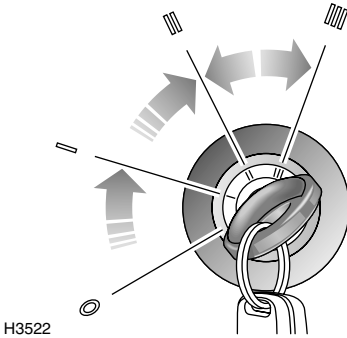


Starting & Driving

STARTER SWITCH

The starter switch is located to the right of the steering column, and uses the following sequence of key positions to operate the steering lock, electrical circuits and starter motor:



Position '0'

- Steering locked (if key is removed).
- Most lighting circuits are operational, including: sidelights, headlights and hazard warning lights.

Position '1'

- Steering unlocked.
- Clock, radio/cassette player and cigar lighter can now be operated.

Position 'II'

- All instruments, warning lights and electrical circuits are operational.

Position 'III'

- Starter motor operates.
Release the key immediately the engine starts (the key will automatically return to position 'II'). Note that operation of position 'I' electrical functions will be interrupted during engine cranking.

NOTE: On automatic models gear selector position 'P' or 'N' must be selected before the engine will start.

NOTE: When the starter switch is at position 'II', a short, low pitched 'buzz' may be heard; this is the ABS system priming and is no cause for concern. The instruments and warning lights will also prime.

Starting & Driving

STARTING - Petrol models

WARNING

Never start or leave the engine running in an unventilated building - exhaust gases are poisonous and contain carbon monoxide, which can cause unconsciousness and may even be fatal.

Before starting the engine and driving, ENSURE you are familiar with the precautions shown under 'CATALYTIC CONVERTER *', page 101.

In particular, you should be aware that if the engine fails to start, continued use of the starter may result in unburnt fuel damaging the catalytic converter.

1. Check that the handbrake is applied and that the gear lever is in neutral ('P' or 'N' for automatic transmission).
2. Switch off all unnecessary electrical equipment (including the air conditioning).
3. Turn the starter switch to position 'III' to operate the starter motor and RELEASE THE KEY as soon as the engine is running.

DO NOT press the accelerator pedal while starting and DO NOT operate the starter for longer than 15 seconds. If the engine fails to start, switch off and wait for at least 10 seconds before trying again.

NOTE: Continued use of the starter will not only discharge the battery, but may cause damage to the starter motor and the catalytic converter.

NOTE: The battery charging, oil pressure and engine malfunction indicator warning lights should extinguish as soon as the engine is running.

In cold weather, or when the battery is in a low state of charge, on manual gearbox vehicles depress the clutch pedal while starting and hold it down until the engine is running. This will reduce the load on the battery.

What to do if the engine fails to start, or starts but will not continue running:

- Press the accelerator pedal half way down while operating the starter. DO NOT operate the starter for more than 15 seconds and release the accelerator as soon as the engine fires.
- If the engine still fails to start, operate the starter again, this time FULLY depressing the accelerator pedal to clear the engine of excess fuel. Ensure the starter motor is not operated for more than 15 seconds and release the accelerator pedal as soon as the engine has started.
- DO NOT pump the accelerator pedal during starting.

NOTE: If starting the vehicle in cold weather at high altitude (above 2,400 m), adopt the above procedure as normal practice.

Cold climates

At temperatures down to -26°C, the engine should start within 5 to 8 seconds. Below this temperature, engine cranking times will increase significantly and the starter motor may need to be operated continuously for as long as 30 seconds before the engine will start. For this reason, ensure that all non-essential electrical equipment is switched off.

In very cold climates the oil pressure warning light may take several seconds to extinguish.

Cylinder block heaters

Only approved cylinder block heaters restricted to a maximum of 400 W should be used. Cylinder block heaters that exceed this output may damage the emission control components.

Starting & Driving

Automatic gearbox vehicles

After starting, ensure that the handbrake and foot brake are firmly applied and the accelerator pedal is not depressed while moving the gear selector lever from 'N' or 'P', otherwise, the vehicle may move immediately the selector lever is moved to one of the drive positions (1, 2, 4, D or R). This is particularly important when the engine is cold, because the engine will be idling at a faster speed than normal.

NOTE: *The selector lever cannot be moved from 'P' to a drive position while the engine is running, unless the brake pedal is applied.*

STARTING - Diesel models

WARNING

Never start or leave the engine running in an unventilated building - exhaust gases are poisonous and contain carbon monoxide, which can cause unconsciousness and may even be fatal.

Before starting the engine and driving, ENSURE you are familiar with the precautions shown under 'CATALYTIC CONVERTER *', page 101.

In particular, you should be aware that if the engine fails to start, continued use of the starter may result in unburnt fuel damaging the catalytic converter.

1. Check that the handbrake is applied and that the gear lever is in neutral ('P' or 'N' for automatic transmission).
2. Switch off all unnecessary electrical equipment (including the air conditioning).
3. Insert the starter key and turn the switch to position 'II'. Wait until the glow plug warning light extinguishes.

NOTE: *The waiting time will vary according to the engine coolant temperature (when the engine is hot, the glow plug warning light will extinguish almost immediately).*

4. Turn the key to position 'III' to operate the starter motor. DO NOT press the accelerator pedal while starting. RELEASE THE KEY as soon as the engine is running.

If the engine stalls or fails to start, you MUST return the starter switch to position 'O' before attempting to restart; the engine will not start by turning the starter switch from position 'II'.

In temperate climates DO NOT operate the starter for longer than 10 seconds. If the engine fails to start, switch off and wait 10 seconds before re-using the starter.

NOTE: *Continued use of the starter will not only discharge the battery, but may cause damage to the starter motor.*

NOTE: *The battery charging and oil pressure warning lights should extinguish as soon as the engine is running.*

In cold weather, or when the battery is in a low state of charge, on manual gearbox vehicles depress the clutch pedal while starting and hold it down until the engine is running. This will reduce the load on the battery.

NOTE: *The diesel engine must not be run above idle speed until the oil pressure warning light extinguishes. This will ensure that the engine and turbo-charger bearings are properly lubricated before being run at speed.*

NOTE: *Similarly, ALWAYS allow the engine to idle for 10 seconds before switching off.*

Starting & Driving

Cold climates

The engine of your Freelander is fitted with an advanced 'drive by wire' engine management system. This is designed to optimise the vehicle's cold start behaviour - pressing the accelerator pedal has no effect on starting performance.

At temperatures down to -26°C (-15°F), the engine should start within 5 to 8 seconds. Below this temperature, engine cranking times will increase significantly and the starter motor may need to be operated continuously for as long as 30 seconds before the engine will start. For this reason, ensure that all non-essential electrical equipment is switched off.

In very cold climates the oil pressure warning light may take several seconds to extinguish.

Cylinder block heaters

Only approved cylinder block heaters restricted to a maximum of 400 W should be used.

Cylinder block heaters that exceed this output may damage the emission control components.

Automatic gearbox vehicles

After starting, ensure that the handbrake and foot brake are firmly applied and the accelerator pedal is not depressed while moving the gear selector lever from 'N' or 'P', otherwise, the vehicle may move immediately the selector lever is moved to one of the drive positions (1, 2, 4, D or R). This is particularly important when the engine is cold, because the engine will be idling at a faster speed than normal.

NOTE: *The selector lever cannot be moved from 'P' to a drive position while the engine is running, unless the brake pedal is applied.*

DRIVING

IMPORTANT INFORMATION

Vehicle stability

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 different off-road applications. An advantage of the higher ground clearance is a better view of the road, allowing the driver to more easily anticipate problems. Inexperienced drivers should take additional care, remembering that your vehicle is not designed for cornering at the same speeds as conventional passenger cars, any more than a low slung sports car is designed to perform satisfactorily in off-road conditions. As with other vehicles of this type, failure to operate your vehicle correctly may result in loss of control or even vehicle rollover.

Vehicle height

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 the sunroof is tilted open.

Instruments and warning lights

Before driving it is important to fully understand the function of the instruments and warning lights.

NOTE: *Red warning lights are of particular importance; illumination indicates that a safety-related problem or potentially serious mechanical fault exists. If a red light illuminates, always stop the vehicle and seek qualified assistance before continuing.*

Starting & Driving

Warming-up

DO NOT warm-up the engine by allowing it to idle at a slow speed.

In the interests of fuel economy, it is advisable to drive the vehicle straight away, remembering that harsh acceleration and labouring the engine before the normal operating temperature has been reached can damage the engine.

Parking

After bringing the vehicle to a stop, ALWAYS apply the handbrake and select neutral ('P' for vehicles with automatic transmission), before releasing the foot brake and switching off the engine.

WARNING

Cooling fans may continue to operate after the engine is switched off. When the engine is hot, the cooling fans may also COMMENCE operating after the engine is switched off and continue operating for up to 8 minutes. Keep clear of all fans while working in the engine compartment.

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 1000 km, 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 or 3,000 rev/min. Initially, drive the vehicle on a light throttle and only increase engine speeds gradually once the running-in distance has been completed.

- DO NOT operate at full throttle or allow the engine to labour in any gear.
- AVOID fast acceleration and heavy braking except in emergencies.

After the running-in distance has been completed, engine speeds may be gradually increased.

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 neutral to improve fuel economy and air conditioning performance.

Starting & Driving

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 Freelander.

Catalytic Converter

CATALYTIC CONVERTER *

The exhaust system on your vehicle incorporates a catalytic converter, which converts poisonous exhaust emissions from the engine into environmentally less harmful gases.

WARNING

Severe damage to the catalytic converter could occur if the engine is stopped for any length of time when being driven through water whose level is above the exhaust tailpipe.

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 'TYPE OF FUEL', page 103.

Starting the engine

- DO NOT continue to operate the starter 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, then provided the engine has reached its normal operating temperature, you may drive 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.

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.

Catalytic Converter

Vehicle maintenance

- Any engine misfire, loss of engine performance or engine run-on, could seriously damage the catalytic converter. For this reason, 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.
- Petrol models - 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.

Fuel System

TYPE OF FUEL

Petrol engine vehicles

WARNING

On vehicles fitted with a catalytic converter, serious damage to the catalyst will occur if LEADED fuel is used!

Fuel specification: See 'ENGINES', page 236.

The RON value (octane rating) and type of petroleum (unleaded or leaded), available at garage forecourts will vary in different parts of the world.

For example, in most European countries 95 RON unleaded fuel is readily available, but in some parts of the world fuel supplies may be limited to leaded or lower octane fuels only.

During manufacture, engines are tuned to suit the fuel supplies commonly available in the market 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, consult a Dealer/Authorised Repairer for advice.

IN AN EMERGENCY (and only if the correct fuel is unavailable), lower octane rated fuel can be used for very limited periods of moderate, or low speed motoring, provided engine 'knocking' does not occur.

NOTE: An occasional, light, engine knock while accelerating or climbing hills is acceptable.

Diesel engine vehicles

WARNING

ONLY use diesel fuel. DO NOT use other fuels (kerosene, petrol or alcohol, for example) as damage to engine components will occur.

WARNING

This vehicle is NOT compatible with 'Bio-diesel' fuel.

Fuel specification: See 'ENGINES', page 236.

NOTE: On diesel models, the word 'Diesel' is printed on the fuel gauge.

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.

Ensure that the fuel filter element is changed at the recommended service intervals.

NOTE: If loss of engine performance due to the use of low quality fuel is experienced, consult your Dealer/Authorised Repairer.

WARNING

DO NOT add petrol to the fuel tank of a diesel engine vehicle, as substantial damage to the engine and associated components will occur. Land Rover cannot be held responsible for any costs incurred if such an error is made.

WARNING

If the fuel tank is accidentally filled with petrol it is ESSENTIAL that you contact your Dealer/Authorised Repairer BEFORE attempting to start the engine.

