Page jump**, then 10 × 4 (40) items will scroll past each time you select a page scroll button.

AUXILIARY INPUT (AUX IN) SOCKET

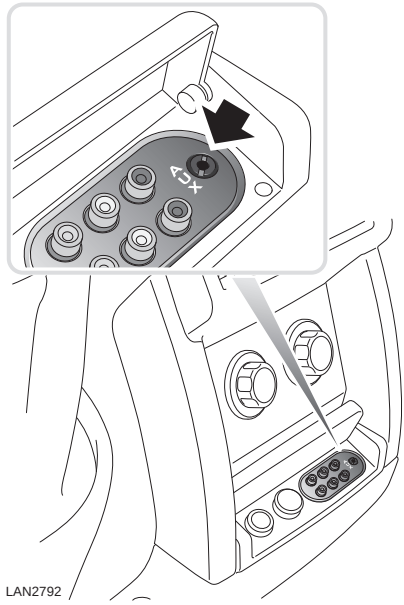
WARNING

Auxiliary devices cannot be controlled using the touch-screen. We strongly advise against controlling playback or altering settings on the auxiliary device while driving.

Ensure that any auxiliary devices are stored securely whilst the vehicle is in motion. Any loose objects can present a serious hazard during sudden manoeuvres, emergency braking, or an accident.

Do not place any item connected to the auxiliary input socket, or the auxiliary power socket, on the vehicle's seats, carpets, or other upholstery. The heat generated by these devices may cause damage to the upholstery, or in extreme cases, a vehicle fire.

Caution: Read the manufacturer's instructions for any device before it is connected to the vehicle's audio system. Ensure that the device is suitable, and comply with any instructions regarding connection and operation. Failure to do so may result in damage to the vehicle's audio system or the auxiliary device.



AUX (Auxiliary Input) mode allows additional equipment to be connected to the vehicle's audio system. Items such as a personal stereo, MP3 player, iPod, hand-held navigation unit etc. can be plugged in to the vehicle's audio system.

The auxiliary connector is situated at the rear of the centre console. To gain access, lift the lower edge of the cover.

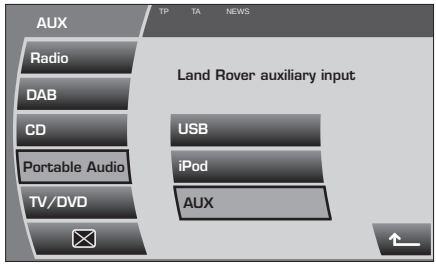
The auxiliary power socket, situated next to the auxiliary input connector, can be used to power or charge most devices.

Note: *iPod Shuffle is supported when connected via the Auxiliary Input connector.*

Auxiliary input (AUX IN) socket

Note: *On vehicles fitted with rear seat entertainment, additional Audio Visual sockets (**AV1** and **AV2**) are provided. This allows auxiliary equipment (such as a video games console) to be linked up to the rear DVD screens. For information on the installation of such equipment, please refer to the installation guide supplied with the auxiliary equipment.*

Auxiliary mode



LAN2104

To listen to an auxiliary input source, connect the device to the 3.5 mm stereo jack plug marked **AUX**.

On the audio Home screen select **Portable audio**. Select **AUX**.

Note: *You can also press the **MODE** button repeatedly to select **Portable audio device**.*

Play will start when you switch on and start play on the auxiliary device.

Volume is controlled using the left rotary control. Tone and balance can also be adjusted.

Note: *The volume levels and sound quality available from devices connected to the auxiliary inputs may vary widely.*

AUDIO SYSTEM EEC CONFORMANCE

In conformance with current EC guidelines, any person may operate this radio receiver. This unit conforms to the current valid European or harmonised national regulations. The designation is your guarantee of conformance to the applicable specifications concerning electromagnetic compatibility for the unit. This means that interference affecting other electrical/electronic devices caused by your unit, as well as interfering influences on your unit from other electrical/electronic devices, can be largely prevented.