Fuel System

SAFETY ON THE FORECOURT

WARNING

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

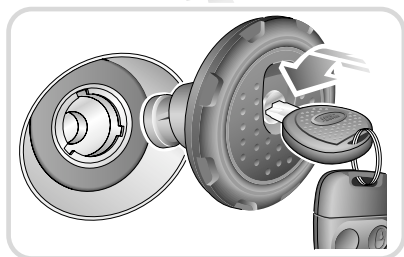
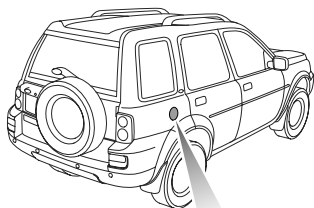
Always take sensible precautions when refuelling:

- Switch off the engine.
- Do not smoke or use a naked flame or light.
- Take care not to spill fuel.
- Do not overfill the tank.

FUEL FILLER

WARNING

Use only the recommended fuel! Serious damage to the catalytic converter will occur if the wrong fuel is used.



H5114

The fuel filler is located in the rear right-hand wing. Insert the key in the lock, turn it anti-clockwise and allow any pressure inside the tank to escape, before removing the cap.

NOTE: *The key cannot be removed from the filler cap unless the cap is correctly positioned in the filler neck.*

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 or spillage could result due to expansion of the fuel.

Petrol engine vehicles

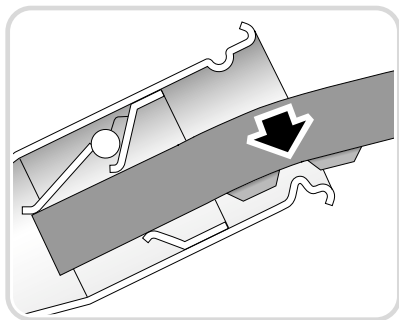
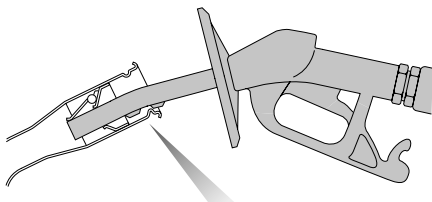
On vehicles designed to use unleaded fuel, the fuel filler neck will accept ONLY a narrow filler nozzle of the type found on pumps that deliver UNLEADED fuel. A flap lies across the filler neck; insert the nozzle sufficiently to fully open the flap before filling. On vehicles designed for markets where only LEADED fuel is available, the fuel filler neck will be wide enough to accommodate a leaded fuel filler nozzle.

Diesel engine vehicles

The diesel pumps on garage forecourts fill at a maximum of 45 litres per minute. Use of commercial vehicle diesel pumps with a higher fill rate, may result in premature pump cut-off and fuel spillage.

Fuel System

Filling difficulties



H5116

The fuel delivery rate of filling station pumps can vary significantly from one garage forecourt to another. This, coupled with the fact that modern pumps are equipped with a sensor which automatically cuts off the supply as soon as turbulence is detected in the upper part of the vehicle's filler neck, could result in isolated fuel filling problems.

If individual owners experience difficulty, the operating tips below may be useful:

- Fully insert the filler gun, then withdraw the gun up to the first ridge on the underside of the nozzle.
- Hold the filler gun with the trigger directly below the nozzle. Twisting the gun to either side is unlikely to ease the filling process.
- Fill the tank slowly - DO NOT fully squeeze the trigger.

EMPTY FUEL TANK

Petrol engine vehicles

In the case of petrol engine vehicles equipped with a catalytic converter, running the fuel tank dry could create an engine misfire capable of damaging the catalytic converter. **DO NOT RUN THE FUEL TANK DRY!** Contact your Land Rover Dealer/Authorised Repairer before attempting to start the engine.

Diesel engine vehicles

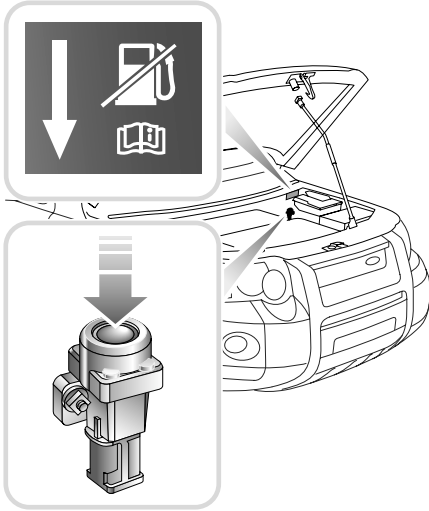
The fuel system will prime automatically and the engine can be started.

Fuel System

FUEL CUT-OFF SWITCH (Petrol engine vehicles only)

WARNING

ALWAYS check for fuel leaks before resetting the switch!



H5033

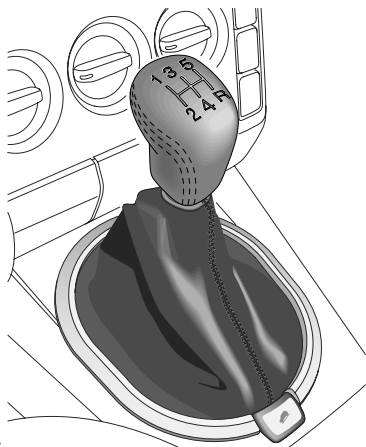
The fuel cut-off switch is a safety device which, in the event of a collision or sudden impact, automatically cuts off the fuel supply to the engine.

The switch is located inside the engine compartment on the left hand side, beneath, and to the rear of, the engine compartment fuse box. If the switch has been activated, it must be reset by pressing the rubber top (arrowed in illustration) before the engine can be restarted.

See also '*DOOR LOCKING CUT-OFF SWITCH*', page 33.

Manual Gearbox

GEAR LEVER



H5217

The gear positions are shown on the gear lever knob. Note that when the gearbox is in neutral, the gear lever is spring-loaded to lie naturally between third and fourth gear positions.

Selecting reverse

Before selecting reverse gear, ensure the vehicle is stationary; then, fully depress the clutch pedal and pause briefly before moving the gear lever into position.

WARNING

Do not select reverse gear unless the vehicle is stationary.

DO NOT attempt to start the engine with the vehicle in gear. The engine must ONLY be started with the main gear lever in neutral and the handbrake applied.

Hill descent control

Hill descent control can only be activated when the vehicle is in 1st or reverse gear.

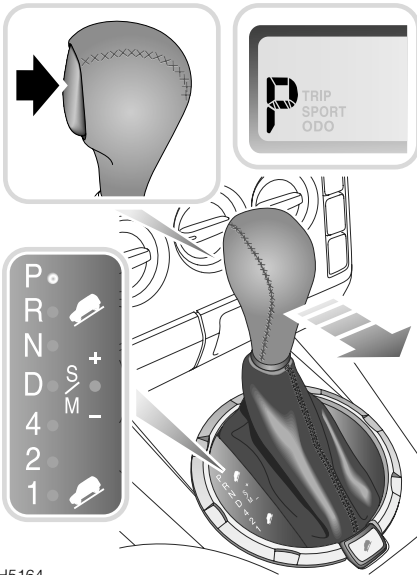
For further information, see 'HILL DESCENT CONTROL', page 113.

Precautions while driving

- DO NOT rest your hand on the gear lever while driving - pressure from your hand may cause premature wear to the gear selector mechanism.
- DO NOT use the clutch pedal as a foot rest. To prevent unnecessary wear, always keep the left foot clear of the clutch pedal except when changing gear.
- DO NOT hold the vehicle stationary on a hill by slipping the clutch. This will wear out the clutch. Always use the handbrake.

Automatic Gearbox

CommandShift® TRANSMISSION



H5164

The transmission provides both automatic and manual operation of the gears.

Automatic operation

The transmission is naturally in automatic mode. With the engine started, gear selection can be made by moving the selector backward or forward to the appropriate position in a similar manner to other automatic gearboxes.

GEAR SELECTOR LEVER

Selector release button

The gearbox is fitted with a locking mechanism, designed to minimise the risk of accidental selection of the 'P' (Park) and 'R' (Reverse) positions.

The selector release button (arrowed in illustration) must be pressed while selecting 'R' from 'P', and also to enable the lever to be moved between the 'N' and 'R' positions.

The selector release button must also be pressed when selecting '2'.

NOTE: With the engine running, or the starter switch in position II, the selector lever cannot be moved from 'P' (Park) into a drive position unless the foot brake is applied.

WARNING

DO NOT select 'P' or 'R' if the vehicle is moving.

DO NOT select a forward drive gear when the vehicle is moving backwards.

To prevent transmission wear, keep engine speed as low as possible when moving the selector between 'R' and a forward gear.

Automatic Gearbox

Selector lever positions

An indicator light on the selector panel and a number or letter on the digital display in the instrument panel, identify the selected gear position.

'P' - Park:

This position mechanically locks the transmission and should be selected before switching the engine off. To avoid transmission damage, ensure the vehicle is completely stationary, with the handbrake applied, before selecting 'P'.

The selector release button **MUST** be pressed, in order to move the selector lever into, or out of, the Park position.

'R' - Reverse:

Before selecting reverse, ensure the vehicle is stationary, with the brakes applied. Press the selector release button in order to move the selector lever into Reverse.

With the selector lever in the 'R' position, Hill Descent Control can be selected (see '*HILL DESCENT CONTROL*', page 113).

'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 neutral, the transmission is not locked, so the handbrake must be applied whenever 'N' is selected.

Press the selector release button to move from neutral to reverse.

'D' - Drive:

Select for all normal driving; full automatic gear changing occurs on all five forward gears, according to road speed and accelerator position.

'4' (1st, 2nd, 3rd and 4th gears):

Automatic gear changing is limited to the lower four gears only; use this position for town driving and on winding country roads.

'2' (1st and 2nd gears):

Automatic gear changing is limited to the first and second gears only; use when driving up steep gradients, for negotiating very narrow twisting roads and for most 'Off-road' driving. This position also provides moderate engine braking when descending slopes.

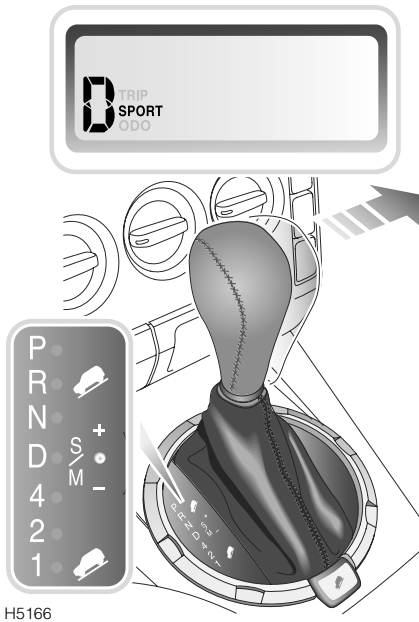
The selector release button **MUST** be pressed in order to move the selector lever into, or out of, position '2'.

'1' (1st gear only):

Use on very severe gradients. With the selector in this position, Hill Descent Control can be selected (see '*HILL DESCENT CONTROL*', page 113).

Automatic Gearbox

Sport mode

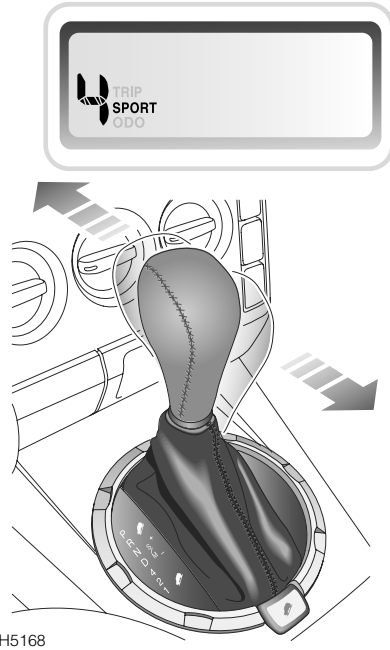


In Sport mode, full automatic progression through the gear ratios is retained. By selecting Sport mode however, the power transmitted to the road wheels is increased, resulting in improved acceleration. Engine revs are higher in all driving conditions, making the vehicle more responsive to driver commands.

To select Sport mode, move the gear lever sideways across the gate, from the 'D' (Drive) position towards the right hand side of the vehicle. The word 'SPORT' will appear in the digital display and an indicator light on the selector panel will confirm the selected mode as 'S/M'.

Sport mode can be deselected at any time, by returning the lever to the 'D' position.

Manual gear selection



There are five predetermined gear ratios, all of which can be 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 lever sideways from the 'D' position towards the right hand side of the vehicle (this is the same as selecting Sport mode). The gearbox will remain in Sport mode until the gear selector is moved forward or back (see '3' below).
2. The transmission then automatically selects the ratio most appropriate to the vehicle's road speed and accelerator depression.

Automatic Gearbox

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. Repeated forward or rearward movements of the lever can be made until the desired gear ratio has been selected (the selected gear will be indicated in the digital display in the instrument panel).
4. To deselect manual mode, simply move the selector lever sideways, back to the 'D' position. Automatic gear changing will then resume.

NOTE: *When coming to a halt with manual selected, the vehicle will remain in 2nd gear. When starting again, 'kick down' can be used to select 1st gear if necessary.*

USING AN AUTOMATIC GEARBOX

The following information is particularly important for drivers who are unfamiliar with the techniques required to drive vehicles with automatic transmission.

Starting

The engine can only be started with the selector lever in the 'P' (Park) or 'N' (Neutral) positions.

- ALWAYS apply the handbrake 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).
- 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' will tend to 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).

WARNING

Vehicles fitted with automatic transmission CANNOT be 'push' or 'tow' started.

Driving

When driving, the transmission will automatically adjust to the most appropriate ratio, according to accelerator position, vehicle speed and terrain (whether the vehicle is driving uphill, downhill or on the flat).

Automatic Gearbox

Gear change speeds

With 'D' selected, the road speeds at which gear changes take place will vary according to the position of the accelerator pedal: minimum acceleration will result in gear changes at low road speeds, while larger throttle openings will cause the gearbox to delay gear changes until faster road speeds have been reached (thereby increasing the rate of acceleration).

With practice, gear changes can be made to occur at a wide range of road speeds depending on the accelerator position.

'Kick-down'

To provide rapid acceleration for overtaking, push the accelerator pedal to the full extent of its travel in a single, quick movement (this is known as 'kick-down'). 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).

If the accelerator pedal is pushed down to its full extent and then immediately released, unlike most 'automatic' vehicles, the transmission will not automatically select the highest suitable gear ratio. Instead, the transmission will maintain the current gear ratio, to enable engine braking. This function is especially useful when an overtaking manoeuvre is aborted, enabling the driver to retake the vehicle's previous road position and avoid colliding with the vehicle in front.

Parking

After bringing the vehicle to a stop, ALWAYS fully apply the handbrake and select 'P', before releasing the foot brake and switching off the engine.

AUTOMATICALLY SELECTED MODES

The transmission control system automatically selects different gear change modes, listed below, designed to suit a variety of driving conditions.

NOTE: *Automatically selected modes cannot be manually selected by the driver and will not operate if 'Sport' mode is selected.*

Hill ascent, trailer and high altitude mode

A suitable gear change pattern is selected to counter momentum loss, caused by the 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 low engine torque.

Cruise control mode

When cruise control is activated, a suitable gear change pattern is selected which is less sensitive to throttle changes. This reduces the amount and frequency of gear changes, providing a smoother ride.

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, whilst enabling the gearbox to continue performing normally in high temperatures.

Hill Descent Control

HILL DESCENT CONTROL

Hill Descent Control (HDC) is of particular value when driving off road, and operates in conjunction with the anti-lock braking system to provide greater control in off-road situations, when descending severe gradients.

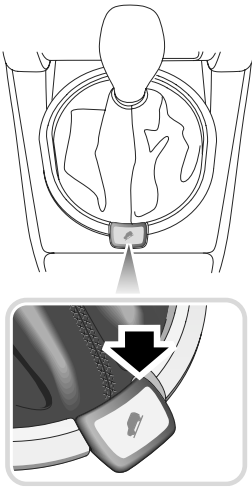
Selecting HDC

HDC can be selected with the vehicle in any gear, but will only operate once 1st or reverse gears ('1' or 'R' for automatic transmission) are engaged.

NOTE: Reverse gear should only be selected when the vehicle is stationary.

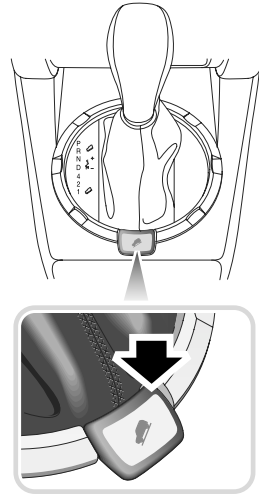
With HDC selected, if 1st or reverse gear have been engaged, the HDC information light (GREEN) in the instrument panel will illuminate continuously (if 1st or reverse gear have not been selected, the information light will flash).

Manual gearbox models:



To select, press the HDC button, situated to the rear of the gear selector lever.

Automatic gearbox models:



To select, press the HDC button, situated to the rear of the gear selector lever.

Deselecting HDC

Manual gearbox models:
Press the HDC button.

Automatic gearbox models:
Press the HDC button.

Hill Descent Control

Hill descent control in action

During a descent, if engine braking is insufficient to control the vehicle speed, HDC (if selected) automatically operates the brakes to slow the vehicle and maintain a speed relative to the accelerator pedal position.

When driving off-road, HDC can be permanently selected, to ensure that control is maintained whenever 1st or reverse gears ('1' or 'R' for automatic transmission) are engaged. ABS and traction control are still fully operational and will assist if the need arises.

NOTE: *HDC can be left selected while off-road driving, the system will only operate when needed and 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, if necessary, will recommence operating.

On models with a manual gearbox, if the clutch is depressed for longer than 3 seconds while HDC is operating, the HDC information light will flash. If, after 60 seconds the clutch is still depressed, the information light extinguishes and the HDC 'failure' warning light flashes as the system gradually fades out.

WARNING

On models with a manual gearbox, Do not depress the clutch pedal when descending a steep slope - control of the vehicle will be compromised and HDC will no longer function.

In extreme circumstances, the HDC system may cause brake temperatures to exceed their pre-set limits. If this occurs, the information warning light will extinguish and the HDC 'failure' warning light (AMBER) will start to flash. You should stop the vehicle and disengage HDC. If HDC remains operating and the brake temperature continues to rise the HDC system will gradually fade out and the 'failure' warning light will continue to flash until the brakes have cooled.

HDC fade-out

HDC fade-out gradually decreases the HDC brake intervention with the effect that the rate of hill descent will increase. If this occurs either one of the two HDC warning lights will flash for the period that HDC takes to fade. HDC will be disabled completely once the descent is complete.

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 or by changing out of the appropriate operating gear, in which case the green information light will flash. Fade-out will also occur if the clutch is depressed for longer than 60 seconds, in which case the amber failure light will flash.

If a fault with the HDC system is detected, or if the braking system reaches a pre-set temperature due to extreme conditions, HDC will automatically fade out (amber failure light flashes).

Hill Descent Control

HDC warning lights



HDC information light - GREEN:

The light illuminates briefly as a bulb check when the starter switch is turned to position 'II'. If HDC is selected when either of the operating gears is engaged (1st or reverse - position '1' or 'R' for automatic transmission), the light will illuminate continuously. When HDC is selected and a non-operating gear is engaged, the light will flash to inform the driver that HDC is selected, but not operating. The light will also flash to indicate that HDC is fading out.



HDC 'failure' light - AMBER:

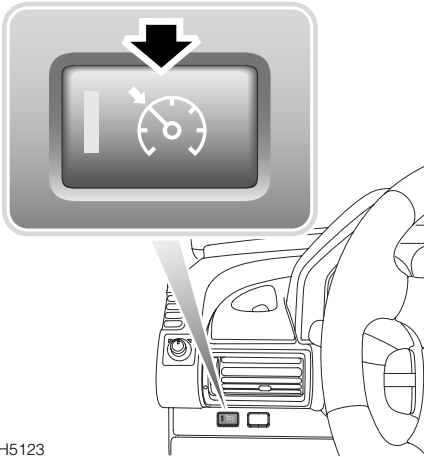
The light illuminates briefly as a bulb check when the starter switch is turned to position 'II'. The light will start flashing if the brakes become in danger of overheating and continue flashing until the brakes have cooled sufficiently for HDC to operate again.

On manual models, the light will also flash if the clutch is depressed for longer than 60 seconds as the system fades out.

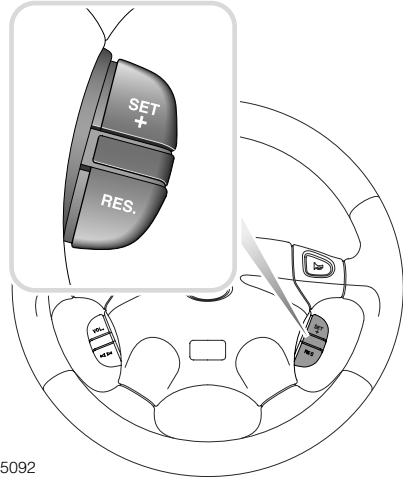
If the light illuminates at any other time, a fault in the system is indicated. If this occurs, deselect HDC and consult your Land Rover dealer.

Cruise Control

CRUISE CONTROL *



H5123



H5092

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.

The cruise control system has three switches; a master switch on the left side of the instrument binnacle and two control switches marked 'SET +' and 'RES' mounted on the steering wheel.

IMPORTANT

Always observe the following precautions:

- DO NOT use cruise control when using reverse gear ('R' for automatic transmission).
- DO NOT use cruise control on winding or slippery road surfaces, or in traffic conditions where a constant speed cannot easily be maintained.
- Use of 'sport' mode on automatic gearbox vehicles is not recommended when cruise control is selected.
- ALWAYS switch off the master switch when you no longer intend to use cruise control.

Cruise Control

WARNING

On petrol engine vehicles, DO NOT rest your foot under the accelerator pedal while cruise control is engaged - your foot could be trapped.

To operate:

1. Press the master switch (the switch indicator light and the warning light in the instrument panel illuminate whenever the switch is pressed to the 'on' position).
2. Accelerate until the desired cruising speed is reached. This must be above the system's operational minimum speed of 45 km/h.
3. Press the 'SET +' 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.

With cruise control operating, speed can be increased, by normal use of the accelerator, when overtaking for example. When the accelerator is released, road speed will return to the selected cruising speed. On diesel engine vehicles, cruise control will be disengaged if the accelerator is used for longer than 30 seconds - press 'RES' to re-engage.

NOTE: *If the 30 second period is exceeded, cruise control will automatically disengage. Press the 'RES' switch to re-engage.*

To reduce the cruising speed:

Press the 'RES' switch to slow the vehicle, until the required speed has been reached. Then press the 'SET +' switch to establish the new cruising speed (remember that cruise control will not operate at speeds below 45 km/h).

To increase the set cruising speed:

Press and hold the 'SET +' switch - the vehicle will accelerate automatically. Release the switch as soon as the desired speed has been reached.

Alternatively, the set speed can be increased incrementally by 'tapping' the 'SET +' switch. Each press of the switch will increase the speed by approximately 1.5 km/h.

Disengaging cruise control

On manual gearbox vehicles, the cruise control will automatically disengage if the brake or clutch pedals are pressed. On automatic gearbox vehicles, cruise control will disengage when the gear selector is moved into neutral, or when the brake pedal is pressed. Cruise control can also be disengaged by pressing the 'RES' switch.

To re-engage cruise control at the previously set speed, press the 'RES' switch.

NOTE: *The speed held in the cruise control memory will be cancelled when either the cruise control master switch or the starter switch is turned off.*

Brakes

FOOT BRAKE

For your safety, the hydraulic braking system operates through dual circuits. However, in the event of a brake failure where only one circuit is operational, the vehicle should only be driven at slow speed to the nearest Land Rover dealer. In these circumstances, exercise EXTREME CAUTION and be aware that much greater pedal effort and longer stopping distances will be required.