Current valid designations are:-

CE symbol for issue according to European guideline 89/336/EEC under application of the following standards:

EN 55013

EN 55020

e symbol according to European motor vehicle EMC guideline 95/54/EU, also permits operation in motor vehicles (classes M, N and 0) which received their type approval after 1st January 1996.

CE

e 1

021473

H4371

TRANSMITTER INFORMATION

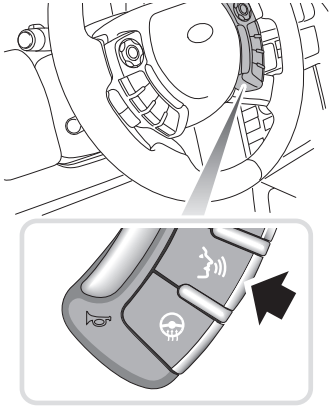
Service	Frequency band	Maximum output	Antenna position	Specific conditions
4m VHF	70-85 MHz	30 W/CW 40 W/CW	Anywhere on the metallic part of the roof.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
2m VHF	142-175 MHz	30 W/CW 40 W/CW	Anywhere on the metallic part of the roof.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
TETRA	380-422 MHz	10 W/CW 10 W/PM	Anywhere on the metallic part of the roof.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
UHF	450-470 MHz	10 W/CW	Anywhere on the metallic part of the roof.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
Bluetooth	2400-2483.5 MHz	10 mW	Anywhere on the vehicle.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
Road telematics	5795-5815 MHz	2 W eirp	Anywhere close to a glazed area.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609
Road telematics	63-64 GHz	2 W eirp	Anywhere close to a glazed area.	Transmitter, harness and antenna installation to the requirements of ISO/TS 21609

USING VOICE CONTROL

Voice control provides a safe and convenient way of operating certain vehicle systems, without the need to operate the controls manually. This enables you to concentrate fully on driving the vehicle and removes the need to divert your attention from the road ahead, in order to change settings or receive feedback from systems.

A number of voice commands are available and, with a little experience, you will find them easy and convenient to use.

Voice control allows for activation of the phone and navigation systems, as well as providing a notepad facility, to allow voice notes to be recorded. Help and tutorial functions provide advice on operating the system. Information on voice control of the telephone system is detailed later in this handbook.
See **TELEPHONE VOICE CONTROL** (page 315).
Information on voice control of the navigation system is detailed in the separate Navigation handbook.



LAN2113

The system is controlled using the voice button on the steering wheel (arrowed). Voice commands are picked up by a dedicated microphone and audible feedback will be heard through the audio system speakers.

Activating the system

To activate voice control, press and release the voice button on the steering wheel. A tone will sound to indicate that the system is waiting for a voice command. Any output from the audio system will be muted.

Note: *It is only necessary to press the voice button at the beginning of each voice session.*

Language and accent

Voice feedback is given in the same language as is set for Voice recognition. For example, if the Voice recognition language is set to UK English, the system will not recognise other languages (e.g. US English). The language for the system can be changed using the touch screen. See **VOICE SETTINGS** (page 271).

Note: *Changing the Voice recognition language will not affect the language settings for the touch screen.*

Giving a command

Note: *If background noise is excessive (e.g. driving with windows open), the voice system may not recognise a given voice command.*

Press and release the Voice button on the steering wheel and, after the tone, say one of the commands listed later in this section, or one of the commands for the Telephone or Navigation systems.

Note: *Always wait until the tone finishes sounding before giving a voice command.*

Give commands while facing forwards, in a natural speaking voice as if talking to a passenger or on the phone. Most accents are understood without difficulty, but if the system does not recognise the command, the system will respond with **SORRY** and allow two more attempts to say the command.

The system will repeat the command (as understood by the system) back to you as confirmation. The command will then be acted on or the system will ask for further information - always wait until after the tone has sounded before speaking.