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:

- NEVER allow the vehicle to freewheel with the engine turned off.
- 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.

Brake pads

Brake pads and linings require a period of bedding in. For the first 300 km, you should avoid situations where heavy braking is required.

Remember that regular servicing is vital to ensure that the brake components are examined for wear at the correct intervals and changed whenever necessary to ensure long term safety and optimum performance.

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 move a vehicle without the engine running because braking assistance will not be available. The pedal brakes will still function, but more pressure will be required to operate them.

If the brake warning light should illuminate while the vehicle is in motion, bring the vehicle to a halt as quickly as traffic conditions and safety permit and seek qualified assistance before continuing. DO NOT pump the brake pedal - the braking system may lose any remaining servo assistance available.

Brake warning light



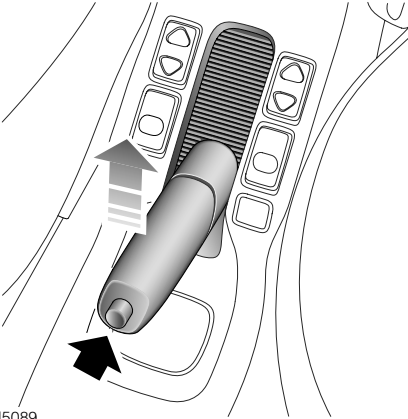
If the warning light on the instrument panel illuminates while driving, and the handbrake is fully released, a fault with the braking system is indicated. Check the brake fluid level; if the light continues to illuminate, seek qualified assistance before continuing.

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.

Brakes

HANDBRAKE



H5089

The handbrake operates on the rear wheels only and should not require adjustment.

To engage the handbrake, pull the lever up fully.

To release, pull the lever up slightly, depress the button (arrowed in illustration) and lower the lever.

When parking on a slope, do not rely on the handbrake alone to hold the vehicle. On manual gearbox models, the vehicle should be parked in a low forward gear when facing uphill and in reverse gear when facing downhill.

On automatic gearbox models, ensure the parking pawl of the gearbox has fully engaged by carefully releasing the foot brake and allowing the vehicle to 'rock' into 'P' (park).

WARNING

Always apply the handbrake fully whenever the vehicle is parked.

DO NOT drive with the handbrake applied; this could result in loss of vehicle control, damage the rear brakes and will also prevent the anti-lock braking system from functioning correctly.

DO NOT rely on the handbrake to operate effectively if the vehicle has been subjected to immersion in mud and water (see 'Off-road driving' section).

Brakes

ANTI-LOCK BRAKES

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.

The ABS is designed to operate only with the tyres specified in 'Technical Data' (see 'WHEELS & TYRES', page 240) and genuine Land Rover parts. The manufacturers cannot accept any responsibility for inefficient operation of the system caused by modifications to the vehicle, or the fitting of non-approved components. Always consult your Land Rover Dealer/Authorised Retailer for advice.

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 non-ABS vehicle.

The purpose of the anti-lock braking system (ABS) is to allow efficient braking without wheel locking - thereby allowing the driver to retain steering control of the vehicle.

Under normal braking conditions, (where sufficient road surface friction exists to reliably bring the vehicle to a halt without the wheels locking), ABS will not be activated. However, should the braking force exceed the available adhesion between the tyres and the road surface causing one or more wheels to lock, then ABS will automatically come into operation. This will be recognisable by a rapid pulsation felt through the brake pedal.

NOTE: Immediately after the engine is started, a short, low pitched 'buzz' may be heard; this is the ABS system priming and is no cause for concern.

Anti-lock braking in action

In normal road use, during an emergency situation full braking effort should always be applied even when the road surface is slippery. The anti-lock braking system constantly monitors the speed of each wheel and varies braking pressure to each, according to the amount of traction available, thereby ensuring that the wheels do not lock.

No matter how hard you brake, you should be able to continue steering the vehicle as normal.

- DO NOT pump the brake pedal at any time; this will interrupt operation of the system and may increase braking distance.
- DO NOT place non-approved floor mats or any other obstruction under the brake pedal. This restricts pedal travel and, therefore, impairs braking efficiency.

Brakes

NOTE: On soft surfaces such as powdery snow, sand or gravel, braking distances may be greater than those achievable on a vehicle without anti-lock braking. This is because the action of locked wheels on loose surfaces, is to build up a wedge of material in front of the wheels, which assists in bringing the vehicle to a halt. However, even in these circumstances, the anti-lock braking system will provide better stability and steering control.

Warning light



The anti-lock braking system incorporates a monitoring system, which checks that all the electrical components are in working order, as soon as the starter switch is turned to position 'II' and also at frequent intervals during your journey.

The warning light on the instrument panel is an important part of this system. The warning light should illuminate for approximately one second when the starter switch is turned to position 'II' and then extinguish. The light may blink during this time.

If the light remains on or subsequently illuminates while driving, a fault has been detected by the self monitoring system and full ABS control may not be available - consult your dealer at the earliest opportunity.

The normal braking system remains fully operational and is not affected by partial or full loss of the ABS. However, braking distances may increase.

Off-road driving

While anti-lock braking is designed to operate equally effectively in 'off-road' driving conditions, on certain surfaces total reliance on the system may be unwise - remember, in normal circumstances, anti-lock braking operates only AFTER the driver has already lost control. It cannot reliably compensate for driver error or inexperience on difficult off-road surfaces.

Note the following:

- 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 signal movement 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.
(See '*BEFORE YOU DRIVE*', page 155).

Traction Control

ELECTRONIC TRACTION CONTROL

The purpose of electronic traction control is to aid traction when one wheel spins while the other still has good grip (if one side of the vehicle is on ice and the other is on tarmac, for example). The system works by applying the brake to a spinning wheel in order to transfer torque to the other side of the axle.

NOTE: Traction control only operates below approximately 50 km/h.

Warning light



The instrument panel warning light will illuminate whenever the system is active (for a minimum of 2 seconds) and also illuminates as a bulb check (for approximately 4 seconds) when the starter switch is turned to position 'II'.

If the warning light illuminates continuously while traction control is NOT operating, a fault with the system is indicated; seek qualified assistance.

The light also has an overheat function: if traction control is required, but the brakes are too hot, the light will flash for the period when traction control is required and traction has been lost.

Parking Aid System

USING THE PARKING AID SYSTEM

WARNING

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, for example).



H5048

The parking system assists the driver when manoeuvring the vehicle into a parking space, or anywhere that there are obstacles that need to be avoided, warning the driver accordingly.

The vehicle is fitted with four ultrasonic sensors on its rear bumper.

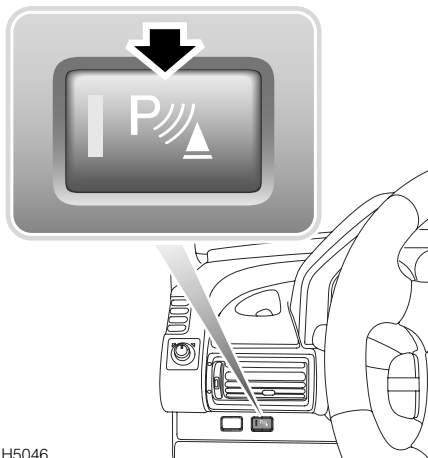
The range of the two outer sensors is approximately 0.6 m; the two inner sensors have a range of approximately 2 m.

WARNING

Keep the sensors free from dirt, ice and snow. If deposits build up on the surface of the sensors, their performance may be impaired. When washing the vehicle, avoid aiming high pressure jets directly at the sensors from close range.

Activating Parking Aid

The Parking Aid feature is available whenever the starter switch is turned on. When reverse gear is selected, the indicator light in the switch illuminates and a short tone sounds after one second.



H5046

If a long, high pitched tone sounds and the switch indicator light flashes, a fault in the system has been detected - contact your Dealer/Authorised Repairer for assistance.

Parking Aid System

Parking Aid in operation

The distance from an obstruction is identified by an intermittent tone sounding. 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 0,3 m, the tone becomes continuous.

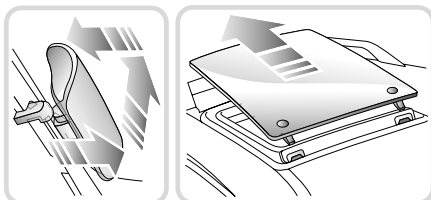
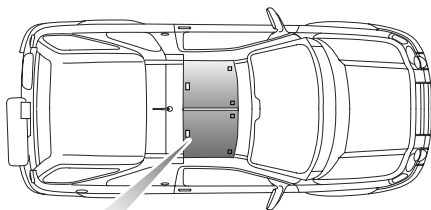
Manual de-activation

When in reverse gear ('R'), the Parking Aid feature can be manually de-activated by pressing the switch in the fascia panel. A second press of the switch re-activates the system. The indicator light in the switch illuminates and a short tone sounds as confirmation of re-activation.

NOTE: *If the Parking aid system has been manually de-activated, it will remain in this mode until either the switch is pressed again whilst in reverse gear ('R') or the engine is restarted. If the vehicle is in any other gear, the switch has no effect.*

Targa Roof

TARGA ROOF



H5211

The targa roof is made up of twin glass or composite panels set into the roof. Either or both of which can be tilted open or removed.

Tilting a panel (see left inset)

1. Pull the handle forward to unlock.
2. Push the handle up.
3. Push the handle to the rear until it 'clicks' into the lock position.

To close the panel, reverse the above procedure.

Removing a panel

WARNING

DO NOT attempt to remove the targa roof panels when the vehicle is moving!

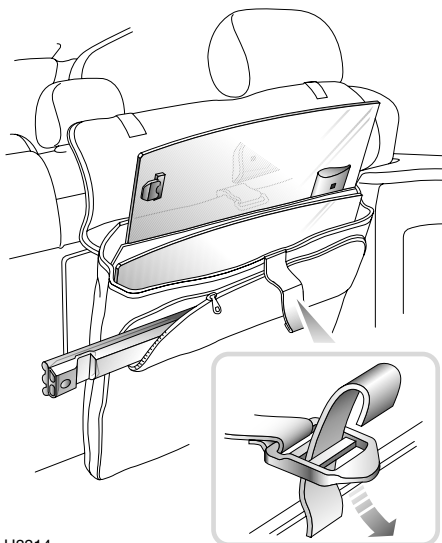
Half tilt the panel (as in 1 and 2 above), then press the red catch to detach the handle linkage. From outside the vehicle, raise the rear of the panel until the two front hinges disengage and lift the panel off.

NOTE: Handle glass with care, avoid damage to the surfaces, especially along the edges.

WARNING

DO NOT allow passengers to extend any part of their bodies through roof apertures while the vehicle is moving - injury from flying debris, branches of trees or other obstructions could occur.

Storing the panels



H3314

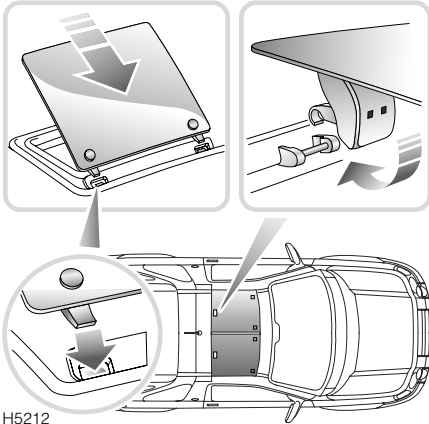
After removal, always protect the panels by placing them sideways in the stowage case attached to the rear seats in the luggage compartment as shown.

WARNING

DO NOT drive with the roof panels loose in the vehicle, they could become dangerous projectiles in the event of an accident or emergency manoeuvre.

Targa Roof

Refitting a panel

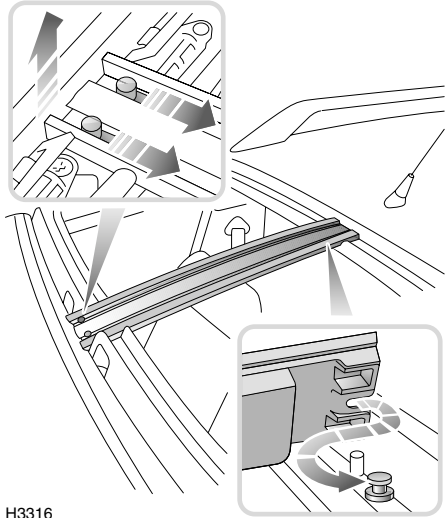


Before refitting, note that the panels are not interchangeable because the curvature at each side of the roof is more pronounced than in the centre. To ensure accurate refitting, the one rounded corner of the panel should be positioned at the front OUTSIDE corner.

1. Locate the hinges over the top of and through the slots in the wind deflector into their appropriate slots at the front of the roof.
2. Lower the roof and, ensuring that the handle linkage is the correct way up, push the handle rearwards as if to lock.
3. The handle should now be engaged - ensure that the red button is fully retracted, then attempt to open (tilt) the roof to check.

NOTE: ALWAYS close and secure the roof when the vehicle is to be left unattended.

Removing the 'T-bar'



With both panels removed, the 'T-bar' can also be removed:

- Press the RED catches rearwards (as arrowed), then pull the bar upwards and then forwards to remove.

NOTE: The 'T-bar' can be stowed in the pocket provided in the stowage bag in the luggage compartment (see 'Storing the panels', page 125)

When replacing, ensure that the 'T-bar' is secured at the rear, before pushing downwards to engage the front (RED) locking catches.

Softback

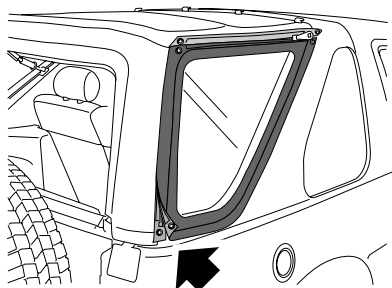
FOLDING AND UNFOLDING THE SOFTBACK*

Folding

WARNING

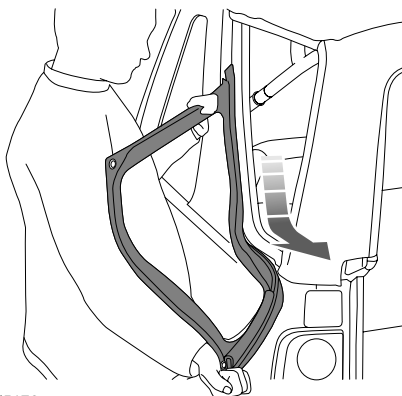
Before folding the softback, it is recommended that the radio aerial is either tilted towards the vertical, or removed to avoid accidental injury.

NOTE: If roof bars are fitted, they **do not** need to be removed to fold or unfold the softback.



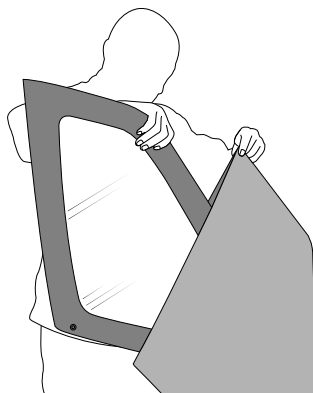
H4300A

1. With the taildoor closed, undo Velcro, stud and zip fasteners to release the side screens.



H5176

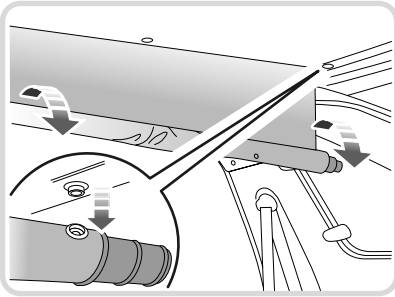
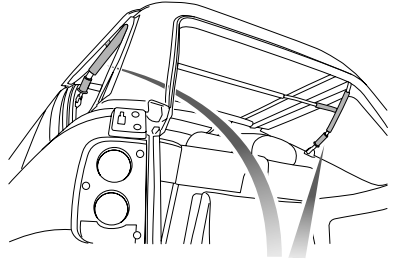
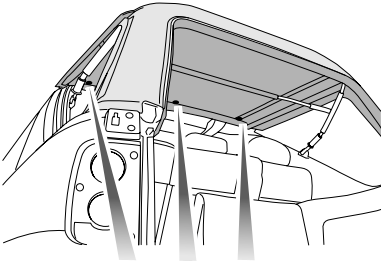
2. Slide the side screen down and out of the retaining channel.



H3386

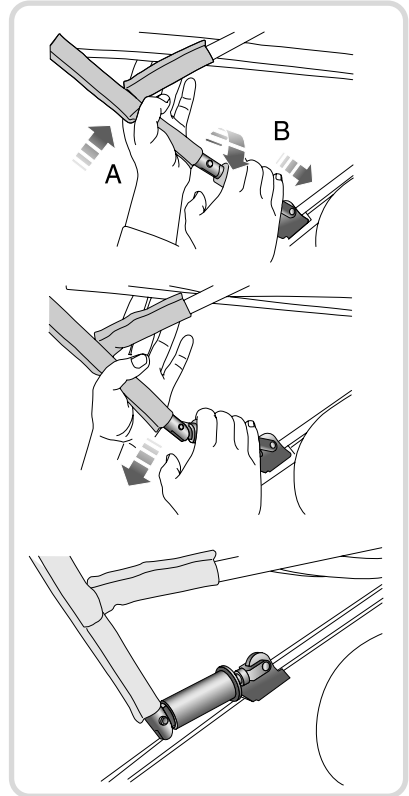
3. Open the taildoor and store the side screens in the stowage bag when not in use - ensure the screens are dry before stowing.

Softback



H5177

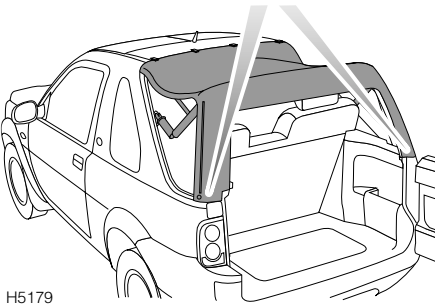
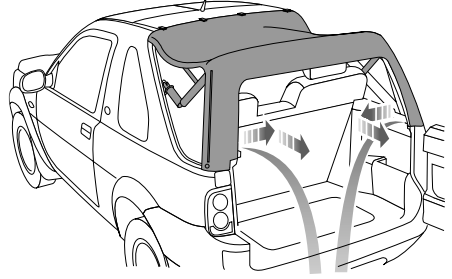
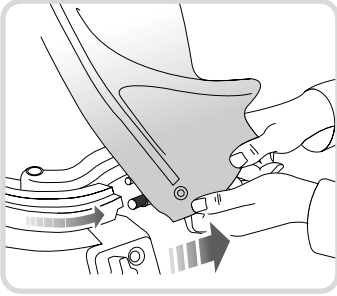
4. From inside the vehicle, unfasten the three press studs retaining the tonneau cover and allow the cover to unroll.



H5178

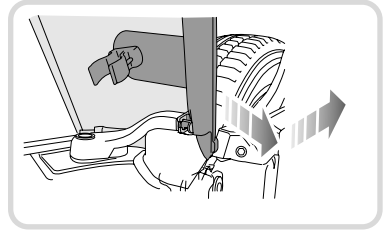
5. From inside the vehicle:
Push up elbow stay (A).
Push down and twist elbow stay locking collar (B) and allow the stays to hinge downwards. (Left hand side shown).

Softback



H5179

6. From outside the vehicle, slide both corner post beadings (fabric) out of their retaining channels. (Left hand side shown).



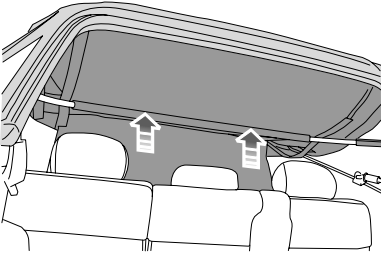
H5180

7. Pull the posts towards the centre of the vehicle and pull rearwards to release.

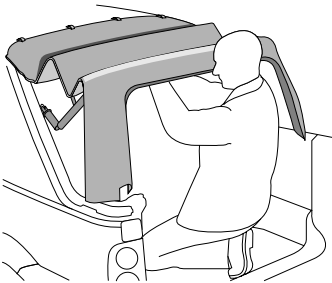
Softback

8. While pushing upwards on the centre roof bow, fold the softback forwards and above the back edge of the fixed roof.

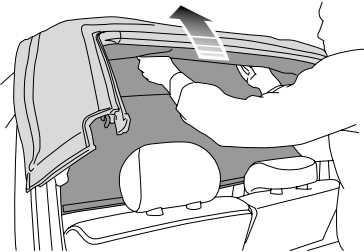
NOTE: If roof bars are fitted, the softback **will** slide along the underside of the bars, although with greater resistance.



H4304

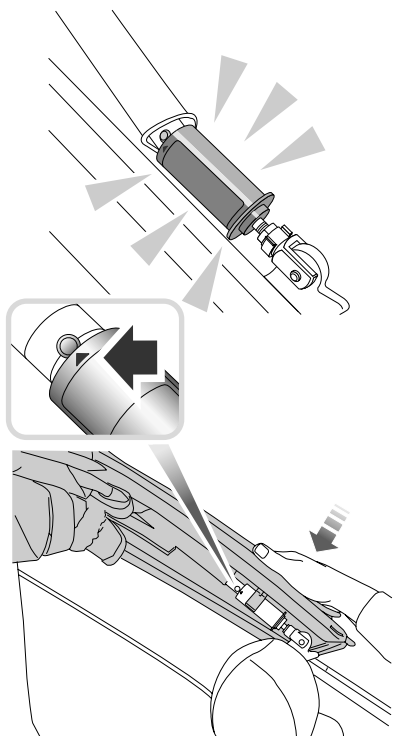


H4305A



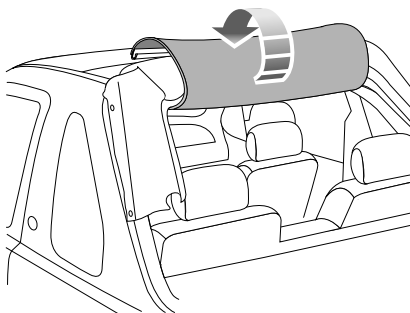
H4306

Softback



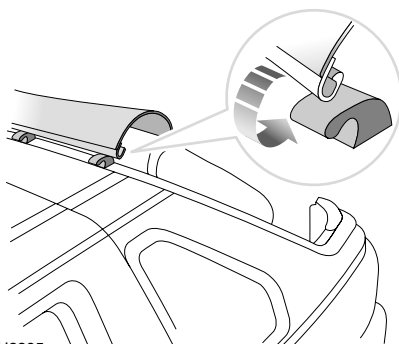
H4307

9. Straighten the elbow stay until the locking collar 'snaps' up, and the location arrow moulded into the collar is rotated to align with the centre of the rivet on the elbow stay (see inset). Attach corner post clips to the locking collar. (Right hand side shown).



H3394

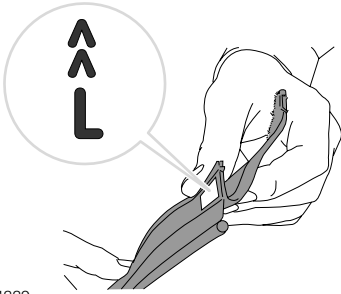
10. Wrap the tonneau cover over the softback assembly.



H3395

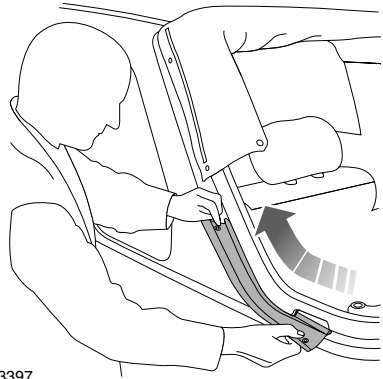
11. Hook the leading edge of the tonneau cover over the four hooks located on the top of the back edge of the fixed roof.