Once you are familiar with system requests, it is possible to skip to the end of the request (to when the tone sounds) to give your response. To achieve this, briefly press and release the voice button on the steering wheel during the system request.

Interrupting voice control

A command can be interrupted by speaking the word **Cancel** or by pressing the steering wheel voice control button until a double beep is heard.

It is only possible to interrupt dialogues where you say a name in the voice recognition phonebook, by pressing the voice control button.

A voice control dialogue will be automatically cancelled if you receive a telephone call (Traffic announcement or Navigation route guidance instruction).

Cancelling voice control

To cancel a voice command, press and hold the Voice button on the steering wheel until a double tone is heard.

Note: *If a phone call is received during a voice session, voice control is cancelled.*

Voice system tutorial

To listen to a tutorial on how to use voice control, press and release the voice button and, after the tone, say **VOICE TUTORIAL**.

The tutorial is divided into four lessons and has a total duration of approximately four minutes. The tutorial can only be undertaken with the vehicle stationary and parked.

To cancel the tutorial, press and release the Voice button and say **CANCEL**. To skip to the previous or next lesson of the tutorial, press and release the Voice button and say **PREVIOUS** or **NEXT**.

Command help

For a list of the most commonly used voice commands, press and release the Voice button and, after the tone, say the appropriate command from the following list:

- VOICE HELP
- NAVIGATION HELP
- PHONE HELP
- DISPLAY HELP
- NOTEPAD HELP

Command list

A list of available voice commands can be accessed on the touch screen. See **VOICE SETTINGS** (page 271).

DISPLAY COMMANDS

This is a list and a description of the voice commands used to operate the touch screen.

Command	Description
DISPLAY ON	Turns the touch screen on.
DISPLAY OFF	Turns the touch screen off.
DISPLAY SHOW AUDIO	The Audio home screen is displayed.
DISPLAY SHOW PHONE	The Phone home screen is displayed.
DISPLAY SHOW NAVIGATION	The Navigation main menu is displayed. ***Note:*** *The navigation caution must be accepted before the menu is displayed.*

GENERAL INFORMATION

WARNING

Use of your phone handset while you are driving is dangerous as it diverts attention from the traffic situation. If you wish to use your phone handset, stop at an appropriate place where you are not endangering or inconveniencing other vehicles.

Using the telephone near the car: do not telephone inside a garage or near an open car bonnet. The air may contain fuel vapours and the telephone could produce sparks and start a fire.

Unusual ambient conditions: Switch off the telephone in areas where high explosives are being used. High frequency remote controls could be interfered with and cause an explosion. Switch off your telephone in areas with a high explosion risk. This includes filling stations, fuel storage areas or chemical factories, as well as places where the air contains fuel vapour, chemicals or metal dust. The telephone might possibly produce sparks and cause a fire or explosion.

Medical equipment: The functioning of cardiac pacemakers or hearing aids may be impaired when the phone is in use. Check with a doctor or manufacturer whether any such devices you or your passengers are using are sufficiently protected against high-frequency energy.

Always stow your mobile phone securely. In an accident loose items can cause injury.

Note: *The vehicle telephone system is designed to function with a wide variety of Bluetooth telephones. As these telephones have a wide range of audio and echo performance characteristics, it may take a few seconds for the vehicle telephone system to adapt and deliver optimum audio performance. It may be necessary to reduce the in-vehicle volume slightly to fully optimise audio performance and reduce echo.*

Telephone networks

The Telephone network standard allows you to use your telephone in many countries, and to use a uniform emergency call number (112) irrespective of which country you are driving.

It is possible that telephone reception may be poor or unavailable in remote regions. This will usually be due to the inadequate power of the transmitter and, therefore, to incomplete coverage. Depending on your location, you may also be using the transmitters of a network operator with which your service provider has an agreement for handling your calls.