Softback



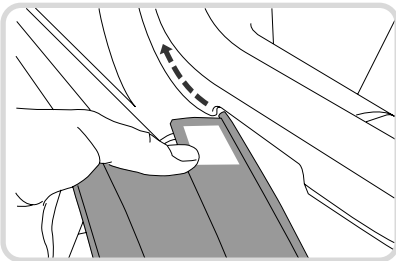
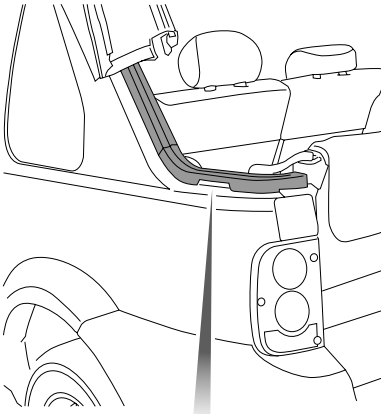
H4339

12. Retrieve side covers from taildoor pocket and fold out beading. Label shows orientation. ('L' = Left hand, 'R' = Right hand).



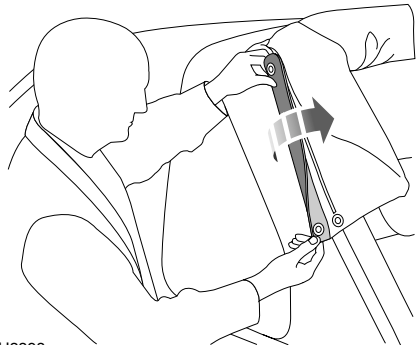
H3397

14. Slide the side cover up the retaining channel.



H5181

13. Feed appropriate side cover ('L' or 'R') into the retaining channel in the direction of the chevrons. (Left hand side shown).



H3398

15. Attach stud and Velcro fasteners.

NOTE: The roof aerial can now be repositioned.

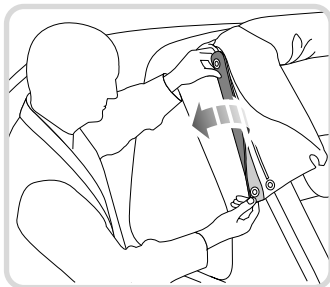
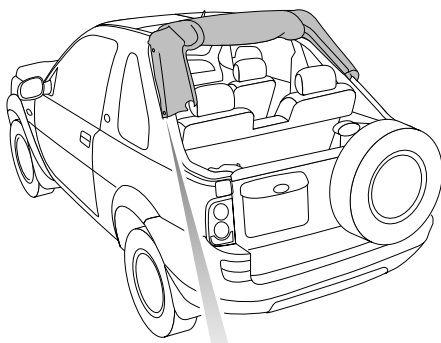
Softback

Unfolding

WARNING

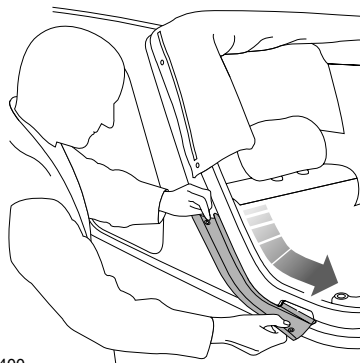
Before unfolding the softback, it is recommended that the radio aerial is either tilted towards the vertical, or removed, to avoid accidental injury.

NOTE: If roof bars are fitted, they **do not** need to be removed to fold or unfold the softback.



H5182

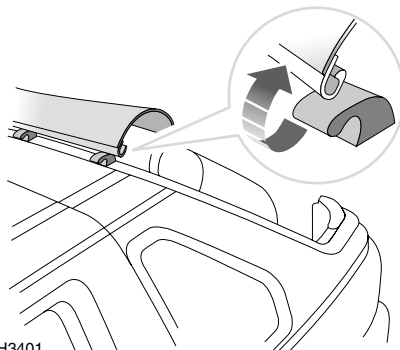
1. Unfasten the side cover Velcro and stud fasteners.



H3400

2. Slide the cover out of the retaining channel.

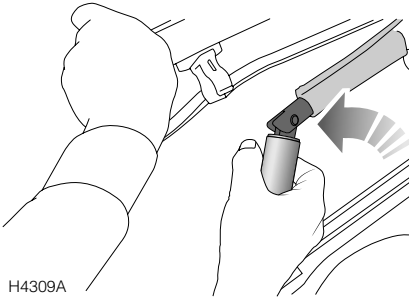
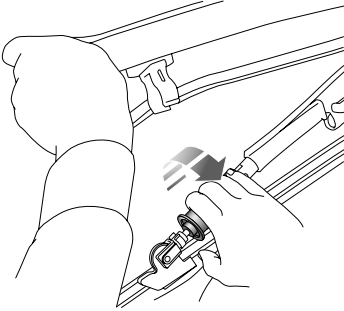
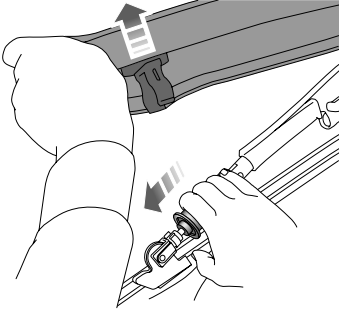
NOTE: Store the side covers in the taildoor pocket in the loadspace.



H3401

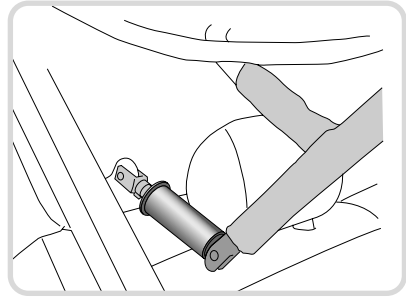
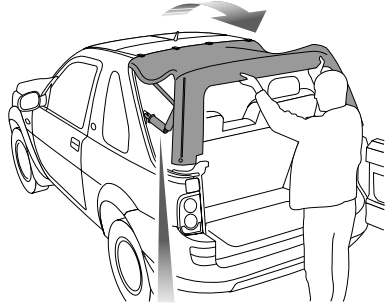
3. From inside the vehicle and with the taildoor open, unhook the tonneau cover from the four hooks located on the top of the back edge of the fixed roof.

Softback



H4309A

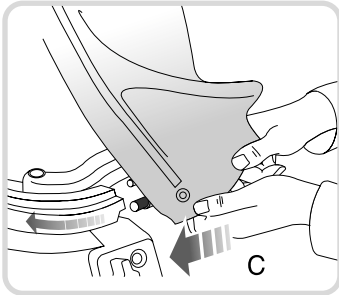
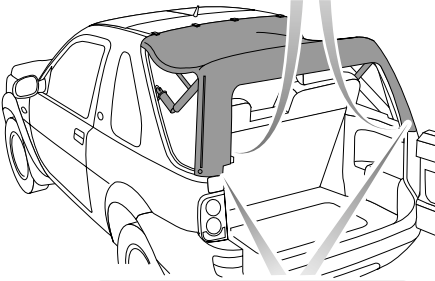
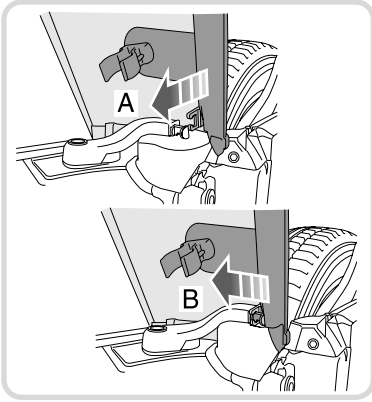
4. From inside the vehicle, detach the corner post clips. Pull and twist to release the elbow stay locking collar. When the locking collar has unlocked, lift rearwards to initiate the folding sequence. (Left hand side shown).



H5183

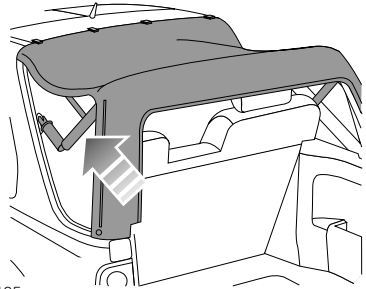
5. Unfold the softback rearwards. Check that the elbow stays have remained unlocked, as indicated above.

Softback



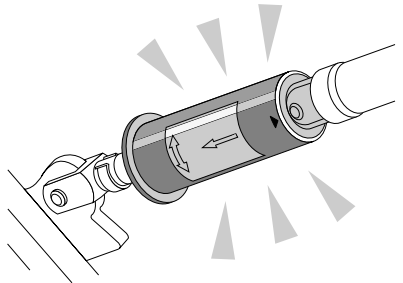
H5184

- 6.** A - From inside the vehicle, pull the corner posts forward into the catch position.
B - Push the corner posts away from the centre of the vehicle to lock.
C - Feed the corner post beading into the retaining channel. (Left hand side shown).



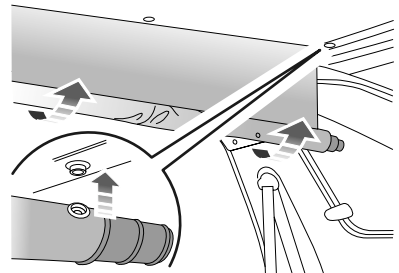
H5185

- 7.** Push up (where arrowed) to straighten the elbow stay.



H3406A

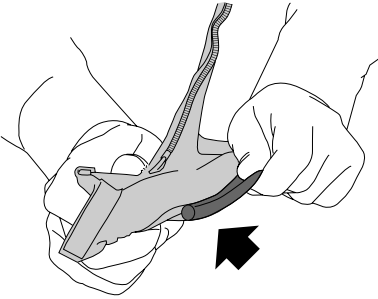
- 8.** Ensure elbow stay locking collar 'snaps' up, and the location arrow moulded into the collar aligns with the rivet on the elbow stay.



H4312

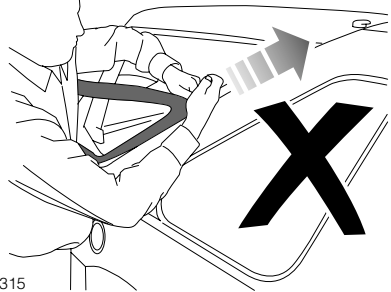
- 9.** Roll up tonneau cover and secure with the three press studs.

Softback



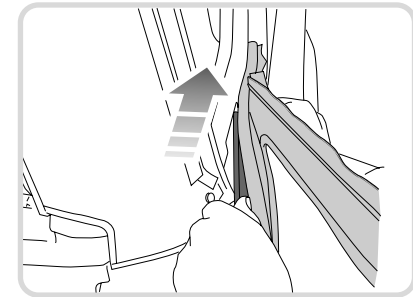
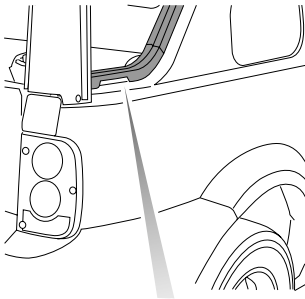
H4338

- 10.** Remove the side screens from the storage bag and fold out the beading.



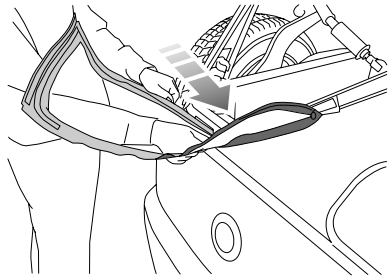
H4315

- 12.** Do not pull the side screen from the top, as this may damage either the side screen or vehicle, or both.



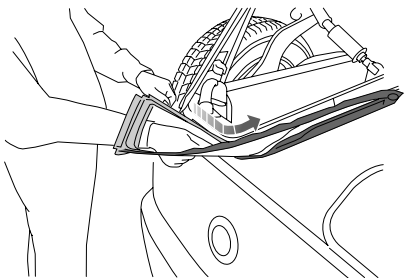
H5186

- 11.** With the taildoor closed, locate the side screen beading into the retaining channel, as indicated. (Right hand side shown).