Mobile phone compatibility

Not all phones are fully compatible with the Land Rover system. For the latest list of compatible phones and software versions, please refer to the Land Rover website **http://www.landrover.com**. Alternatively consult your Land Rover Dealer/Authorised Repairer.

Bluetooth supported features

- Make a call.
- Receive a call.
- End an active call.
- Call stacking - display of missed calls, last number called, call waiting.
- Phonebook - access to the phonebook stored on the phone or SIM card.

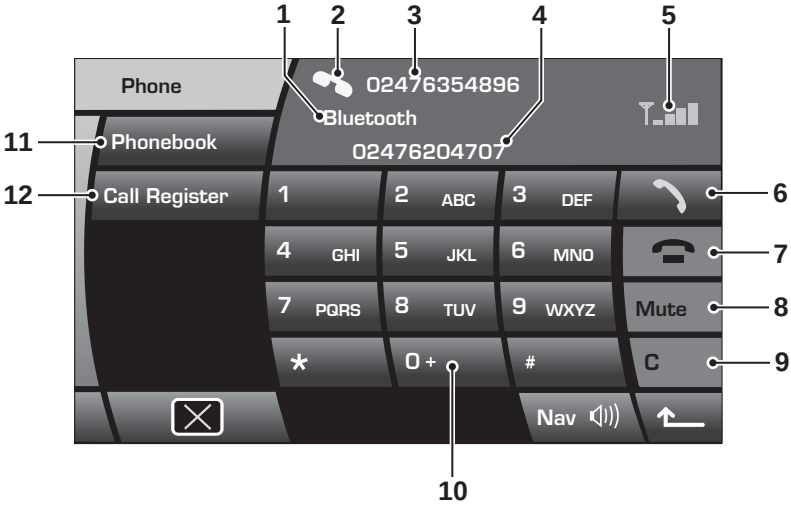
Unsupported features

- Phone charging.
- Hold/unhold an active call.
- Rejecting an incoming call.

Note: *Functionality will depend on model/manufacturer of your mobile phone.*

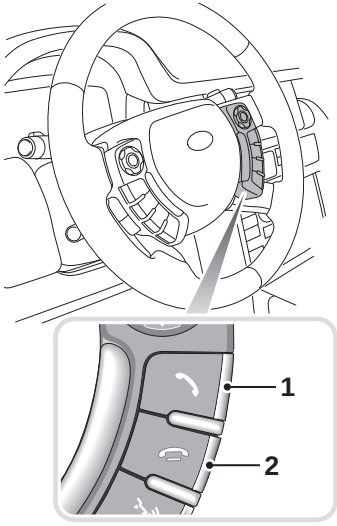
TELEPHONE CONTROLS

Touch screen



1. Network name (if none is available, Bluetooth is displayed)
2. Active call icon
3. Call information
4. Scratchpad line
5. Signal strength icon (if supported)
6. Make/Answer call
7. End call
8. Mute
9. Clear
10. Numeric keypad
11. Phonebook
12. Call register

Steering wheel



LAN2552

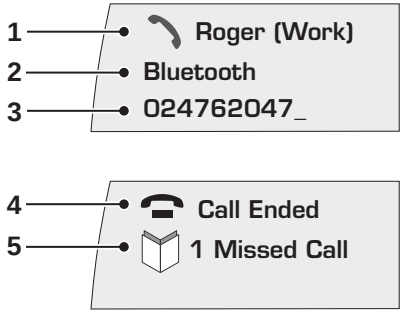
1. Answer call/Dial switch

- Press the switch briefly to answer an incoming call or redial the last number dialled.

2. End/Reject call switch

- Press the switch to end the current call or reject an incoming call.

PHONE INFORMATION DISPLAY



LAN2009

1. Active call icon.

2. Network or Bluetooth.

3. Scratchpad line (Max. 17 characters).

4. Call state icon.

5. Missed call icon.

Note: *The phone operator logo and signal strength indicators will also be displayed, if supported by the mobile phone.*

BLUETOOTH SETUP

Bluetooth access code

The four digit access code required for Bluetooth pairing operation is 2121.