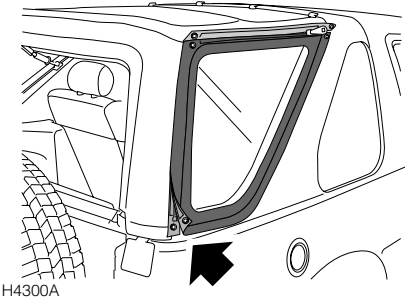


H4314

- 13.** Slide the side screen into the retaining channel, continuing to push from the bottom until the two halves of the lower press stud align.



Softback



14. Attach zip fastener and zip-up, secure press studs and Velcro.

NOTE: *The roof aerial can now be repositioned.*

Hardback

REMOVING AND FITTING THE HARDBACK*

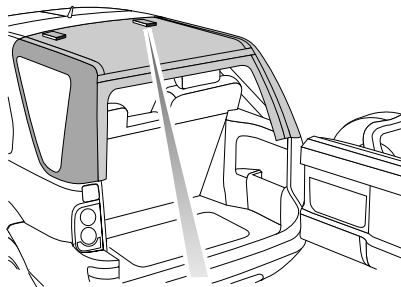
Removal

Roof bars* MUST be removed prior to removing the hardback, (See 'REMOVING AND FITTING THE ROOF BARS*', page 142).

NOTE: To avoid damaging the vehicle, hardback removal/refitting is best carried out by two people.

WARNING

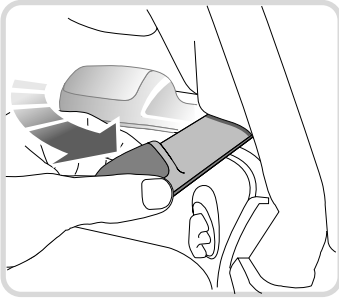
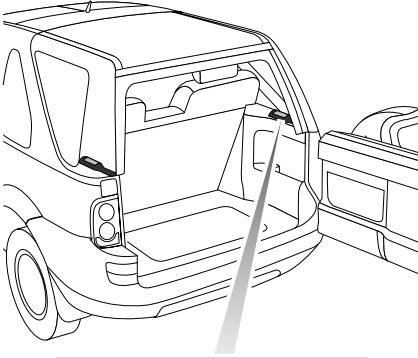
The hardback is a heavy item. Removing and fitting should be carried out by two people.



H5187

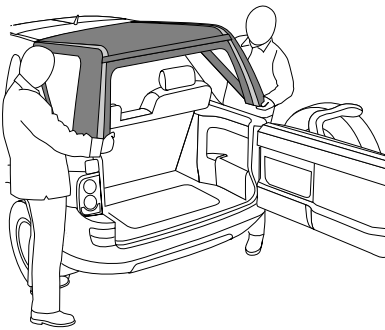
1. Press the button on the catch, then push the catch forwards and allow to drop.

Hardback



H5188

2. Pivot the rear locking levers 90° rearwards.



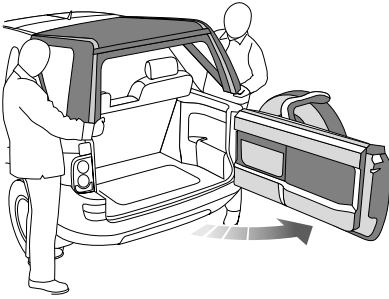
H5189

3. With assistance, lift the hardback (rear first) from the vehicle.

Hardback

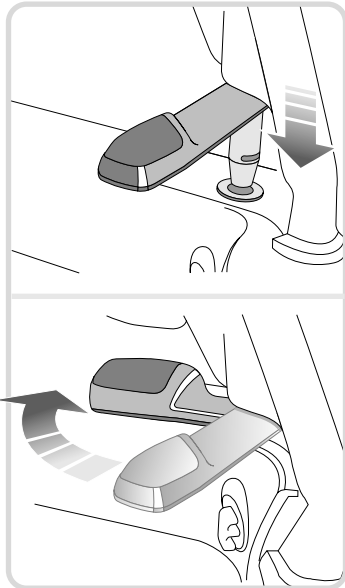
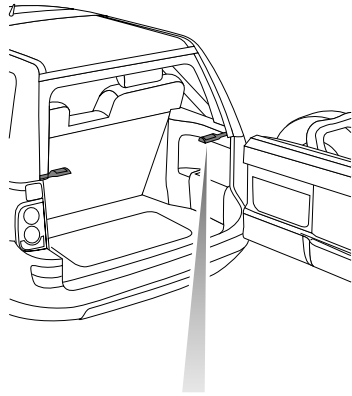
Fitting

NOTE: The roof bars * **MUST** be removed, prior to fitting the hardback to the vehicle (see 'REMOVING AND FITTING THE ROOF BARS*', page 142).



H5190

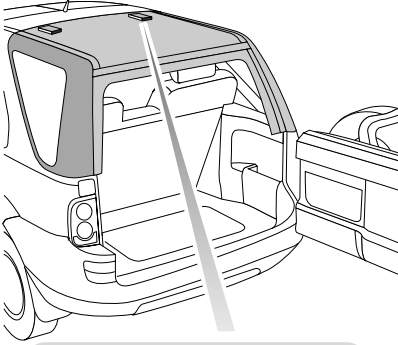
1. Open taildoor, then with assistance, angle the hardback as shown and position on the vehicle.



H5191

2. Locate the rear locking pins and pivot both locking levers 90° forwards.

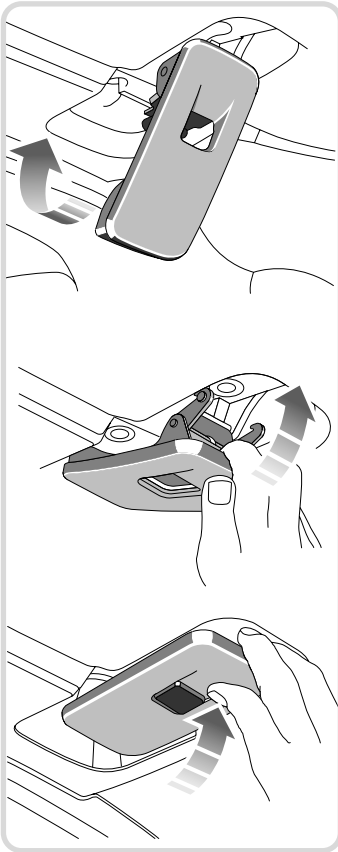
Hardback



3. Push the front of the header catch upwards, slide it rearwards and push the rear of the catch upwards until it 'snaps' into position.

WARNING

Do not drive the vehicle if the header catches are not secure.



H5192

Roof Bars

REMOVING AND FITTING THE ROOF BARS*

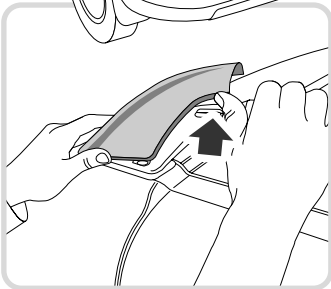
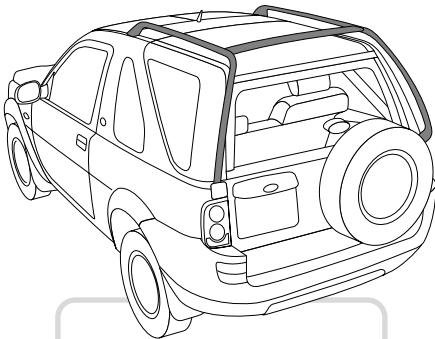
Removal

WARNING

DO NOT remove or adjust any bolt other than those highlighted in the following illustrations.

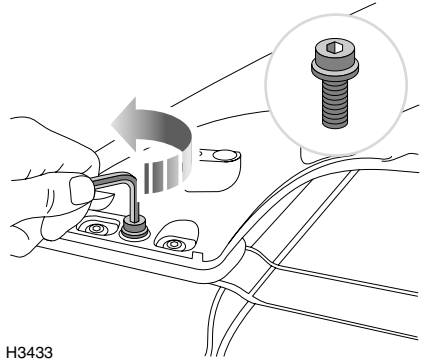
NOTE: To avoid causing accidental damage to the vehicle, removal and refitting of roof bars is best carried out by two people.

The following procedure must be repeated for the right hand side of the roof bars.



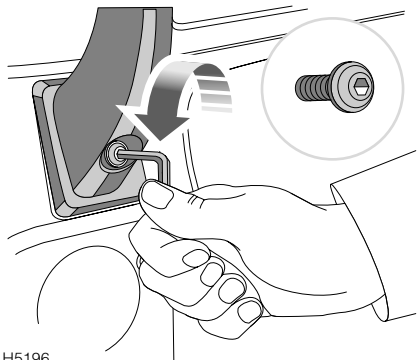
H5195

1. Remove front finisher - push upwards where arrowed.



H3433

2. Unscrew the front fixing bolt using a Torx key.



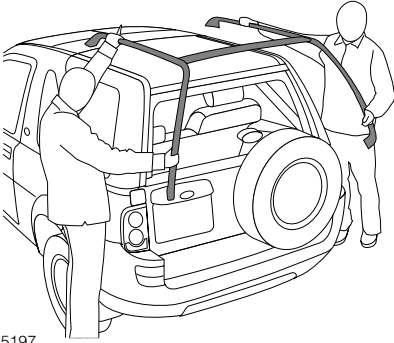
H5196

3. Unscrew the rear fixing bolt.

Roof Bars

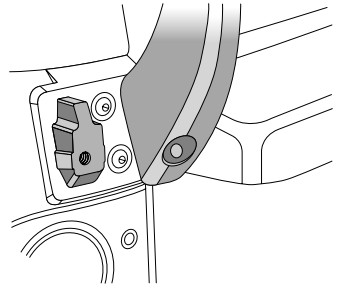
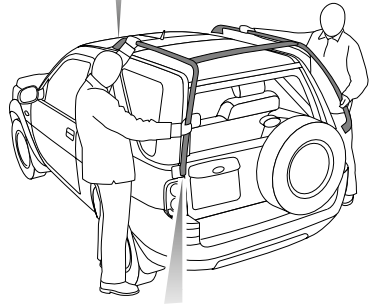
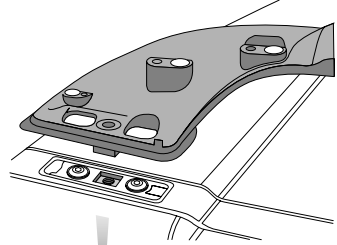
Fitting

NOTE: The following procedure must be repeated for the right hand side of the roof bars.



H5197

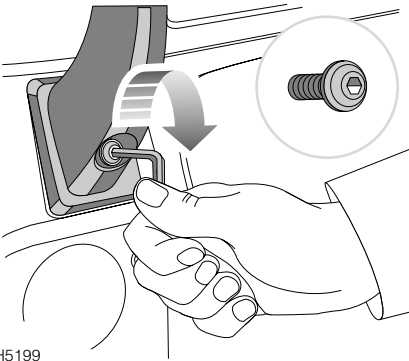
4. With assistance, lift the roof bars up and rearwards off the vehicle.



H5198

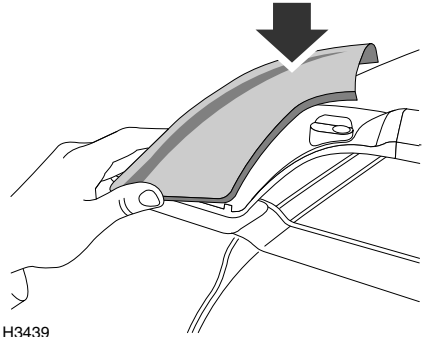
1. With assistance, carefully position the roof bars onto the vehicle.