Pairing your phone to the vehicle

If your mobile phone supports this wireless feature, it will need to be paired to the vehicle. The pairing process will also be described in your mobile phone instructions.

1. With the vehicle ignition on, select the Bluetooth feature on your mobile phone.

2. Start the Search function on your mobile phone. This search process may vary from one handset/manufacturer to another (consult your mobile phone instructions for further details). Typically, when searching for other wireless devices the search range is 10 metres or less.
3. The text **LAND ROVER** will appear on your mobile phone device list. This should be selected. **LAND ROVER** can be personalised by the user (e.g. the vehicle registration number).
4. Your mobile phone display will now prompt you for the Bluetooth access code. Press the numeric keys 2121 on your phone.
5. When the code is accepted, the system will allow you to use the Bluetooth mode.

Note: *A maximum of five mobile phones can be paired to the vehicle.*

Note: *If more than one paired Bluetooth phone is in range, then the system will automatically select the last phone used in Bluetooth mode (if present). If the last connected phone is not present the system will move through previously connected phones until a paired phone is discovered.*

Note: *The searching/pairing process may take some time to complete, especially if more than one phone is paired to the system.*

Note: *Priority can be given to other phones by de-selecting Bluetooth mode on your mobile phone.*

SELECTING PHONE MODE

Press the Phone button on the facia; or from the Home Menu on the touch screen, touch the Phone icon, or activate voice control and say 'Display, show phone'.

DIALLING

The process below should be used for making calls.

1. From the Phone main display, touch the required numeric keypad icons.
2. Touch the **Make/Answer** icon.
3. When the call is active, the phone icon flashes in the Phone information display. Phone ringing will be heard.

Correcting/clearing number entries

Use the process below to correct or clear incorrect number entries.

1. Touch the **C** icon to delete the last digit entry.
2. Continue to hold the **C** icon to delete the entire entry.

Last number redial

Note: *This function will only be available if your phone is capable of sending the last number redial to the vehicle.*

1. Touch the **Make/Answer** icon.
2. The last dialled number is displayed and redialled.

ANSWERING/REJECTING CALLS

Answer incoming call

1. If the Phone main display is shown when there is an incoming call, touch the **Make/Answer** icon to answer the call. The phonebook contact name will be shown if stored, the caller's phone number is displayed if available.
2. If another touch screen mode is active when an incoming call is received, an information pop-up will appear.
3. Touch the **Make/Answer** icon on the pop-up to answer the incoming call.

Reject incoming call

1. If the Phone main display is shown when there is an incoming call, touch the **End** icon to reject the call.
2. If another touch screen mode is active when an incoming call is received, an information pop-up will appear.
3. Touch the **End** icon on the pop-up to reject the incoming call.

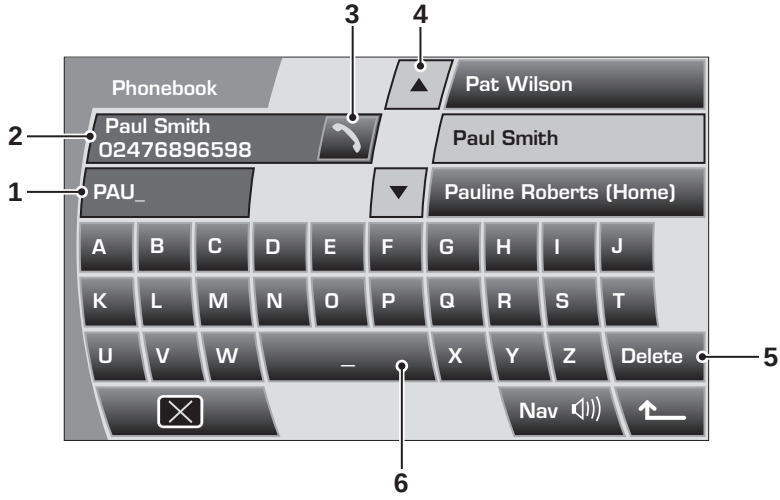
End call

If the Phone main display is showing when you wish to end your call, touch the **End** icon to terminate the call.

If another touch screen mode is active (e.g. Navigation) when you wish to end your call, press the **Phone** button on the facia to access the Phone screen and then touch the **End** icon to terminate the call.

PHONEBOOK

Phonebook display



LAN2007

1. Search text input display
2. Name/number display
3. Make call
4. Scroll arrows (3 or more entries)
5. Delete (hold to delete entire entry)
6. Alpha character input softkeys

Accessing the phonebook

When your phone is paired to the vehicle, and dependent on the phone being used, your phone/address book will be accessible the touch screen.

To confirm that your phone supports this feature and to check whether the phonebook is downloaded from the phone or the SIM card, consult the list of approved phones on the Land Rover website

Note: *Once the phone is disconnected from the vehicle, the phonebook will be deleted from the vehicle system.*

To access the phonebook:

1. From the Phone main display, touch the **Phonebook** icon.
2. The phonebook display is shown.

Phonebook scroll

To navigate through your contact list, touch either of the **Scroll** arrows.

Phonebook search by letter

This method should be used when you wish to reduce the search to letter or name specific contacts (the more letters entered, the fewer contacts need to be searched).

1. Touch the **Alpha character input** icon for the first search letter (shown in the Search text input display).
2. Further letters can be typed, if desired.
3. If an error is made, touch **Delete** to delete the last character. Hold to delete the entire entry.

Dialling from the phonebook

Where a contact is available via your Phonebook, this method of dialling may be used as an alternative to dialling via the numeric keypad.

1. Touch the **Phonebook entry** corresponding to the required contact name.
2. Touch the **Make** call icon.
3. The display reverts to the Phone main display. The name/number dialled is shown in the Phone information display.

SCRATCHPAD

This function enables you to note down a number while in an active call.

1. From the Phone main display, touch the required numeric keypad icons.
2. When the active call has been terminated, the noted phone number moves to the top of the Phone information display.
3. This number can now be dialled by touching the **Make/Answer** icon or deleted, by touching and holding **C**.

CALL REGISTER

Note: *This function will only be available if your phone is capable of sending the call register list to the vehicle.*

Call register menu

1. From the Phone main display, touch the **Call Register** icon.
2. The Phone Messages menu is displayed.

Last dialled numbers menu

1. From the Phone Messages menu, touch the **Dialled** icon.
2. The Last Dialled menu displays details of the last ten calls dialled.

3. If desired, calls can be made to any contacts shown by touching the icon corresponding to the required name/ number.
4. If a call is made, the display reverts to the Phone main display. The name/number dialled is confirmed in the Phone display.

Missed calls menu

Note: *This function will only be available if your phone is capable of sending the missed call list to the vehicle.*

1. From the Phone messages menu, touch the **Missed** icon.
2. The Missed menu is displayed.
3. If desired, calls can be made to any contacts shown by touching the icon adjacent to the required name/number.
4. If a call is made, the display reverts to the Phone main display. The name/number dialled is confirmed in the Phone display.

Missed calls

There are two other methods that you can be informed of missed calls. The first method is as follows:

1. When informed via the Phone main menu that you have a missed call, touch the **Call Register** icon.

The second method is as follows:

1. If another touch screen mode is active (e.g. Navigation) and there is a missed call, an information pop-up will appear.
2. Touch the **View List** icon to display the missed call(s).

Received calls menu

Note: *This function will only be available if your phone is capable of sending the received call list to the vehicle.*

1. From the Phone Messages menu, touch the **Received** icon.
2. The Received menu is displayed.
3. If desired, calls can be made to any contacts shown, by touching the icon adjacent to the required name/number.
4. If a call is made, the display reverts to the Phone main display. The name/number dialled is confirmed in the Phone display.