Roof Bars



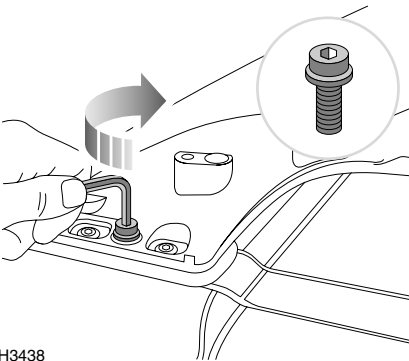
H5199

2. Screw the correct bolt into the rear fixing and fully tighten using a Torx key.



H3439

4. Align the pegs on the underside of the front finisher with the holes at the front of the roof bar and push down to fit.

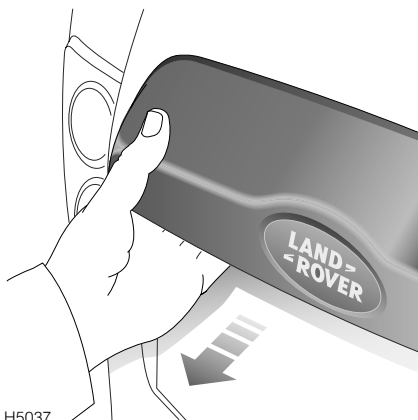


H3438

3. Screw the correct bolt into the front fixing and fully tighten. Ensure that the roof bars are rigid.

Taildoor

OPENING AND CLOSING



Opening the taildoor

When the release catch is pulled (as shown in illustration), the taildoor lock is released in two phases:

1. the taildoor glass drops clear of its retaining channel.
2. the electronic door latch is released and the door can be opened.

Initially, the door opens approximately half way until resistance is felt; this prevents the door swinging fully open and possibly hitting an obstruction, yet still enables access in a situation where there is not enough room to open the door fully. Push, against resistance, to open the door fully.

NOTE: The taildoor latch will not operate if the glass is frozen to the door seals, as the glass needs to drop slightly before the door can be opened. Defrost the glass with warm water first.

WARNING

You are advised NOT to carry loads which require driving with the taildoor or taildoor window open - poisonous fumes will be drawn into the vehicle! If driving the vehicle in this condition is unavoidable, switch the heater to face level vents with all vents open, close the sunroof and windows and turn the air blower to position 4.

Closing

WARNING

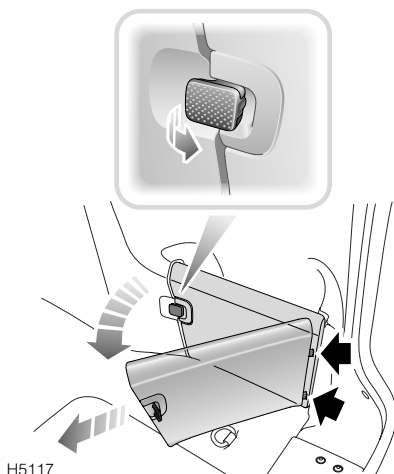
When closing the taildoor, push on the handle - NOT on the taildoor glass.

Load carrying

Long loads should be carried on the roof rack. If it is necessary to carry a load that protrudes through the taildoor window aperture, the weight of the load must NOT rest on the glass. Damage to the glass or window mechanism may occur. (See also 'Accommodating long loads', page 38).

Load Carrying

LOADSPACE SIDE POCKETS



3-door models: The side-pocket panels* in the loadspace (illustrated above) can be removed to accommodate wider loads, by pulling the release catch towards the rear of the vehicle (see inset).

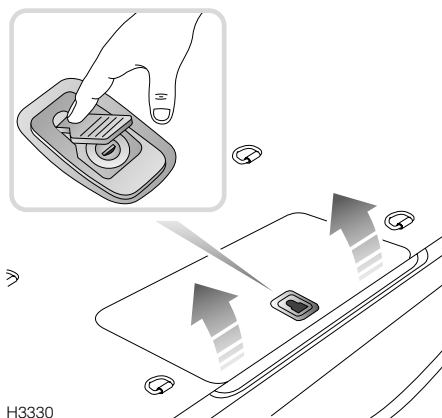
LUGGAGE ANCHOR POINTS

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.

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.

STOWAGE BOX



The stowage box, set into the loadspace floor, can be used to secure small or valuable items. On some models the box has a lockable lid, on others the lid is secured by turnbuckle fixings..

To lock or unlock: Press the flap (see inset) to access the lock. Insert the starter key and turn through 90° clockwise or anticlockwise.

NOTE: The stowage box may become hot when driving - do not store items in the stowage box, that could be damaged by heat.

NOTE: Do not store damp items in the stowage box for prolonged periods - condensation may cause mould to form.

On some models the audio system is equipped with a subwoofer housed in the stowage box. In this case, the box should not be used for carrying other equipment, and care should be taken to avoid knocking the underside of the subwoofer or disturbing the speaker harness and connection.

Load Carrying

VEHICLE LOADING

When loading a vehicle to its maximum (gross vehicle weight), consideration must be given to the unladen vehicle weight and the distribution of the load, to ensure that axle loadings 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 gross vehicle weight are exceeded (see 'VEHICLE WEIGHTS', page 245).

ROOF RACK

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 best suit your vehicle, please consult your Land Rover Dealer/Authorised Repairer.

The total roof rack load must NEVER exceed that given in 'TOWING WEIGHTS', page 246.

WARNING

DO NOT allow people to sit on the roof rack, or stand in the rear of the vehicle (even if holding on to the roof rack) when the vehicle is being driven.

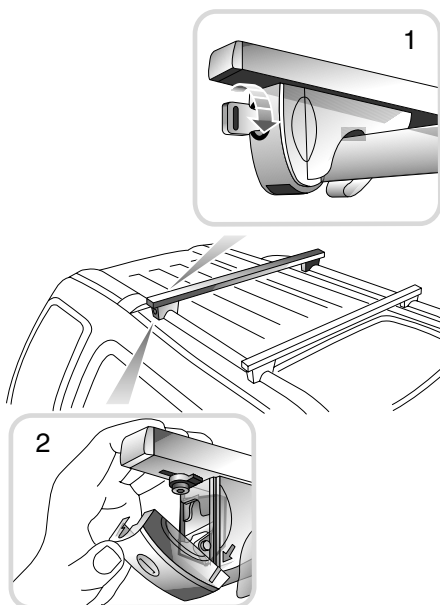
IMPORTANT

- It is recommended that Land Rover approved load carrying accessories are used wherever possible.
- Only carry loads on cross-rails - do not attach loads directly to the roof bars.
- Use webbing straps (preferably with a ratchet clamp) to secure loads to cross rails - do not use elastic or 'bungee' straps.
- All loads should be evenly distributed and secured within the periphery of the rack.
- Position the roof rack and load so that it does not impede the opening of a sunroof.
- Any roof load will reduce the stability of the vehicle, particularly when cornering and encountering crosswinds.
- If it is necessary to stow luggage on a roof rack while driving off-road, all loads MUST be removed before traversing side slopes.
- 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.
- Check to ensure the roof rack and load are secure after 50 km of any journey.

Load Carrying

Fitting the cross rails

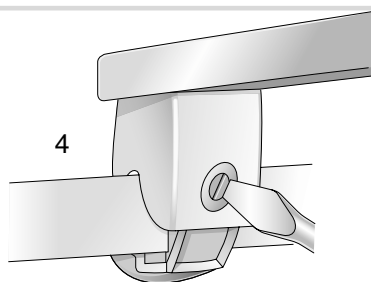
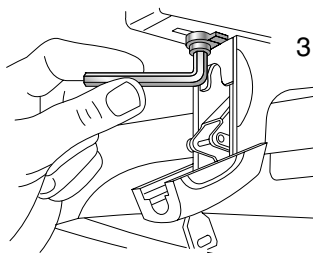
A pair of cross rails should be fitted to the roof bars before carrying roof loads.



H3338

Unlock the clamps (1) (turn the key in the lock a quarter turn clockwise) at each end of the cross rail and pull the clamp covers (2) down.

Position the cross rails over the roof bars. The outside rubber edge of each clamp should be touching the roof bars. If this is not the case, loosen the bolt (3) with an Allen key and slide the clamp assembly along the cross rail until the correct fit is achieved, then retighten the bolt.



H3339

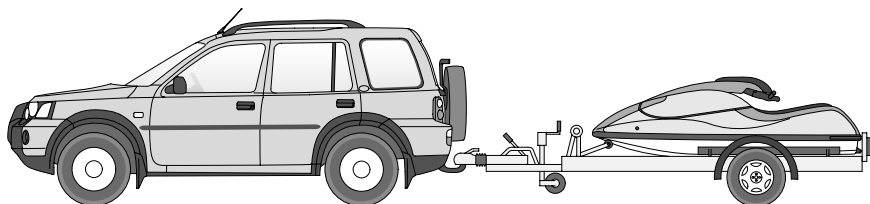
NOTE: On 3-door models, it is recommended that the cross rails are positioned towards the front of the roof bars to keep the weight towards the centre of the vehicle.

When the rail is in the desired position, push the clamp covers up. If no resistance is felt at the point where the line and arrow on the side of the clamp casing line up (see inset 2), tighten the grub screw (4) until there is resistance.

NOTE: Do not overtighten the screw as it will then be impossible to close the clamp cover.

Push the clamp cover fully upwards, check that the rail will not move and lock with the key (turn a quarter turn anti-clockwise).

Towing



H5017

TOWING

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 the vehicle for towing, pay careful attention to any instructions provided by the trailer/caravan manufacturer as well as the following information.

WARNING

To preserve the vehicle's handling and stability, it is recommended that you fit only towing accessories designed and approved by Land Rover.

DO NOT exceed the gross vehicle weight, maximum rear axle load, maximum trailer weight and tow hitch load (nose weight).

See 'TOWING WEIGHTS', page 246.

Exceeding allowable loads will increase the risk of tyre or suspension failure, increase stopping distance, and adversely affect vehicle handling and stability.

DO NOT use the rear towing eyes to tow a trailer or caravan- serious damage to the vehicle may result.

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 (note the illustration at the top of page). This is particularly important when towing twin axle trailers! Adjust the height of the hitch point if necessary.

Points to remember

- When calculating the laden weight of the trailer, remember to include the weight of the trailer.
- 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, the gross vehicle weight can be increased by a maximum of 100 kg, provided road speed is limited to 100 km/h (60 mph). See 'VEHICLE WEIGHTS', page 245.*

- 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.

Towing

- For maximum stability, ensure that loads are securely anchored 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).
- If the loaded trailer weight exceeds the maximum trailer weight, (see '*TOWING WEIGHTS*', page 246), the towing vehicle payload **MUST BE RESTRICTED** by at least the same amount to ensure that the GVW and rear axle load are not exceeded. This will require passengers and/or luggage to be removed from the vehicle.
- Check that the correct trailer flasher unit is fitted to the fuse box (consult your dealer/authorised repairer) and check the operation of trailer brakes and lights.
- 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 WEIGHTS*', page 246).

NOTE: When towing, do not exceed 100 km/h (60 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 should be approximately 7% of the actual trailer laden weight to maintain optimum stability. Nose weight can be measured using a proprietary brand of nose weight indicator.

Gear range selection

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).

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 WEIGHTS*', page 246) 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.

Correct gear selection will improve vehicle performance: On vehicles with manual transmission, select the highest practical gear that can be maintained without causing the engine to labour. On vehicles fitted with automatic transmission, select 'D' (Drive) and, where possible, maintain a speed that minimises automatic gear changes.

If severe inclines are encountered when towing at high altitude and in a high ambient temperature (30°C (86°F) or greater), the effective Gross Train Weight will be reduced by up to 400 kg. (882 lb). Therefore, it may be necessary to reduce the vehicle and/or trailer weight to help counter the reduced engine performance caused by the thinner atmosphere experienced at high altitudes.

Towing

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

Nose weight	It is recommended that the nose weight should be approximately 7% of gross caravan/trailer weight up to maximum of 140 kg (310 lb). If the vehicle is loaded to the Gross Vehicle Weight (GVW), the nose weight is limited to 140 kg (310 lb).
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 BARS

WARNING

Only fit towing accessories that have been approved by Land Rover.



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