TELEPHONE VOICE CONTROL

WARNING

Do not use the voice control for placing emergency calls. Your voice and tone could be affected by stressful situations as a result of which, the process of establishing the telephone connection could be unnecessarily delayed.

Voice control enables you to activate important functions of your telephone system, without the need to operate the controls manually. This enables you to concentrate fully on driving the vehicle.

A number of voice commands are available and, with a little experience, you will find them easy and convenient to use. You are guided through these dialogues by announcements or questions.

Please familiarise yourself with the functions of your telephone system, before using voice control.

Note: *The voice recognition directory is separate from your phone handset SIM card address book/phonebook.*

For general information about voice control. See **USING VOICE CONTROL** (page 305).

Defined voice commands

The voice control system understands predefined commands which need to be given word for word.

You can prompt the system to speak a selection of these commands by activating the system and giving the command **Phone help** or **Telephone help**.

Note: *For each command below, the term* ***Phone*** *or* ***Telephone*** *are equally acceptable.*

Telephone commands

- **Phone help**
- **Phone dial number**
- **Phone redial**
- **Phone dial name**
- **Phone store name**
- **Phone play directory**
- **Phone delete directory**

Telephone sub-commands

These commands are used in response to a prompt or question within a dialogue.

- **Correction**
- **Delete**
- **Cancel**
- **Store**
- **Dial**
- **Yes**
- **No**
- **Replay**
- **Numbers 0-9**
- **Double**
- **Treble/Triple**
- **Edit**

General commands

Note: *Over the following pages, the voice control commands you should give for an action are shown in bold and the responses by the voice recognition system are shown inside chevrons >...<.*

DIALLING A PHONE NUMBER USING VOICE RECOGNITION

Starting a dialogue

Press and release the voice button on the steering wheel. A tone will be heard. Any output from the audio system will be muted.

The command **Phone dial number** starts the dialogue for entering a telephone number. You are guided through this process by a predefined dialogue.

Command	System response
Phone dial number	>Phone dial number, Number please<
Zero, one, six, one	>Zero, one, six, one, continue?<
Four, nine, six	>Four, nine, six, continue?<
Zero, nine, nine, eight	>Zero, nine, nine, eight, continue?<
Dial	>Dialling<

Saying numbers

The system understands single digits from zero to nine. You can choose to say either **Zero** or **Oh**.

Numbers such as ten, eleven, twelve etc. are not recognised.

To speed up input it is a good idea to group together between three and five digits into a continuous string. However, you can also say each digit individually, or all digits continuously.

Note: *Telephone numbers of up to 20 digits are acknowledged. If a longer number is given, the following error message will be issued: >Number too long<.*

Correcting/Deleting and Cancelling inputs

When you are entering digits into the system, it will repeat back the numbers given, then asks you to continue. You may continue entering digits to complete your number or if you have made a mistake or if the voice control has misunderstood, you may say: **Correction**, **Delete** or **Cancel**.

Command	System response
Phone dial number	>Phone dial number, Number please<
Zero, one, six, one	>Zero, one, six, one, continue?<
Four, nine, six	>Four, nine, six, continue?<
Correction	>Zero, one, six, one, continue?<
Four, nine, five	>Four, nine, five, continue?<
Delete	>Number please<

Correcting inputs

Correction to delete the last block of digits. After the command Correction, the system repeats the digits that were entered correctly up to that point.

Deleting inputs

Delete, deletes all digits entered. It is then necessary to enter the digits again from the very beginning.

Cancelling voice session

Cancel terminates voice session.

Establishing a connection

The command **Dial** terminates input of the digits and a connection is established with the telephone number displayed.

Note: *To make a foreign phone call say* ***Plus*** *followed by the country code.*

Redialling

The command **Phone redial** dials the telephone number last used.

Command	System response
Phone redial	>Phone redial, Confirm Yes or No<
Yes	>Dialling<

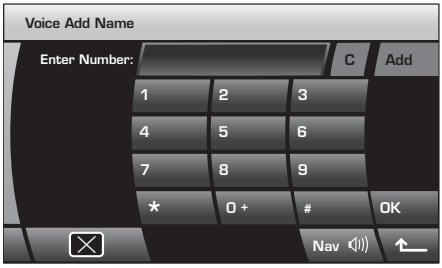
STORING A TELEPHONE NAME/ NUMBER WITH VOICE RECOGNITION

Telephone numbers which you dial frequently can be stored in the Voice Recognition phone directory in conjunction with the contact name.

There are two methods of achieving this. The first is by entering the contact phone number via the touch screen. The second is initiated via a voice command.

Storing via touch screen

From the touch screen, select the **Settings** menu icon, followed by **voice settings**, then select **voice add name**.



LAN2523

Enter the telephone number using the touch screen keypad. Select **Add** to initiate the voice recognition **Phone store name** function. Follow the process in the table below.

Command	System response
Press **Add** icon on **Voice Add Name** screen	<Name please>
(Follow voice prompts)	

Storing via voice command

The command **Phone store name** calls up the dialogue for storing a name. The name is entered first, then the number. The same rules for saying numbers apply as for the **Phone dial number** command.

If possible, keep names acoustically distinct from one another, for example, **Andrew Royd** and **David Royle** instead of **Mr Royd** and **Mr Royle**. This will improve recognition when you make a call.

Depending on the spoken length of the names and numbers you have entered, it is possible to store approximately 50 entries.

Command	System response
Phone store name	>Phone store name< >Number please<
Zero, one, six, one	>Zero, one, six, one, continue?<
Four, nine, six	>Four, nine, six, continue?<
Zero, nine, nine, eight	>Zero, nine, nine, eight, continue?<
Store	>Name please<
Andrew Royd	>Please repeat name<
Andrew Royd	>Andrew Royd stored<

USING THE VOICE RECOGNITION PHONE DIRECTORY

Dialling a telephone number in the phone directory

The command **Phone dial name** activates the phone number in the directory corresponding to the name tag.

When prompted by the voice control system, speak the name under which you have stored the telephone number you want.

The voice control system will understand best the person who made the entries.

Command	System response
Phone dial name	>Dial name, Name please<
Andrew Royd	>Andrew Royd, Confirm Yes or No<
Yes	>Dialling<

Dialling/Editing and Deleting from the phone directory

The command **Phone play directory** enables you to have all entries in your voice recognition phone directory read out in order.

You may say one of the following after each name has been read out. Give the command **Dial, Replay, Delete, Edit, Cancel** or remain silent to advance to the next name.

Command	System response
Phone play directory You can say **Dial, Replay, Delete, Edit** or **Cancel** after each name. (Reads out the entries)	>Phone play directory<
Dial	>Phone dial name, Confirm Yes or No<
Yes	>Dialling<

Dialling

This function enables you to dial a telephone number stored in the phone directory. This is useful if you have forgotten a contact's voice/name tag or if the tag is not recognised.

Replaying

This function repeats the name again from the phone directory.

Deleting

This function enables deletion of a telephone number and name stored in the phone directory.

Editing

This function enables voice editing of a telephone number of an existing name stored in the phone directory.

Cancelling

Terminates the voice session.

Deleting/Clearing the entire phone directory

The command **Phone delete directory** deletes all entries in the Voice Recognition phone directory.

The names and telephone numbers entered in your Voice Recognition phone directory are independent of the telephone or SIM card memory of your phone. In other words, it is not possible to recall or delete the numbers stored in the telephone itself or on the SIM card by voice input, nor is it possible to store numbers there by voice input.

Command	System response
Phone delete directory	>Phone delete directory, Confirm Yes or No<
Yes	>Are you sure you want to delete the whole directory?<
Yes	>Directory deleted<

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